

**Impact of volunteer management practice on volunteer motivation  
and satisfaction to enhance volunteer retention**

A thesis submitted for the degree of Doctor of Philosophy

By

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July 2015

## Abstract

This research has developed a research relationship model for understanding the relationship between volunteer management practice correlates and volunteer retention using volunteer motivation and volunteer satisfaction as mediators. The model uses *social exchange theory, human resource management theory, volunteer functional inventory and volunteer satisfaction index as part of the theoretical underpinning for its validation and contributed to gain knowledge on the application of management theory widely used in the for-profit organisations to the non-profit and volunteer dependent sectors.* A comprehensive literature review provided the basis to identify the research gap, formulate the research questions, aim and objectives, leading to the development of the theoretical framework and the research relationship model. The theoretical framework in turn enabled the researcher to develop the research methodology to collect data and test the model.

The main research gap was the lack of knowledge about the correlates of volunteer management practice as determinants of volunteer retention and influence of volunteer motivation and volunteer satisfaction as mediators. The concept of mediation was introduced in this research as a novel technique that enabled the researcher to conduct a deeper investigation into the relationship between volunteer management practice correlates and volunteer retention. *However prior to the introduction of the mediator concept, the original model developed by Cuskelly et al. (2006) was tested and found to be statistically insignificant. This provided the basis for modifying the model investigated by Cuskelly et al. (2006) leading to the development of the research model for this research.* The various relationships developed in the research model were hypothesized. The model was tested using the data collected through the research instrument developed for the purpose. Quantitative research method was used to collect data from a sample set of volunteers using survey questionnaire *in a context-free environment.* Pilot survey enabled the researcher to confirm the utility of the instrument for using in the main survey. 386 participants provided their response to the online questionnaire that was posted on a web portal.

The collected data was subjected to rigorous statistical tests. Descriptive statistics, reliability tests and validity tests were conducted on the data. Exploratory Factor analysis revealed underlying factors of volunteer management practice different from those identified by other researchers namely Cuskelly et al. (2006) whose model was used as the base model in this research. Further, structural equation modelling was used to test the model and verify hypothesis. The results indicated that two volunteer management practice correlates namely volunteer training and support and volunteer performance management and recognition, were found to indirectly influence volunteer retention. Volunteer training and support influenced volunteer retention through volunteer motivation as well as volunteer satisfaction. Volunteer performance management and recognition influenced volunteer retention through volunteer satisfaction. In addition volunteer planning and recruitment was identified as a moderator of volunteer training and support and volunteer performance management and recognition as correlates. These findings contribute significantly to helping both volunteer managers and volunteers in improving the intention of volunteers to stay longer with an organisation. Thus by implementing the findings of this research; volunteer managers can enhance their volunteer management practice leading to retention of volunteers for longer periods than now. *The research findings contribute to theory in terms of widening the understanding of the operationalization of social exchange and HRM theories in a combined manner in understanding the relationship between volunteer management practice and volunteer retention.*

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## **Acknowledgement**

I would like to seize this opportunity to express my deepest appreciation to supervisor Dr. Maged Ali for his constant help, guidance and support. Many thanks to Dr. Tillal Eldabi, Ms. Emma Sigsworth, Mr. S. Gowrishankar, Dr. Humoud Al Qattan and Dr. Abdulla Almazrouee for their continues assistance.

I would like to thank all my friends, who helped me in collecting the data. My thanks extend to all people who provided me with their help and support to complete this thesis. special thank and heartfelt gratitude to my mother and father for their continuous encouragement and positive support. Lastly, I owe a lot of thanks to my wife and my children for their love and patience throughout the course of this long journey.

## **Conference attended/paper presented**

- First Doctoral Symposium, Bahrain, 2009
- Second Doctoral Symposium, Bahrain, 2010
- Third Doctoral Symposium, Bahrain, 2012
- Asian Business Research Conference, Dubai, 2012
- Al-Mutawa, O. M., and Ali, M., 2012. Impact of Volunteer Management Practice on Volunteer Motivation and Satisfaction to Enhance Volunteer Retention. *World Journal of Social Sciences*. 2 (6). pp.25–38

## **Chapter 1**

### **Introduction**

#### **1 Background**

It is not uncommon to witness that majority of human beings who earn a livelihood tend to spend all of their time just to get high salary at the end of every month. Earning money is not just a part of their life; it is their reason to live. They are willing to do anything to succeed driven by the thought to earn more. At the other extreme there are many other people around the world who give their own time and energy without assigning any cost but benefit individuals or groups of people or other entities living or non-living, through volunteering (Wilson, 2000). For instance volunteers are seen to support disabled people, serve the cause environment and fight in preserving endangered species of animals and plants and the like. Research on volunteers shows that they are able to make significant contribution to the economy and development in which they are a part (Kemp, 2002).

This contribution is dependent on several factors that influence their performance as a volunteer. In fact research on volunteers shows that a number of volunteers begin with high enthusiasm but gradually lose the interest to continue as volunteers which could be attributed to some of those factors (Flood et al. 2005; Cuskelly et al. 2006; Shin & Kleiner, 2003). For instance, it is seen that volunteers are affected by lack of motivation by the management (Esmond & Dunlop, 2004) or lack of recognition (Meier & Stutzer, 2004). Although many researchers have attempted to provide solutions to some of the difficulties faced by volunteers or their managers, there is no generalized solution to the problems faced by both the volunteers and their managers (Hager & Brudney, 2004; Hoye et al. 2008; Cuskelly et al. 2006; Sozanska et al. 2004). Although there are some efforts that have gone into research to understand the problems mentioned above the research outcomes produced so far do not address many of the factors that contribute to those problems (Hoye et al. 2008) or are not generalisable (Sozanska et al. 2004) or not applicable to all contexts (Bussell & Forbes, 2006; Cuskelly et al. 2006). Thus the field of

volunteerism is seen to be a fertile ground for further research with respect to volunteers and volunteer management.

Amongst the many problems that are still unresolved is the problem of retaining volunteers for long periods of time through better management practice. For instance Cuskelly et al. (2006) citing other authors have asserted on the need for investigating how volunteer resources could be effectively managed and influence their outcomes, particularly retention. Although literature review shows that 40% of volunteers leave their organisations due to poor management practice researchers have not attempted to even take notice of this serious problem (Hager & Brudney, 2004). A solution to this problem could immensely benefit both the volunteers, volunteer management and ultimately the people or entity that is being served by the volunteers. This research attempts to fill this important gap.

### **1.1 Brief on the current scenario on volunteerism and volunteer retention**

Volunteerism is an important function in many societies. For instance a study about volunteers (Finkelstein, 2008) in the United States shows that adult volunteers (44%) contributed to the equivalent of 9 million full-time employees who would have costed an estimated \$239 billion (Toppe et al., 2001). Table 1 provides another example of the importance of volunteers through the number of volunteers who contributed to the successful conduct of summer and winter Paralympics since 1980.

Summer Games	Number	Winter Games	Number
1984 Los Angeles	28742	1980 Lake Placid	6703
1988 Seoul	27221	1984 Sarajevo	10450
1992 Barcelona	34548	1988 Calgary	9498
1996 Atlanta	60422	1992 Albertville	8000
2000 Sydney	62000	1994 Lillehammer	9054
2004 Athens (est)	60000	1998 Nagano	32579
		2002 Salt Lake City	20000

**Table 1.1 Statistics on the number of volunteers who contributed to the Summer and Winter Paralympics Games since 1980 (Source: Reeser et al. 2005)**

Furthermore, volunteers are seen to contribute in a number of areas including but not limited to charities, sports, social work, healthcare, environment, recreation, politics,

religion and culture (Salamon et al. 2001). Thus the importance of volunteering function to any society is highlighted by these examples. While volunteerism is seen as an important component of any society, statistics show that there is a steady decline in the number of volunteers who serve long in a particular organisation. For instance Sozansk et al. (2004) has indicated that the number of volunteers in Hungary dropped from 506,142 in 1995 to 313,000 in 1999 and in Slovakia adult volunteer population reduced from 19% to 13% in 2000 (Sozanska et al. 2004). Finkelstein (2008) highlights the struggle volunteer organisations undergo to retain volunteers and brings into focus a number of factors that could be responsible for volunteers to leave the organisation. Although researchers have studied this phenomenon, there is no conclusive solution that has been suggested by researchers for the volunteering organisations to implement to retain volunteers for longer duration.

However a number of models have been brought out by some (e.g. Cuskelly et al. 2006) that include variables and antecedents related to volunteering though the success of such models are limited. For instance important factors identified by Finkelstein (2008) include volunteer dissatisfaction, de-motivation, time spent on volunteering and volunteer longevity, but the outcomes produced using the model proposed by Finkelstein (2008) are not conclusive. The reason for this inference is that the findings of Finkelstein (2008) do not provide evidence on the appropriate reasons for either the satisfaction derived by volunteers in terms of their longevity of stay in an organisation or their motive to help (Finkelstein, 2008). Thus while many other authors have identified variables that contribute to volunteerism and the duration of sustained volunteerism, for instance the model suggested by Omoto and Snyder (2002), none of the models appear to have addressed all the variables or their interrelationship that could suggest a way forward for volunteer organisations to retain volunteers (Omoto & Snyder, 2002). Recently conclusions drawn by Cuskelly et al. (2006), Hoya et al. (2008) and Sozanska et al. (2004) indicate that there is a strong need to examine the impact of another construct namely management practice on volunteer retention, satisfaction and motivation. They argue that volunteers' retention could be enhanced through better management practice though their research is highly focused on particular contexts and are not generalized.

It is important to highlight here the uniqueness of volunteering as a concept that is observed to be practiced in a context-free environment. For instance literature shows that volunteers are classified into broadly two categories namely specialists and generalists (Ockenden & Hutin, 2008). While generalists are considered to be useful in multiple contexts (Brudney & Meijs, 2014) such as volunteers working for Olympics (CIEH, 2010), specialists are those who are useful in specific contexts such as health professionals (Brudney & Meijs, 2014). The characteristics of generalist volunteers offer an important opportunity to conduct a research on volunteer management and retention, the outcome of which could be generalisable across contexts. The relationship between volunteer retention and management practice thus could be seen as two of the important variables that need to be studied further in a context-free environment. This is a major and important need that has the potential to enrich the volunteer literature. Thus this discussion leads to the following problem statement.

## **1.2 Problem statement**

This research is an attempt to fill the gap found in the literature which is the lack of knowledge on an understanding of the linkage between effective management practices that could be used volunteering organisations and retention of volunteers so that a solution to the problem of declining length of service of volunteers in an organisation could be reduced. Literature hints at a relation between management practice and volunteer retention but there is no generalized model that could be used by volunteering organisations to follow. For instance Cuskelly et al. (2006) have developed a model that relates management practice with volunteer intention to remain but is applicable to the field of sports only. Similarly Sozanska et al. (2004) have highlighted the importance of management practice that could make volunteers to stay with an organisation longer, but have not developed any empirical model the testing of which could establish their argument. The relationship between management practice and volunteer retention has not been studied in depth by researchers leading to a lack of an implementable solution by volunteer organisations. Furthermore literature shows that there are many publications that argue that volunteer motivation and satisfaction could be used as constructs to enhance volunteer intention to stay and hence volunteer retention although research



outcomes that have addressed this problem are far and few. Moreover, hardly any importance has been given by researchers in using volunteer management practices to improve motivation and satisfaction and hence enhance volunteer retention. Thus the main problem that emerges from the foregoing discussions is whether management practice in a volunteer organisation is the reason for the declining duration of stay of volunteers in a volunteering organisation; and if so whether it could be reduced using the relationship between volunteer retention and volunteer management practice influenced by constructs such as volunteer motivation and volunteer satisfaction. This problem is expected to be addressed through the following research questions.

### **1.3 Research Questions (RQ)**

Literature highlights the direct relation between volunteer management practices and volunteer intention to remain with an organisation or retention of volunteers but excluded the important variables motivation and satisfaction in this relationship, which have influence on this relationship. The research questions formulated take this into account and are provided below.

**RQ1:** Volunteers retention is a major problem in volunteering organisations. One of the possible reasons for this could be the management practices adopted by volunteering organisations. If so there is a necessity to identify the underlying factors of volunteer management practice that need to be investigated. Thus the first research question that needs to be addressed is: What are the underlying factors of volunteer management practice?

**RQ2:** While RQ1 attempts to identify the underlying factors of volunteer management practice, the next question that needs to be addressed is: What factors affect the relationship between volunteer management practice and volunteer retention in volunteer organisations?

**RQ3:** It can be seen that RQ2 aims to address the question of other factors that may influence the relationship between volunteer management practice and volunteer

retention, it is important to know the nature of relationship that exists between volunteer management practice and volunteer retention prior to attempting to develop a solution using the factors influencing the relationship. The research question that needs to be addressed is: What is the nature of the relationship that exists between volunteer management practice factors and volunteer retention?

**RQ4:** Although literature on volunteers hints at the possible linkage of some factors to volunteering organisations' management practices and volunteer retention (see RQ2), hardly any study about core factors namely volunteer motivation and satisfaction that affect volunteer retention has been conducted to know their influence on the relationship between factors that affect management practices of volunteer organisations and volunteer retention. If a model could be developed linking volunteer management practice factors with volunteer retention using additional variables namely *volunteer motivation* and *satisfaction*, that have the potential to influence the relationship, then managers and volunteers could be benefited by an understanding of how to deal with those factors that enable longer retention of volunteers. Thus the question that needs to be answered is: How do the factors *volunteer motivation* and *satisfaction* affect the relationship between volunteer management practice factors and volunteer retention influence the relationship?

While the answers to the research questions enabled the researcher to know the influence of independent variable namely volunteer management practice on the dependent variable namely volunteer retention, the ultimate aim and objectives expected to be achieved in this research are provided next.

#### **1.4 Research Aim**

The aim of this research was to examine the relationship between volunteer management practice factors and volunteer retention influenced by volunteer motivation and satisfaction.

## **1.5 Research Objectives**

**Objective 1:** To study the various models, concepts and theories related to volunteer management practice and volunteer retention to understand the relationship between volunteer management practice factors and volunteer retention.

**Objective 2:** To examine how volunteer motivation and satisfaction as factors influence the relationship between volunteer management practice and volunteer retention.

**Objective 3:** To develop a research relationship model using the constructs volunteer management practice factors, volunteer retention and volunteer motivation and satisfaction to understand the influence of volunteer management practice.

**Objective 4:** To test the model and verify its validity.

## **1.6 Significance of study**

Volunteering has been a major topic of study and has attracted the attention of researchers due to the benefits societies reap through volunteering (Sozanska et al. 2004). Every research outcome though afflicted with limitations still contribute to knowledge and provide solutions to many problems faced in real life situations. This research is expected to serve specific purposes related to volunteer retention, volunteer satisfaction, volunteer motivation and effective volunteer management practice. The outcome of this research is expected to serve the following purposes.

- Help organisations to adopt effective management practices in managing volunteers.
- Enhance volunteer motivation and satisfaction through improved management practices.
- Increase the length of volunteer services to community through effective management practices.
- Provide new avenues of research to researchers and academics in the area of volunteer management and retention.

- Contribute to theory in terms of extending the application of social exchange and human resource management theories to better understand the concepts of volunteer management, volunteer retention, motivation and satisfaction as well as applying those theories to gain knowledge on the nature of relationship that exists amongst those concepts.

This study contributes to knowledge by establishing a relationship between effective volunteer management practice and volunteer retention (in other words intention to stay) using volunteer motivation and satisfaction as other influencing factors. This in turn provides new knowledge on how to develop and adopt effective volunteer management practices to increase the longevity of the volunteer tenure which is currently lacking in the volunteer literature. This knowledge is expected to be useful to volunteer organisations, volunteers, community, academicians and researchers.

### **1.7 Dissertation Structure**

The dissertation consists of seven chapters. The first chapter gives an introduction about the research subject. The following chapter reviews the literature on volunteer management practices, motivation, satisfaction and retention. The third chapter develops the theoretical framework used for this research. Chapter four explains the methodology used which includes the research framework and design. Chapter five provides the data analysis and findings derived from the data analysis. Chapter six discusses the findings derived in Chapter five. Chapter seven enumerates the conclusions arrived at through this research and provides recommendations based on the conclusions including the summary of contributions to knowledge, method and practice, limitations of this research and future work that could be undertaken based on the research outcomes.

## **Chapter 2**

### **Literature review**

#### **2 Introduction**

The subject of volunteerism and identifying the ways to encourage, attract and retain volunteers has been of interest for researchers (Gaskin, 2003) in recent times (Tedrick and Henderson, 1989). Literature shows that volunteers are affected by a number of factors which lead to either staying as a volunteer or drop-out (Yanay & Yanay, 2008; Stukas et al. 2009). Researchers claim that many volunteers do not maintain their commitment to the organisation for a long period after they decide to become volunteers leading to dropping out (Chacon et al. 2007). Studies show that the drop-out rates in the first year are almost 35-40% (Chacon et al. 2007). Literature shows that one of the important factors that impact the volunteers and volunteering organisations with regard to the retention of volunteers is the management practices of volunteering organisations (Stukas et al. 2009, Aakko et al. 2008; Camplin, 2009). While there are many studies on the effect of management practices on volunteers, there are not many models or research outcomes that provide solutions to the problems faced by volunteers and volunteering organisations with regard to attracting, encouraging and retaining volunteers by volunteer organisations through effective management practices (Flood et al. 2005; Cuskelly et al. 2006; Shin & Kleiner, 2003).

According to a news release by UPS Foundation (1998) two-fifths of volunteers have stopped volunteering for an organisation at some time because of one or more poor volunteer management practices (Hager & Brudney, 2004) indicating that poor management practices could be one of the factors affecting volunteers. This indicates that about 40% of volunteers stopped volunteering because the management practices of the organisation in which they were volunteers like for instance they made poor use of their time (Hager & Brudney, 2004). While literature shows that much research with regard to volunteers and volunteering organisations has been conducted, research in management of volunteers has attracted the researcher only recently (Gaskin, 2003). A number of

volunteering organisations are finding it difficult to retain good volunteers for longer periods due to a variety of reasons including the management of volunteers. Additionally literature shows that researchers do not concur on a single management practice or model that could be generalized for application to the different volunteer organisations for encouraging, attracting and retaining volunteers (Cuskelly et al. 2006; Sozanska et al. 2004; Peterson, 2004).

Thus there is a need to understand how volunteer organisations manage volunteers as well as develop a set of effective management practices correlates relative to the organisation, leading to the development of a method that will enable the reduction of the volunteer drop-outs, strengthen their intention to stay and improve their retention for longer periods. This literature review discusses in detail the various aspects related to volunteers, volunteer management practices, factors that affect volunteers through volunteer management and correlates that underpin best management practices of volunteering organisations. This is in line with the research problem identified, aim and the objectives set to be achieved and the research questions developed for this research.

## **2.1 Volunteers**

Volunteering is an activity that involves contribution of time without coercion or remuneration. Smith (1994) argues that volunteering involves an element of exchange and volunteers react to costs and benefits. Gaskin (1999) asserts that it is very difficult to define the term volunteer as there is no standard practice in volunteering. Finally Bussell and Forbes (2002) argue that the different definitions regard volunteers as one who has some altruistic motive.

Volunteers have been broadly classified into two categories in the literature namely specialists and generalists. Specialists are those volunteers who are skill focused whereas the term generalist refers to those who are affiliation focused (Brudney & Meijs, 2014). According to Brudney and Meijs (2014, p. 304): “Affiliation focused refers either to a volunteer’s motivation to become involved in a specific mission or to his or her desire to fulfill a requirement or goal of a group in which he or she is already involved. Skill

focused refers to a volunteer who seeks to share his or her skills or one who seeks to gain skills through volunteer work”. It is important to recognize that there are two types of volunteers as this has bearing on many aspect of volunteering including management practices, contexts, factors affecting volunteer retention and other aspects pertaining to volunteering. In fact generalists have been drafted to serve in various contexts where sometimes specialists are needed making volunteering to transcend contexts (Ockenden & Hutin, 2008; Brudney & Meijs, 2014) especially in a situation where the number of specialists available to volunteer has been on the decline (George, 1973). Here it is vital to understand the importance of context and context-free environment in which volunteers work. Context is defined in many ways (Table 2.1).

	Definition	Authors
What is a context?	Position, identities (of persons) around the user, time of day, season and temperature	Brown et al. (1997)
	Position, surroundings, identity and time	Ryan et al. (1997)
	Status, applications, environment, surroundings and situation	Schmidt et al. (1999)
	Context is typically the location, identity and state of people, groups and computational and physical objects	Dey and Abowd (2000)

**Table 2.1 Definition of context**

Literature shows that a widely used definition of context is the one articulated by Dey and Abowd (2000). As far as description of the term context-free is concerned in simple terms it could mean the lack of focus on context. The term context-free could be explained as a situation that ignores the influence of social aspects and human agency in understanding happenings that are observed (Klein & Myers, 1999; Orlikowski & Baroudi, 1991). Much of volunteerism takes place in a context-free environment (e.g. Peace Corps (Tarnoff, 2014)) where volunteers are drafted into service without relating them to any social aspect or human agency which reflect context. Such volunteers who work in multiple environments ignoring contexts could be termed as generalists (see definition of generalists above) who want to satisfy their desire to fulfill a requirement or goal of a group in which they are already involved regardless of position, surroundings, identity and time. While most studies that have investigated volunteer management practice, the topic which is the focus of this research, such investigations do not discuss

nature of volunteers they have studied like whether they are generalists or specialists. This is an important point that needs to be considered while investigating a topic in the field of volunteering.

Furthermore, literature shows that a number of authors have highlighted the importance and benefits of volunteerism (Farrell et al. 1998; Tedrick & Henderson, 1989; Salas, 2008). Volunteers are described in many ways like for instance: volunteers are human resources who commit themselves to organisations and serve those organisations based on the values they believe in rather than payment and attach with the organisations in a positive manner (Cuskelly et al. 1998). Kemp (2002) describes volunteers as people who give their time freely without tangible rewards and invest themselves in services (Kemp, 2002) while Wilson (2000) explains that volunteers are those human resources who help others by contributing their time without expecting any reward either in the form of money or any material benefit (Wilson, 2000). Similar sentiments are echoed by other authors with regard to the description of volunteers though a single universal description of volunteers eludes researchers due to the non-standard practices involved in volunteering.

The benefits reaped by volunteering organisations through volunteers include contribution to economy, community and development of a positive environment to people (Meier & Stutzer, 2004; Anderson et al. 2004; Kemp, 2002). Furthermore researchers argue that the primary benefit of volunteers is the availability of free labor (Cravens, 2006; Hayghe, 1991). Additional benefits of volunteering identified by researchers include making available expertise not found in an organisation, increasing diversity, introducing open thinking, enrichment of employees' knowledge through association with experts from different communities and countries and improving the richness of research policy initiatives (Cravens, 2006; Bussell & Forbes, 2002).

While the benefits accrued to organisations due to volunteers are important considerations, it is seen from the literature that volunteers' tenure in many organisations is short and drop-out rates are very high (Hager & Brudney, 2004). Researchers have



attributed the problem of volunteer drop-out to a number of reasons (Salas, 2008; Boulton, 2006; Cuskelly et al. 2006). There are diverse views on the factors affecting volunteers that contribute to their purpose and period of stay in a volunteering organisation like for instance volunteer motivation (Clary et al. 1998), satisfaction (Finkelstein, 2008), commitment (Salas, 2008), management (Cuskelly et al. 2006; Flood, 2005), communication (Sandra, 2003; Shin & Kleiner, 2003), retention (Hager & Brudney, 2004) and work environment (Bruyere & Rappe, 2007). Research shows that volunteers' contribution to organisations could be enhanced in different ways (Galindo-Kuhn & Guzley, 2002; Boezeman & Ellemers, 2008; Finkelstein, 2008).

Furthermore literature shows that theories and models have been developed to guide organisations and volunteers to improve their contribution (Flood et al. 2005; Halepota, 2005; Stukas et al. 2009). However organisations are still finding it difficult to attract, encourage and retain volunteers. The successful application of theories and models have not completely solved the problems faced by volunteering organisations in their quest to attract volunteers or encourage the existing volunteers or maintain the volunteers relationship with them for long periods. In fact many of the solutions provided by researchers to solve the problem of retention of volunteers are either not generalized or contextual and still need further exploration (Sozanska et al. 2004) leading understanding about a volunteer's intention to stay.

A broad review of the literature between 1983 and 2009 shows that one of the major problems that needs to be addressed with regard to retaining volunteers, is the necessity to find ways to improve their motivation and satisfaction (Boz & Palaz, 2007; Chacon et al. 2007; Clary et al. 1998; Clary et al. 1992; Cnaan & Goldberg-Glen, 1991; D'Amour, 2008; Dolnicar & Randle, 2007; Clary, 1999; Farrell et al. 1998; Finkelstein, 2008; Finkelstein et al. 2005; Fitch, 1987; Galindo-Kuhn & Guzley, 2002; Gerstein et al. 2004; Ghazali, 2003; Gidron, 1983; Houle et al. 2005; Salas, 2008; Schram, 1985; Varner, 1983; Esmond & Dunlop, 2004; Bruyere & Rappe, 2007; Stukas et al. 2009). Table 2.2 provides comprehensive information on the research carried out by various authors in between 1983 and 2009.

<b>No.</b>	<b>Year</b>	<b>Topic</b>	<b>Authors</b>	<b>Main correlates</b>
1	1983	What Motivates the Volunteer?	(Varner Jr, 1983)	Motivation
2	1985	How the rewards of unpaid work can meet people's needs	(Schram, 1985)	Motivation and satisfaction
3	1987	Characteristics and Motivations of College Students Volunteering for Community Service	(Fitch, 1987)	Characteristics and Motivations
4	1991	Measuring motivation to volunteer in human services	(Cnaan & Goldberg-Glen, 1991)	Motivation & satisfaction
5	1992	Volunteers' motivations: A functional strategy for the recruitment, placement, and retention of volunteers	(Clary, 1992)	Motivation, recruitment, placement, and retention of volunteers
6	1998	Understanding and Assessing the Motivations of Volunteers: A Functional Approach (VFI)	(Clary et al. 1998)	Motivation & understanding the needs of volunteers to satisfy it
7	1998	Volunteer motivation, satisfaction, and management at an elite sporting competition	(Farrell et al. 1998)	Motivation, satisfaction and management practices
8	1999	The Motivations to Volunteer: Theoretical and Practical Considerations	(Clary, 1999)	Motivation
9	2001	Measuring job satisfaction of volunteers in public parks and recreation	(Silverberg et al. 2001)	Satisfaction & motivation
10	2002	The Volunteer Satisfaction Index -- Construct Definition, Measurement, Development, and Validation	(Galindo-Kuhn & Guzley, 2002)	Satisfaction and retention
11	2003	Motivation Factors of volunteerism	(Ghazali, 2003)	Motivation factors as a needs of volunteers to satisfy it
12	2004	Developing the volunteer motivation inventory to assess the underlying motivational drives of volunteers in Western Australia (VMI)	(Esmond & Dunlop, 2004)	Motivation factors and comparing between (VMI) and (VFI) Models
13	2004	Differences in motivations of paid versus nonpaid volunteers	(Gerstein et al. 2004)	Motivation
14	2004	The octagon model of volunteer motivation: results of a phenomenological analysis	(Yeung, 2004)	Motivation aspects
15	2005	Motive, role, identity, and	(Finkelstein et al. 2005)	Motivation & volunteers

		pro-social personality as predictors of volunteer activity		activity
16	2005	A Functional Approach to Volunteerism: Do Volunteer Motives Predict Task Preference?	(Houle et al. 2005)	Motivation ,task preference
17	2007	Factors Influencing the Motivation of Turkey's Community Volunteers	(Boz & Palaz, 2007)	Motivations factors
18	2007	The Three-stage model of volunteers duration of service	(Chacon et al. 2007)	Motivation, satisfaction, commitment and service duration
19	2007	What motivates which volunteers? psychographic heterogeneity among volunteers in Australia	(Dolnicar & Randle, 2007)	Motivation, satisfaction, market segment
20	2007	Identifying the Motivations of Environmental Volunteers	(Bruyere & Rappe, 2007)	Motivation and volunteers environment (BRUYERE. and RAPPE., 2007)
21	2008	Volunteer satisfaction and volunteers action: a functional approach	(Finkelstein, 2008)	Motivation , satisfaction ,helping behavior
22	2008	Volunteer Functions, Satisfaction, Commitment, and Intention to Leave Government Volunteering	(Salas, 2008)	Satisfaction, motivation, commitment, and intention to leave
23	2008	Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement	(Millette & Gagné, 2008)	Motivation, satisfaction, performance and job characteristic
24	2008	An analysis of volunteer motivation: implications for international development	(Unstead-Joss, 2008)	Motivation
25	2008	Volunteer motives and retention in community sport	(Hoye et al. 2008)	Motivation, satisfaction and retention
26	2008	The decline of motivation?: From commitment to dropping out of volunteering	(Yanay & Yanay, 2008)	Drop out, commitment and motivation
27	2009	The matching of motivations to affordances in the volunteer environment: An index for assessing the impact of multiple matches on volunteer outcomes	(Stukas et al. 2009)	Motivation, volunteer environment and volunteers outcome

**Table 2.2 Comprehensive information on the research carried out by various authors in between 1983 and 2009 (Source: Author)**

While researchers have attempted to provide alternative solutions to the problem of volunteer motivation and satisfaction through the development of models, it appears that except for one research paper by Cuskelly et al. (2006) there has been negligible research conducted on the importance of the correlates of volunteer management practice in improving volunteer motivation and satisfaction. Inventories have been created with regard to volunteer motivation (VMI) (Esmond & Dunlop, 2004) and volunteer functions (VFI) (Clary et al. 1998) to enable organisations to understand the implication of the various sub constructs of the two inventories in improving volunteer motivation. However motivation theories and models have still left a gap in understanding the relationship between volunteer motivation and their intentions to remain with an organisation (Hoye et al. 2008) leading to the conclusion that further research is needed to understand the relationship between volunteer motivation and their intentions to remain with an organisation which includes the effect of management practice on motivation and volunteer intent to stay.

In the same vein it is seen from the literature that there has been a number of research articles that have attempted to address the importance of volunteer satisfaction through the development of volunteer satisfaction index or models as the case may be (Galindo-Kuhn & Guzley, 2002; Salas, 2008; Silverberg et al. 2001). However the models and index developed to date have been found to have serious limitations that prevent the uniform application of the models or the index to all volunteering organisations to enhance the volunteer satisfaction (Galindo-Kuhn & Guzley, 2002; Salas, 2008; Silverberg et al. 2001; Finkelstein, 2008). Limitations include lack of applicability of the theories across several of types of volunteer organisations, methodology problems, consistency problems in measuring instruments and repeatability problems. Yet another problem that has not been addressed in the literature is the relationship between the effect of management practice on motivation and in turn on satisfaction which has created a gap in the literature (Millette & Gagné, 2008).

As many authors believe, improved satisfaction and motivation need to be achieved if an organisation wants to ensure that volunteers intend to stay longer with the organisation

(Millette & Gagné, 2008; Clary et al. 1998, Yanay & Yanay, 2008). It is therefore necessary to examine whether aspects such as correlates of management practice can improve volunteer motivation and satisfaction and hence their retention because this will provide a solution to the difficult question of how to retain volunteers through higher levels of motivation and satisfaction and literature is silent with regard to this aspect.

Volunteering organisations focus on a wide range of activities like for instance Sports and Exercises, Leisure and Folksiness, School/Nursery, Church/Religion, Culture and Music, Social Welfare, Occupational Lobbying, Health and Human service (Bremer & Graeff, 2007). It can be seen that the type of volunteer organisations has a bearing on the volunteering activities of volunteers (Cuskelly et al. 2006). However what is clearly visible is that there is a change in the volunteer expectation and behavior across all types of volunteer organisations because of the changes that are taking place in the environment due to many factors such as technology, globalization and other factors (Cuskelly et al. 2006).

Many of the researchers are of the opinion that volunteers need to be encouraged and managed well if the volunteer organisations want to retain the services of the volunteers, regardless of the nature of the organisation, which indicates that there is a general lack of concern in the various volunteer organisations in efficiently managing volunteers (Shin & Kleiner, 2003; Tedrick & Henderson, 1989; Cuskelly et al. 2006; Bremer & Graeff, 2007; Chacon et al. 2007). The primary concern therefore is to identify the volunteer management practices which could enable an understanding of the requirements of the volunteers to retain them as well as reveal the relationship between management practice and volunteer attributes such as motivation, satisfaction and retention (Boz & Palaz, 2007; Sandra, 2003; Gaskin, 2003). Thus the following sections will analyze in general the current management practices followed across various types of volunteer organisation and the various correlates that impact volunteer characteristics including motivation, satisfaction, retention, intent to leave, intent to stay and commitment.

## **2.2 Volunteer Management practices**

Volunteer management practice has been a subject of intense debate amongst researchers recently (Bussell & Forbes, 2002; Camplin, 2009; Cuskelly et al. 2006; Sozanska et al. 2004). Of late many authors have highlighted the relationship between volunteer management practice and volunteer behavior (Sozanska et al. 2004; Cuskelly et al. 2006; Hoye et al. 2008). Volunteerism is undergoing metamorphic changes and is evolving into a professional activity (Sozanska et al. 2004). Though volunteerism is considered as an unpaid service to the needy, researchers believe that since the launch of the International Year of the Volunteer 2001, organisations and individuals are seen to be engaged in volunteerism as professional organisations and professionals respectively (Sozanska et al. 2004).

The subject of volunteer management practice has been investigated by many authors in different contexts which include typology of volunteers (Hoye et al. 2008; Bremer & Graeff, 2007), environment in which volunteers work (Gummere, 2003), volunteer behavior (Salas, 2008; Finkelstein, 2008), organisational contexts (Sozanska et al. 2004), and volunteer effectiveness (Sandra, 2003; Shin & Kleiner, 2003). While the number of published papers in the field of volunteer management practice by itself is small, even within them most of the research conducted is in the area of volunteer management practice and have focused on the relationship between correlates of management practice and volunteer retention by the organisations. However, not much research has been conducted to relate the effectiveness of volunteer management practice to organisational outcomes in terms of volunteer intention to stay (Cuskelly et al. 2006; Hoye et al. 2008; Hager & Brudney, 2004) and the importance of the volunteer attributes motivation and satisfaction in enhancing volunteer intent to stay.

Furthermore, researchers consider volunteer retention as one of the important organisational outcomes which many believe is an area of serious concern to both the volunteers and the volunteer organisations (Cuskelly et al. 2006; Hoye et al. 2008). In fact Cuskelly et al. (2006) claims that data collected by the Australian Bureau of Statistics (Cuskelly et al. 2006) shows that evidence on volunteer participation trends

indicate a steady decline in the career lengths and median annual hours contributed per volunteer. Recently some researchers (Hager & Brudney, 2004; Hoye et al. 2008; Cuskelly et al. 2006; Sozanska et al. 2004) have attempted to relate the impact of volunteer management practice on volunteer retention though such research efforts have been found to have serious limitations. Limitations of the outcome of the research efforts include non-generalisability of the research methods, contextual nature of the research and lack of heterogeneity in the selection of subjects for research (Hager & Brudney, 2004; Hoye et al. 2008; Cuskelly et al. 2006; Sozanska et al. 2004).

Such limitations need to be addressed in order enhance our understanding of the effectiveness of management practice on volunteer retention and hence volunteer intention to stay. To gain more knowledge on this aspect it is necessary to discuss in detail the volunteer management practice so that it is possible to find ways to address the limitations. Thus the following sections discuss in detail about the management practices as an important correlate that impacts the volunteering organisations, particularly with regard to volunteer retention.

### **2.3 Management practice as a correlate of volunteering**

Contemporary societies are facing numerous challenges that include changes in social structure and population lifestyles. Volunteering is playing a significant role in supporting the needy that are affected by the changes taking place around them. However such volunteering activities come under severe strain if volunteers are not productive. Sozanska et al. (2004) argue that in the contemporary world if volunteers are to be productive then they have to be managed efficiently and professionally. In order to manage the volunteer workforce efficiently and professionally it is important to identify sub-correlates of Volunteer Management Practice. In fact a few authors have come out with certain sub-correlates but these sub-correlates have not been clustered under Volunteer Management Practice as the main correlate (Sozanska et al. 2004; Hager & Brudney, 2004; Cuskelly et al. 2006, Hoye et al. 2008).

It is important to highlight the different aspects of volunteerism that get affected by Volunteer Management Practice. Many authors have mentioned that volunteerism is seriously affected by management practice which includes volunteer encouragement, attraction, retention, and motivation, infrastructure requirement, volunteer views, satisfying and enduring volunteer experience (Gaskin, 2003), turnover rates (Wymer & Starnes, 2001), context of volunteering (Clary, 1999), relationship management, volunteer lifecycle, strategies, (Bussell & Forbes, 2006) and commitment (Salas, 2008).

While the focus of research of many authors in the field of volunteer management has been very specific to particular sectors such as health (Handy & Srinivasan, 2004), sports (Cuskelly et al. 2006), religion, charity and education (Hager, 2004), research on volunteer management in general that encompasses different organisations has been sparse and sporadic. For instance (Sozanska et al. 2004) claim that most of the research in regard to volunteer management practice in the last decade has been specific to hospitals, small groups, special event planning and Non-Governmental Organisations (NGOs) cooperating with business sector supporting the conclusion that not much research has been conducted that take into account volunteer management in general. Thus there is a genuine need to address the issue of volunteer management across all types of volunteering organisations. However in order to strengthen the necessity to investigate the impact of volunteer management practice on retaining the volunteers, it is essential to bring into focus the various research outcomes that have addressed the impact of volunteer management practice in different sectors. This will enable the researcher to gain an understanding of the results of the research conducted so far in volunteer management which are context specific. Through an understanding of these outcomes it is expected that a more general model that is context free, could be developed to support the needs of different types of volunteering organisations and volunteers. The following discussions will provide a detailed analysis of the various aspects and sub correlates that constitute the management practice in volunteerism.



## **2.4 Management of Volunteers**

Research in volunteer management shows that there are a number of challenges that need to be addressed by volunteering organisations (Hager, 2004). This includes challenges faced by the management which are not largely reported. Furthermore volunteers themselves face a number of difficulties due to poor management practice which contribute to the overall ineffectiveness of management of volunteers. Thus there are two sides to the problem of volunteer management namely the challenges faced by management in volunteering organisations and the poor management practice leading to difficulties faced by volunteers.

According to Hager (2004), challenges faced by management of volunteers in some organisations include finding and recruiting volunteers who are available during the workday, financial problems related to supporting volunteers, lack of adequate number of volunteers due to recruitment problems, lack of human resource and time to train volunteers, problems in recruiting volunteers with the right skills or expertise, unreliability of volunteers, absenteeism of volunteers, poor work habits or lack of professionalism in volunteers, excess number of volunteers than needed, problems arising out of government regulations, laws or liability constraints and resistance from the paid staff or board members towards volunteers. It is important to address these issues while developing a set of best practices of volunteer management (Hager, 2004).

Furthermore literature shows that a number of authors have addressed the various issues raised by volunteers with regard to management aspects. For instance motivation (Dolnicar & Randle, 2007), satisfaction (Galindo-Kuhn & Guzley, 2002), empowerment (Kim et al. 2007), good management practice (Bremer & Graeff, 2007), proper utilization of the volunteers (Shin & Kleiner, 2003) and recognition (Sandra, 2003) are some of the issues raised by volunteers that have been addressed by researchers with regard to volunteer management.

With regard to the challenges faced by the managers in volunteer organisations a comprehensive Table 2.3 has been prepared that provides details on the various research

efforts that have been undertaken and the issues addressed in the field of volunteer management over the last few years.

<b>No.</b>	<b>Year</b>	<b>Topic</b>	<b>Author/s</b>	<b>The field of study</b>	<b>The purpose of study</b>
1	2004	Volunteer management Capacity in America's	(Hager, 2004)	Charities and Congregations	The study highlights the potential for charities and congregations to use more volunteers, some challenges in doing so, and capacity-building options to reduce the obstacles
2	2006	Volunteer management practices and Volunteer retention: a human resource management approach	(Cuskelly et al. 2006)	Sport club	The study highlights the impact of management practices on volunteers retention and the intention of volunteers remaining
3	2006	Volunteer Management in Arts Organisations	(Bussell & Forbes, 2006)	Arts organisation	The study highlights the effective management strategies for recruiting and retaining theatre volunteers
4	2009	Looking Beyond Traditional Volunteer Management : A Case Study of an Alternative Approach to Volunteer Engagement in Parks and Recreation	(Barnes & Sharpe, 2009)	The management of parks and recreation	This study describes an alternative approach to volunteer engagement that emphasizes lifestyle integration, organisational informality and Flexibility, and volunteer–agency collaboration. Also show how traditional volunteer management structures hindering the volunteers engagement and case the volunteers decline
5	2003	A Choice Blend: What volunteers want from organisation and management	(Gaskin, 2003)	Volunteers organisation in England	The study highlights the threats of the changes of volunteers environment instance of globalization, Technological transformation, public policy, social and demographic trends, an evolving civil society, post-modern values, changes in family life, work Patterns and support structures. Also proposed eight key can

					influence a person to becoming and staying volunteers
6	2003	Making A Better Place: Planning, Implementing, & Managing a Student Volunteer Program	(Gummere, 2003)	Volunteers program for student	The study highlights the essential components for planning, implementing, and managing a student volunteer
7	2004	Volunteer management practices and retention of volunteers	(Hager, 2004)	Charities	The study showed the influence of management practices on the retention of volunteers
8	2005	Volunteer management for animal care organisations	(McFarlan, 2005)	Animal care organisation	The study review the management aspect of volunteer management as (recruiting –screening – training – develop a good relationship with volunteers- determining the role of volunteers –supervision – retaining and motivating) on the point view of animal care organisation.
9	2008	Management matters: a national survey of volunteer management capacity	(Machin & Paine, 2008)	Volunteers organisation In UK	The study highlights the some aspects of volunteers management as human resource in volunteers management- training – building career – improving the involvement of volunteers-reward and recognition- implanting a good practice- recruitment and retention
10	2003	How to manage unpaid volunteers in organisations	(Shin & Kleiner, 2003)	Volunteers sectors	The articles highlights the main managements aspects should organisations have to manage volunteers as Planning - recruitment – screening and interview-supervision –volunteers mangers roles- training
11	2003	Competencies for leaders of volunteers during the next decade: A national delphi study	(Boyd, 2003)	Volunteers organisation In USA	The study highlights the main skills for volunteers leaders as organisation leadership-system leadership-organisation culture-management skill (also mentioned barriers)
12	2006	Do not forget about	(Skoglund,	Volunteers	The study highlights the main

		your volunteers: a qualitative analysis of factors influencing volunteer turnover	2006)	organisation In USA	factors effected the retention and reduce the turnover of volunteers as recognition , training and development
13	2004	Management of Volunteers in Nonprofit Organisations	(Sozanska et al. 2004)	Volunteer in central Europe countries	The study reviews the important aspects of volunteer management (VM) for instance: selecting and training volunteers, volunteers supervision, volunteers orientation, how to parting volunteers, valuation of volunteers and volunteers' appreciation.

**Table 2.3 Management practices issues addressed on the last few years**

The table shows that while a number of researchers have attempted to individually address the various issues of management for instance recruiting, screening, training, develop a good relationship with volunteers, determining the role of volunteers, supervision, retaining and motivating (McFarland, 2005), relating the management practice to certain volunteer based attributes such as retention of volunteers or volunteer intention to stay using a model has been very rare in the literature (Hoye et al. 2008). In the absence of such a comprehensive model it becomes difficult to establish the relationship in a generalized fashion and also makes the research outcome to be less useful for application by volunteering organisations, managers and volunteers. Thus there is a necessity to develop a relationship between volunteer management practice and specific volunteer attributes.

One of the recent research publications that attempted to develop a relationship between volunteer management practice and retention of volunteers is the one by Cuskelly et al. (2006). Cuskelly et al. (2006) have attempted to establish a relationship volunteer management practice and retention of volunteers though the research conclusions indicate that all the correlates of management practice could not be established. Thus an analysis of the correlates used by (Cuskelly et al. 2006) is expected to provide a good basis for understanding the relationship between specific sub-correlates of management practice and the volunteer attribute namely intention to stay with a volunteer organisation and ignore the others that do not have real significance. Though the research outcome

achieved by (Cuskelly et al. 2006) is in the context of sports, it is clear from the publication of various researchers (Table 2.2) that the results of the research conducted by (Cuskelly et al. 2006) could be used to advantage for many other contexts and type of volunteer organisations. Thus the following sections will deal extensively on the correlates developed by (Cuskelly et al. 2006).

## **2.5 Sub-correlates of volunteer management practice**

According to Cuskelly et al. (2006) the main problem faced by volunteer organisations is the retention of volunteers and they have created a relationship between management practice and retention to enable volunteer organisations to gain knowledge on how to retain volunteers through effective management practice. However a review of literature shows that not only volunteer retention is a problem, there are other problems such as volunteer commitment, satisfaction, motivation and intention to stay.

While it is important to consider the main aspect of volunteer retention, literature shows that management practice cannot directly achieve the relationship between management practice and volunteer retention due to the influence of other correlates such as motivation and satisfaction. For instance Hoye et al. (2008) conclude that volunteers are motivated to remain as volunteers with organisations and there is a moderate relationship between motivation and volunteer intention to stay (Hoye et al. 2008). Similarly Finkelstein (2008) clearly indicate the impact of satisfaction on retention, motivation on retention and motivation on satisfaction provide a strong basis to link motivation and satisfaction with retention of volunteers (Finkelstein, 2008).

However the study conducted by Hoye et al. (2008) is based on two important aspects namely context and behavioral intentions of volunteers (Hoye et al. 2008). The context of study is sports and the behavioral intentions covered altruistic value, personal development, community concern and social adjustment. The research does not address the management aspects but shows the relationship between motivation and volunteer intention to stay. Similarly the research conducted by Finkelstein (Finkelstein, 2008) does

not address the impact of management practice on motivation and satisfaction leading to a gap that needs to be addressed.

While it is possible to agree on the relationship that exists amongst motivation, satisfaction and volunteer intention to stay, which is in line with other researchers who have attempted to establish a relationship amongst volunteer motivation, satisfaction and intention to stay (Omoto & Snyder, 1995), it is important to link management aspects also to motivation and satisfaction to explain the relationship between behavioral intention of volunteers and motivation and satisfaction. The reason for this is that many researchers have clearly indicated the need for further investigation on effective management practice, motivation and satisfaction with regard to volunteer behavior (Sozanska et al. 2004). Based on the above discussion it is possible to conclude that a relationship between management practice and volunteer retention and therefore volunteer intention to stay, need to be established taking into consideration the various other correlates such as motivation and satisfaction.

The foregoing discussion indicates that the sub-correlates of management practice need to be linked to motivation and satisfaction before being linked to retention or intention of volunteers to stay. This means that the various sub-correlates of management practice need to be linked to motivation and satisfaction instead of retention directly which is an extension to the work done by Cuskelly et al. (2006). The sub-correlates of the management practice identified in the literature include planning, recruitment, training, screening, recognition, performance management, orientation, develop a good relationship with volunteers, determining the role of volunteers, supervision, marketing approach, attracting, building career, job description, implanting good practice, empowerment, reward, engagement and involvement (Cuskelly et al. 2006; Gummere, 2003; McFarland, 2005; Machin & Paine, 2008, Shin & Kleiner, 2003; Boyd, 2003; Sozanska et al. 2004). However it is pertinent to choose the optimum number of sub-correlates of management practice that affect volunteer intention to stay. In order to choose the optimum number of sub-correlates of management practice, it is necessary to review the emphasis given to some of these correlates by researchers.

To begin with it can be seen that there are certain sub-correlates that are widely used by researchers in volunteering literature as given in Table 2.4. Furthermore, Cuskelly et al. (2006) have established significant correlation amongst the sub-correlates namely planning, recruitment, screening, orientation, training and support, recruitment and performance management.

<b>Correlates of Management practices</b>	<b>No. of authors</b>	<b>Authors</b>
Planning	7	(Cuskelly et al. 2006; Gummere, 2003; McFarland, 2005; Machin & Paine, 2008; Shin & Kleiner, 2003; Boyd, 2003; Sozanska et al. 2004)
Recruitment	11	(Hager, 2004; Cuskelly et al. 2006; Bussell & Forbes, 2006; Gaskin, 2003; Gummere, 2003; Hager & Brudney, 2004; McFarland, 2005; Machin & Paine, 2008; Shin & Kleiner, 2003; Boyd, 2003; Sozanska et al. 2004)
Training	12	(Hager, 2004; Cuskelly et al. 2006; Bussell & Forbes, 2006; Gaskin, 2003; Gummere, 2003; Hager & Brudney, 2004; McFarland, 2005; Machin & Paine, 2008; Shin & Kleiner, 2003; Boyd, 2003; Skoglund, 2006, Sozanska et al. 2004)
Screening	5	(Cuskelly et al. 2006; Gummere, 2003; Hager & Brudney, 2004; McFarland, 2005; Shin & Kleiner, 2003)
Recognition	8	(Cuskelly et al. 2006; Gummere, 2003; Hager & Brudney, 2004; Machin & Paine, 2008; Shin & Kleiner, 2003; Boyd, 2003; Skoglund, 2006; Sozanska et al. 2004)
Performance management	5	(Cuskelly et al. 2006; Gummere, 2003; Hager & Brudney, 2004; Boyd, 2003; Sozanska et al. 2004)
Orientation	3	(Cuskelly et al. 2006 ; Gummere, 2003; Sozanska et al. 2004)
Develop a good relation-ship with volunteers	3	(Hager & Brudney, 2004; McFarland, 2005; Machin & Paine, 2008)
Determine role for the volunteer	3	(Hager & Brudney, 2004; Shin & Kleiner, 2003; Sozanska et al. 2004)
Supervision	3	(Hager & Brudney, 2004; McFarland, 2005; Shin & Kleiner, 2003)
Marketing approach	1	(Boyd, 2003)
Attracting	1	(Boyd, 2003)
Building career	1	(Machin & Paine, 2008)
Job description	2	(Boyd, 2003)
Empowerment	1	(Sozanska et al. 2004)
Engagement and involvement	1	(Barnes & Sharpe, 2009)

**Table 2.4 Widely used volunteer management practice sub-correlates in literature**

This indicates that these sub-correlates are factors of management practice (Cuskelly et al. 2006). However the research outcome of Cuskelly et al. (2006) indicates that planning is the only predictor of volunteer retention problems that has been found to be statistically significant (regression coefficient  $\beta = -0.22$ ,  $p < 0.01$ ). This finding is clearly contentious as other researchers have established that training and support, recruitment, recognition, screening, orientation and performance management have significant bearing on the volunteers' decision to stay with an organisation and act as predictors of volunteer intention to stay (Hager, 2004; Bussell & Forbes, 2006; Gaskin, 2003; Gummere, 2003; Hager & Brudney, 2004; McFarland, 2005; Machin & Paine, 2008; Shin & Kleiner, 2003; Boyd, 2003; Sozanska et al. 2004; Boulton, 2006).

Additionally although screening, orientation, developing a good relationship with volunteers, determining the role of volunteers, supervision, marketing approach, attracting, building career, job description, implanting good practice, empowerment, engagement and involvement have been dealt with by researchers as predictors of volunteer retention, researchers differ on determining a unique list of these correlates as predictors of volunteer intention to stay or volunteer retention problems. This is evident from Table 2.4 which provides the list of correlates and the number of authors who have dealt with them both as individual correlates and group of correlates. Additionally Table 2.4 provides an idea on the important sub-correlates of management practice that have been widely used by researchers to predict volunteer retention and volunteer intention to stay. In fact some of the researchers have either not shown that these correlates significantly correlate with volunteer intention to stay or have minimized the number of correlates by consolidating the correlates. For instance an examination of 25 published papers on volunteer management practice has shown that correlates such as marketing approach, attracting, building career, job description, empowerment, engagement and involvement have found the least attention from researchers and has not been directly related to volunteer intention (Boyd, 2003, Machin & Paine, 2008, Sozanska et al. 2004).

Similarly orientation and screening have been dealt with under training (Barman, 2007; Brudney & Nezhina, 2005; Helmig et al. 2004; Leiter, 2008) and recruitment (Shin &



Kleiner, 2003; Crompton, 1999) respectively by some researchers. Further correlates such as develop a good relationship with volunteers, determination of the role for the volunteer and supervision though have been dealt with by researchers to have bearing on the volunteer retention, there is no conclusive evidence to prove that these correlates have statistical significance to volunteer retention or intention to stay (Hager & Brudney, 2004; Sozanska et al. 2004; Skoglund, 2006) about which details have been provided in Table 2.3. Another important aspect is that while a number of research outcomes have shown that much of research has approached the management practice correlates individually as affecting the motivation and satisfaction of the volunteers (Doherty, 1998), hardly any research outcome has dealt with these correlates as a function of volunteer retention which is evident from Table2.2.

Thus it can be concluded that it is worthwhile to initially investigate into the widely used correlates by researchers as well as their linkage to volunteer retention. Therefore based on the above discussions a set of sub-correlates have been chosen for critical review in this research to enable the researcher to gain a good knowledge on their relevance as sub-correlates of management practice to the current research. They are planning, recruitment, training and support, recognition and performance management. A detailed discussion follows on each one of these correlates.

### **2.5.1 Planning**

Planning as an important aspect of management is expected to provide the direction for volunteer's organisation. According to Tedrick and Henderson, (1989) volunteers do not have enough time to plan for their organisation leading to the absence of sense of direction in which the organisation is proceeding. Planning enables an organisation to develop its strategy and vision thereby identify answers to the questions what, how, with whom and in what matters the organisation deal and relate these aspects to clear time frame (Tedrick & Henderson, 1989).

Planning is considered as a process by some researchers involving a number of steps (Stedman & Rudd, 2004) such as job descriptions, succession planning, encouraging

turnover in key positions, and identifying and targeting potential volunteers (Cuskelly et al. 2006). Some argue that planning is part of the Human Resource Management system (HRM) (Cuskelly et al. 2006). Either way, in order to implement this process, organisations expect guidance although Cuskelly et al. (2006) claim that there is no universal list of high-performance HRM practices that could be adopted by volunteer organisations. This could be a challenge and organisations could fumble if they do not understand how to implement the process of planning which in turn may have repercussions with regard to volunteer recruitment or training and support or any similar managerial activity. In fact effective management of volunteer resources which is part of the management practice of volunteer administrators and the planning process have been considered by researchers as an area that needs further investigation as volunteer managers are not able to cope up with mounting pressure of professionalism, managerialism and accountability (Hager & Brudney, 2004; Lewis, 1993; Nichols & King, 1998; Nichols et al. 2003; Russell & Scott, 1997).

In addition literature shows that an important part of volunteer administration is planning (Stedman & Rudd, 2004). Planning as a concept has been found to be anchored in many theories including management theory (Buford et al. 1995), system development theory (Tamas, 2000), leadership theory and organisational theory (Stedman & Rudd, 2004). Stedman and Rudd (2004) argue that the leadership and management theories could be rooted in the psychological and sociological theories which implies that planning as a concept could be rooted in these two theories. Thus the phenomenon of planning of volunteer activities as part of the management practice of volunteer administrators could be explained using different theories. In the current research since the focus is on management practice, management theory and organisational theory are applied to explain how volunteer management practice is related to volunteer retention. For instance, strategies need to be developed by volunteer administrators in order to recruit volunteers from the community. Using management theory and organisational theory it is possible to argue that planning is an essential factor in recruiting volunteers in organisations. However currently available research outcomes that have applied theories to explain about planning as a factor influencing the management practice by volunteer

administrators and volunteer retention is argued to be weak in their theoretical underpinning (Stedman & Rudd, 2004). Thus there is a need to know how theories can be used to guide research that investigates the concept of planning as a factor affecting management practice of volunteer administrators.

Although planning as a concept has been widely discussed in the literature including in the field of volunteering there is a growing concern amongst volunteering organisations with regard to managing volunteers through management practices that could make the organisations effective in dealing with volunteers. In this context the many components of management practice identified in the extant literature including planning has neither been well understood by the volunteer administrators nor has there been a well-defined support provided by the researching community on how planning as a concept could be utilized by the volunteer administrators to improve the performance of the organisation and the volunteers. Researchers have indeed called for more research in this area (Hager & Brudney, 2004; Lewis, 1993; Nichols & King, 1998; Nichols et al. 2003; Russell & Scott, 1997). Thus in the investigation of management practice adopted by volunteering organisations, planning as a concept needs to have an important place and there is a need to know how this concept could influence the organisation in dealing with volunteers and their retention.

Besides, one of the correlates considered to be important with regard to volunteer motivation and satisfaction by researchers is the planning process in a voluntary organisation (Shin & Kleiner, 2003). Factors including mission of the organisation, policies and procedures, organisational objectives, job description, development of strategies and key performance indicators, identification of potential volunteers and succession planning drive the process of planning (Culp, 2009; Shin & Kleiner, 2003; Sozanska et al. 2004). However literature shows that planning alone cannot motivate volunteers without additional motivating factors. Additionally planning should address factors such as policies, procedures and job description of volunteers as these have direct bearing on volunteer satisfaction (Shin & Kleiner, 2003; Galindo-Kuhn & Guzley, 2002). Thus while planning can help an organisation to effectively coordinate the volunteers to

achieve the stated goals of the organisation, there is a need to identify motivating factors that could benefit both the volunteer and the organisation which includes volunteer satisfaction. Furthermore research publications in this area indicate that planning should include strategic planning, recruitment planning, budget planning and career planning of the volunteers amongst others which are not well addressed in the literature (Shin & Kleiner, 2003; Sozanska et al. 2004). Another important aspect that needs to be considered is the relationship between planning and retention of volunteers. The research conducted by Cuskelly et al. (2006) in Australia in the context of sports clearly shows that the correlation between planning and retention is moderately significant because of the lack of consistency achieved in their result with regard to different levels of volunteer managers (Cuskelly et al. 2006).

This may be due to the lack of mediatory constructs between planning and retention in the model suggested by Cuskelly et al. (2006). Thus while some research outcomes show that there is a link between planning and motivation (Doherty, 1998), the model suggested by Cuskelly may need to be modified using mediatory constructs to improve the effect of planning on retention. From the literature it is seen that planning affects motivation and satisfaction (Unstead-Joss, 2008). Furthermore researchers have demonstrated the relationship between motivation and retention as well as satisfaction and retention (Hoye et al. 2008). With researchers claiming significant correlation between planning and motivation, and, planning and satisfaction, as also motivation and retention alongside satisfaction and retention (Hoye et al. 2008), it is logical to link planning to motivation and satisfaction. In turn motivation and satisfaction could be linked to retention. Thus motivation and satisfaction could act as mediating factors between planning and retention. This relationship needs to be tested to see whether further improvement in the relationship could be statistically achieved.

### **2.5.2 Recruitment**

One of the important management practices in volunteer management is the recruitment process in volunteer organisations. Literature shows that organisations face innumerable problems created due to the fast movement of volunteers and their short warranty. To

overcome this problem, different methods of recruitment need to be considered by the management of volunteer organisations (Sozanska et al. 2004). In fact recruitment is argued to be an important management skill. As a concept recruitment has been shown to play a leading role in managing volunteers in a number of ways including selection of volunteers, providing accessibility to volunteering institutions (McBride & Lough, 2008), replacing those who leave (Smith, 1998), seeking to employ skilled and enough volunteers (Brewis et al. 2010) and creating personal recruitment environment to attract and retain individuals who would otherwise shy away from volunteering (Handy & Cnaan, 2007). As a concept recruitment means the inclusion of a new individual as an addition to a population (Carr & Syms, 2006). Breaugh and Starke (2000) define recruitment as those practices and activities of an organisation that leads to identifying and attracting potential employees. These definitions indicate that recruitment is an important activity of an organisation which determines what kind of employees are brought into an organisation and such an activity could reflect on the management practices of an organisation. This implies that the quality of employees employed in an organisation could simply be dependent on the best practices followed by management in recruitment. These arguments apply to volunteering also.

There are a number of aspects that could impact an organisation if the management practices adopted by an organisation in the recruitment of volunteers are not appropriate. For instance, if the number of volunteers to be recruited is not properly estimated then it could result in either surplus recruitment of employees or under recruitment. In case there is a surplus then the employees will not have any job to do and in case there is under recruitment then the employees could be over worked due to multitasking. In both the cases it is possible that the employees are affected. This problem could be even more severe in the case of volunteering because in the case of volunteers there is a specific purpose behind recruiting them and such recruitment has the voluntary participation of people who do not anticipate anything in return. If there is an overemployment of volunteers then such volunteers who do not have any work to do could quit and if there is underemployment of volunteers then those volunteers could be over worked resulting in their dissatisfaction. In either case retaining volunteers could be a major problem.

Similarly if recruitment process is not systematized then where a large number of employees or volunteers are to be recruited then there could be chaos in the organisation. For instance if volunteers are to be recruited for mega events such as Olympics, then the number of volunteers required could run in their thousands and if computerized systems are not employed as part of the management practice then there could be many problems that could arise including selection, screening and orientation of the volunteers as well as assigning appropriate jobs for the volunteers. In such cases there could be lack of motivation and dissatisfaction in volunteers leading eventually to problems in their retention. In these examples it can be seen that management practices play an important role and such practices affect the recruitment process.

Although the concept of recruitment has been well discussed in the literature still there seems to be a gap in the literature in terms of lack of theories that could explain specific recruitment phenomenon. For instance Avery and McKay (2006) claim that there is still very little information in the literature related to fundamental practical recruitment challenges that have bearing on the best way to recruit diverse workforce using targeted recruiting. Similarly Faberman (2011) argues that economic theories do not address the complexities and informalities associated with the process of recruitment and are not able to completely formalize the concept of recruitment in a theoretical framework, thus making it difficult to predict how aggregate hiring could behave over time. These arguments are also relevant in the process of hiring volunteers. Although researchers point out that it is possible to apply some of the existing theories including economic theory and behavioural theory to explain the concept of recruitment (Faberman, 2011), one of the most widely suggested theories that could be applied to volunteer recruitment appears to be the human resource management theory (Coyle-Shapiro et al. 2013). This theory is able to explain many aspects of recruitment which includes recruitment and selection techniques, the rules and regulations that affect the employment of volunteers and policies and procedures on volunteer separation (that is when and whether a volunteer should be allowed to go and under what circumstances (Coyle-Shapiro et al. 2013)). Example of application of HRM theory to volunteering could be seen in the research work of Cuskelly et al. (2006). However the research work of Cukelly et al.

(2006) was specific to sports in Australia and not in a context-free environment leading to one of the possible inferences that in volunteer research context-free concept has not been widely used although much of the volunteering takes place using multitasking volunteers.

Galindo-Kuhn and Guzley (2002) claims that recruitment practices have significant correlation to volunteer satisfaction (Galindo-Kuhn & Guzley, 2002). However Peterson (2004) argues that recruitment practices have direct bearing on the motivation of volunteers (Peterson, 2004). Contradicting both Galindo-Kuhn and Guzley (2002) and Peterson (2004), Wymer and Starnes (2001) argue that recruitment practices have direct bearing on retention which is in line with the research outcomes of Cuskelly et al. (2006). It is reasonable to conclude that researchers are not agreeing on a common conclusion on whether recruitment is linked to retention directly or to satisfaction and motivation. In the absence of a consensus amongst researchers, it is necessary to investigate the relationship between recruitment and retention on the one hand, and, recruitment and, motivation and satisfaction on the other. However considering prior arguments posited in this review, if satisfaction and motivation are linked to retention and these two constructs are related to recruitment, it is possible to think of a relationship between recruitment and retention with satisfaction and motivation playing the mediating role. This concept needs further investigation. Other important aspects that need to be considered while establishing the linkage between recruitment and different constructs are the type of volunteering needed such as part-time or full time, sources of volunteers, identification of skill-set of volunteers, method of recruitment and other challenges faced by organisations in the recruitment of volunteers. These aspects can affect the linkages between recruitment and other constructs.

### **2.5.3 Training and support**

Training and support form part of the job orientation and focus on developing volunteers' skills and utilization of their efforts to achieve the mission of the volunteer organisation (Tedrick & Henderson, 1989; Hager & Brudney, 2004). Researchers opine that training is an essential element in volunteer management (Boyd, 2003; Sandra, 2003; Shin & Kleiner, 2003). Some researchers conclude that training is an important management

practice that affects retention of volunteers (Cuskelly et al. 2006; Sara & Austin, 2009). Some other researchers conclude that training impacts motivation (Bussell & Forbes, 2006) and satisfaction (Galindo-Kuhn & Guzley, 2002). There are also contrary views that criticize training as a supporting factor in improving employee performance, for instance the arguments of Hughes (2006), who argues that training may not be right way always to take care of any performance limitations found in volunteers and it may not help in addressing the problem, but counter-productive. Citing the example of providing training to volunteers who already have certain skills may turn-off the volunteers, Hughes (2006) argues that there is a need to keep environmental contexts in mind prior to administering training to volunteers.

Additionally, some argue that the concept of formal training for volunteers is catching the imagination of volunteering organisation only recently (Hughes, 2006). Highlighting the need to provide training as a support to volunteers Hughes (2006) argues that training is important in supporting volunteers in enacting their role as well as motivating them. However despite recognizing the fact that training and support to volunteers are important factors of volunteer management practice, affecting both volunteers and volunteering organisations, literature shows that there is a lack of studies that address the influence of training and support on volunteerism (Hidalgo & Moreno, 2009). Thus it can be inferred that training and support as an important factor affecting volunteerism including volunteer retention, motivation and satisfaction.

Training support to an employee can be explained as an empowerment of those employees including volunteers through the provision of knowledge and skills required to better manage behaviours (Smith et al. 2004). Leibowitz (1981) argues that training involves teaching an employee how to do a particular task and is defined as the permanent change in the behavior. Both the definitions indicate that training support for a person affects the behavioural aspect. Needless to say in the case of volunteers who are expected to deal with people or environment outside the volunteering organisation, training will impact the volunteer and volunteering organisation. Training and support therefore need to be considered as vital factors that influence a volunteering organisation.



As far as the theoretical support to the concept of training and support is concerned Yamnill and McLean (2001) argue that a number of theories affect training as a support for organisational and individual performance which include expectancy theory, equity theory, goal setting theory, principles theory, organisation theory and management theory. Ahmad et al. (2012) claim that training as a concept can be explained through learning theories including behavioral theory, cognitive learning and social learning theory. Despite the fact that the concept of training and support can be grounded in many theories there is always a need to know which of these theories or combination of theories is more effective in particular context. This implies that there is a need to know which of these theories could be more useful in understanding the relationship between training and support as a construct of management practice of a volunteering organisation and volunteer retention.

The foregoing discussions indicate that there is still no consensus amongst researchers on a generalized model linking the different factors including retention, satisfaction and motivation to training and support. An investigation into know whether a relationship between training and retention could be established with the intervention of motivation and satisfaction as variables, which in turn may provide insight into how training and support can improve volunteer retention and hence the management practice. The necessity for such an investigation arises due to the fact that researchers have found that there is significant relationship between motivation and retention on the one hand and satisfaction and retention on the other but are not able to conclusively establish the relationship between training and retention (e.g. Omoto & Snyder, 1995; Hidalgo & Moreno, 2009). Since training has significant relationship with satisfaction (Bradley et al. 2004) and motivation and satisfaction and motivation have significant correlation with retention (Roos & Van Eeden, 2008), a linkage between training and retention with the intervention of satisfaction and motivation could be construed as a logical step. An investigation into this aspect therefore could be beneficial to the volunteers and volunteering organisations leading to effective management of volunteers.

#### **2.5.4 Recognition**

Volunteers Recognition includes two basic aspects. First, volunteers need to be appreciated and shown that they are worthwhile to the volunteer organisation. Second, organisations must show the volunteers and the community, the value of the volunteers program, achieved through volunteers' efforts (Tedrick & Henderson, 1989). Further, literature shows that recognition could be in the form of both formal (e.g. contests, field trips, self-development opportunities) and informal (e.g. trophies, pins and plaques) (Luthans & Stajkovic, 2006).

Recognition is considered to be a process by some that leads to giving an employee some kind of a status within an organisation (Danish & Usman, 2010). Fisher and Ackerman (1998) define recognition as a "public expression of appreciation" by a company of persons to individuals who assume desired behaviours. Examples of recognition include plaques, certificates, trophies and cash awards or prizes Fisher and Ackerman (1998). The definitions are self-explanatory. Regardless of how recognition as a concept is defined, it is important to recognize that recognition matters although there are differences amongst researchers whether any type of recognition are every type of recognition will motivate or satisfy volunteers. For instance Fisher and Ackerman (1998) argue that cash awards or prizes if given away as part of recognition may not be considered as necessary or sufficient by the recipient because if prizes such as plaques or trophies carry names of the recipient then it loses its commercial value and becomes more symbolic. Such prizes then carry symbolic value to the recipient as it conveys meanings that were absent in the original prize prior to purchasing. Thus recognition is neither the commercial value of the reward nor an object like the trophy given to a volunteer or employee but could be a representation of certain appreciation which must be felt by the recipient and motivate him or her further to contribute to the organisation.

As far as theoretical underpinning of the concept of recognition is concerned literature shows that the concept can be rooted in a number of theories including reinforcement theory (Komaki et al. 1996), Social cognitive theory (Bandura, 1986, 1997, 1999; Maddux, 1995), outcome utility value and informative content of recognition (Stajkovic

& Luthans, 1999). Despite the fact that a number of theories have been advanced to explain and apply recognition, such theories can be contradictory at times. For instance recognition as a concept has been as a natural reinforcer by the reinforcement theory but such a contention contradicts another principle which says payment of money as a reward and recognition can be a contrived reinforcer (Luthans & Kreitner, 1975, 1985). Similarly Bandura (1986) argues that social cognitive theory is able to provide a richer and more complete support to explain organisational behavior and understand recognition as an incentive motivator (Stajkovic & Luthans, 1998) than the reinforcement theory. However no single theory appears to be more useful in explaining recognition in a particular environment when compared to another which is evident in the research outcome produced by Luthans and Stajkovic, (2006). However the choice of which theory or set of theories to be applied in the case of recognizing volunteers appears to be entirely determined by how the managers in an organisation deal with recognizing the volunteer and the volunteer satisfaction or motivation that is evinced by the recognition.

Furthermore, researchers have been consistent in stressing the need to recognize volunteers as an important element that could help in retaining volunteers (Shin & Kleiner, 2003; Esmond & Dunlop, 2004). However recognition as a predictor of retention has not been found valid by Cuskelly et al. (2006) with regard to sports organisations (Cuskelly et al. 2006). Needless to say recognition of one's contribution in both paid and unpaid jobs goes a long way in motivating employees as well as volunteers and researchers have found that such recognitions improve job satisfaction and volunteer satisfaction (Galindo-Kuhn & Guzley, 2002; Finkelstein et al. 2005). While conclusive evidence is not found in the literature with regard to using recognition as a predictor of volunteer retention or volunteer intention to stay, what is found is that recognition has been found to be a moderate predictor of motivation (Esmond & Dunlop, 2004) and strong predictor of satisfaction (Silverberg et al. 2001), both of which are considered as vital factors that affect volunteer retention. Thus it is possible to infer that if a relationship between recognition and retention is developed with satisfaction and motivation influencing the relationship, then there is a possibility to better explain how volunteer recognition affects volunteer retention. As has been mentioned in the previous

sections, there has been considerable research publications that indicate a strong relationship between motivation and volunteer intention to stay as well as satisfaction and volunteer intention to stay. Motivation and satisfaction could be considered to be the mediating between volunteer recognition and volunteer retention.

### **2.5.5 Performance management**

It is related to the evaluation process and indicates the performance of the volunteers and the volunteer management through measurement (Hager & Brudney, 2004; Sozanska et al. 2004). The evaluation and measurement of the performance have impact on the improvement of the effectiveness of voluntary assistance and on the voluntary activity (Sozanska et al. 2004). One of the important aspects that need to be considered with regard to volunteer retention is their performance management (Millette & Gagné, 2008). In fact some feel that not much work has been done to understand the relationship between volunteer motivation to stay with an organisation and their performance (Millette & Gagne, 2008).

Performance management is a process. It is continuous and dynamic. It involves many activities that are smaller and periodic in nature. Such activities include defining a volunteer's or an employee's job, setting of the employee's objective or goals and performance appraisals and evaluation (Rao, 2004; Davis & Shannon 2011). CSB.gov (1996) explains performance management as a human resource management aspect which involves activities to enhance the effectiveness of the appraisal process of an employee or a volunteer. There are definitions of performance management found in the literature which indicate that it is a comprehensive system of management which encompasses a broad range of aspects including the following (Business Performance Management (BPM) Standards Group, 2005):

- planning, consolidating and reporting as part of the business process management
- outlining strategic goals
- managing the organisation to ensure achievement of strategic goals
- methodologies that augment the implementation of a business strategy
- measuring the extent of achievement of strategic goals

- identifying key performance indicators (KPIs)
- deploying analytical processes
- using technology to manage financial and operational data
- linking performance to the organisation to measure KPIs

These definitions although differing considerably in their content have some commonality which indicates that all are aiming at improving the performance of the individual and the organisation through a process of performance management. Which definition could suit an organisation and what factors could be involved in applying the definition is something that appears to be dependent on the business goals of the organisation.

As far as theories that could be applied to performance management, it can be seen that the concept of performance and its management are rooted in some of the theories including efficiency wage theory, human capital theory, human resource management theory (Mudor & Tooksoon, 2011), self-determination theory and exchange theory. Much of these theories enable an understanding about performance management of employees including volunteers with regard to important factors including payment, job satisfaction, productivity of employees, employee turnover, employee motivation, employee development, training, supervision, organisational effectiveness and employee commitment (Mudor & Tooksoon, 2011; Millette & Gagné, 2008). However some believe that most of these theories do not fully explain the operation of every factor that could affect performance management (Millette & Gagné, 2008). For instance while discussing the maximization of motivation, satisfaction and performance volunteers, Millette and Gagné (2008) argued that exchange theory is having limited use in voluntary settings as it is too utilitarian. Thus there is a need to further investigate how volunteer performance management could be explained while linking to volunteer retention.

Apart from the above, researchers also indicate that performance assessment and management could have impact on the retention of volunteers (Omoto & Snyder, 1995, Millette & Gagné, 2008) although Millette and Gagné (2008) claim that hardly any

investigation has been conducted in understanding the relationship between performance management and volunteer length of stay in an organisation. This leads to the conclusion that the relationship between performance management and volunteer retention is an important area that needs further investigation and is a grossly neglected area. Though the results of Cuskelly et al. (2006) research indicate that performance management is not a predictor of volunteer intention to stay (Cuskelly et al. 2006), considering the importance given by other researchers to this subject, it is necessary to investigate further into this subject. However researchers have found significant correlation between performance management on the one hand and motivation (Amabile, 1982; Burton et al. 2006) and satisfaction (Salas, 2008; Millette & Gagné, 2008) on the other hand. As has been mentioned in the previous sections, researchers have already established a relationship between volunteer retention on the one hand and motivation and satisfaction on the other. Thus a relationship between performance management as a sub-correlate of management practice and volunteer retention using motivation and satisfaction as mediating variables could be established and an investigation into their statistical significance could be conducted to gain new knowledge in this aspect.

The discussion on the sub-correlates planning, recruitment, training and support, recognition and performance management provide an idea on their importance as sub-correlates of management practice as well as the lack of evidence in the literature in directly relating these correlates to volunteer retention. However it is necessary to examine their linkage to motivation and satisfaction and in turn their linkage to volunteer retention and volunteer intention to stay by individually reviewing their utility in volunteer research related to management practice. Thus the subsequent sections deal with volunteer motivation and satisfaction as variables.

## **2.6 Motivation**

Motivation is defined in a number of ways. For instance motivation is defined as an internal state or condition that serves to activate or boost behavior and to give it direction (Boz & Palaz, 2007). It is also defined as getting others to do something because they want to do it (Bruyere & Rappe, 2007). Yet another definition for motivation is given as

something that causes people to act so they can satisfy their specific needs desires, or wants (Ghazali, 2003).

As a derivative from the different definitions found in literature for motivation, it is possible to define the volunteer motivation as the art of finding ways other than money to make the internal state of a person work toward the goal of volunteerism. In the 1970's research about volunteer motivation emerged with an increasing number of studies examining volunteerism and motivation (Ghazali, 2003). These studies investigated motivation as a factor in voluntary work (Fitch, 1987; Smith, 1981; Gidron, 1985). These studies focused on categorizing the motivation factors and enabled the development of simpler methods for volunteers and volunteering organisations to deal with them.

Review of the literature shows that researchers have highlighted the importance of motivation as a factor that affects both volunteers and volunteering organisations and that enables organisations to ensure that the volunteers remain with them for a longer period (Mesch et al. 1998; Rehberg, 2005; Yanay & Yanay, 2008; Finkelstein, 2008). Furthermore researchers have attempted to identify different types of motivation factors that affect many types of volunteers (Henderson, 1980; Smith, 1981). Literature shows that researchers have developed motivational theories and factors. For instance in Maslow's Hierarchy of Needs (1943), ERG theory of Alderfer (1969), The Motivator-Hygiene Theory of Herzburg et al. (1959) and Achievement Motivation theory of McClelland (Beugelsdijk & Smeets, 2008) are some of the theories found in the literature that have addressed volunteer motivation. Though such theories provide a strong basis to investigate the role of motivation of volunteers the current research is focusing on its importance as a correlate that affects volunteer retention and intention to stay as well as its ability to mediate between management practice as an independent variable and volunteer retention as the dependent variable. Thus this discussion focuses on motivation as a factor by itself that affects both management practice and volunteer retention.

Furthermore, researchers who have addressed the issue of management practice in volunteer literature have highlighted the need to motivate volunteers and keep it very high through effective management practice (Hoye et al. 2008; Salas, 2008; Unstead-Joss, 2008). Though there are a number of factors that affect motivation such as Values, Understanding, Social, Career, Protection and Enhancement and many researchers have addressed these issues (Salas, 2008; Yanay & Yanay, 2008; Clary et al. 1998), that motivation itself can influence the factors management practice and volunteer retention is an area that has not been dealt with by researchers in volunteer management research. Thus there is a paucity of research output in this area and there is a growing need to understand the relationship that exists between the management practice as an independent variable and motivation, and motivation and volunteer retention. Considering the importance given by researchers since the last two decades to volunteer management practice as an important component that affects volunteer retention (Ghazali, 2003), it is felt necessary to investigate the effect of management practice on motivation and the effect of motivation on volunteer retention and intention to stay, to gain deeper knowledge into these relationships.

This investigation is needed to fill the gap found in the literature wherein it is found that there is hardly any research outcome that has discussed the relationship between management practice and volunteer retention influenced by volunteer motivation but some evidence indicate that a relationship between volunteer management practice and motivation (Doherty, 1998) on the one hand and motivation and volunteer retention on the other (Hoye et al. 2008) could be established. Through this process it is possible to create a linkage between volunteer management practice as the independent variable and retention as the dependent variable with motivation as the mediating variable. While this is not a well-defined relationship in the literature, it can act as a basis to enable the development of a hypothesis that could be tested for its statistical significance and validity.

Furthermore, it is seen from the literature that motivation directly affects satisfaction of volunteers (Millette & Gagné, 2008; Salas, 2008). Literature also shows that volunteer



satisfaction depends on volunteer motivation (Finkelstein, 2008; Clary et al. 1998; Stukas et al. 2009). A wide number of research publications have been dedicated to addressing the issue of volunteer satisfaction and its dependence on motivation (Millette & Gagné, 2008; Salas, 2008; Finkelstein, 2008; Clary et al. 1998; Stukas et al. 2009; Esmond & Dunlop, 2004). Thus it is important therefore not to neglect the relationship between volunteer motivation and volunteer satisfaction while addressing the problem of volunteer retention using management practice. This is also logical because apart from being a dependent variable on motivation, it is seen that satisfaction also acts as an independent variable to volunteer retention (Galindo-Kuhn & Guzley, 2002). Thus the linkage between motivation and volunteer retention may need to be addressed both directly and through satisfaction as the mediating variable in order to know whether such a linkage provides new ideas on how to retain volunteers.

Thus it emerges that it is important to examine the relationship between management practice and volunteer retention through a new lens as explained above. Considering the benefits that have been derived using earlier models found in the literature with regard to the individual application of the relationship between management practice and motivation, motivation and volunteer retention, motivation and satisfaction, and satisfaction and volunteer retention, it is logical to create a linkage amongst the four correlates to develop a composite relationship. Such a composite relationship could lead to an integrated effect of management practice on volunteer retention and provide a new opportunity to volunteering organisations and volunteers to deal with the growing problem of volunteer attrition.

One of the important points that needs to be highlighted here is that the linkage between the management practice and motivation needs to be brought out through the individual correlates of management practice and each one of these correlates need to be tested for their significance of their relationship to motivation. This is needed because management practice is a variable that has been broken down into sub variables by researchers and each one of these sub-variables need to be assessed individually for its impact on motivation leading to the overall effect of management practice on motivation. In fact

researchers have been able to relate each one of the sub-variables of management practice identified in this research as being significantly related to motivation (Doherty, 1998; Dolnicar & Randle, 2007; Varner, 1983).

At the same time it is imperative to also investigate the need to use motivation as a single variable instead of breaking it up into sub-correlates as it could lead to unnecessary avoidable complications while dealing with data collection and analysis aspects. Though researchers have developed inventories for volunteer motivation such as Volunteer Motivation Inventory (VMI) (Esmond & Dunlop, 2004) and Volunteer Functional Inventory (VFI) (Clary et al. 1998), comprising sub-correlates, it is also seen from literature that comprehensive measuring instruments to measure motivation as a single variable have been developed by researchers. This leads to the conclusion that it is possible to consider motivation as a single variable without breaking it down to sub-variables and conduct the research into volunteer retention problems. This is also true with regard to its linkage to both satisfaction and volunteer retention as breaking down motivation to multiple correlates will complicate the data collection and analysis activities. One other aspect that could be considered to favour this situation is that the focus of this research is management practice correlates and their relationship to volunteer retention and not motivation or satisfaction.

## **2.7 Satisfaction**

There are a number of theories that has been cited in the literature in which the concept of satisfaction of employees is grounded. For instance Pauline (2011) argues that amongst the different theories that are used to explain volunteer management, social exchange theory is the one that could be applied to understand volunteer satisfaction, as it explains satisfaction in terms of the choice made by people to maximize rewards and minimize costs. Similarly, Herzberg's (1987) two-factor theory can be applied to know about the factors that cause satisfaction and dissatisfaction in volunteers. In addition there are other theories that have been used by researchers to explain satisfaction as a construct which include job characteristics theory (Hackman & Oldman, 1980), self-determination theory (Deci & Ryan, 1991) and social capital theory (Burt, 1992 and 2001; Flap, 1999; Lin,

2002). However literature shows that the two most widely used theories that have been widely applied in understanding volunteer satisfaction are the social exchange theory (Pauline, 2011; Rice & Fallon, 2011) and Herzberg's (1987) two-factor theory (Volunteer Canada, 2011; Jaffe et al. 2010).

Job satisfaction is one of the most important aspects in organisational behavior and human resource management as a result of which it is most commonly studied (Galindo-Kuhn & Guzley, 2002; Highhouse & Becker, 1993). Job satisfaction was defined as "feelings or affective responses to facets of the situation" (Smith, 1969). A review of the nature of volunteer environment - unpaid work - demonstrates the importance of having job satisfaction measurement tools for volunteers (Galindo-Kuhn & Guzley, 2002; Gidron, 1983). Only in the past 25 years, volunteer job satisfaction has been considered and correlated to related outcomes (Gidron, 1983; Finkelstein, 2008; Salas, 2008; Galindo-Kuhn & Guzley, 2002; Shin & Kleiner, 2003). Interestingly researchers have shown interest in the relationship between satisfaction and volunteer retention since beginning. Literature shows that Omoto and Snyder's (1995) found a significant correlation between satisfaction and the period of that volunteers spend it along with volunteer work (Omoto & Snyder, 1995).

Furthermore Miles' et al. (2000) study focused on satisfactions experienced by ecological restoration volunteers and analyzed the volunteer experiences of satisfaction in relation to the types of responsibility assumed (Miles et al. 2000). Some of the highlights of their investigation are the following:

- An unexpected finding was the lack of relationship between satisfaction and the period of volunteering which oppose the results of Omoto and Snyder's (1995). However, the findings of Omoto and Snyder were based on previous studies (Spector, 1997; Porter & Steers, 1973; Miller et al. 1990; Boulton, 2006) that established direct correlation between satisfaction and the period of volunteering.

- An increase in satisfaction was associated with more volunteer participation in additional activities; volunteer who did not participate in additional responsibilities had lower overall satisfaction levels.

Another set of researchers, Nelson's et al. (2004), examined volunteers' motives and their linkage with satisfaction in the volunteer role and the link to performance outcomes (Nelson et al. 2004). Nelson's et al. (2004) defined volunteer's motives as (self-development, affiliation and altruism) and found that all motives were significantly correlated to satisfaction. The strongest finding that is derived from the research of Nelson's et al. (2004) is that "commitment is tied to satisfaction, to all three motive classes, and to every measure of success" and that "highly committed ombudsmen do more work" (Nelson et al. 2004).

Another important study conducted by Galindo-Kuhn and Guzley (2002) reviewed sixteen available articles that specifically focused on volunteer job satisfaction which were written between 1981 and 1995. They found in these articles that there is no consistent measure of volunteer job satisfaction. The analysis of the sixteen articles provided a foundation of measuring the volunteer job satisfaction. There were five tools, with each one of these tools or dimensions relating to the factors that keep volunteers in organisation (Galindo-Kuhn & Guzley, 2002). They based these dimensions on the correlation between volunteers' satisfaction and the retention or intention to remain with the volunteer organisation which was corroborated by many researchers (Spector, 1997; Porter & Steers, 1973; Miller et al. 1990; Boulton, 2006; Horn et al. 1979; Mesch et al. 1998). The five dimension of volunteer job satisfaction developed by (Galindo-Kuhn & Guzley, 2002) are: Communication quality, work assignment, participation efficacy, support, and group integration. The description of these dimensions is given in Table 2.5 below.

No.	Dimensions	Definitions
1.	Empowerment	
1a.	Communication quality	The basic nature or kind of communication That a volunteer receives from the organisation for which they volunteer. The example of this communication (person oriented -Adequate information flow-information clarity-recognition-feedback)
1b.	Work assignment	The role assigned to a volunteer. The examples are: A task in which self-expression is possible. A task which gives the volunteer the opportunity to develop abilities and skills. A task which is seen as a challenge.
2.	Participation efficacy	It is Related directly to the expressive orientation of volunteerism. The volunteers will not be satisfied if they feel they are unimportant in the volunteering organisation.
3.	Support	It should contain the educational support and emotional support. Volunteers who participated in training were more satisfied when compared to those who did not participate. Emotional support means the involvement of the relational environment that exists between organisational members and Volunteers.
4.	Group integration	It refers to the social aspect of the relationships that volunteers develop with other volunteers. For example, weak and poor “volunteer group relationships” was found to be the leading cause of for volunteers to stop volunteering.

**Table 2.5 The five dimension of volunteer job satisfaction developed by (Galindo-Kuhn and Guzley, 2002)**

However it is seen that the model developed Galindo-Kuhn and Guzley (2002) appear to have serious limitations with regard to the single element used in the instrument for measuring volunteer intent to stay reducing the statistical significance of the relationship developed by them (Galindo-Kuhn & Guzley, 2002). Furthermore, VSI suffers from low predictive validity which needs to be improved by using other variables such as organisational commitment and identification (Galindo-Kuhn & Guzley, 2002). These limitations need to be taken into consideration by future researchers. Additionally the research outcomes of Nelson’s et al. (2004) research is based on volunteers' motives and their linkage with satisfaction in the volunteer role and the link to performance outcomes leading to the conclusion that the research outcome could be used more to address motivational aspects rather than volunteer retention aspects (Nelson et al. 2004).

With regard to management practice and its relationship with volunteer satisfaction, literature shows that management practice and its sub-correlates have direct significance

to volunteer satisfaction. For instance Galindo-Kuhn and Guzley (2002) developed Volunteer Satisfaction Index (VSI) which showed a relationship between volunteer satisfaction and some of the sub-correlates of management practice for instance recognition, recruitment, planning, training and support and performance management. Furthermore members who are part of the Volunteers' management can perceive the outcome of volunteer's satisfaction when they observe the indicators of volunteers' satisfaction. Penner and Finkelstein, (1998) claim that volunteers can be said to have achieved satisfactory level of their need and if they have worked towards additional motivators namely achievement, recognition, possibility of growth, and advancement and personal growth (Penner & Finkelstein, 1998). The foregoing discussion brings out the following conclusions:

- Volunteer satisfaction directly correlates with volunteer period of stay with an organisation.
- Volunteer satisfaction can be broken down into sub-correlates.
- Volunteer satisfaction measurement instruments have been developed by researchers that are reliable and valid and used in further research for measuring volunteer satisfaction.
- There is linkage between volunteer management practice and volunteer satisfaction.

Thus while there are positive aspects to the models that have been described here, researchers should be conscious of the serious limitations found in these models while developing the research ideas. It must also be mentioned that only a few models have been discussed here because of the wide acceptance of these models by researchers as well as to provide the most appropriate representation of the available research publication in the area of volunteer satisfaction.

It is important to note that while there have been studies that have established correlation between management practice and volunteer satisfaction, and volunteer satisfaction and volunteer retention (Galindo-Kuhn & Guzley, 2002), there is no integrated model that

links volunteer management practice to volunteer retention through volunteer satisfaction. This finding provides the way to develop a relationship between management practice and voluntary satisfaction, and volunteer satisfaction and volunteer retention to demonstrate the linkage between volunteer management as the independent variable and volunteer retention as the dependent variable through volunteer satisfaction as another mediating variable alongside motivation.

This is expected to fill the gap found in the literature that shows that there is no established relationship that could be applied by both volunteering organisations and volunteers to tackle the problem of volunteer retention and volunteer intention to stay using best management practice. The need for including volunteer satisfaction arises from the fact that volunteer motivation is significantly related to volunteer satisfaction and volunteer satisfaction is derived from motivation in a way that it happens automatically (Finkelstein, 2008; Salas, 2008; Unstead-Joss, 2008). Thus while linking management practice with volunteer retention, it is necessary to use mediating factors motivation and satisfaction and investigate the output of such a relationship.

Furthermore as explained in the case of motivation as a correlate, satisfaction has been broken down into a number of sub-correlates. While researchers have indicated the need to use sub-correlates with regard to volunteer satisfaction, it is found that establishing a linkage between management practice and volunteer retention needs only one variable. Breaking down volunteer satisfaction into sub-correlates may lead to a complication in data collection and analysis. To avoid complexity in establishing the integrated linkage amongst the four important variables identified in this research namely volunteer management practice, volunteer retention, volunteer motivation and volunteer satisfaction, it is advisable to begin with a simpler method of linking them and develop the existing level of knowledge further rather than reaching a point of no return. Thus it is suggested that volunteer satisfaction as a simple variable could be used in this research and measure it using instruments that have been already developed and validated by other researchers involved in volunteer research.

## **2.8 Volunteer retention**

Literature on volunteer recruitment and retention shows that challenges continue to grow (Mesch et al. 1998). Retention of volunteers in volunteering organisations is identified as a significant problem by researchers. Although retention of volunteers has been highlighted as a major problem faced by volunteering organisations, this issue has attracted some attention of the researchers only recently (Hoye et al. 2008, Hager & Brudney, 2004; Cuskelly, 2004). Research publications show that volunteer organisations suffer due to high dropout of volunteers and their turnover (Skoglund, 2006). There seems to be a number of factors that contribute to the problem of volunteer retention which include volunteer motivation, meaningful work, satisfaction (Perry & Lee, 1988), management practices (planning, recruitment, screening, orientation, training and support, performance management, and recognition) (Cuskelly et al. 2006), globalization, increase in knowledge work, accelerating rate of technological advancement (Holtom et al. 2008), supervision, job training and pay practice (Mudor & Tooksoon, 2011). However research outcomes are not consistent in identifying which of the factors is having more significant influence on retention than the other or which of the factors do not have any influence on retention (Hager & Brudney, 2004; Cuskelly, 2004). For instance Hager & Brudney, 2004 claim that regular supervision and communication with volunteers was argued to be related to lower level of retention while the findings of Cuskelly et al. (2006) showed that except for planning and orientation other factors of management practice namely recruitment, screening, training and support, performance management and recognition did not have any statistically significant relationship with retention.

Furthermore, according to Hoye et al. (2008) there is only a limited number of published research that have attempted to address this vexed issue. A cursory look at the published research in this area brought out three papers each one addressing the problem of retention of volunteers in different contexts. Hoye et al. (2008) published a research paper Volunteer motives and retention in community sport within community rugby union clubs in Australia (Hoye et al. 2008). Miller (2008) has published a paper Effectively Recruiting and Retaining Volunteers in Rural Emergency Services Through



Better Management with regard to volunteers in the emergency services of rural central Pennsylvania (Miller, 2008). Skoglund (2006) has published a paper Do Not Forget about Your Volunteers: A Qualitative Analysis of Factors Influencing Volunteer Turnover that studies the decline in volunteer participation at Caring Hearts, a volunteer-based bereavement program administered at a military hospital in Texas (Skoglund, 2006).

These examples clearly indicate that volunteer retention has attracted the attention of many researchers since the recent past though the outcomes of the few published research efforts are not conclusive. There is a growing body of literature that is showing the need to address the volunteer retention problem through research and develop a method for the volunteer organisations and volunteers to apply. One such research direction that is promising to provide a solution is to identify correlates of management practice that could be utilized to develop a relationship with the problem of volunteer retention (Cuskelly et al. 2006). While there are some research publications that have attempted to establish a relationship between management practice and volunteer retention, such research outcomes are not conclusive and have not been able to demonstrate the application of models to different contexts for instance the research outcomes of Cuskelly et al. (2006) research in the field of sports or a context-free environment. Thus it is necessary to explore the possibility of identifying variables of management practice that could be effectively controlled to vary the volunteer retention problems. Taking into consideration that many of the sub-correlates of management practice are not found to have statistically significant correlation with volunteer retention (Cuskelly et al. 2006), it is necessary to explore an alternative path to relate correlates of management practice and volunteer retention. It is important to note here that hardly any research has been conducted that has taken into account management practice as a single variable that affects retention nor has there been an effort to derive management practice correlates through an application of established research outcomes or statistical tests such as factorization. Such efforts could probably combine closely related management practice factors, for instance screening and training and support into a single construct, or bring out new constructs that may be lying hidden underneath some of the constructs of management practice.

In addition it is essential to bring into focus the two most widely addressed components in volunteer research namely volunteer motivation and satisfaction in relating the correlates of management practice to volunteer retention. The rationale behind this argument is that researchers broadly concur that volunteer satisfaction is a major element that could be used to address volunteer retention problems but no conclusive published research is available in this regard (Cuskelly et al. 2006; Hoye et al. 2008). A similar argument could be extended to volunteer motivation (Cuskelly et al. 2006; Hoye et al. 2008). This also leads to a criticism of the research conducted by Cuskelly et al. (2006) and Hoye et al. (2008) for not having included two of the most important variables that affect volunteer retention namely volunteer motivation and satisfaction together in their models. It is therefore logical to suggest examination of an empirical relationship amongst the variables volunteer management practice, motivation, satisfaction and volunteer retention thereby enable the development of a model of linking them. Thus the problem of volunteer retention as a dependent variable assumes significance.

## **2.9 The research gap**

Literature shows that volunteering organisations face a number of challenges including volunteer management practice (Table 2.3). Volunteer management practice is still an emerging topic in volunteer literature (Cuskelly et al. 2006). Hager (2004) points out that there is a need to address this challenge. Some researchers have attempted to address this challenge by identifying various factors that could influence volunteer management practice (Table 2.4). However these efforts address the factors one at a time only or by linking those factors to specific contexts. In some cases hardly any empirical study has been conducted with many authors just providing theoretical arguments and in some other cases research outcomes are not generalizable or conclusive. For instance Barnes and Sharpe (2009) addressed only volunteer engagement and involvement. Similarly Cuskelly et al. (2006) addressed seven correlates of volunteer management but specifically in the context of sports and the outcome of their research was inconclusive and not generalizable. Again Cuskelly et al. (2006) argue that in the context of community sports organisations hardly any empirical study has been conducted in understanding volunteer management practice aspects. These arguments indicate that

there is a major gap in the literature that has not addressed the concept of management practice in a context free environment or multiple contexts taking into account multiple correlates of volunteer management practice in a single research. This review shows that this aspects needs to be addressed.

Furthermore, an important shortcoming in the extant literature is the lack of application of social exchange theory and Human Resource Management (HRM) theories to volunteer management in many spheres of volunteering. For instance Pauline (2011) recommended the application of social exchange theory to better explain volunteerism and Cuskelly et al. (2006) argued that hardly any empirical research has been conducted applying the concepts of HRM in the context of sports, particularly community sports.

While social exchange theory has been applied to understand the reciprocal exchange that takes place between volunteers and volunteer organisation, literature shows that more investigations are needed to know how management practice of volunteer organisations could be improved to enhance volunteer recruitment and retention using social exchange theory (Pauline, 2011). Similarly although human resource management concepts have been found to be central to such aspects as how to recruit, develop and motivate key persons in organisations (Becker & Gerhart, 1996; Guest, 1997; Pfeffer, 1995), literature shows that it is not known how these HRM concepts or practices manifest in particular contexts or how they impact volunteer retention in general (Cuskelly et al. 2006). But literature also shows that there are criticisms of HRM concepts as researchers claim that there is a high degree of uncertainty with regard to applying HRM concepts to management practices. This implies that there is a need for further investigation on the application of HRM practices to volunteer retention research. Thus there is a gap in the volunteering literature that requires further investigation into the application of HRM concepts particularly with regard to context free volunteer management practices.

In addition, literature shows that volunteer retention as a primary organisational focus has hardly been addressed in volunteer research (Table 2.2). Volunteer retention is a major bane faced by volunteer organisations and researchers do not appear to have paid any

attention to this problem (Cuskelly et al. 2006). In addition applying the concepts of HRM practices for volunteer management to retain volunteers is another area where researchers have not focused although extant literature highlights that HRM practices could be useful in understanding human resource practices (Beatty et al. 2003). These are significant gaps that exist in volunteer literature which need to be addressed for a better understanding of how volunteers could be retained for longer periods using the concepts of HRM practices in volunteer management. This literature addresses this gap that exists in literature regarding the relationship between volunteer management practices and volunteer retention applying HRM concepts.

Finally, use of mediating variables in the relationship between volunteer management practice or its correlates and volunteer retention is not found to be a method that has been used by other researchers. For instance the research efforts of Hoye et al. (2008) directly linked volunteer retention to such factors as altruistic value, personal development, community concern and social adjustment and have not addressed the possible effects of mediators in the relationship. Thus there is a clear limitation in the usefulness of the current research outcomes as there is no knowledge on how mediators could impact the relationship between volunteer management practice and volunteer retention. This is a major gap in the literature and is vital to address this gap. This research addresses this gap.

The foregoing discussion on the volunteer management literature has brought out many significant aspects that could be effectively used by the researcher in this research. The main problem outlined in Chapter 1 requires the development of a relationship between volunteer management practice and volunteer retention using volunteer motivation and satisfaction. The foregoing discussions provide a strong foundation to develop a possible solution to the main problem of this research. This foundation led the researcher to identify a method to achieve the aim and objectives of this research. Though the researcher could be criticized to have limited the scope of discussing the various sections to specific concepts and aspects, it must be borne in mind that the subject of volunteer retention is a very vast one and in the absence of established and conclusive evidence in

this area it is necessary to tread on the subject carefully and in steps. Thus the number of variables that have been reviewed in this chapter with regard to establishing a relationship between volunteer management practice and retention has been limited to eight though literature shows that other variables could be identified and utilized. The rationale behind limiting the variables has been explained in the respective sections. Using the critical review of the literature provided above the researcher has defined the theoretical framework (Chapter 3) as a next step. Thus it is expected that this research, although using limited but widely accepted variables in the literature, could provide a solution to the research problem.

## **2.10 Summary**

The foregoing literature review on the subject of volunteer management practice and retention problems, has attempted to provide a complete view of the literature in a manner that will provide a good knowledge about the basics of volunteering, volunteer management practice, contemporary research activities taking place elsewhere, models developed by researchers, gaps existing in the literature as well as possible solutions that could be developed for implementation by volunteers and volunteering organisations. The review led the researcher to gain sufficient knowledge in finding a solution to the research problem, answering the research questions and achieving the aim and objectives. While the literature review clearly shows that research publications are hard to find in the area of volunteer retention and its relationship to volunteer management practice, the review also shows possible ways of developing a model to address the issue. Highlighting the importance of addressing the serious problems of volunteer retention through an adaptation of best management practice, the review has touched upon a number of aspects that can contribute to the development of the solution and critically reviews the current knowledge in this area of research. Thus this literature review provided a sound basis for identifying a possible solution to the problem of volunteer retention and help volunteer and volunteering organisation to overcome the problem through the implementation of the solution developed in this research. As the next step in this direction the next chapter provides the theoretical framework developed for the research using the foregoing literature review.

## **Chapter 3**

### **Theoretical framework**

#### **3 Introduction**

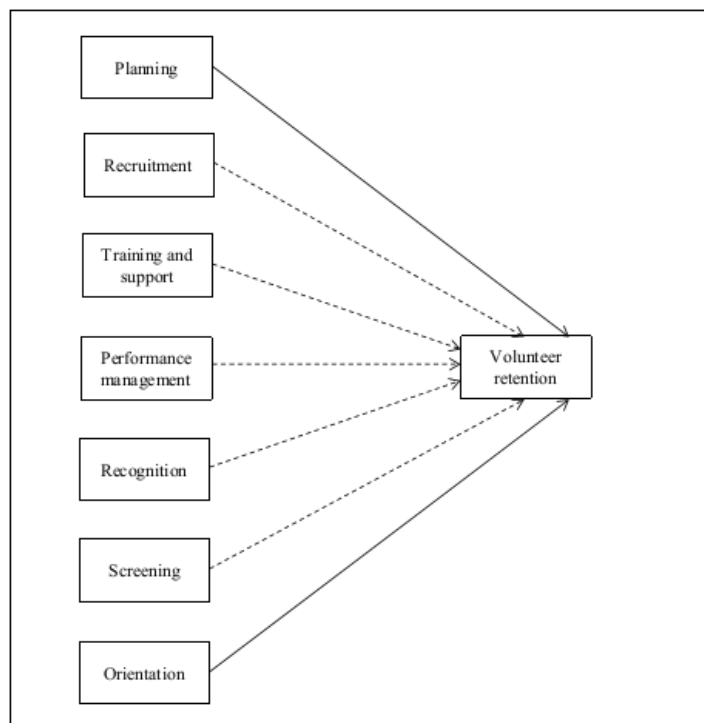
The main problem of this research was to develop a linkage between effective volunteer management practice and volunteer retention. In order to address this issue it was necessary to critically look at the various models and methods available in the literature to gain knowledge on the most appropriate way to solve the problem. The theoretical framework is expected to provide a comprehensive idea on the limits to be fixed by the researcher while taking the help of the different theories, models and methods. This chapter provides a comprehensive view of the theories, concepts and models that were used by the researcher to develop a research relationship model for addressing the research questions, through a critical analysis.

#### **3.1 Base model used to relate volunteer management practice and volunteer retention**

From the literature review it was seen that a number of researchers have attempted to develop models and relationships to address the problem of volunteer retention using volunteer management practice (Cuskelly et al. 2006; Hager & Brudney, 2004). Though many correlates have been developed to address this issue, hardly any theory has been propounded that could be used as a basis for furthering research in this area (Hoye et al. 2008). Thus there is no specific theory that could be applied to either volunteer management practice or volunteer retention. However the research efforts of Cuskelly et al. (2006) and the model developed by them linking volunteer management practice correlates and volunteer retention provide a basis for taking the investigation into the relationship between volunteer management practice correlates and volunteer retention further. Although the model developed by Cuskelly et al. (2006) can be criticized for such aspects as that it is applicable to the field of sports only; five out of the seven correlates of management practice have not been found to have statistically significant

relationship with volunteer retention that has statistical significance; and that the correlates are limited to seven only, their effort is perhaps one of the earliest.

On the other hand the model has many positive aspects that include the use of the widely accepted Human Resource Management (HRM) concepts (Sozanska et al. 2004), and correlates that have significant correlation amongst themselves. This provided the basis to consider the correlates as factors of management practice and the significance of planning and orientation as important independent variables linked to volunteer retention problems and the validity and reliability of the instrument that could be used for other research purposes. Furthermore the research outcomes published by Cuskelly et al. (2006) are widely referred and many authors have cited the research outcomes published by Cuskelly et al. (2006). A search through Google showed that 12 authors have used the outcomes published by Cuskelly et al. (2006). The model of Cuskelly et al. (2006) provide a strong basis to conduct further investigations into the relationship between volunteer management practice correlates and volunteer retention. Thus the basic model that was adopted for this research was the model developed by Cuskelly et al. (2006) (Figure 3.1).



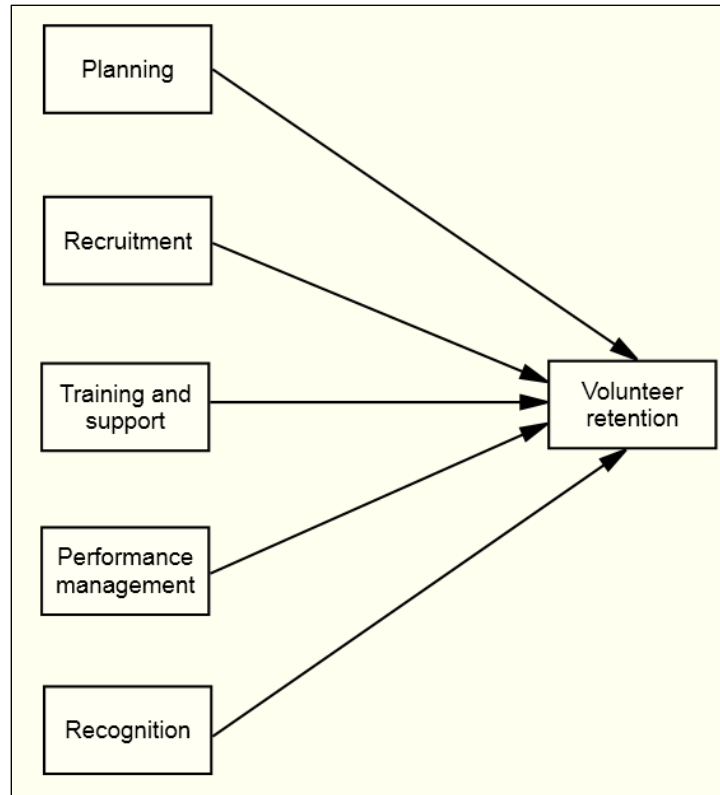
**Figure 3.1**Base model tested by Cuskelly et al. (2006). Solid line indicates the only significant path

Solid lines indicate statistically significant relationship while broken lines indicate lack of statistical significance in the relationship. At this point it is possible to make certain inferences from the findings of Cuskelly et al. (2006). At the outset it is necessary to test the model developed by Cuskelly et al. (2006) (see Figure 3.1) again in order to verify whether the findings derived by Cuskelly et al. (2006) can be repeated in a context-free study and see if any new insight could be gained with a new dataset collected from a context-free environment. While the outcome of the tests conducted by Cuskelly et al. (2006) on the model developed by them clearly point out that planning and orientation are the main constructs that have significant relationship with volunteer retention, any such outcome if derived in this research could provide a basis to explore ways to enhance the model developed by Cuskelly et al. (2006) taking into account what literature says.

However in case the outcomes are not the same then the researcher could bring out the differences in the two findings and a new expanded model could be developed using those outcomes. In either case an important point that needs to be understood is that while the model developed by Cuskelly et al. (2006) directly links management practice constructs to volunteer retention, such a linkage could be criticized for not taking into account highly relevant variables that have been argued to affect volunteer retention and management practice. For instance most researchers (see Sections 2.6 and 2.7) have argued that variables such as volunteer motivation and job satisfaction are very important variables that cannot normally be delinked from any research related to volunteer retention. Thus there is a necessity to test the original model developed by Cuskelly et al. (2006) (see Figure 3.2) and find how it can be enhanced to include important variables identified as essential and affecting the relationship between volunteer management practice and volunteer retention. This research aims to do this. Included in this effort is the testing separately of the statistical significance of the relationship between volunteer satisfaction and motivation on the one hand and the management practice concepts on the other. This would inform volunteers and volunteering organisations whether there is a one-to-one relationship between the management practice constructs on the one hand and the satisfaction and motivation constructs on the other. It must be noted here that in Figure 3.2 there are only five factors of management practice namely planning,



recruitment, training and support, performance management and recognition. Screening and orientation have been considered to represent training and support, an argument that can be supported using the findings of other research outcomes published (see Section 2.5).



**Figure 3.2 Cuskelly’s model for testing**

Further to the arguments that indicate the necessity to test the original model developed by Cuskelly et al. (2006) in this research, another important step has been proposed. That is, the model developed by Cuskelly et al. (2006) can be criticized to suffer from an important limitation of not relating volunteer motivation and satisfaction to volunteer retention and management practice, an argument that finds strong support in the literature (see Section 2.8). That is to say that the model developed by Cuskelly et al. (2006) can be modified using appropriate theoretical support (see Section 2.8) to include two basic constructs namely volunteer motivation and satisfaction, identified as vital to the understanding of the dynamics that work between volunteer management practice and volunteer retention. How this can be done is provided in the following sections. At this

stage it emerges that there could be two models, one is the original model developed by Cuskelly et al. (2006) and the other developed for this research by enhancing the model developed by Cuskelly et al. (2006) through the inclusion of volunteer satisfaction and motivation as constructs affecting the relationship between management practice and volunteer retention. The following sections deal with second model development which includes volunteer satisfaction and motivation as constructs in the original model developed by Cuskelly et al. (2006).

### **3.2 Modifications that need to be incorporated in the base model**

While the model developed by Cuskelly et al. (2006) shows that volunteer management practice correlates can be directly linked to volunteer motivation, there are arguments suggested by other researchers that volunteer management correlates are also predicting other factors such as volunteer motivation and volunteer satisfaction (see Section 2.5). Thus while it is possible to argue that there is a necessity to bring in those factors as volunteer motivation and satisfaction when dealing with volunteer management practice correlates, it is important to know how those factors could be brought into picture in the model developed by Cuskelly et al. (2006). Furthermore, while volunteer motivation and volunteer satisfaction have been identified as important factors predicted by volunteer management practice correlates, it is also necessary know whether these two factors can be related to volunteer retention. Although literature review (see Section 2.8) shows that volunteer retention could be determined by volunteer motivation and volunteer satisfaction, developing a model in which volunteer retention is determined by volunteer motivation and volunteer satisfaction needs to be justified if volunteer motivation and satisfaction are to be integrated into the model developed by Cuskelly et al. (2006)

The following sections thus deal with the aforementioned problem by bringing in theories or models that support modifications to the model developed by Cuskelly et al. (2006). As a first step two fundamental assumptions have been made. One is that management correlates identified by Cuskelly et al. (2006) have been assumed to represent only one variable called volunteer management practice. The second is that volunteer motivation and satisfaction can affect the relationship between volunteer management practice and

volunteer retention as mediators. Theoretical support for these assumptions has been provided in the following sections.

### **3.3 Relationship between volunteer management practice, volunteer motivation and volunteer satisfaction**

Volunteer management practice has been identified by many researchers in terms of correlates (see Table 2.4). A number of theories have been applied in the literature to explain how management practice affects volunteer retention which include systems theory, conflict theory, empowerment theory, functionalist theory, social learning theory, life span theory, social exchange theory and human resource management theory (Pauline, 2011; Cuskelly et al. 2006). Of particular interest is the social exchange theory and human resource management theory suggested by both Pauline (2011) and Cuskelly et al. (2006). Social exchange explains that behavior is determined by reciprocal relations (Pauline, 2011). The theory further states that if reciprocal relations need to be sustained then such a relationship needs to be balanced and the individual like a volunteer should experience more rewards than costs (Zafirovski, 2005). It further states that individuals make a choice to maximize rewards and minimize costs. Rewards could be in various forms including money, attention, satisfaction and affection which are viewed as valuable and highly satisfying. Costs could be those which bring emotional disadvantages or missed opportunities to gain rewards. Pauline (2011) argues that volunteering aligns with social exchange theory. Scherr (2008) says that volunteering provides persons with opportunities to show their beliefs learn new things, improve their self-confidence and efficacy through a relationship that involves exchange. Thus one of the theories on which this theoretical framework is rooted is the social exchange theory and relies on this theory to examine how such an exchange could be applied to volunteer retention, volunteer satisfaction and volunteer motivation bearing in mind the premise that management practice could ensure such an exchange. When considering the limited research conducted in understanding why organisations could not retain volunteers for long and whether the experiences of volunteers in terms of their satisfaction and motivation are related to their retention, it emerged that there is a lack of adequate theoretical applications that could enable an understanding of this problem (Pauline, 2011). It is

useful to apply social exchange theory to investigate these aspects, particularly in a context-free environment.

However it must be recognized here that exchange theory does not address volunteers in different organisations as different and their experience could be different, a claim substantiated by Holland (1985). The theory advanced by Holland (1985) needs consideration which says that it is possible to represent persons and the environment by characteristic types. The theory also posits that greater the type consistency that could be found between a person and his or her environments, the more satisfied is the person (Holland, 1985). However the theory advanced by Holland (1985) itself can be questioned based on the findings of subsequent research for instance the research findings of Clary et al. 1992 (also see Finkelstein & McIntyre, 2005; Finkelstein, 2007, and Galindo-Kuhn & Guzley, 2001) which point out that volunteer satisfaction in a variety of contexts is multi-faceted and is linked to factors including organisational management factors. In fact this argument points out that social theory needs to be tested in a multi-context environment or context-free environment to know whether it can explain volunteer retention and its association with volunteer motivation, volunteer satisfaction and volunteer management. Based on the discussion above, this research thus aims to apply social exchange theory in a context-free environment.

On other side, this research also looks at the observation of Cuskelly et al. (2006) who argue that there is a lack of research effort that clarify about the factors that really affect volunteer retention. This argument adequately nullifies many claims that argue for instance that satisfaction determines retention or motivation determines retention or commitment determines retention (Pauline, 2011). However Cuskelly et al. (2006) assert that if one applies the HRM theory, then there is a possibility to argue that management practice as a major concept could be used to understand volunteer retention. HRM model explains that employees of an organisation are its business resource and must be managed in a way that is consistent with the organisational requirements (Tichy et al. 1982). Further Sparrow and Hiltrop (1994) argued that with respect to employees proper selection, performance measurement, appraisals, feedback mechanisms, rewards for good

performance and the encouragement to develop the skills and knowledge necessary to achieve the business goals of the organisation are critical to HRM. In similar vein applying HRM principles Beer et al. (1984) claim that HR policies affects the competence and commitment of employees as well as the extent of congruence between the employees and objectives of the organisation. In addition, HR policies are argued to affect the effectiveness of the HRM practices (Beer et al. 1984) implying management practices. Besides, Jackson and Schuler (1995) assert that HRM is aimed at attracting, developing, motivating and retaining employees for the effective operation of the organisation.

Despite the fact that the above examples of theoretical propositions show the usefulness of HRM in understanding the management of volunteers, still as a single theory HRM is criticized as being flawed and cannot be universally applied as major discrepancies are found in operationalizing and measuring HRM practices (Barnard & Rodgers, 2000). Here is a situation wherein Cuskelly et al. (2006) are arguing that HRM as a theory could be applied to understand factors of management practice related to volunteering organisations that affect volunteer retention, there are counter claims that show it is difficult to universally apply HRM concepts (e.g. Barnard & Rodgers, 2000). In addition management practices are found to be inadequate in sufficiently explaining the exchange principles characterizing volunteering such as rewards lead to volunteer motivation. This has resulted in some calling for refocusing research on understanding how management practice influence the involvement of volunteers and their motives (Cuskelly et al. 2006). Thus based on the foregoing discussions it can be inferred that there is a need to understand how HRM theory could be used to understand management practice and its influence on volunteer retention and its linkage to those volunteering factors satisfaction and motivation that are the focus of any exchange that takes place in volunteering.

Moreover, since this research is based on the management practice correlates identified by Cuskelly et al. (2006), it adopts the seven correlates identified by them (see Figure 3.1). After testing their model Cuskelly et al. (2006) in their paper identified only six of

them namely planning, recruitment, training and support, orientation, performance management and recognition as significant predictors of volunteer retention while screening has been rejected by them. In this research even these volunteer management practice correlates accepted by Cuskelly et al. (2006) were brought together as representing volunteer management practice as a single variable meaning that one single variable management practice replaced all the six correlates. Combining the correlates under one variable provides an opportunity to determine the relationship between volunteer management practice and volunteer retention in a parsimonious way. Further while conducting statistical analysis a single variable could be subjected to factor analysis to uncover any hidden correlate of management practice. Thus combining all the correlates under one variable can be justified.

In addition, measuring management practice as a variable in the model that is being developed in this research requires instruments that have been either already suggested by researchers or entails development of a new one. In the present research the researcher proposes to use the instrument developed by Cuskelly et al. (2006) by integrating the scales developed by Cuskelly et al. (2006) for the five correlates planning, recruitment, training and support, performance management and recognition leading to the formulation of a single scale to measure volunteer management practice. However it must be mentioned that such integration needs to be subjected to statistical tests such as exploratory factor analysis to ensure that no underlying factors are left unaddressed. Such a factorization is expected to yield volunteer management practice factors that could be the ones identified by Cuskelly et al. (2006) or new ones. If no factors emerge then the model will be tested with only one determinant which is volunteer management practice whereas if more factors emerge then the model will be re-specified.

Furthermore, amongst the multiple factors described in the literature review in Chapter 2, from Sections 2.6 and 2.7 it can be seen that volunteer motivation and volunteer satisfaction have been highlighted by researchers as important factors that must be addressed by management practice. The reason for this choice is the widespread acceptance amongst researchers that volunteer motivation and volunteer satisfaction

depend on the volunteer managers and their management practice (see Section 2.5). Moreover, motivation and satisfaction are two well addressed topics in organisational behavior theory (see Sections 2.6 and 2.7). It is also practical to expect that a concept such as volunteering which entails people to voluntarily participate on a cause they believe they would like to support, without anticipating any return, motivation and satisfaction can be vital aspects that must be addressed by volunteer managers. Thus these two factors were chosen as variables for this research that are determined by volunteer management practice. In addition, from the literature it can be seen that volunteer motivation measuring instruments such as Volunteer Motivation Inventory (VMI) and Volunteer Functional Inventory (VFI) have been developed and well tested by researchers (see Section 2.6) implying that integrating volunteer motivation as a factor in a model enables the researcher to adapt already tested instruments in this research. In similar vein it can be argued that well developed and tested satisfaction measuring instruments have been found in volunteering literature which enabled the researcher to adapt existing instruments to measure volunteer satisfaction. An example of volunteer satisfaction measuring instrument is the Volunteer Satisfaction Index (VSI). Justification for the choice of VFI and VSI follow.

Motivation has been found to be a major correlate in volunteer research (Esmond & Dunlop, 2004; Bruyere & Rappe, 2007). This research is proposing to use motivation as a mediating correlate between volunteer management practice and volunteer retention. In this regard, the volunteer literature shows that a number of theories and models have been developed (see Section 2.6) which includes VMI and VFI. However, Volunteer Motivation Inventory is observed to have more attributes that are possible to be related to management practice when compared to other theories or models (Esmond & Dunlop, 2004). For instance the nearest model to Volunteer Motivation Inventory is the Volunteer Functional Inventory although VFI has correlates that do not match with VMI and has less relevance to management practice (Clary et al. 1998). Furthermore other theories and models of motivation have not been considered here as VMI and VFI are seen to have covered a broad segment of many of these theories and models and hence using them as basis for research should have wider acceptance and lead to more reliable results.

While it is possible to argue that VMI is better than VFI and could be chosen as the basis for developing motivation as the construct for this research, literature search through Google shows that the number of citations of VFI is around 527 whereas that of VMI is around 12. Despite the criticism that VFI is less comprehensive than VMI, it can be seen that VFI is parsimonious, well-tested for reliability and validity and is a commonly used instrument in volunteer research (Clary et al. 1994). Thus considering the utility of VFI in comparison to VMI in this research VFI was chosen as the instrument and volunteer motivation factor. Another important factor that was considered was the linkage between volunteer motivation and retention. From Section 2.6 it can be seen that literature review provides adequate support to relate volunteer motivation to volunteer retention. This argument indicates that the choice of volunteer motivation as a mediating variable is justified.

Additionally, like the arguments provided in the case of volunteer motivation above, the researcher proposes to use volunteer satisfaction as another mediating variable in the relationship between volunteer management practice and volunteer retention. Furthermore, in light of the arguments above with regard to using volunteer satisfaction as a construct the researcher proposed to apply the research outcomes of the research conducted by Galindo-Kuhn and Guzley (2002) who developed the Volunteer Satisfaction Index (VSI). A significant aspect of VSI is that it can address both volunteer retention problems as well management practice correlates which is evident from Table 2.5. Though VSI can be criticized to be having limitations which have been outlined under Section 2.7 on volunteer satisfaction, it is important to underline that VSI is one of the well accepted models in volunteer satisfaction research that uses an instrument which has been validated and is adaptable to other research contexts. Thus VSI was chosen as the basis to develop the construct volunteer satisfaction in this research. From the foregoing arguments the following hypotheses can be formulated:

H1: Volunteer management practice has a positive influence on volunteer motivation

H2: Volunteer management practice has a positive influence on volunteer satisfaction



### **3.4 Relationship between volunteer motivation and volunteer satisfaction**

While the foregoing arguments have brought out that volunteer motivation and volunteer satisfaction have been proposed to be integrated as part of the model being developed for this research, another important aspect that needs to be considered is the relationship between volunteer motivation and volunteer satisfaction. Literature shows that concepts of volunteer motivation and satisfaction are inter-related an argument supported by the social exchange theory (Pauline, 2011). This research uses social exchange theory to argue that volunteers are satisfied because of their experiences in volunteering and if the volunteers have to have such experiences then they need to be continuously motivated (Pauline, 2011). Additionally, from Sections 2.6 and 2.7 it can be seen that researchers argue that motivation directly affects satisfaction (Millette & Gagné, 2008; Salas, 2008). Furthermore, Finkelstein (2008) (also see Clary et al. 1998; Stukas et al. 2009) argue that volunteer satisfaction depends on volunteer motivation. Thus there is a need to link volunteer motivation to volunteer satisfaction. Moreover considering the argument that satisfaction is a multifaceted concept that is applicable to varying contexts (Galindo-Kuhn & Guzley, 2001), it is possible to posit that satisfaction of volunteers across contexts could be considered to be somewhat uniform an argument supported in the literature (e.g. the satisfaction measurement scale Volunteer Satisfaction Index (VSI) developed by Galindo-Kuhn and Guzley (2001) which is widely used in multiple volunteering contexts). This argument provides support to the context-free research being conducted in this study.

Besides, it is possible to argue that volunteer motivation it is an essential determinant of volunteer satisfaction, for instance if volunteers need to participate in such volunteering acts as helping patients requiring attention of medical care, then they need to motivated to undertake the act. Unless volunteers are motivated they are unlikely to embark on volunteering especially in such fields as medical field where certain diseases can threaten individuals. If only volunteers embark on their act they will know whether they derive satisfaction or not. Thus it is possible to argue that volunteer motivation precedes volunteer satisfaction and volunteer motivation could determine volunteer satisfaction.

This argument finds support from already published research (e.g. Stukas et al. 2009). Thus the hypothesis that is formulated is as follows:

H3: Volunteer motivation positively influences volunteer satisfaction

### **3.5 Relationship between volunteer motivation, volunteer satisfaction and volunteer retention**

As has been explained in Section 2.8 volunteer motivation and volunteer satisfaction need to be related to volunteer retention if they are to be integrated into the research relationship model. Two issues arise. Firstly the theoretical support for the relationship between volunteer motivation, volunteer satisfaction and volunteer retention must be provided. Secondly volunteer retention and its measurement need to be understood.

As far as the linkage between volunteer motivation, volunteer satisfaction and volunteer retention is concerned the researcher has relied on the research outcomes of Hoye et al, (2008). An advantage of the research outcomes of Hoye et al, (2008) is the support it offers to the relationship between volunteer motivational aspects and retention, a major relationship being addressed in this research. Although satisfaction is not the focus of the research efforts of Hoye et al, (2008), it is possible to extend the research model of Hoye et al, (2008) to volunteer satisfaction taking into account the support offered by literature to the linkage between volunteer motivation and volunteer satisfaction (see Sections 2.6 and 2.7), which is another aspect being addressed in this research. That is to say that volunteer motivation is linked to volunteer satisfaction.

Further, support for linking volunteer satisfaction to volunteer retention can be drawn from the research outcomes produced by Galindo-Kuhn and Guzley (2002) (see Section 2.7). Thus it can be argued that based on the theoretical underpinnings cited above it is possible to justify the linkage between volunteer motivation, volunteer satisfaction and volunteer retention which is based on the results of the research outcomes of Hoye et al. (2008) and Galindo-Kuhn and Guzley (2002). In addition application of social exchange theory provides support to the argument that volunteers can be retained for longer

duration if they are continuously motivated and satisfied based on the experiences they gain during their stay (e.g. being rewarded for good performance) in a particular organisation (Pauline, 2011). Again as explained in the previous sections understanding the relationship amongst volunteer retention, satisfaction and motivation using social exchange theory alone may not be adequate as it does not address the management practices pertaining to HRM. Hence there is need to apply management principles to determine how the relationship functions. Besides, the question of applying the theory to volunteers working in various contexts (or context-free environment) is another aspect that needs study as same theories pertaining to both motivation and satisfaction are applied in different contexts (e.g. the application of VMI and VSI to multiple contexts).

Moreover, as has been mentioned in the literature review, volunteer retention is an area that is not well addressed in literature (Hoye et al. 2008). Research publications that have addressed volunteer retention as a concept are far and few with the exception of the research publications produced by Cuskelly et al. (2006) and Hoye et al. (2008). While it is seen that the research work of Cuskelly et al. (2006) is not conclusive with regard to the model developed by them, the model also suffers from a very poorly designed instrument for measuring volunteer retention. However, the research conducted by Hoye et al. (2008) has attempted to develop the concept of volunteer retention in greater detail and offers a strong basis to further the research on volunteer retention. While the research outcome from the research of Hoye et al. (2008) could be criticized to be limited in use as it addresses only sports activities and motivational aspects, it is seen that the same research outcomes could be applied in other research especially the well developed and validated instrument for measuring volunteer retention which could be used in new models including the research model of this research. Thus the hypotheses that could be formulated are:

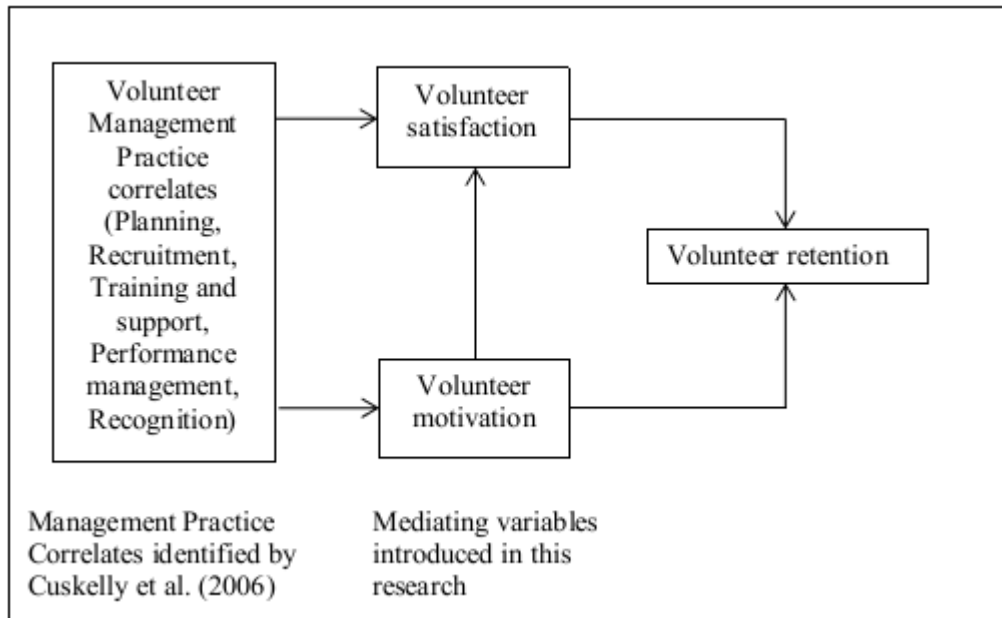
H4: Volunteer motivation positively influences volunteer retention

H5: Volunteer satisfaction positively influences volunteer retention

The foregoing discussions provide a strong basis to draw the research relationship model for this research. The model developed by Cuskelly et al. (2006) thus gets modified with the following relationship between volunteer management practice, volunteer motivation, volunteer satisfaction and volunteer retention.

- Volunteer management practice determines volunteer motivation and volunteer satisfaction in place of volunteer retention.
- Volunteer motivation and volunteer satisfaction determine volunteer retention in place of volunteer management practice.
- An additional aspect to this research is that volunteer motivation determines volunteer satisfaction.

Thus the new model that emerges is provided in Figure 3.3.



**Figure 3.3 The research relationship model**

Here again it is important to add a provision. As mentioned in Section 3.3 above, management practice is assumed to be a single construct. The scale used to measure this construct is an integration of the individual scales used to measure planning, recruitment, training and support, performance management and recognition developed by Cuskelly et

al. (2006). Cuskelly et al. (2006) identified the items for measuring the individual constructs based on the literature review but not through statistical methods such as EFA. While on the face of it the measuring items identified by Cuskelly et al. (2006) may appear to be good enough to measure the constructs planning, recruitment, training and support, performance management and recognition, those scales may need to be actually derived through statistical tests such as factorisation. In addition, if tests like factorization bring out new factors then there could be a need to understand what they are and how those factors could affect the model provided in Figure 3.3.

### **3.6 Summary**

This chapter discussed the theoretical framework developed for this research. The theoretical framework brought out the various theories and model that supported the development of the research relationship model that was used to answer the research questions developed for this research. The research relationship model provides a basis for investigating the influence of volunteer management practice on volunteer retention mediated by volunteer motivation and volunteer satisfaction. Hypotheses have been formulated to test the relationships established in the model. Thus this chapter provides the basis to develop the research methodology discussed in the next chapter.

## **Chapter 4**

### **Methodology**

#### **4 Introduction**

Researchers have used both quantitative and qualitative methods in volunteer research. For instance (Cuskelly et al. 2006) have used quantitative research in dealing with volunteer retention using management practice in the field of sports. Similarly Davis et al. (2003) have used quantitative research in their study on “Influences on the Satisfaction, Involvement, and Persistence of New Community Volunteers” (Davis et al. 2003). However Bussell and Forbes (2006) have used the qualitative research method in their study “Volunteer Management in Arts Organisations: A Case Study and Managerial Implications” (Bussell & Forbes, 2006). These examples show that researchers have adopted different types of research methods and there is no consensus amongst the researchers on a particular type of research method that could be adopted for volunteer research.

Furthermore, those examples also demonstrate that the type of research method adopted by a particular researcher or group of researchers is decided based on the research objective to be achieved. In addition, literature on research methodology shows that researchers must have a clear idea on the various types of research approaches and techniques before they would like to adopt a particular research method in order to achieve their research objectives (Silverman, 2005). Although quantitative and qualitative research methods are the two widely used methods in volunteer research, researchers need understand the philosophical approaches that lead them to create knowledge as literature shows that knowledge of philosophical approaches in research enables them to justify and explain knowledge they create (Williams, 2007). The starting point thus appears to be the philosophical stance a researcher adopts prior to adopting a particular research method. In line with this argument the researcher proceeds to critically discuss the research philosophies widely adopted by researchers in volunteer research that enabled the researcher to choose the most appropriate research method for this study.

#### **4.1 Research philosophy**

Research into phenomena like volunteer retention stimulates researchers to raise questions about various aspects related to the phenomena. Research philosophies provide the basis for raising such questions as well as the beliefs and ideas about the world and encourage in-depth thinking leading to further inquiry and exploration on the phenomena (Smith, 1998). According to (Proctor, 1998) the process of inquiry could lead to a methodology using which the researchers can discover what they believe can be known. Further, methodology literature shows that there are two extremes of research philosophies followed by researchers each opposing the other called positivist and post-positivist research (Proctor, 1998). In fact Proctor (1998) claims that before researchers select the research method, there is a need to explore the research philosophies in order to eliminate the possibility of a wrong choice of the research methods (Proctor, 1998). For instance before choosing either quantitative or qualitative research method it is necessary to know whether the research objectives orient the researcher to adopt a positivist or post-positivist stand, failing which the researcher could have difficulty in achieving the research objectives due to the choice of the wrong research method.

However recent research efforts appear to use an overlap of both positivist and post-positivist philosophies (Polit et al. 2001) leading to the conclusion that there is no consensus amongst researchers on the adoption of a particular type of research philosophy in research, more likely due to the lack of clear distinction amongst the two philosophies (Webb, 1989) and the inherent strengths and weaknesses. Additionally, literature shows that each one of these philosophies lead to specific research approaches and methods. For instance positivism is seen to lead to deductive research approach enabling the researcher to adopt quantitative research method while post-positivism (also called interpretivism and phenomenology (Wood & Welch, 2010)) is seen to lead to inductive research approach enabling the researcher to adopt qualitative research method (Ali & Birley, 1999). There is a need to understand more about the research the two types of research philosophies namely the positivist and interpretive. Thus a critical discussion on the two philosophies is expected to shed light on the way forward for this research, which follows.

#### **4.1.1 Positivism**

Collis and Hussey (2003) argue that positivism is a philosophy which believes that the way studies are conducted in the natural sciences is the same way human behavior must be studied. According to Smith (1998) positivism assumes things as hard facts and scientific laws could be established through the relationship that exists between these facts (Smith, 1998). Trochim (2006) claims that positivism is an approach that helps to describe phenomena human beings experience. Positivists believe in duality perspective that the researcher is distinctly separate from reality and this reality is objective and exists beyond the realm of human mind (Weber, 2004). Researchers claim that positivism is developed based on the notion that the world is governed by certain laws of cause and effect (May, 1997; Trochim, 2006). Freimuth (2009) argues that deductive reasoning can be used while applying positivism enabling the researcher to propose theories followed by testing using scientific methods. Thus it is seen that positivism approach enables the researcher to create a basis for objectively analyzing the research problem.

There are many research methods that are guided by positivist philosophy including observations, experiments and survey techniques and these research methods often involve statistical methods to analyze the available data, enabling the researcher to generate findings and test hypotheses. Though positivism has been shown here to be a very useful philosophy, there are limitations of using positivism in research. For instance literature shows that positivism could be a very simplistic process that does not go deep into the study of the phenomena resulting in a very superficial knowledge about behavior of entities. Further many researchers believe that positivists ignore valuable information with regard to behaviour, feelings, perceptions, and attitudes and reject them as irrelevant to understanding the phenomenon resulting in incomplete knowledge (Moccia, 1988; Playle, 1995; Bond, 1993).

However in the case of the study of volunteer retention problems faced by volunteer organisation, management practice is a phenomenon which is believed by researcher to be a component that could be objectively viewed and studied using existing theories (Cuskelly et al. 2006). While the research results conducted by previous researchers



shows that it is possible to objectively understand the management practice, it is also essential to rule out the need to know more about it as a phenomenon involving human behavioural aspects such as feelings or perceptions. Considering the fact that HRM theories are going to be used in inquiring into the relationship between management practice and retention of volunteers, there is a strong basis to analyse the relationship using existing data and deduce the results for extending the theories further. Furthermore since the management practice is likely to affect volunteer retention, there is a cause and effect relationship which could be studied using research methods derived from the positivist philosophy. For instance survey method could be used to collect data and test the hypothesis. Thus positivism appears to be more suitable for the current research.

#### **4.1.2 Post positivism**

While positivism believes in the philosophy that all phenomena in this universe are real, things are hard facts and scientific laws could be established through the relationship that exists between these facts (Smith, 1998), post-positivism believes that in the domain of the modern world of science, it is not possible to entirely defend the basic justifications offered by positivism (Popper, 1959; Bronowski, 1956). Post- positivists argue that reality does not exist in vacuum and it is influenced by context leading to the conclusion that it is possible to have reality constructed in many different ways (Hughes & Sharrock, 1990). Furthermore, post-positivists argue that reality is not a rigid thing and believe that there is a fine relationship that exists amongst the attributes namely behavior, attitudes, external structures and socio-cultural issues, which is ignored by positivists (Proctor, 1998). Post-positivism is concerned with establishing and searching for a warranted assertibility (Forbes et al. 1999) which means belief in the existence of evidence that is valid and that which acts as a sound proof of the existence of phenomena (Clark, 1998). In fact post-positivism posits that there is a distinct possibility of an observation or experiment what was thought of as true before is in reality false (Doyal, 1993).

Furthermore, researchers believe that disproving theories and laws provide a more significant insight into knowledge than proving them (Easterby-Smith et al. 2002). Thus post-positivism makes in-depth inquiries into phenomena to understand the behavior or

attitude or experiences or feelings to generate possible theories. However such inquiries lead to subjective outcomes which are open to question as post-positivist philosophy in general involves the interactive and participative qualitative methods by researchers leading to lack of generalisability (Mays & Pope, 1995). Another weakness of post-positivism is the proximity of the researcher to the investigation which could introduce bias (Parahoo, 2006). In the case of the study of volunteer retention as a function of management practice, the research is dealing with volunteer management related to elements such as planning, recruitment, recognition, training and support and performance. Such a study needs to be objectively assessed to develop a relationship between the elements of management practice and volunteer retention so that any variation with regard to the elements of volunteer management practice could be measured to control the volunteer retention. From the discussions above it can be seen that post-positivist philosophy may not be suitable for this research.

#### **4.1.3 Choice of epistemological stance**

The foregoing discussion has clearly brought out the need for the use of positivistic research philosophy in this research. Though there are limitations in using positivistic approach, considering the need to objectively define the relationship between the volunteer management and volunteer retention, positivism provides a more logical premise to the researcher to begin the research. Further, as the next step it is necessary to choose the research approach that is based on sound reasoning through which the positivistic belief could be applied to the problem of volunteer retention.

#### **4.2 Ontological concerns**

One of the important concerns of researchers is regarding the nature of reality referred to as ontology implying that ontological aspects raise questions on the assumptions made by researchers on the research phenomenon (Saunders et al. 2009). According to Saunders et al. (2009) there are two ontological views that are widely held by researchers namely objectivist and subjectivist ontology. While there is no consensus on the use of either the objectivist or the subjectivist ontology in organisational behaviour research (Hatch, 2012) researchers tend to adopt either the objective ontological stance or subjective ontological

stance. However it is important to realize the choice of an appropriate ontological position in organisational behaviour will depend on the research question (Schapper et al. 2005). Hence an understanding of ontological implications therefore is necessary to determine how the researcher is likely to carry out the research (Hatch, 2012).

Objectivist ontological position of a researcher points towards the belief that reality is external to social actors (Saunders et al. 2009). An example of how objectivist view is the investigation in aspects of management as management can be considered as an objective entity (Saunders et al. 2009). According to Johnson and Duberley (2000) (also see Burrell & Morgan, 1979; Nord & Connell, 1993) objective ontology enables a researcher to look for relationships between variables and tries to find reality resulting from outside and individual sensory experiences. In other words knowledge is gained about a happening from taste, touch, observation and measurement (Johnson & Duberley, 2000) (also see Burrell & Morgan, 1979; Nord & Connell, 1993 and Nord & Connell, 1993). However objective ontology has limitations also. For instance it is rather not possible for the researcher to be completely independent or outside of reality as the researcher may have to examine the characteristic of the situation in which the researcher is investigating to understand reality (Robinson et al. 1998). This could imply that the researcher has to ground himself or herself in the environment under investigation rather than just analyse and derive findings from statistical data. Despite such limitations, many researchers (e.g. Cuskelly et al. 2006) in volunteer management have adopted an objective stance indicating that volunteer research can be approached with the researcher taking an objective ontological position. Additionally objectivism is associated with positivist epistemology, deductive research approach and quantitative research method (Holden & Lynch, 2004).

Subjectivism on the other hand talks about reality and considers reality as that aspect which people confront and construe (Gioia, 2003). In other words subjectivism posits that reality and knowledge are created socially and are influenced by subjectivities and intersubjectivities of social linkages (Schapper et al. 2005). While subjectivism enables the researchers to understand how the subjects under study interact with the environment,

how they seek to reason out what it means through their interpretation of the happenings and meanings, researchers believe that there is no definitive phenomenon that can be said to take place as the phenomenon is continuously changing (Saunders et al. 2009). In such a situation the nature of reality may be perceived differently by each actor or all the actors according to the sense made out by the actors in their interaction of the environment. This leads to a situation where reality could be considered as many not one. This is an opposite view of objectivism. There are advantages in adopting subjectivism such as reducing the gap that may be present between the researcher and the happening under study (Hussey & Hussey, 1997); gain knowledge on the underlying meaning by being grounded in the situation rather than its measurement (Easterby-Smith et al. 2002; Hughes & Sharrock, 1997); understand the views of subjects as they perceive instead of narrowing it down to one view (Morgan & Smircich, 1980); and extending the understanding of a phenomenon beyond the cause and effect relationship (Hirschman, 1986). However subjectivism has been criticized by researchers as having limitations for instance the belief that valid knowledge is intangible and subjective is meaningless (Giddens, 1993; Morgan & Smircich, 1980) and the possibility of researcher bias is inherent in subjectivism (Hunt, 1993). Additionally subjectivism is associated with interpretivist epistemology, inductive research approach and qualitative research method (Holden & Lynch, 2004). As far as research in volunteerism is concerned it can be seen subjectivism has been adopted by researchers in volunteer research for instance Jones and Hill (2003) adopted subjectivist approach in their study on student volunteers and argue that it is ideal for understanding volunteer behavior.

#### **4.2.1 Choice of ontological position**

The foregoing discussions provide an idea about the objectivist and subjectivist ontological positions that could be assumed by a researcher in social science research and in particular volunteer research. There is no consensus amongst researchers on whether objectivist or subjectivist ontological position should be adopted for volunteer research or social science research (Macduff et al. 2006). Considering the advantages and disadvantages that are attributed to both objectivist and subjectivist ontological positions that could be taken by a researcher, it is important to understand that the choice depends

on what the researcher aims to understand. While the comparison between objectivist and subjectivist ontological positions provided in Table 4.1 can guide in the choice an appropriate ontological position for this research, in this research the need to understand the relationship between volunteer management practices and volunteer retention, requires an assumption that there is such a relationship that exists. A study of such a relationship requires the research to be external to the context and understand whether such a relationship can be formulated through measurement. Such a measurement is possible through a large scale survey of volunteers. From the foregoing discussions and from Table 4.1 it is reasonable to conclude that in this research the researcher adopted the objectivist ontological position which finds support fro

<b>Research approaches</b>	<b>Objectivism</b>	<b>Subjectivism</b>
Action research		<b>Strictly interpretivist</b>
Case Studies	Have scope to be either	<b>Have scope to be either</b>
Ethnographic		<b>Strictly interpretivist</b>
Field experiments	Have scope to be either	<b>Have scope to be either</b>
Focus group		<b>Mostly interpretivist</b>
Forecasting research	Strictly positivistic with some room for interpretation	
Futures research	Have scope to be either	
Game or role playing		<b>Strictly interpretivist</b>
In-depth surveys		<b>Mostly interpretivist</b>
Laboratory experiments	Strictly positivistic with some room for interpretation	
Large-scale surveys	Strictly positivistic with some room for interpretation	
Participant-observer		<b>Strictly interpretivist</b>
Scenario research		<b>Mostly interpretivist</b>
Simulation and stochastic modeling	Strictly positivistic with some room for interpretation	

**Table 4.1 Comparison between objectivist and subjectivist ontologies (Remenyi et al. 1998)**

### **4.3 Research Approach**

Research approaches have been broadly classified as deductive and inductive by researchers (Hussey & Hussey, 1997; Perry, 2000; Cavaye, 1996). Hussey and Hussey (1997) describe deductive research approach as that which deals with the study concerning the development of conceptual and theoretical structure. Furthermore Hussey and Hussey (1997) argue that the conceptual and structural model thus developed is

tested by empirical observation leading to the deduction of particular instances from the general influences. Literature shows that deductive methods employ quantitative methods for data collection (Hussey & Hussey, 1997).

In contrast Hussey and Hussey (1997) describe inductive research approach is a study that enables a researcher to develop a theory from an observed empirical reality. This means that generalised outcomes are induced from particular events, a phenomenon indicating that the happening is opposite to deductive approach (Hussey & Hussey, 1997). Further, some researchers consider inductive approach as leading to the adoption of qualitative research methods for data collection (Ali & Birley, 1999). Though some researchers are of the opinion that it is not enough to adopt just one of the two approaches and it is worthwhile to use both inductive and deductive approach, which means build a theory through induction and test it through deductive reasoning approach, using both the research approaches have gained currency only of late (Perry, 2000; Cavaye, 1996). However with regard to studies involving volunteer retention and volunteer management practice most researchers appear to clearly adopt one particular research approach only that is either deductive (e.g. Cuskelly et al. 2006) or inductive (e.g. Baum & Lockstone, 2007) and not a combination of the two.

Both deductive and inductive approaches have their own advantages and disadvantages. While deductive approach has the advantage of building upon the research outcomes of previous research, it suffers from a serious limitation that it is only possible to test a theory but not discover new ones (Ali & Birley, 1999). Additionally while deductive research is able to establish the role of existing theory through the development of hypotheses, variables and measure relationship amongst the variables, it is constrained by the lack of richness in data provided by respondents due to inadequate depth of interaction on the topic of research.

Similarly inductive research has the advantage of the researcher understanding the way in which humans interpret their social world enabling the researcher to bring out knowledge hitherto hidden (Saunders et al. 2009). However Saunders et al. (2009) caution that

inductive research is often protracted leading to possible risks due to the long period it requires for the ideas to emerge based on data collected over such lengthy periods. Furthermore unlike deductive research where the researcher could be independent from the investigation, inductive research makes the researcher to interact and participate in the investigation resulting in lack of generalisability in the findings (Saunders et al. 2009)

#### **4.3.1 Choice of research approach**

In the context of volunteer management it is seen that the researcher is required to study volunteer managers, volunteers and their attributes, management practices used in managing volunteers and volunteer organisations as well as contextual factors that affect the volunteering activities. The focus is on establishing a relationship between volunteer management practice and volunteer retention which requires the use of existing theories or models and data to arrive at a conclusion. This process of deducing conclusions from the existing theories or models could be achieved through deductive research approach (Hussey & Hussey, 1997). After discussing the research approach that could be chosen for this research, the next step is to understand the research method that should be employed in this research using which the primary data for this research could be collected.

#### **4.4 Research method**

Commonly two types of research methods are used by researchers in social sciences research namely quantitative and qualitative. Some researchers use a combination of qualitative and quantitative research methods called mixed methods (Williams, 2007). The choice of the research method is an important decision a researcher has to make as part of the research methodology. Researchers argue that choice of the research method should be linked to the research questions that are to be answered (Carter & Little, 2007) and the objectives set for the research (Marshall, 1996). Furthermore researchers argue that research method determine the type of data that needs to be collected for the research, for instance quantitative method entails collection of numerical data (numerical values of responses from participants) or qualitative method entails collection of qualitative data (that is themes that emerge from discussions) (Brown et al. 1999). The

main research objective of this research is to find a relationship between the independent variable volunteer management practice and the dependent variable volunteer retention using the mediating variables volunteer motivation and volunteer satisfaction. Thus, in order to decide on the type of research method that should be used for this research an understanding of the three research methods is necessary to gain knowledge on which of the three research methods should be chosen.

#### **4.4.1 Quantitative research method**

According to (Creswell et al. 2003) quantitative research method uses data collection methods based on predetermined instruments yielding statistical data. Thus information collected could be quantified to predict, explain or confirm the findings or validate relationships to develop generalizations of the theories (Creswell et al. 2003, Leedy and Ormrod, 2001). Furthermore researchers believe that quantitative research method employs strategies of inquiries such as experiments and survey (Creswell et al. 2003). According to (Williams, 2007) quantitative research begins with a problem statement followed by formulation of hypothesis and data analysis. Williams (2007) argues further that where relational questions of variables are raised, quantitative research could be used and quantitative method involves numeric or statistical approach as part of the research design enabling the researcher to interpret the data and gain new knowledge about the phenomenon (Williams, 2007). Furthermore quantitative research method enables the researcher to be separated from the phenomenon being investigated to ensure bias free investigation.

There are different types of quantitative research methods that have been adopted by researchers that include experiment, descriptive research method, correlational, developmental design, observational studies, and survey research (Saunders et al. 2009, Williams, 2007)

While it is seen that quantitative research method has many advantages, there are pitfalls also in using this method. Some of the limitations of using quantitative research method include lack of depth in understanding values and value-related issues and the consequent



deprivation in understanding the richness and complexity of values (Morris, 1991). Furthermore researchers argue that instruments used in quantitative research methods such as questionnaires do not provide information on how the respondents interpreted the questions leading to the assumption that questionnaires cannot bring out multiple layers of hidden meanings (Morris, 1991). Additionally some researchers contend that quantification does not provide a real sense of objectivity as it separates the observer from the observed (Cloke et al. 1991)

Despite the limitations attributed to quantitative research, many researchers (e.g. Cuskelly et al. 2006; Rogelberg et al. 2010) involved in studying volunteer management practice have adopted quantitative research method as it has helped them to test the relationship between variables like planning and retention as part of volunteer management practice. The practice of using quantitative studies in volunteer management research as a topic of social science is in line with the general argument that scientific investigation which assumes that the social world should be treated to hard, external and objective reality (Cohen et al. 2007). However while recognizing the argument that use of quantitative research could be suitable for studying management practice pertaining to volunteers, the researcher also acknowledges that some have resorted to using qualitative (e.g. Chen & Chen, 2011) or mixed methods (Wymer & Starnes, 2001) to gain knowledge about volunteer management. Thus the next section discusses about the qualitative research method followed by the mixed method.

#### **4.4.2 Qualitative research method**

According to Mack et al. (2005) qualitative research method enables the researcher to obtain rich and complex information about a phenomenon in regard to cultural aspects such as the values, opinions, behaviours and social contexts (Mack et al. 2005). Furthermore Mack et al. (2005) argue that qualitative research method enables the identification of intangible factors for instance religion or gender roles. Qualitative methods are more flexible and enable the researcher to be part of the phenomenon and understand the phenomenon by being close to the phenomenon (Mack et al. 2005). Data collected through qualitative research is textual and are obtained from audio recording or

video recording or field notes. Some of the research methods used in qualitative research methods include case study, ethnography study, grounded theory study, phenomenological study, action research and content analysis study (Denzin & Lincoln, 2000; Leedy & Ormrod, 2001; Creswell et al. 2003).

In the context of volunteer research some (e.g. Studer & von Schnurbein, 2011) claim that the most frequently used research method is the qualitative method while many others have found it appropriate to use only quantitative (e.g. Cuskelly et al. 2006; Rogelberg et al. 2010) or use a mixed method (using both qualitative and quantitative research methods) (e.g. Wymer & Samu, 2003) with quantitative being the more dominant of the two methods in the mixed method. Additionally it is seen that use of qualitative method in management research is being preferred by researchers only recently with majority of the research conducted so far adopting the quantitative method. However, with growing interest in adopting qualitative research method, and keeping in mind the criticisms leveled against quantitative research method that not every concept can be measured quantitatively, it is necessary to consider using qualitative method by researchers, if it can enable the researcher to answer the research questions.

Like quantitative research method, qualitative research method has limitations. While qualitative study provides an in-depth knowledge about the phenomenon under study, there are limitations of using qualitative research which include, problems of validity and reliability and inability to capture vivid experiences (Denzin & Lincoln, 2000). Other important limitations of using qualitative research method include lack of generalizability of the findings to a larger population as it involves small sample of subjects who were not randomly selected (Hancock, 1998). In addition qualitative research has been criticized by researchers of not providing accurate method of collecting data or information and the possibility of the researcher imposing his or her own definitions of situations upon subjects participating in the research (Cohen et al. 2007).

#### 4.4.3 Mixed methods

The various disadvantages that are beset in the quantitative and qualitative research methods, prompted researchers to adopt mixed method approach, in which the strengths of both qualitative and quantitative research have been used (Creswell et al. 2003). Mixed method enables the researchers to understand the complexity of the phenomenon as well as develop measurable variables to gain objectivity and predictability. Some researchers argue that quantitative and qualitative research methods complement each other and hence mixed method offers a better method to understand a phenomenon (Tashakkori & Teddlie, 2003). However Greene and Caracelli (1997) caution against the use of mixed method as an automatic choice as they claim that mixing two methods is not good science (Greene & Caracelli, 1997). Greene and Caracelli (1997) also highlight that successful use of mixed methods depends largely on how and what is being mixed, failure to understand which can lead to just keeping the methods being side by side without achieving the purpose of mixing (Greene & Caracelli, 1997).

#### 4.4.4 Choice of the research method

A comparison between quantitative and qualitative research method was inevitable in the choice of the research method for this research. Table 4.2 provides a quick comparison between quantitative and qualitative research methods as identified by Mack et al. (2005). The table is self-explanatory. However it can be seen that the salient points under quantitative research including the general framework usually adopted in quantitative research are more suitable for this research than the qualitative ones. For instance the general framework under quantitative study talks of seeking to confirm hypotheses about phenomena. One of the research objectives of this study is to develop hypotheses and verify them. Thus it can be seen that quantitative research method is more suitable for this research.

	<b>Quantitative</b>	<b>Qualitative</b>
General framework	Seek to confirm hypotheses about phenomena	<b>Seek to explore phenomena</b>
	Instruments use more rigid style of eliciting and categorizing responses to	<b>Instruments use more flexible, iterative style of eliciting and categorizing</b>

	questions	<b>responses to questions</b>
	Use highly structured methods such as questionnaires, surveys, and structured observation	<b>Use semi-structured methods such as in-depth interviews, focus groups, and participant observation</b>
Analytical objectives	To quantify variation	<b>To describe variation</b>
	To predict causal relationships	<b>To describe and explain relationships</b>
	To describe characteristics of a population	<b>To describe individual experiences</b> <b>To describe group norms</b>
Question format	Closed-ended	<b>Open-ended</b>
Data format	Numerical (obtained by assigning numerical values to responses)	<b>Textual (obtained from audiotapes, videotapes, and field notes)</b>
Flexibility in study design	Study design is stable from beginning to end	<b>Some aspects of the study are flexible (for example, the addition, exclusion, or wording of particular interview questions)</b>
	Participant responses do not influence or determine how and which questions researchers ask next	<b>Participant responses affect how and which questions researchers ask next</b>
	Study design is subject to statistical assumptions and conditions	<b>Study design is iterative, that is, data collection and research questions are adjusted according to what is learned</b>

**Table 4.2 A comparison between quantitative and qualitative methods (Mack et al. 2005)**

Furthermore, according to researchers (Buchanan & Bryman, 2007) the choice of the research method depends on a few factors including aim, epistemological concerns, norms of practice and the context. Further, Buchanan and Bryman (2007) argue that choice of the research method could also be influenced by organisational, historical, political, ethical, evidential, and personal factors although their argument is only based on the study of the literature and not on hard empirical evidence. However, Holden and Lynch (2004), choice of a research method depends largely on the research question, implying that other considerations are less serious than the research problem. In the face of varying arguments on the choice of the right research method, the researcher fell back

on the widely held belief that the rationale of the choice depends on the research problem to be addressed. The following discussions provide the rationale on the choice of the research method.

The field of volunteer management requires the study of volunteer managers, volunteers, the management practices, attributes of volunteers and volunteer organisations and contextual factors that affect the volunteering activities. The focus is on establishing a relationship between volunteer management practice as an independent variable and volunteer retention as the dependent variable which requires the use of existing theories (Hancock, 1998) or models and data to arrive at a conclusion (Creswell, 2003). This process of deducing from the existing theories or models could be achieved through deductive research approach and hence using quantitative method (Hussey & Hussey, 1997).

The foregoing discussions have provided a critical review of the positivist and post positivist epistemological aspects, objective and subjective ontological aspects, deductive and inductive research approaches and quantitative, qualitative and mixed research methods. The discussions have also identified particular epistemological and ontological stance chosen for this research as well as the research approach and method chosen for this research. These choices have been consolidated and provided in the following section.

Furthermore it is necessary to determine the research framework within which the research will be conducted to enable the researcher to identify the various aspects related to research such as the type of data, research method to be adopted for data collection, population to be targeted for collection of data and the data analysis methods. Such a framework will lead the researcher to achieve the research aim and objectives in a planned manner and within a specific schedule. Thus the next section deals with the research framework set for this research.

#### **4.5 Research framework**

The research framework is expected to inform the framework within which the research will be conducted which includes the following and has been derived from the foregoing discussions.

**Choice of research philosophy:** The researcher believes that concepts of volunteer management practice can be purposefully used to solve the problem of volunteer retention in volunteer organisation by applying existing theories which is positivist belief. Thus this research adopts the positivist philosophy to understand the nature of reality related to volunteer management and volunteer retention.

**Choice of the research ontology:** Many researchers (e.g. Morgan, 2007) have already identified that there is a linkage between the epistemology and the ontology positions chosen for research. While the choice of the positivist epistemological stance points towards the use of objective ontology, the research questions also point towards the necessity to adopt objective ontology. The researcher assumes that there is a relationship between volunteer management practice and volunteer retention, an assumption that is considered to be real. This assumption that there is a real relationship existing between volunteer management practice and volunteer retention enabled the researcher to choose the objective ontological position.

**Type of research approach:** It is seen that researchers have adopted either the inductive or deductive approach with regard to volunteer research (Bussell & Forbes, 2006; Cuskelly et al. 2006). Thus the choice of the research approach will be between the inductive and deductive approach. In this research deductive approach will be used because of the need to understand the cause and effect phenomenon with regard to management practice and volunteer retention.

**Type of research method:** Being a deductive study, the research method that will be used in this study will be based on the quantitative research method. Investigation into the relationship between volunteer management practice and volunteer retention has been

largely dealt with by researchers using quantitative research method (Cuskelly et al. 2006; Hoyer et al. 2008). While it is possible to construe that qualitative data could add to the quantitative method used by many authors in volunteer management research, it must be highlighted that the cause and effect relationship that is being examined for developing a solution to the problem of volunteer retention through better management practice will require establishing hypotheses and verifying them. To achieve this quantitative method will be more suitable. Thus the research framework will encompass data collection methods identified within the quantitative research method.

The research framework has identified the various steps and limits within which the research will be conducted. In addition, in order to verify the hypotheses and test the model developed for this research, data need to be collected. At this point it must be borne in mind that the researcher is testing two models as provided in Figures 3.2 and 3.3. In order to define the process of data collection for testing the two models it was necessary to develop the research design. Thus the next section describes the research design adopted for this research.

#### **4.6 Research design**

According to Sekaran (2003), a research design spells out the way through which data will be gathered and analysed. The following design is thus developed for this research.

**Purpose of study:** The main purpose of this study was to develop predictor variables of volunteer retention using hypotheses testing and explain the relationship amongst the different variables that are assumed to affect the dependent variable.

**Type of study:** Literature (e.g. Sekaran, 2003) shows that studies can be exploratory or descriptive or hypotheses testing. The type of study used in this research was hypotheses testing. This provided correlational as well as cause and effect relationship amongst the variables.

**Type of data collected:** The main data that was collected was the responses from volunteers and representatives of volunteer management in numerical form. These responses were collected through instruments developed for this research. The instrument developed for this research is provided in (Appendix 1). The end result of this exercise was the generation of quantitative data. Thus quantitative data in terms of measurement of the variables identified for this research formed the basis of this research. This is consistent with prior research (Clary et al. 1992; Taylor & McGraw, 2006).

**Subjects from whom the data was collected:** The main subjects were volunteers and representatives of the management of volunteer organisations who were volunteers themselves.

**Population size and sampling design:** It was estimated that the total population of volunteers and members involved in volunteer management could run into several thousands. Thus sampling design procedures were used to arrive at the number of subjects who were approached to get the responses for the questionnaire. Here the variable was any type of volunteer and members involved in the management of any type of volunteer organisation and not the volunteer organisation itself. Thus the number of volunteer organisations was not significant as the researcher was expected to approach several volunteer organisations randomly without focusing on the type of volunteering activities carried out by the volunteering organisation or the number of enrolled volunteers. Thus the framework encompassed different types of volunteering organisation, different types of volunteers and different types of volunteer management members.

**Data analysis:** The collected data was analyzed using statistical procedures as has been the case in volunteer research literature related to quantitative research method (Clary et al. 1992; Taylor & McGraw, 2006). The research design thus revolved around descriptive statistics, correlation matrices analysis and Structural Equation Modelling (SEM) which has been discussed under Section 4.15.2.



**Reliability and validity:** Using descriptive statistics and based on data generated by researchers in previous research, the research instrument used in this research was validated. Cronbach's Alpha provided the reliability measure whereas correlation matrix and SEM enabled testing the validity of the research instrument developed for this research (Cuskelly et al. 2006). This is consistent with prior research found in the literature and this describes the framework for testing the reliability and validity of the research (Clary et al. 1992; Taylor & McGraw, 2006).

**Time horizon of study:** Being a quantitative research used to establish the relationship between management practice and volunteer retention, it was necessary to collect data through cross-sectional research. The necessity arose from the reasoning that testing the relationship by the researcher entails the measurement of the variables and testing the hypothesis formulated for this research where there was no possibility to have any control on the management practice or the period of retention or the volunteers or the volunteer or the volunteer managers. Longitudinal studies will not be meaningful if the conditions cannot be kept constant. Thus the framework for this research with regard to the time horizon of study used a cross-sectional research.

**Territory:** There was no specific restriction that was identified by the researcher with regard to the territorial context. Virtually any voluntary organisation in any country was a potential target for approaching volunteers and volunteer managers. However there was a need to maintain certain continuity in gathering data. Further, many other factors needed attention. There was a need to take into account such aspects as minimization of expenditure, ensuring efficient data collection. short time available at the disposal of the researcher and the difficulties faced in approaching voluntary organisations that were located in different countries. Thus the researcher used a novel way of using a web portal to post the data and the data was collected from different volunteers. Details of the population targeted for this research are provided under Section 4.14.1.

#### **4.7 Research strategy**

An important part of the research design is to determine what kind of research strategy (planning the use of a type of technique for collecting data). According to researchers (Scandura & Williams, 2000) adoption of an appropriate research strategy enables a researcher to derive findings that are generalizable across the population under study. Scandura and Williams (2000) while quoting McCrath (1982) argue that there are eight different categories of research strategy namely formal theory, sample surveys, laboratory experiments, judgment tasks, computer simulations, experimental simulations, field studies, and field experiments. However (Crotty, 1998) argues that experimental research, survey research, ethnography, phenomenological research, grounded theory, heuristic inquiry, action research, discourse analysis, and feminist standpoint research are some of the widely used research strategies by researchers.

The type of research strategy used depends on the purpose of the study. For instance in this research the purpose of the research was to develop predictor variables of volunteer retention using hypotheses testing and explain the behavior of volunteers. This requires collection of data from volunteers. Collection of data from volunteers entails drawing a sample set of participants from a population of volunteers and collect data from the sample population to derive inferences about the population. Researchers (e.g. Hussey & Hussey 1997) suggest the use of survey research strategy to achieve this as survey research method allows data to be collected from each member of the sample set that represents the larger population. Thus the research strategy adopted for this research used the survey research method. Considering the fact that volunteer population could run into tens of thousands, sampling procedure was adopted and survey was conducted which is one of the strategies already identified as part of quantitative research method in Section 4.4.1.

Another important part of the strategy is the use of a particular data collection method. According to Creswell (2003) there are four different methods using which data could be collected from the participants namely self-administered questionnaire, interviews, structured record reviews to collect such data as medical or financial information and

structured observation. Another method used by researchers of late is the web-based or internet survey (Nesbary, 2000). The particular method that needs to be used depends on a few of the issues such as cost, convenience, availability of data and strength and weakness of a particular method (Creswell, 2003). As far as this research was concerned data was collected from various volunteers through the on- line facility. Self-administered questionnaire was the most suitable method of data collection as interviews with volunteers would have been highly expensive and time consuming. The other two methods structured record reviews and structured observation were not relevant. Thus self-administered questionnaire posted on a web-portal was identified as the data collection method for this research. In line with this explanation, the next section discusses the questionnaire method of data collection used in this research.

#### **4.8 Rationale behind the use of questionnaire method as part of the survey**

According to researchers (e.g. Sekaran, 2003) a questionnaire is a pre-formulated document comprising a set of questions which is common to all participants (De Vaus, 2002) in the survey. Questionnaires are considered to be an efficient technique that could be used to collect primary data by researchers. Besides, questionnaires are commonly used in field studies, comparative surveys and experimental designs to measure variables under investigation (Sekaran 2003). There are advantages and disadvantages to using the self-administered questionnaire. Table 4.3 provides a glimpse of the few advantages and disadvantages associated with self-administered questionnaire.

<b>No.</b>	<b>Advantages</b>
1.	Cost effective to administer in comparison to face-to-face interviews.
2.	Relatively easy to administer.
3.	Familiarity of the concept of questionnaire with the participants is high.
4.	Reduction in bias that could be introduced in comparison to interview.
5.	Perceived to be less intrusive in comparison to telephone or face-to-face surveys leading to the possibility of respondents respond truthfully to sensitive questions readily.
6.	Convenient as participants could complete the questionnaire at a time and place suitable to them.
<b>Disadvantages</b>	
1.	Response rates tend to be low.

2.	Lack of researcher control over who fills the questionnaire.
3.	Lack of interest in the participants if the subject matter is not interesting or sensitive or questionnaire is too long or complicated to complete.

**Table 4.3 Advantages and disadvantages of survey questionnaire (Eiselen et al. 2005)**

Although Table 4.3 indicates some disadvantages, the researcher overcame the disadvantages by appropriately designing the questionnaire and ensured that response rates are high by approaching a large number of respondents through the help of a professional consulting organisation. Furthermore, posting the questionnaire on a web-portal enabled the researcher to reach a wider audience thus collecting data efficiently with good response rate. In addition, researchers who are involved in volunteerism and have used quantitative research method it is seen that most of them (e.g. Cuskelly et al. 2006) have used self-administered questionnaire as the instrument to collect data.

#### **4.9 Questionnaire development**

In the process of developing the questionnaire the researcher depended upon three important variables identified by researchers (see Dillman, 2006) namely opinion, behavior and attributes for collecting data. Additionally, the questionnaire development phase took care of the wording of the questions, the way the variables needed to be categorized, scaled and coded after the responses are received and the general format of the questionnaire. The items used in the questionnaire were based on items already used by other researchers in previous research studies similar to the current one which included those of Cuskelly et al. (2006) for the construct management practice, Galindo-Kuhn and Guzley (2002) for the construct satisfaction, Clary et al. (1998) for the construct motivation and Hoye et al. (2008) for the construct retention. This process provided the support to the researcher in terms of the reliability and validity of the items as the previous researchers had already tested and established the reliability and validity of those items. Furthermore, the items were not used in toto but modified to suit the requirement of the current research. The entire development of the questionnaire took around six months (January 2011 to June 2011) until the pilot survey was conducted in June 2011 and during the process it was essential to ensure that the questionnaire will enable the researcher to achieve the research objectives and answer the research questions. In order to ensure the items were structured and worded guidance of the

theories and models provided in theoretical framework (Chapter 3) was taken. The whole questionnaire was integrated step by step taking into account the smooth flow required while participants were responding to the questions.

Further to the above, a covering note was attached to the questionnaire so that respondents were introduced to the questionnaire, its purpose and about the objectives of the study. Instructions to fill the questionnaire were also provided in the questionnaire. The covering letter, the research instrument and the use of web-portal for collecting responses online were approved by Brunel Ethical Committee prior to the launch of the pilot study. The questions were distributed under five sections (see Appendix 1). The questionnaire given in (Appendix 1) was arrived at after taking into account the pre-test administered on the initial questionnaire which is described in Section 4.10 later.

The first section is the personal information section. This section comprises personal information which provided a general idea about the participants in the survey. Nominal and interval questions were included in this section and questions were about gender, age, qualification, occupation, yearly income and volunteer service (in terms of number of years). Particularly this section provided information on whether the participant is a volunteer and the length of time the participant has been volunteering.

Further Section A focused on the management practices of volunteering organisations and comprised 24 questions. The questions aimed to collect volunteers' opinion regarding various aspects of management practice using a 5-point Likert scale with 1 indicating 'strongly disagree' while 5 indicated 'strongly agree'. This questionnaire was based on the earlier work done by (Cuskelly et al. 2006). The items used by Cuskelly et al. (2006) were adapted to the current research by modifying some words. This questionnaire was already tested by Cuskelly et al. (2006).

Section B concentrated on the satisfaction aspect of volunteers. Fourteen questions were used to collect volunteers' satisfaction about volunteering with their organisation. 14 questions were used which were measured using a 5-point Likert scale with 1 indicating

‘very dissatisfied’ and 5 indicating ‘very satisfied’. The items were adapted from VSI. This questionnaire has already been validated by Galindo-Kuhn and Guzley (2002). Wordings in the items were slightly modified to suit the purposes of this research.

Section C aimed at collecting the volunteers’ opinion on the motivation behind their volunteering activities. 30 questions were used to measure this construct and the items were adapted from the VFI developed by Clary et al. (1998). Wordings were modified to suit this research. The items were measured using a 5-point Likert scale with 1 indicating ‘not at all important’ and 5 indicating ‘extremely important’.

Section D dwelt on the responses to be collected from volunteers about their intention to remain in a particular volunteering organisation representing their retention by a volunteering organisation. The construct was measured using six questions. The items in this section were adapted from the earlier work conducted by Hoye et al. (2008) by modifying the wordings in some items to suit this research. Three items measured retention using a 5-point Likert scale with 1 indicating ‘strongly disagree’ while 5 indicated ‘strongly agree’ while the remaining three items were measured using 5-point Likert scale but with reverse coding with 1 indicating ‘strongly agree’ while 5 indicated ‘strongly disagree’.

The language used in the survey questionnaire was English as the questionnaire was intended to be distributed to volunteers who regardless any consideration on nationality and common language had to be chosen that is widely used internationally. English was the choice as it is a widely used internationally language. To the best possible extent the questions were made simple, easy to understand and encourage participation in the survey.

#### **4.10 Survey questionnaire pre-test**

According to Sekaran (2003), pre-testing of a questionnaire is conducted as part of the trial run with a group of respondents and enables the researcher to detect problems in the questionnaire with regard to its format, design and instructions. Other researchers (e.g.

Hair et al. 2006) argue that the objective of conducting a pre-test is to evaluate the items used in the questionnaire. An important argument posited by Cooper and Schindler (1998) is that pre-test may be administered on colleagues, respondent surrogates or respondents who could be really a part of the target population and such a test could be used to refine the survey questionnaire. Another important point that matters in pre-testing is the sample size that should be considered. There are varying figures advocated by researchers as far as sample size is concerned for pre-test. For instance Zikmund (2003) argues that sample size could be 25 subjects at the minimum. (Czaja, 1998) prescribes between 20 and 70 respondents for pre-test administration. Sudman (1983) argues that a pilot test of 20-50 cases is usually good enough to identify major discrepancies in a survey questionnaire. However Sheatsley (1983) claims that no more than 12-25 cases are needed to reveal major problems and weaknesses in a test questionnaire. In the absence of a consensus amongst researchers on the exact sample size requirements that must be met for the pre-tests, the researcher distributed the initial questionnaire to 16 respondents who were volunteers, in January 2011. 11 responses were received with serious comments about wording and similarities in questions alongside suggestions to include new questions. A basic statistical analysis was also made. Taking into consideration these aspects, the initial questionnaire was modified significantly and subjected to a pilot test. The questionnaire used in the pilot test is given in (Appendix 1).

#### **4.11 Pilot survey**

According to Creswell (2003) pilot test provides an opportunity for the researcher to establish the content validity of a survey questionnaire and improve further the questions, format and the scales. Subjects for the pilot survey should be drawn from the target population. The pilot survey was conducted using the online portal facility explained in Section 4.14.4. The URL (universal resource locator) link of the online questionnaire was sent to about 42 volunteers by e-mail and 25 responses were received. From the previous section it can be seen that 25 is an adequate number for accepting outcomes of the pilot survey which is also concurred by Cooper and Schindler (1998). The pilot survey was conducted between July and August 2011. Using the data obtained from the pilot survey reliability and validity tests were conducted and some basic statistical analysis was

carried out. In fact (Ticehurst & Veal, 2000) argue that pilot survey could be used to test all aspects of survey not the wording alone. The collected data was analysed using Statistical Package for Social Sciences (SPSS). Reverse scoring was performed for the construct Retention with negatively worded items. The data analysis revealed some problems in some items. The questionnaire was revised again to accommodate changes arising out of the problems. The changes made to the questionnaire were discussed with experts and the questionnaire was finalized for the main survey. In line with the discussions on the pilot survey test, it was necessary to understand the reliability and validity aspects pertaining to the questionnaire. Thus the following sections discuss the reliability and validity aspects pertaining to the statistical analysis referred to in this section above.

#### **4.12 Reliability test**

Reliability indicates the extent to which a researcher could achieve the same research findings if the research is repeated again at a different time or with a sample that is different the first one Ticehurst and Veal (2000). It could also indicate the extent to which the measurement is error free (without bias) leading to a possible conclusion that the measurement is consistent across time and different items used in the questionnaire. (Sekaran, 2003) adds that reliability enables the assessment of goodness of a measure as well as accuracy of the measurement. According to researchers reliability analysis could be carried out using different tests including the split-half reliability model, Cronbach's alpha or the Kuder-Richardson formula 20 (KR-20) formula (Hayes & Pritchard, 2013). However the most widely used reliability test is the Cronbach's alpha as according to some researchers (e.g. Hayes & Pritchard, 2013) Cronbach's alpha represents a generalization of Kuder-Richardson formula 20 and mean of all possible split-half reliabilities. Widely used minimum value of Cronbach's alpha considered as acceptable is in the range of 0.7 while those in the range of 0.6 are considered as poor and those over 0.8 are considered as good (Sekaran, 2000). In general the maximum value of Cronbach's alpha that can be achieved is 1.0 with values getting closer to 1.0 indicating better reliability. In light of the arguments given above some researchers argue that the lower limit of Cronbach's alpha generally agreed as acceptable is 0.7 while for exploratory



research even 0.6 is acceptable (Robinson et al. 1991). Thus in this research 0.7 is set as the reference value for Cronbach's alpha unless otherwise stated.

Another important aspect of Cronbach's alpha is that it measures the inter-item consistency reliability also which provides an idea about the consistency achieved in the participants' responses to all the items in the questionnaire. Internal or inter-item consistency measures the extent to which items are correlated with each other in a questionnaire as independent measures of the same concept (Sekaran 2000). According to Robinson et al. (1991) recommended values of inter-item correlation should exceed 0.3 for accepting the reliability of the questionnaire. In this research 0.3 was set as the reference value for accepting the inter-item correlation measurement.

Another measure of internal consistency (reliability) is the item to total correlation measured for a construct for all items measuring the concept. Item-total correlation represents the correlation of the item to the summated scale and the inter-item correlation (Hair et al. 2006). According to some researchers (e.g. Robinson et al. 1991), item to total correlation should exceed 0.5 for acceptance of the internal consistency measurement of a questionnaire. Thus in this research item-total correlation measurement exceeding 0.5 was set as the reference value unless otherwise stated.

Based on the above arguments Table 4.4 was drawn which provides the Cronbach's alpha measurement of the study of 25 cases conducted as part of the pilot survey. The data gathered through the pilot survey were analysed using SPSS version 18.0.

Construct	Number of items	Cronbach's alpha measurement	Reliability outcomes	Range of inter item correlation	Range of item to total correlation
Management Practice	24	0.966	Good	0.01-0.927	0.527-0.873
Satisfaction	14	0.937	Good	0.002-0.834	0.532-0.875
Motivation	30	0.95	Good	-0.024-0.964	0.482-0.808
Retention	06	0.825	Good	0.186-0.953	0.373-0.811

**Table 4.4 Pilot survey result**

While Table 4.4 shows that the reliability measure Cronbach's alpha is satisfactory in all cases and the item to total correlation is nearly satisfactory except in the case of the construct Retention, the item to total correlation is not satisfactory with respect to some items measuring the construct. One of the reasons for this could be the low sample size of 25 participants in the pilot survey. Considering the fact that Cronbach's alpha and item to total correlation are nearly satisfactory and taking into account the small sample size that might have contributed to the lack of item to item correlation with regard to certain items measuring the constructs, it was decided by the researcher not to delete any item at this stage and observe the results to be obtained during the validity tests. Thus based on the results achieved with regard to Cronbach's alpha and item to total correlation, it was concluded that the research instrument is reliable for the next test.

#### **4.13 Research instrument Validity**

According to researchers validity of the collected data indicates the extent to which the data truly represents certain happening under study. According to Cohen et al. (2007), validity is a key to effective research and any piece of research that is invalid is worthless. Thus validity is considered to be an important requirement for quantitative research. The problem of validity arises because of the concern that exists regarding the true meanings of the responses obtained through the survey and the self-reporting behavior of the respondents (Ticehurst & Veal, 2000). Researchers (e.g. Glasow, 2005; Sekaran, 2003) suggest different types of validity tests to be conducted on the collected data which include content validity, criterion validity and construct validity.

Content validity, also called as the face validity examines the relationship between the individual items and the phenomenon they are purported to measure through assessment by judges and pre-tests with multiple sub-populations or other ways (Hair et al. 2006). Two volunteers and managers of volunteers as well as two consultants were approached and requested them to provide their judgments on the questionnaire. Minor revisions were made to the wordings of some items based on the feedback received from the judges. Already the instrument was pretested with a sample population. This enabled the researcher to conclude that content validity has been achieved.

Criterion validity is another name for convergent validity (Zikmund, 2003) and is synonymous with correlational analysis. Convergent validity is the measure of the extent to which items measuring a construct are correlated. According to (Nunnally & Bernstein, 1994) convergent validity is related with the idea that two methods that are independent inferring an attribute, yield similar results. In other words an item measuring a construct is expected to accurately represent the construct if the correlation between the item and other items measuring the construct is high (Holton et al. 2007). Thus the reliability measure can also be considered as indicating the convergent validity (Hair et al. 2006).

According to Rowley (2002) construct validity is establishes the most appropriate operational measures for the phenomenon under study. The validation aspect addresses the exposing and reducing the subjectivity involved in the measurement by relating data collection instrument and measures to the research question and propositions. The main purpose served by construct validity is important because the result of the research needs to be of substantial value to the theoretical underpinning in the respective discipline (Johari et al. 2011). According to researchers (e.g. Cooper & Schindler, 2001) construct validity can be achieved through convergent and discriminant validity. Some researchers (e.g. Johari et al. 2011) argue that construct validity could be established using exploratory and confirmatory factor analytic procedures. Furthermore literature shows that construct validity is also measured using the multi-trait, multi-method matrix of correlations (Pae, 2012).

As far as correlation as a method that could be used to determine convergent validity is concerned two measures namely item to total and item to item correlations are widely used by researchers with Robinson et al. (1991) suggesting that acceptable item to total correlation values should exceed 0.5. However with regard to item to item correlation Cohen (1988) suggests a range of values for acceptability. For instance correlation values (both positive and negative) falling between 0.10 and 0.29 can be called small correlation, those falling between 0.30 and 0.49 can be called as medium correlation and

those falling between 0.50 and 1.00 can be called as large correlation. Both the arguments of Robinson et al. (1991) and Cohen (1988) have been used in earlier research by many researchers (e.g. Ervilia & Herstatt, 2007) and in line with this argument, in this research also these values were used. Finally discriminant validity was also used in this research as part of verifying the construct validity. However detailed discussion on discriminant validity is provided under Section 5.7.2.

The foregoing discussions provide the basis for accepting or rejecting reliability and validity results after conducting statistical analysis of the data. In addition the types of tests that will be applied for reliability and validity measurement have also been identified. The pilot survey results provided the basis for going ahead with the main survey. Based on the pilot survey the questionnaire that was to be used in the main survey was finalized. The items used in the final survey are given in Table 4.5. Thus the next section discusses the steps involved in conducting the main survey.

No.	Description	Coding
	<b>Management Practice</b>	
1.	Management practices: In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begin.	MP1
2.	Management practices: In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	MP2
3.	Management practices: In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	MP3
4.	Management practices: In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	MP4
5.	Management practices: In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	MP5
6.	Management practices: In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	MP6
7.	Management practices: In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	MP7
8.	Management practices: In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters, internet, etc.).	MP8
9.	Management practices: In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.	MP9
10.	Management practices : In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will	MP10

	work during the organisation.	
11.	Management practices: In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).	MP11
12.	Management practices: In managing its volunteers to what extent do your organisations .....-12-Manage the work loads of individual volunteers where they are excessive.	MP12
13.	Management practices: In managing its volunteers to what extent do your organisations .....-13-Assist volunteers to access training outside the organisation (e.g. accreditation training course)	MP13
14.	Management practices: In managing its volunteers to what extent do your organisations .....-14-Cover or reimburse the costs of volunteers attendance at training or accreditation course .	MP14
15.	Management practices: In managing its volunteers to what extent do your organisations .....-15-Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.)	MP15
16.	Management practices: In managing its volunteers to what extent do your organisations .....-16-Mentor volunteers, particularly when starting in a new role.	MP16
17.	Management practices: In managing its volunteers to what extent do your organisations .....-17-Provide sufficient support for volunteers to effectively carry out their task.	MP17
18.	Management practices: In managing its volunteers to what extent do your organisations .....-18-Recognize outstanding work or task performances of individual volunteers.	MP18
19.	Management practices: In managing its volunteers to what extent do your organisations .....-19-Plan for the recognition of volunteers.	MP19
20.	Management practices: In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts (e.g. informal thank you).	MP20
21.	Management practices: In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).	MP21
22.	Management practices: In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	MP22
23.	Management practices: In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers.	MP23
24.	Management practices: In managing its volunteers to what extent do your organisations .....-24-Provide feedback to individual volunteers.	MP24
	<b>Satisfaction</b>	
25.	Satisfaction:-25-My relationship with paid staff.	SAT1
26.	Satisfaction:-26-How often the organisation acknowledges the work I do.	SAT2
27.	Satisfaction:-27-The degree of cohesiveness I experience within the organisation.	SAT3
28.	Satisfaction:-28-The chance I have to utilize my knowledge and skills in my volunteer work.	SAT4
29.	Satisfaction:-29-The access I have to information concerning the organisation.	SAT5
30.	Satisfaction:-30-The freedom I have in deciding how to carry out my volunteer assignment.	SAT6
31.	Satisfaction:-31-My relationship with other volunteers in the organisation	SAT7
32.	Satisfaction:-32-The amount of interaction I have with other volunteers in the	SAT8

	organisation.	
33.	Satisfaction:-33-The amount of time spent with other volunteers.	SAT9
	<b>Motivation</b>	
34.	Motivation:-34-No matter how bad I've been feeling, volunteering helps me to forget about it.	MOT1
35.	Motivation:-35-I am concerned about those less fortunate than myself.	MOT2
36.	Motivation:-36-I am genuinely concerned about the particular group I am serving.	MOT3
37.	Motivation:-37-I feel compassion toward people in need.	MOT4
38.	Motivation:-38-I feel it is important to help others.	MOT5
39.	Motivation:-39-I can do something for a cause that is important to me.	MOT6
40.	Motivation:-40-Volunteering allows me to gain a new perspective on things.	MOT7
41.	Motivation:-41-Volunteering lets me learn things through direct, hands on experience.	MOT8
42.	Motivation:-42- I can explore my own strengths.	MOT9
43.	Motivation:-43-Volunteering increases my self-esteem.	MOT10
44.	Motivation:-44-Volunteering makes me feel needed.	MOT11
	<b>Retention</b>	
45.	Retention :-45-I plan to continue volunteering at this organisation until end of this year.	RET1
46.	Retention :-46-I plan to continue volunteering at this organisation next year	RET2
47.	Retention :-47-I am likely to be volunteering at this organisation three years from now.	RET3
48.	Retention:-48-I intend leaving this organisation altogether within 12 months	RET4
49.	Retention:-49-I intend to volunteer in the next 12 months but with a different organisation	RET5
50.	Retention:-50-I intend to cease volunteering at this organisation as soon as another volunteer can be found to replace me.	RET6

**Table 4.5 Final list of items used in the questionnaire in the main survey**

#### **4.14 Main survey**

The main survey involves the collection of primary data from a targeted population of volunteers volunteering in any context. Since the population of volunteers working in various organisations is quite large there was a need to define the population of volunteers from whom the researcher intended to collect data as well as determine the sample size requirements and data collection methods. This was followed by a discussion on how the data was handled prior to analysis and aspects pertaining to data analysis.

##### **4.14.1 Research context**

Volunteering is a global phenomenon. Organisations employ volunteers to support a variety of activities and volunteers are considered to be a valuable form of capital to those organisations because of their contribution in terms of reduction in cost of

provision of services which in turn eases the budget on full-time employees (Cemalcilar, 2009; Clary et al. 1998; Wong et al. 2010). There is a heavy reliance on volunteers in many sectors which include sport/physical recreation, environment/animal welfare, emergency services, arts/heritage, other recreation/interest, parenting/children/youth, health, religious, community/welfare and education/Training (Volunteering Australia, 2009). A number of studies have been conducted until now that have attempted to understand how volunteers and volunteering as concepts affect volunteers, the various sectors they work in, the organisations that employ those volunteers, the subjects or entities that benefit from volunteers and the governments which promote volunteerism. Although many sectors depend on the contribution of volunteers, such contributions by the volunteers to the social, environmental, economic and cultural aspects of the modern world have left organisations to find ways to enhance their management of those volunteers effectively and efficiently.

The problem of lack of effective and efficient management of volunteers has been witnessed in many managerial activities of organisations involved in volunteering, examples of which can be seen in lower organisational commitment of volunteers, recruitment difficulties in volunteers, questions on retention and/or development strategies of volunteers and so on (Nguyen, 2009). With increasing pressure on volunteering organisations across the world created due to declining volunteer numbers and the number of hours contributed by them, regardless of the context (Warner et al. 2011), researchers are forced to investigate and find solutions on how to arrest this phenomenon of declining volunteer numbers (Chacon et al. 2007; Galindo-Kuhn & Guzley, 2001; Hidalgo & Moreno, 2009; Taniguchi, 2006; Themudo, 2009). More importantly literature shows that management practice of volunteering organisations could be a major reason for this decline or lack of retention of volunteers (e.g. Warner et al. 2011; Cuskelly et al. 2006). This research focuses on the twin phenomena of management practice of volunteering organisations and retention of volunteers that are affecting volunteering and volunteer management world over in every context. In addition to management practice, researchers have been vociferous in recommending further investigation in enhancing volunteer motivation and satisfaction across contexts

(Pauline, 2011; Warner et al. 2011; Volunteering Australia, 2009) although such recommendations have seldom been linked to management practice as a concept and very little is understood on the linkage amongst management practice, motivation of volunteers, satisfaction of volunteers and retention of volunteers. It is important to highlight here that volunteer satisfaction and motivation are two very basic aspects that affect volunteers and it is difficult to delink these two aspects in any research pertaining to the study of volunteers. Thus this research while arguing on the need to study the linkage between management practice of volunteering organisations and retention of volunteers across contexts as part of the research context, brings in the need to understand how this linkage is influenced by the twin concepts of volunteer satisfaction and motivation in a context-free environment. Thus the research context that evolves from the foregoing arguments leads to the study of volunteers belonging to any organisation across contexts without any restriction imposed on their experience as volunteers or qualifications or earnings or gender or age or nationality.

While the research context set may appear that the researcher is attempting to address a problem at the global level, in reality it must be understood that it is possible to consider a sample set of volunteers targeted in any context-free environment when management practice of volunteering organisations, retention of volunteers, motivation of volunteers and satisfaction of volunteers are under study. The four concepts when applied to a sample set of volunteers across contexts then the outcome of a research that is based on the study of the sample set could in theory be assumed to represent any kind of volunteer population across the world due to the purported common characteristics that exist among volunteers regardless of contexts in which they volunteer (see Section 4.14.2). If one considers this argument it will logically lead to a question whether the outcome of this research could have such far reaching impact on volunteering as a concept that it could be applied as a general theory. The answer to this question is that such arguments can only be partially true as despite advancing the best arguments in empirical research, there are still limitations that prevent such a sweeping generalization. Thus while arguing that is possible to choose any set of volunteers as sample for study from a context-free environment for this research, this research also recognizes that in practical



circumstances it is difficult to ignore the importance of context (see Section 4.14.2) in volunteering research. Keeping this limitation in view, the researcher chose a research strategy that could enable access to a large section of volunteers having one important characteristic of just being a volunteer working in an organisation, regardless of the qualification or earnings or gender or age or nationality details about which are provided in the next section. Thus as part of the research context volunteers, who might be specialists or generalists as the case may, be but volunteers nonetheless, were randomly accessed using the online medium.

#### **4.14.2 Context-free nature of volunteerism**

In investigations related to volunteers, their motivation and satisfaction, the importance of context has received mixed response from researchers. For instance some researchers (Bang & Ross, 2009; Pauline, 2011; Pierce et al. 2014) have argued that context is an important factor that plays a leading role with regard to volunteer motivation and satisfaction. Some others have pointed out that motivation and satisfaction may not depend on the context, for instance in the case of volunteers serving in the Peace Corps, a volunteering organisation that serves people across the world, who are largely motivated to serve in multiple contexts (Tarnoff, 2014). Similar arguments have been advanced by other researchers who have pointed out that many volunteers are motivated to serve communities in multiple contexts as generalists (Ockenden & Hutin, 2008; Brudney & Meijs, 2014).

Although literature shows that generalist volunteers cannot be drafted into serving in some of the very specialized areas where doctors, agronomists, or engineers are needed (Tarnoff, 2014), it is an acknowledged and well accepted fact that generalists cannot fit into every situation and get trained in all types of special skills. Therefore it must be borne in mind that there is a tradeoff between the requirement of specialists to serve humanity or environment and the availability of specialist volunteers. This requires an important distinction to be made between the limits to which the capacity of a generalist volunteer could be stretched to serve a multitude of causes and the areas in which their ability could be maximized to substitute specialists to some extent. Here context cannot

be ignored although by and large generalists could be considered as an asset in multiple contexts. Particularly when the situation that is emerging over the years with regard to volunteering is that there is a steady decline in the number of specialist volunteers who could support context specific volunteering requirement, there is need to find standby solutions to motivate generalist volunteers to support the need of the hour and there seems to be tremendous interest shown by generalists in this situation (George, 1973).

In addition to the above, instruments that have been used in measuring volunteer satisfaction (e.g. Volunteer Satisfaction Index designed by Galindo-Kuhn & Guzley, 2001) and motivation (e.g. survey instrument developed by Bang & Chelladurai's, 2003) have been developed from general literature and have been used in volunteer research covering multiple contexts (e.g. study of non-specialised volunteer satisfaction in PGA Tour event 2009 (Galindo-Kuhn & Guzley, 2001); study of volunteer motivation in 2002 FIFA World Cup (Bang & Chelladurai's, 2003). Unless the concepts of volunteer satisfaction and motivation are context-free, to adopt the same instrument to measure volunteer satisfaction and motivation in multiple contexts would be unreasonable. This is further evidence from the literature that shows that volunteer research can be context-free.

Again, in a real life example George (1973) argues that with regard to operations in Peace Corps which is mandated to maintain peace in different nations and provide emergency, humanitarian, and development assistance at the community (Tarnoff, 2014), there is a huge gap between demand and supply of volunteers which has resulted in a situation wherein volunteers who are generalists are drafted to perform purely technical jobs. Generalists are those who are predominantly college graduates possessing first degree that is non-professional with the maximum likelihood of having very little or no full-time work experience (George, 1973). The example of Peace Corps is very relevant here because of its longstanding experience in volunteering since 1961 and the number of volunteers who have served humanity through Peace Corps has been very significant.

According to Tarnoff (2014) till 2014 the number of volunteers who have served in Peace Corps stood at a staggering 215,000 in over 139 countries, majority of them (85%) being generalists with about 84% of them being under the age of 30. In addition to this Peace Corps reports that a new strategy was drawn up in 2011 to ensure that lack of specialists does not affect its main goal of serving humanity in specialized and technical areas such as education, health, agriculture, environment, youth development, and business/IT. The strategy envisaged maximization of the effectiveness of the large pool of generalists who are engaged by Peace Corps by training them in areas where the demand of communities is maximum and where the generalists could impact the maximum (Tarnoff, 2014). These arguments very clearly point out that even in very specialized areas such as IT, there is a major involvement of generalists volunteers and such volunteers have been assigned specialized jobs in different countries making the importance of context redundant. Thus it is possible to infer from the above arguments that any inquiry into volunteers' satisfaction and motivation working with organisations similar to that of Peace Corps can be conducted in a context free environment.

From the theoretical angle, Zucker (1996, p. 17) states that “most of the scientific community assumes that “modern science is objective, value-free, and context-free knowledge of the external world. To the extent to which the sciences can be reduced to this mechanistic mathematical model, the more legitimate they become as sciences”. Tashakkori and Teddlie (1998) echo similar sentiments and explain that when quantitative methods are used in research then it is possible that time-free and context-free generalizations elicited. Again Bradley et al. (2008) argue that logical positivists believe that the link between the researcher and the researched should be independent and inquiry in general should be value free leading to context-free generalisations. Bradley et al. (2008) further state that logical positivism which is part of the positivist continuum, requires that causal links be isolated and identified as knowledge is objective. Literature on methodology is replete with many arguments which clearly say that positivist research divorces the participant in a research from participant's context by an effort to control for rather than adding contextual effects (Burrell & Morgan, 1979; Giddens, 1993; Orlikowski & Baroudi, 1991) and ignores the influence of social aspects and human

agency in understanding happenings that are observed (Klein & Myers, 1999; Orlikowski & Baroudi, 1991).

While it is possible to apply the above theories or statements of other researchers to the current research and explain and justify the points raised, even researchers involved in volunteer motivation and satisfaction research are seen to have argued in favour of context-free inquiry. For instance volunteer satisfaction is argued to be grounded in the relationship between motivations and actual experience and volunteers will continue to volunteer till the time they feel that their experience is rewarding and satisfying to their unique needs (Farrell et al. 1998; Cnaan & Goldberg-Glen, 1991). This implies that the motivational and satisfaction aspects of volunteers are not context dependent. Similarly some argue that it is important not to restrict context in research including volunteer research implying that there is a need to widen contexts because lessons learnt from existing research, for instance about benefits or barriers, could be useful in a variety of contexts (NCCPE, 2009). This argument clearly indicates the inseparable nature of the context-free research from the narrowly constructed perspective of contexts. In fact if one peruses through the various definitions of “context” found in literature (see Table 2.1) it can be seen that no unique definition is found that could be applied to all contexts and there is always a linkage between contexts, for instance between a location and the people from that location.

#### **4.14.3 Target population**

The researcher wanted to investigate the management practice prevailing in volunteering organisation to manage volunteers working in those organisations and thus the target population for this research was volunteers attached to any organisation. However since the researcher employed the services of a consulting organisation, the volunteers who were targeted were those identified by the consulting organisation. The researcher provided a simple specification to the consulting organisation with respect the participants. That is the participant should be a volunteer at the minimum and could belong to any nation, could work in any country, can be of either sex and aged above 18

years regardless of educational qualification, experience and any type of volunteer organisation.

In addition to the above the researcher was conscious of the large number of volunteers that was targeted as the population under study and such a population easily ran into millions. There was a need to make a meaningful choice of sample size of participants from that millions. In order to do this, the researcher relied upon the arguments of Krejcie and Morgan (1970) who have provided a table on determining the sample size when the population is in its millions.

<i>N</i>	<i>n</i>	<i>N</i>	<i>n</i>	<i>N</i>	<i>n</i>	<i>N</i>	<i>n</i>	<i>N</i>	<i>n</i>
10	10	110	86	300	169	950	274	4,500	354
15	14	120	92	320	175	1,000	278	5,000	357
20	19	130	97	340	181	1,100	285	6,000	361
25	24	140	103	360	186	1,200	291	7,000	364
30	28	150	108	380	191	1,300	297	8,000	367
35	32	160	113	400	196	1,400	302	9,000	368
40	36	170	118	420	201	1,500	306	10,000	370
45	40	180	123	440	205	1,600	310	15,000	375
50	44	190	127	460	210	1,700	313	20,000	377
55	48	200	132	480	214	1,800	317	30,000	379
60	52	210	136	500	217	1,900	320	40,000	380
65	56	220	140	550	226	2,000	322	50,000	381
70	59	230	144	600	234	2,200	327	75,000	382
75	63	240	148	650	242	2,400	331	100,000	384
80	66	250	152	700	248	2,600	335	250,000	384
85	70	260	155	750	254	2,800	338	500,000	384
90	73	270	159	800	260	3,000	341	1,000,000	384
95	76	280	162	850	265	3,500	346	10,000,000	384
100	80	290	165	900	269	4,000	351	500,000,000	384

**Table 4.6 Sample size determination (Adapted from Krejcie & Morgan, 1970)**

N indicates the size of the population whereas n denotes the size of the recommended sample. The sample sizes are based on the 95 percent confidence level. Thus from Table 4.6 it can be seen that it is possible to make reasonable predictions about a large population from a sample size that is only within a few hundreds. Thus if a population of one million is being studied, then based on the arguments of Krejcie and Morgan (1970), if a sample of 384 subjects participate in the research, then it is possible to make meaningful conclusions about the population at large. Although this research could have

adopted this argument, the research computed the sample size using a more scientific method provided in the next section.

While the number of volunteers ran into thousands, it was necessary to find a method to access them. The online questionnaire method was handy and the URL on which the survey questionnaire was posted was ready to be sent to the target audience through e-mail. The consulting organisation was having a large database of volunteers and their e-mail addresses were accessible through the database. The consultant sent the URL to more than 800 volunteers through e-mail as per the specification provided by the researcher.

#### **4.14.4 Sample size**

According to (Sapsford & Jupp, 2006) a sample is a set of units selected in some way from an identified population. Sampling methods broadly fall into two categories namely probabilistic and non-probabilistic sampling. While probabilistic sampling method includes simple random sampling, stratified random sampling and cluster sampling, non-probabilistic sampling method includes quota sampling (Sapsford & Jupp, 2006). Sampling provides a number of advantages such as more accurate than census (collecting data from entire population), quicker, less invasive of the community and cheaper. However there is an element of error called sampling error that could creep in while using sampling methods which may include errors introduced by problems related to field work, the nature of the data collection instrument and problems pertaining to managing large amounts of data (Sapsford & Jupp, 2006). Care has to be taken by researchers to ensure that such errors are minimized while using sampling. Amongst the different types of sampling method this research used the simple random sampling method classified under the probabilistic sampling method. In this method random indicates that every element in the population under study has an equal and independent chance of being chosen. In this method the word independent means that the choice one element does not influence the choice of the other. Similarly simple indicates that every time a unit is chosen from the population as sample nothing influences the choice. Thus for this

research simple random sampling was chosen and used to identify volunteers as sample units.

In order to arrive at the minimum sample size needed for collection of data, this research used the formula suggested by (Cochran, 1977) for continuous data and is given in equation (1).

$$n_0 = [t^2 \times s^2] \div d^2 \rightarrow (1)$$

where  $n_0$  = sample size;  $t$  = the t-value for a particular confidence level (confidence level usually used by researchers is 95%);  $s$  = estimate of standard deviation (calculated as  $s =$  number of points on the scale  $\div$  number of standard deviations) [e.g. if a researcher used a seven-point scale and given that six standard deviations (three to each side of the mean)]; and  $d$  = acceptable margin of error [calculated using the formula (number of points on primary scale multiplied by acceptable margin of error)].

Thus for this research the following values were used in determining the sample size.

$$t = 1.96 \text{ (for a confidence level of 95\%)}$$

$$s = 5 \div 4 = 1.25$$

$$d = 5 \times 0.03 \text{ where } 0.03 \text{ is the assumed margin of error} = 0.15$$

Thus from equation (1)

$$n_0 = [(1.96)^2 (1.25)^2] \div (0.15)^2 = (3.84) (1.56) \div (0.0225) = 5.99 \div (0.0225) = 266.22$$

Thus the estimated sample size of volunteers needed for this research is 266. However (Cochran, 1977) suggests the use of a correction formula for the results obtained using equation (1) using the correction formula given in equation (2) if the sample size exceeds 5% of the total population. For instance if the volunteer population is assumed to be 10,000 then 5% of 10,000 is 500 and the sample size calculated above as 266 can be used without correction. However, if the total population of the volunteers is assumed to be 5,000 then =5% of 5,000 is 250 and the sample size of 266 calculated above exceeds the 5% value. Therefore for the volunteer population of 5,000 the correction factor needs to be calculated using equation (2).

$$\underline{n} = (n_0) \div [1 + (n_0 / \text{Population})] \rightarrow (2)$$

where  $\underline{n}$  is the new sample size calculated after correction; population is the actual population size = 5,000; and  $n_0 = 266$ .

Thus from equation (2)

$$\underline{n} = (266) \div [1 + (266 / 5,000)] = 266 \div (1+0.0532) = 252.6 \approx 253.$$

Thus the minimum sample size needed for this research is 253 for an estimated volunteer size of 5,000. Even if the population size is increased to one million or more, it can be seen that the population size does not go beyond 266. Thus it can be seen that the sampling method adopted in this research either based on the table provided by Krejcie and Morgan (1970) or the sample size calculated by the researcher as provided above indicate that at a maximum the sample size needed does not exceed 384 and outcome of this research based on a sample of 384 could be construed to be applicable to the entire population of volunteers.

While the number of volunteers ran into tens of thousands, it was necessary to find a method to access them. The online questionnaire method was handy and the URL on which the survey questionnaire was posted was ready to be sent to the target audience through e-mail. The consulting organisation was having a large database of volunteers and their e-mail addresses were accessible through the database. The consultant sent the URL to more than 800 volunteers through e-mail as per the specification provided by the researcher (see previous). Thus it can be said that the research context and the sample size are justified.

#### **4.14.5 Data collection**

A consulting company in the USA was appointed for the purpose of collecting data from volunteers whose profile has been provided in Section 4.14.1 earlier. Online data collection method was used by the consulting company. The details of the ability of the company to provide support services in conducting surveys for collecting data is provided in the website <http://www.qualtrics.com> (Qualtrics, 2013). The researcher and the company agreed to the terms and conditions stated by the company on its website <http://www.qualtrics.com/acceptable-use-statement>. After fully satisfying with the confidentiality, integrity and availability of the questionnaire online and the data collected through the online facility the researcher posted the questionnaire provided in (Appendix 1) on the web portal of the company. The URL pertaining to the questionnaire



was provided to the consulting company to distribute to potential respondents by e-mail. The company sent the URL with a covering note on the e-mail about the survey. The ethical requirements were communicated to the company which included the ethical approval given by Brunel Ethical Committee so that adequate care was taken by the company while collecting data. Once the respondents receive and read their e-mail they were just required to click on the URL which would automatically lead them to the questionnaire. Instructions on the questionnaire were self-explanatory and answering the questionnaire required just clicking on the choice of response they thought was the most appropriate using the mouse. Navigating through the questions was a simple process. This form of collecting data online has been accepted by researchers (e.g. Creswell, 2003) who are involved in empirical research.

The company distributed the URL to over 800 respondents and a total of 386 valid responses were received. The response rate was 48.25%. Although there is no reference standard that prescribes the minimum response rate to be achieved the one suggested by Sekaran (2003) which says 30% response rate is acceptable was adopted for this research. Thus a response rate of 48.25% was considered to be an acceptable response rate. The collection of data was spread over a month and was carried out during October 2011.

#### **4.14.6 Data editing and coding**

In order to analyse the data the researcher used SPSS version 18.0. The data collected by the consulting company was passed on to the researcher through the web portal and the researcher could directly download the data in SPSS format. This enabled the researcher to eliminate any human intervention in entering the data into the SPSS software package. The data was screened using the functions frequency on SPSS. Consequently no missing data or error in entering data or data that are out of range was found. Further to that data was coded assigning alphanumerical characters. Each item in the questionnaire was identified by a unique variable name. The coding sheet is provided in (Appendix 3).

#### 4.14.7 Data Management

An important aspect of data analysis is the need to prepare the data prior to its analysis. Data preparation involves checking certain aspects that satisfy certain assumptions that were made prior to data analysis. Since the statistical data analysis (see Section 4.15) carried out in this research involves exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modeling (SEM), important assumptions were made. The assumptions that were made were: no missing data (an important condition to conduct CFA) and the collected data are normal. To test these assumptions two important aspects were identified. They were checking for missing data and normality of data using SPSS.

As was already mentioned missing data was not found in the data. As far as normality of data was concerned three tests were conducted they were measuring the standard deviation, checking for outliers, and measuring the skewness and kurtosis. According to SPSS (2010) data are supposed to be normal if the data are distributed within  $\pm 2.0$  standard deviations from the central point. Outliers are those observations that lie far apart from the majority of the data (Liu & Zumbo, 2007). It is important to detect the presence of outliers as they can have an effect on mean, correlation, regression parameters, t tests, and F tests (e.g., Zumbo & Jennings, 2002; Wilcox, 2005). One of the reliable ways by which outliers could be detected is the Mahalanobis distance ( $D^2$ ). According to (Kline, 2005) Mahalanobis distance ( $D^2$ ) is a statistic that is measured in terms of the standard deviation units that is calculated between a set of scores for an individual case and the sample means for all variables. Mahalanobis distance ( $D^2$ ) was calculated using SPSS and is determined as the ratio of ( $D^2/df$ ) where df represents the degrees of freedom. According to researchers (e.g. Hair et al. 2006) data are considered to be normal if ( $D^2/df$ ) is within 2.5 for small samples and in the range between 3 and 4 for larger samples. For this research the recommendations of Hair et al. (2006) which says that the ratio ( $D^2/df$ ) should be below 4 for large samples was adopted. Furthermore, Burke (2001) argues that the maximum percentage of outliers allowed as a rule of thumb is around 20%. In case the outliers detected are within 20% of the total number of outliers

detected then it is possible to ignore the outliers present else it may be necessary to delete those cases that cause the problem.

Another test used to detect multivariate normality is the measurement of skewness and kurtosis. These two tests are also tested using SPSS. Skewness represents the extent to which data are asymmetrical in relation to a normal curve while kurtosis represents the extent to which the normal curve is peaked or flat (Cohen et al. 2007). A negative kurtosis indicates that the normal curve will be flat while a positive kurtosis indicates a peaked normal curve. Although there is no consensus on the acceptable value of kurtosis, some researchers (DeCarlo, 1997) argue that kurtosis within  $\pm 3.0$  can be considered as representing normality. Skewness indicates the extent shift of the normal curve with reference to the central point on either side with positive skew indicating a shift to the left and negative skew indicating a shift to the right of the central point (Weisstein 2004). Recommended values of skewness by researchers (e.g. Chan, 2003) indicates that skewness should lie in the range  $\pm 1.0$  although some researchers argue that acceptable values could fall within the range  $\pm 2.0$  (Kunnan, 1998). In the absence of consensus on a unique acceptable value of skewness in this research skewness values within the range  $\pm 2.0$  were accepted. That is to say if skewness values fall within this range data is considered normal.

The foregoing discussion has provided the preparation of the data for conducting the data analysis. There are important steps and tests that need to be carried out as part of data analysis which enabled the researcher to test the research relationship model, verify hypothesis and derive findings. Thus the following sections deal with the data analysis aspects.

#### **4.15 Data analysis**

As far as data analysis aspects were concerned in this research the software package SPSS version 18.0 and AMOS version 18.0 were used. According to Arbuckle (2010) SPSS/AMOS is a software package that could be used to implement the general approach to data analysis including SEM, analysis of covariance structures, or causal modeling.

Even special cases including general linear modeling and common factor analysis can be implemented using SPSS/AMOS (Arbuckle, 2010). According to Cunningham and Wang (2005) AMOS is the most frequently used software for teaching postgraduate students in SEM while SPSS is also found to be popular with both undergraduate and postgraduate students in research. Although there are other similar software packages for instance SAS (statistical analysis system) / LISREL (linear structural relationship) that could be used in research (Albright & Park, 2009), in this research SPSS/AMOS was used taking into account the various facilities it provides while conducting SEM and other data analysis.

Further (Pallant, 2005) identifies important steps involved in data analysis which include testing descriptive statistics for instance minimum, maximum, frequency, percent, mean, standard deviation, skewness, kurtosis and Pearson correlation, testing the reliability and validity of the measurement of the model for instance testing Cronbach's alpha, internal consistency, convergent validity, discriminant validity and analysing data by SEM. SPSS/AMOS was used to conduct data analysis described above. Following discussions provide an idea about the various tests that were conducted in this research.

#### **4.15.1 Descriptive statistics**

According to Pallant (2005) descriptives enable the researcher to check the assumptions made for conducting the data analysis are not violated. Tests such as mean, standard deviation, range of scores, skewness and kurtosis provide the basis to check whether assumptions are not violated while proceeding to conduct such statistical analysis as correlation and SEM (Pallant, 2005). Detailed testing of the descriptives is provided in Chapter 5. The mean and range of scores provide useful information regarding the participants which includes the number of participants in the sample, percentage of males and females in the sample, mean of ages, educational qualifications and other demographic information. Regarding the other measures standard deviation, skewness and kurtosis, already discussions have been provided under Section 4.14.6 which enabled the researcher to test the assumption that data collected to measure multiple variables are normal.

Moreover one of the assumptions that was made in this research was the existence of collinearity amongst the variables used to measure the constructs. Multicollinearity is said to exist when predictor variables are highly correlated leading to reduction in reliability of the results of the statistical analysis. For instance Pallant (2005) argues that correlation between independent variables if exceeds 0.9 then multicollinearity exists and could lead to a regression model that may not be good. Detailed measurement of multicollinearity is provided under Section 5.1. Further to discussing the descriptives, reliability and validity analysis need to be conducted about which discussions have already been provided under Sections 4.12 and 4.13 respectively and detailed analysis is provided in Chapter 5. Following the reliability and validity measurements, the next step to be taken is the model measurement using SEM on which the following discussions focus.

#### **4.15.2 Structural Equation Modeling**

Structural Equation Modeling (SEM) is a common statistical modeling technique that is being commonly used in empirical research (Hox & Bechger, 1998). The need for using SEM arises of the many different advantages it offers while testing a model. The main advantages are its ability to fit non-standard models which flexibility provided to deal with: longitudinal data, databases with auto-correlated error structures (time series analysis), and databases with non-normally distributed variables and incomplete data (Computation, 2012). Some of the other advantages are provided in (Appendix 4). Additionally SEM could be fitted to flexible and powerful software like SPSS/AMOS. Besides SEM uses specific terminologies such as exogenous variables, endogenous variables, mediating variables, observed/manifest variables, unobserved/latent variables, recursive models, non-recursive, model parameter, path diagram, free parameters, fixed parameters and constrained parameters. Glossary on these terminologies is provided in Appendix 5. Although detailed application of SEM to this research has been discussed in Chapter 5, the following sections provide some important aspects that need to be understood by the researcher about SEM preceding its application.

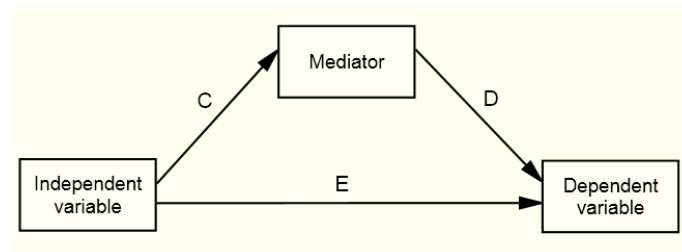
Besides, SEM is considered to be a combination of factor analysis and regression or path analysis (Hox & Bechger, 1998). SEM enables the researcher to test assumed relationships between a set of variables and the factors on which the variables are likely to load. Researchers consider SEM as confirmatory tool (Byrne, 2009; Kline, 2005). Abramson et al. (2005) claim that by using SEM it is possible to find out how independent variables contribute to the explanation of the dependent variables and enables the researcher to model the direction of relationship within a multiple regression equations. Byrne (2005) (see also Kline, 1998) explains that SEM supports modeling several multiple regression equations at the same time employing moderators and mediators as may be required for modeling. One of the major attractions of SEM is its ability to test alternative model structures and relationships between variables (Ullman & Bentler, 2003; Byrne, 2005), test whether the same model is valid across groups (Kline, 2005; Ullman & Bentler, 2003) and provide reliability and error terms (Ullman & Bentler, 2003; Byrne, 2005). Finally SEM leads a researcher to identify a model that makes theoretical sense (Kline, 1998), fits well to the data and is simple (parsimonious) (Arbuckle & Wothke, 1999; Ullman & Bentler, 2003) implying that the model developed should have theoretical underpinning or supported by past research.

An important feature of SEM is the assumptions that are made prior to implementing SEM. Important statistical assumptions made in SEM include that different types (also called as level) of scales (categorical or nominal, ordinal, interval and ratio) are not mixed, data is normally distributed, the relationship between variables is linear and sufficient sample size is available. These assumptions need to be satisfied prior to implementing SEM.

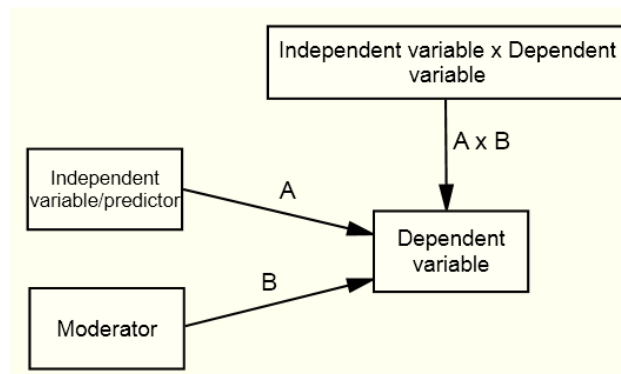
#### **4.15.3 Clarification on the moderation/mediation applied in the research**

As mentioned in Section 4.15.2 it can be seen that moderating and mediating variables are incorporated in SEM in order to know how independent variables contribute in explaining variation in dependent variables. The need to understand about mediators and moderators arises out of the fact that in SEM they have a significant role in explaining the relationship between the independent variables and the dependent variable when they are

brought in as third variables in the relationship between the independent variables and the dependent variable (Baron & Kenny, 1986). The representation of mediator and moderator variables is provided in Figures a1 and a2 respectively (Baron & Kenny, 1986).



**Figure 4.1 Representation of mediator (Baron & Kenny, 1986)**



**Figure 4.2 Representation of moderator (Baron & Kenny, 1986)**

According to Baron and Kenny (1986) a construct can be considered to function like a mediator to the extent that it is able to account for the relation that exists between the independent or predictor variable and the phenomenon or criterion under discussion. From the mediator and moderator literature it can be seen that a mediator is defined as any variable that impacts the relationship between any two variables and that the independent variable indirectly impacts the dependent variable through the mediator (Abramson et al. 2006) and forms a causal chain (Baron & Kenny, 1986). From Figure 4.1 it can be seen that the mediator impacts the relationship between the independent variable and the dependent variable through the paths C and D. The path C links the independent variable to the mediating variable and path D links the dependent variable to the mediating variable and hence the paths C and D together form the causal chain between the independent variable and the dependent variable through the mediator. As

far as this research is concerned the concept of mediator can be explained by referring to Figure 3.2 and by taking the analogy of the abovementioned discussions. From this figure it can be seen that in the relationship between the management practice and volunteer retention third variables namely motivation and satisfaction have been introduced. These two constructs are argued to influence the relationship between the management practice and volunteer retention in a way that management practice as an independent variable indirectly affects volunteer retention as a dependent variable through the two constructs motivation and satisfaction (see Section 3.5). It can be said that the two constructs motivation and satisfaction act as mediators in the relationship between the management practice and volunteer retention. Similar arguments could be extended to the presence of satisfaction as a mediator in the relationship between motivation as the sub-independent variable and volunteer retention as the dependent variable.

As far as moderators are concerned in the conceptual model given in Figure 3.2 no such construct has been identified. Theoretically a moderator can be either a qualitative or a quantitative variable that impacts the direction and/or strength of the relationship that exists between the independent and dependent variable (Baron & Kenny, 1986). Example of qualitative variables could be class, ethnicity or gender and quantitative variable could be level of motivation. For instance in Figure 4.2 the moderator variable is seen to affect the relationship between the independent variable and dependent variable without being in the middle of the path A and through the effect of the conception indicated by the product of the paths A and B. Thus the relationship between the independent and dependent variable (path A) is said to be moderated by the moderator if the path  $(A \times B)$  is found to be significant in the statistical analysis. The difference between moderator and mediator is that moderators indicate when some effect will hold whereas mediators explain how such effects occur. As far as this research is concerned if one takes a hypothetical situation to analyse the age of volunteers as a moderator then it is possible to introduce age as affecting either satisfaction or motivation and verify whether it has any impact on the relationship (satisfaction  $\rightarrow$  volunteer retention) or (motivation  $\rightarrow$  volunteer retention). That is it is possible to check the statistical significance of the relationship (age  $\rightarrow$  satisfaction  $\rightarrow$  volunteer retention) or (age  $\rightarrow$  motivation  $\rightarrow$



volunteer retention). Such a concept of moderator could be useful in explaining any relationship that is theoretically being analysed with an emphasis on moderation. However it must be borne in my mind that the aim of discussions on mediators and moderators given above is not intended to be a deeper discussion on the theory of mediators and moderators but one that provides a good knowledge about their definition and utility for this research. Thus a deeper discussion on this subject is considered beyond the scope of this research.

Although SEM has been shown to be highly useful there are limitations that must be borne in mind prior to using SEM. Limitations include inability of SEM to enable the researcher to decide whether a model is complete or incomplete and lack of a facility to decide on the best model (Kunnan, 1998). The researcher kept in mind these limitations and applied SEM to the research model without affecting the outcome of the research.

In addition to the above it must be understood that there are specific steps in SEM that must be followed while implementing SEM which include model specification which comprises specifying the measurement model and the structural model, model identification, model estimation, testing model fit and model respecification (Kunnan, 1998). These have been discussed in detail and applied to this research in Chapter 5. As far as this research is concerned the basic structural equation for the research model in Figure 3.2 can be established as follows:

In general any relationship between an independent and dependent variable could be written as follows (equation (3)):

$$y = i + xb + e \rightarrow (3)$$

where:

y = the dependent variable

i = the y-intercept

x = matrix of independent variables

b = regression weights, and

e = residual or error unexplained by the model

In reality models will have more than one equation. Thus for the research models under investigation in this research (Figures 3.2 and 3.3) the following equations called structural equations can be written.

$$\text{Retention} = i_0 + \beta_1 \text{Planning} + \beta_2 \text{Recruitment} + \beta_3 \text{Training and Support} + \beta_4 \text{Performance management} + \beta_5 \text{Recognition} + e_0 \rightarrow (3.1) \text{ [Figure 3.2]}$$

$$\text{Motivation} = i_1 + b_1 \text{Management Practice} + e_1 \rightarrow (4)$$

$$\text{Satisfaction} = i_2 + b_2 \text{Management Practice} + e_2 \rightarrow (5)$$

$$\text{Satisfaction} = i_3 + b_3 \text{Management Practice} + b_4 \text{Motivation} + e_3 \rightarrow (6)$$

$$\text{Retention} = i_4 + b_4 \text{Motivation} + e_4 \rightarrow (7)$$

$$\text{Retention} = i_5 + b_5 \text{Motivation} + b_6 \text{Satisfaction} + e_5 \rightarrow (8)$$

Once the structural equations are developed it is possible to fit the numerical values for the coefficients ‘i’, ‘β’, ‘b’ and ‘e’ derived from the software used to implement SEM. The foregoing discussions have provided a broad idea about the various structural aspects of SEM. However as explained above SEM is a combination of factor analysis and path analysis. Thus the following sections discuss the factor analysis aspects and the path analysis used in this research.

#### **4.15.4 Factor analysis**

According to Albright and Park (2009) factor analysis is a statistical method used by researchers to arrive at a smaller number of unobserved variables (also called latent variables) that can explain for the covariance among a larger set of observed variables (also called manifest variables). There are two types of factor analysis conducted by researchers widely namely exploratory factor analysis and confirmatory factor analysis (Thompson, 2004). Each one of them is discussed next.

#### **4.15.5 Exploratory factor analysis (EFA)**

Matsunaga (2010) argues that EFA is used by researchers when they have no idea about the underlying mechanisms governing the target phenomena and hence may not be sure of how different constructs or variables would operate with respect to one another. Moreover researchers use EFA to discover the nature of the variables influencing a set of

responses as well as justify the concurrent scales or sub-scales defined in the questionnaire (DeCoster, 2000). Alternatively Janssens et al. (2008) argues that EFA can be used to decrease size of a dataset leading to the reduction in the dataset to an actual underlying dimensionality. In other words, using EFA a large quantity of variables could be reduced to a smaller number of dimensions or factors that were previously unknown. However there are limitations to applying EFA. The main limitation is that EFA is not a test that could be used as evidence for validity and cannot test theoretical predictions (DeCoster, 2000). However researchers (e.g. Lysack and Krefting, 1993; Farrell et al. 1998) have been seen to widely use EFA in organisational research in order to test whether unknown factors apart from the one they have identified are underlying in the dataset. Considering this aspect, in this research also EFA used to a limited extent to determine the unknown underlying factors pertaining to the construct Management Practice, details of which are provided in Chapter 5.

#### **4.15.6 Confirmatory Factor Analysis (CFA)**

Albright and Park (2009) claim that CFA is a theory or hypothesis driven analysis and enables researchers to test hypotheses. In addition, CFA produces many goodness-of-fit measures that could be used to assess a research model. CFA is considered to be a special case of SEM (Albright & Park, 2009). While SEM has been found to be a combination of a measurement model and a structural model, CFA represents the measurement model of SEM. The main advantages of using CFA are (Mueller & Hancock, 2008):

- It bridges the commonly seen gap between theory and observation.
- It gives valuable information to the researcher regarding the fit of the data to the theory driven model.
- It can point out potential weakness of specific items in the model.
- It acts as a process comprising model conceptualization, identification, parameter estimation, data-model fit assessment and potential re-specification of the model.
- It can enable researchers to reject models or theories.

Limitations of CFA include the lack of strictly confirmatory characteristic in the analysis during post hoc modifications as during such a modification the model could turn out to

be somewhat exploratory (Conway & Huffcutt, 2003) Similarly small samples could be cause of concern as assumptions due to violations in normality could be invalid and hence the model may not fully fit to the data (Raykov, 1998). Similarly usually the number of participants is usually lower than the number of degrees of freedom which is not accepted when Maximum Likelihood estimation method is used (McCrae et al. 1996). Therefore the researcher while using CFA in this research ensured that the limitations are adequately taken care of. In addition the researcher could find support from other researchers (e.g. Cuskelly et al. 2006) involved in volunteer research who have successfully used CFA.

While the foregoing discussions have dealt with the data analysis steps used in this research, there are two other tests that need to be discussed namely unidimensionality and common method bias. While unidimensionality indicates the presence of only one underlying dimension in the model it also suggests that the reliability values are acceptable as reliability assumes unidimensionality (Gerbing & Anderson, 1988). Similarly common method bias occurs when variables both independent and dependent are given by the same source (e.g. by the same individual) at any instant of time (Serenko, 2008) and also due to self-reporting (Meade et al. 2007). This is indicated by the emergence of one single general factor when the data are subjected to analysis (Serenko, 2008). Presence of method bias can raise questions on the validity of the conclusions as it makes it difficult to make out whether the relationships in the model represent reality or just the feelings of the participant (Podsakoff et al. 2003). While assessment of unidimensionality was conducted using AMOS output on the regression estimates and critical ratio (CR) generated using the maximum likelihood (ML) method, method bias was assessed using average variance extracted (AVE) method, use of these methods is supported by extant literature. For instance (Janssens et al. 2008) argue that unidimensionality could be tested using the AMOS output on regression weights (generated using ML method) while (Merrilees et al. 2011) suggest that AVE could be used to determine the presence of common method bias. The actual measurements with respect to unidimensionality and common method bias are provided in Chapter 5.

#### **4.16 Summary**

In this chapter the discussions have focused on the methodological aspects adopted in this research based on a critical discussion on various aspects that influence the adoption of a particular methodology. The discussions enabled the researcher to develop the research framework which included the adoption of positivist epistemology, objectivist ontology, deductive research approach and quantitative research method for this research. Further the chapter has provided the details on the research design and research strategy developed and implemented for this research. The data collection and data analysis aspects have been discussed comprehensively. Thus this chapter provides the basis for analyzing the data details of which are provided in the next chapter.

## **Chapter 5**

### **Data analysis**

## **5 Introduction**

This chapter makes available the complete details related to the data analysis of the data collected using the quantitative methodology described in the previous chapter. The results of the analysed data are reviewed and interpreted to arrive at inferences. The various steps involved the data analysis and interpretation include analyzing descriptive statistics, testing the internal consistency reliability of the collected data, testing the construct validity, Structural Equation Modelling comprising the Confirmatory Factor Analysis (CFA) and path analysis, testing the unidimensionality of the solution, establish the relationship between latent variables, provide discussions on the findings of the statistical analysis and test the hypotheses. SPSS v. 17 and AMOS v.18 were used in this research to conduct the statistical analysis. Each one of the above statistical tests is described next in the following sections.

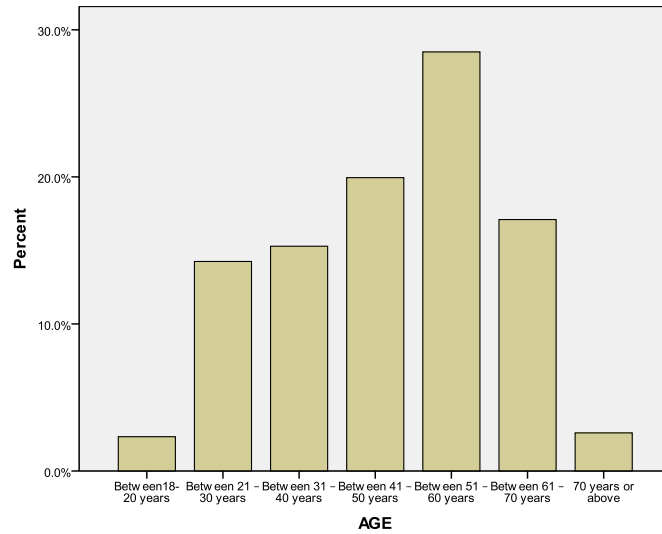
### **5.1 Descriptive statistics**

Descriptive statistics include both demographic variables and the variables concerning the research model. The demographic descriptive statistics are analysed first prior to analyzing the variables in the model. The data were analysed using SPSS version 17.0.

#### **5.1.1 Demographic variables**

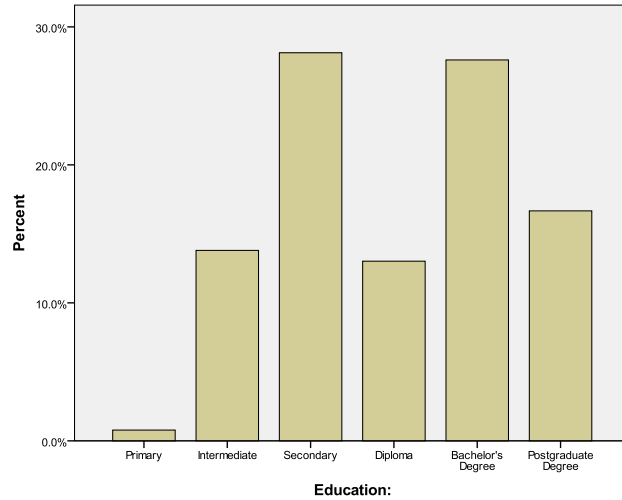
Data on five demographic variables namely gender, age, educational qualification, income and number of years of service as volunteer were analysed. Following are the details. As far as gender is concerned majority of the respondents who participated in the survey was female (63%) although the male participants' percentage (37) was slightly higher than half the percentage of the female participants. This indicates that volunteers from both the genders participate as volunteers indicating that gender is not a factor that affects volunteerism. Figure 5.1 provides the graphical representation of the age of the respondents who participated in the survey. The chart indicates respondents in the age group 51-60 years were the maximum (28.5%) who participated in the survey followed by 19.9% in the age group 41-50 years, 17.1% in the age group 61-70 years, 15.3% in the age group 31-40 years and 14.2% in the age group 21-30 years. In comparison, the percentages of participants in the age group of 18-20 years and beyond 70 years of age

were insignificant. This shows that the maximum number of respondents were in the age group between 21-70 years indicating that age does not act as a barrier to be a volunteer. Age as a factor does not indicate that one particular age group to be dominant as volunteers due to any special reason from which it is possible to infer that age is not a variable in this research.



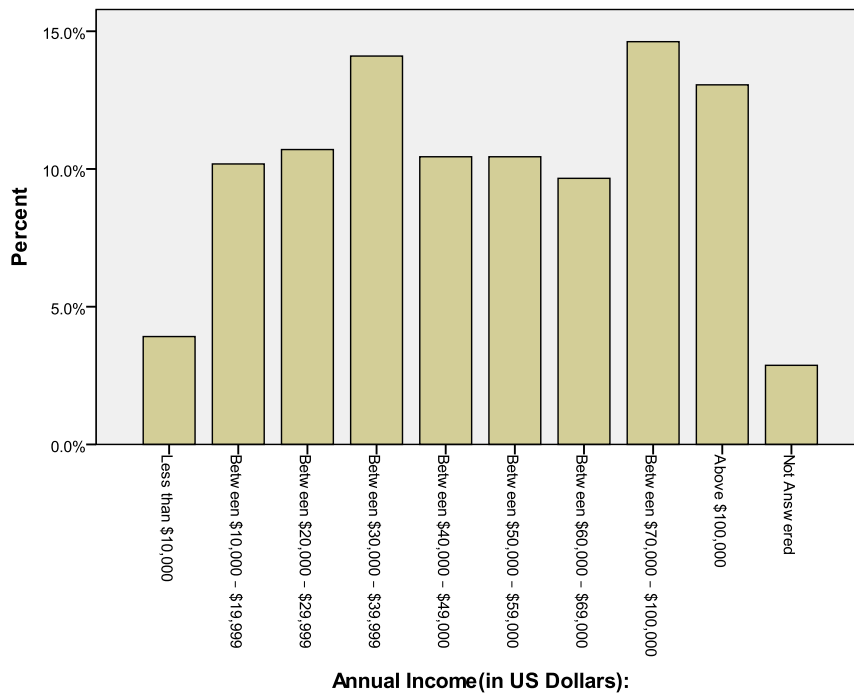
**Figure 5.1 Age of the participants in the survey**

Similarly, in case of educational qualification Figure 5.2 indicates that the educational qualifications do not significantly contribute any particular information regarding the participants except that volunteers have different levels of qualifications. For instance 27.5% of respondents were holding a bachelor’s degree while 28% were having just secondary school educational qualification. Interestingly only 16.6% of the respondents were having postgraduate qualifications while intermediate school and diploma holders accounted for 13.7% and 13% respectively. These figures indicate that educational qualification is not a significant criterion to become a volunteer and that people with different qualifications could become volunteers.



**Figure 5.2 Level of education of participants in the survey**

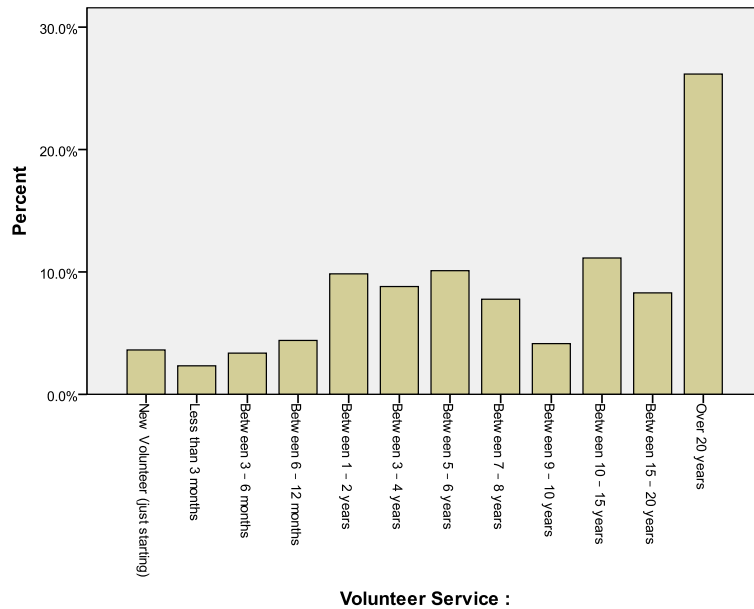
With regard to annual income Figure 5.3 indicates that volunteers in different income brackets have participated in the survey. Income of participants has ranged from less than \$1000 per annum to beyond \$100,000 per annum indicating that income is not a factor that prohibits or encourages people become volunteers.



**Figure 5.3 Annual income of participants in the survey**



Lastly participants were asked about the number of years they have been volunteers. Figure 5.4 provides the details.



**Figure 5.4 Number of years participants have been volunteers**

Descriptive statistics was used in the research model to analysis the data as the first step. The results of the collected data were analysed using median (Table 5.1). The mean of the data collected ranged from 3.29 (Management Practice) to 4.22 (Retention (One)). As far as volunteer management is concerned the central tendency indicated that participants agreed (median 3.375) that volunteering organisations often used particular management practices in dealing with the volunteers. The underlying meaning that could be extracted from the responses, appears to indicate that volunteering organisations do not use management practice as standard and routine process always but use it most of the time. The participants appear to indicate that volunteering organisations tend towards using management practices, a sign that could indicate that volunteer organisations need to always use management practices not most of the time.

No	Model Constructs	Description	Mean	Median	Std. Deviation
1	MGMNT	Management Practice	3.2940	3.3750	0.88790
2	SAT	Satisfaction	4.0486	4.0000	0.61370
3	MOT	Motivation	4.1634	4.1818	0.56419
4	RET	Retention	4.0026	4.0000	.78422

**Table 5.1 Descriptive statistics**

In similar vein it can be seen from Table 5.1 that the central tendency indicates that participants are satisfied (median 4.0) with their organisations indicating that the organisations are managing them well and the management practices has led to volunteer satisfaction. As far as volunteer motivation is concerned the central tendency appears to indicate that participants are motivated by their organisations (median 4.1818) indicates that volunteering organisations have management practices that motivate the volunteers. Finally, participants in the research indicated that they would like to continue with their respective organisation and would not like to leave the organisation in the immediate future (median 4.0) indicating that overall the volunteers are probably happy with the way their organisation is managed and they are perhaps motivated and satisfied with the management practice.

As far as the standard deviation is concerned all constructs in Table 5.1 are seen to have a deviation within a maximum of 0.888 (for Management Practice). It is seen that the values of the central tendency parameters mean and standard deviation derived from the descriptive statistics are similar to those achieved by earlier researchers, for instance Cuskelly et al. (2006) who achieved a mean of 2.8 for recruitment (a management practice construct) and 3.94 for recognition (a management practice construct).

As part of the descriptives the next step involved cleaning the data and preparing the data for data analysis. As discussed in Section 4.14.6 normality (skewness, kurtosis and Mahalanobis distance) and multicollinearity were checked (see Appendix Normality-Appendix 6) and were found to be within acceptable limits. For instance data was checked for normality. Values fixed as limits were skewness  $\pm 1.5$ , kurtosis  $\pm 3.0$  and Mahalanobis distance less than 4.0. Although some responses showed values of

Mahalanobis distance exceeding 4.0 (Appendix 6) such responses were much less when compared to the total number of responses (386), thus making the data distribution to be considered as normal.

Similarly, multicollinearity was checked using correlation between any items under a construct and the limit fixed was less than 0.9. These limits were fixed based on prior research (e.g. Pallant, 2005). Further to the analysis on descriptive statistics, the researcher proceeded to test the reliability and validity of the data beginning with assessing the internal consistency of the collected data. As explained in Section 4.12, internal consistency is checked using reliability (Cronbach's Alpha) test, item-item correlation and item-total correlation.

## 5.2 Reliability

The reliability test was carried out on the constructs identified for this research the list of which is provided in Table 5.2. The table provides the figures for Cronbach's alpha, inter-item correlation and item-item correlation, derived from SPSS version 18.

Measurement Items (Interval Scale)	Items	Cronbach's Alpha	Reliability Results	Inter-Item Correlation (range)	Item-Total Correlation (range)
Management Practice (MGMNT)	24	0.961	Good	0.225 (MP14-MP20)-0.753 (MP10-MP11)	0.561-0.778
Satisfaction (SAT)	9	0.909	Good	0.389 (SAT25-30)-0.789 (SAT32-33)	0.619-0.743
Motivation (MOT)	11	0.909	Good	0.235 (MOT 36-42)-0.776 (43-44)	0.563-0.749
Retention (RET)	6	0.827	Good	0.24 (RET47-49) – 0.8 (RET48-50)	0.503-0.707

**Table 5.2 Internal consistency readings**

As mentioned in Section 4.12 acceptable values of Cronbach's alpha should exceed 0.7 for data to be considered reliable. It can be seen from Table 5.2 that Cronbach's alpha for all the constructs exceed 0.7 with minimum being 0.827 and maximum being 0.961

indicating that the data are reliable. With regard to internal consistency measurement it can be seen that item-item correlation values in some cases were found to be lower than the reference value of 0.3 set for this research (see Section 4.12). For example in the case of the construct Management Practice, five correlation values were found to be lower [MP14-MP20 (0.26), MP9-MP14 (0.245), MP1-MP14 (0.289), MP8-MP20 (0.26) and MP13-MP20 (0.225)]. However all these items which contributed to lower values were still retained because the contents of these items were important and could not be ignored until they have been subjected to more rigorous statistical tests. Similar arguments could be provided for retaining items that had lower item-item correlation with regard to the constructs Motivation and Retention. Thus while retaining the items even with lower than acceptable values of inter-item correlation, the researcher kept the option to retain or delete the items based on further tests. In this context it could be seen that the item to total correlation readings for all the constructs indicated values above the reference value of 0.5. Thus it can be said that internal consistency of the items were achieved.

### 5.3 Validity

As explained in Section 4.13 content validity, construct validity and discriminant validity were tested in this research. Content validity was tested based on the outcome of the pilot tests and as explained in Section 4.13. Experts were approached to examine the validity of the contents in terms of the language, format, scales used and the ability of the contents to measure the constructs they are purported to measure. The final set of questions validated by experts and used in the main survey is given in Table 5.3.

Question number	Description	Value	Measure
<b>Management practice</b>			
MP1	Identify potential volunteers before events begin.	5-points	Ordinal
MP2	Provide role or job description for individual volunteers.	5-points	Ordinal
MP3	Actively encourage turnover of volunteers in key position.	5-points	Ordinal
MP4	Maintain database of volunteers' skills, qualification and experience.	5-points	Ordinal
MP5	Match the skills, experience and interests of volunteers to specific roles.	5-points	Ordinal
MP6	Develop positions to meet the needs of individual volunteers.	5-points	Ordinal
MP7	Actively recruit volunteers from diverse background.	5-points	Ordinal
MP8	Use advertising for volunteer recruitments (e.g., newsletters, online,...)	5-points	Ordinal
MP9	Encourage volunteers to operate within a code of acceptable behavior.	5-points	Ordinal
MP10	Introduce new volunteers to people with whom they will work during the	5-points	Ordinal

	organisation.		
MP11	Provide support to volunteers in their roles (e.g., assist with the resolution of conflict).	5-points	Ordinal
MP12	Manage the work loads of individual volunteers where they are excessive.	5-points	Ordinal
MP13	Assist volunteers to access training outside the organisation (e.g., accreditation training course)	5-points	Ordinal
MP14	Cover or reimburse the costs of volunteer attendance at training or accreditation course.	5-points	Ordinal
MP15	Conduct induction sessions for specific group of volunteers (e.g. supervisor, team leader, ....)	5-points	Ordinal
MP16	Mentor volunteers, particularly when starting in a new role.	5-points	Ordinal
MP17	Provide sufficient support for volunteers to effectively carry out their task.	5-points	Ordinal
MP18	Recognize outstanding work or task performances of individual volunteers.	5-points	Ordinal
MP19	Plan for the recognition of volunteers.	5-points	Ordinal
MP20	Thank volunteers for their efforts (e.g., informal thanks you)	5-points	Ordinal
MP21	Publicly recognize the efforts of volunteers (e.g. in newsletters, special events).	5-points	Ordinal
MP22	Provide special awards for long serving volunteers (e.g., life membership).	5-points	Ordinal
MP23	Monitor the performance of individual volunteers.	5-points	Ordinal
MP24	Provide feedback to individual volunteers.	5-points	Ordinal
<b>Satisfaction</b>			
SAT1	My relationship with paid staff.	5-points	Ordinal
SAT2	How often the organisation acknowledges the work I do.	5-points	Ordinal
SAT3	The degree of cohesiveness I experience within the organisation	5-points	Ordinal
SAT4	The chance I have to utilize my knowledge and skills in my volunteer Work.	5-points	Ordinal
SAT5	The access I have to information concerning the organisation.	5-points	Ordinal
SAT6	The freedom I have in deciding how to carry out my volunteer assignment	5-points	Ordinal
SAT7	My relationship with other volunteers in the organisation	5-points	Ordinal
SAT8	The amount of interaction I have with other volunteers in the organisation	5-points	Ordinal
SAT9	The amount of time spent with other volunteers.	5-points	Ordinal
<b>Motivation</b>			
MOT1	No matter how bad I've been feeling, volunteering helps me to forget about it.	5-points	Ordinal
MOT2	I am concerned about those less fortunate than myself.	5-points	Ordinal
MOT3	I am genuinely concerned about the particular group I am serving.	5-points	Ordinal
MOT4	I feel compassion toward people in need.	5-points	Ordinal
MOT5	I feel it is important to help others.	5-points	Ordinal
MOT6	I can do something for a cause that is important to me.	5-points	Ordinal
MOT7	Volunteering allows me to gain a new perspective on things.	5-points	Ordinal
MOT8	Volunteering lets me learn things through direct, hands on experience.	5-points	Ordinal
MOT9	I can explore my own strengths.	5-points	Ordinal
MOT10	Volunteering increases my self-esteem.	5-points	Ordinal
MOT11	Volunteering makes me feel needed.	5-points	Ordinal
<b>Retention</b>			
RET1	I plan to continue volunteering at this organisation until end of this year.	5-points	Ordinal
RET2	I plan to continue volunteering at this organisation next year	5-points	Ordinal
RET3	I am likely to be volunteering at this organisation three years from now.	5-points	Ordinal

RET4	I intend leaving this organisation altogether within 12 months	5-points	Ordinal
RET5	I intend to volunteer in the next 12 months but with a different organisation	5-points	Ordinal
RET6	I intend to cease volunteering at organisation as soon as another volunteer can be found to replace me	5-points	Ordinal

**Table 5.3 Description of items, their coding, scaling and the constructs they measure**

As far as construct validity was concerned, as explained in Section 4.13, it was measured using convergent validity. Convergent validity was measured using internal consistency measurement using the inter-item and item-total correlations. From Table 5.2 it can be seen that internal consistency measures with regard to item-total correlations are in line with the reference value of  $>0.5$  while majority of the item-item correlations are  $>0.3$ . While some values of item-item correlation were below 0.3 (see Table 5.2), those items causing concern were retained to test the validity further before any decision could be taken to delete them. Thus considering the fact the item-total correlation values exceed the reference value of 0.5, even though some inter-item correlations were lower, the convergent validity was considered to have been achieved. Further to testing the construct validity, a detailed discussion on the discriminant validity was considered necessary although the discussion on this is provided under later Section 5.7.2 as part of the confirmatory factor analysis.

At this point it is important to understand that the data analysis conducted up to this point is common to both the models provided in Figures 3.2 and 3.3. Beyond this point it was necessary to analyse the data with regard to the two models will be different. Thus the model provided in Figure 3.2 was tested first. The tests involved CFA and SEM. Outcome of the analysis is provided in Appendix 7. From Appendix 7 it can be seen that none of the five constructs namely planning, recruitment, training and support, recognition and performance management are significantly related to retention. Similarly none of the five constructs were significantly related to either motivation or satisfaction of volunteers. Thus the original model developed by Cuskelly et al. (2006) could not stand scrutiny when tested using data collected from volunteers working in a multitude of organisations. The model developed by Cuskelly et al. (2006) was rejected. Under this situation one of the possible options available was to conduct further statistical

experiments and see whether any useful relationships emerge. One experiment that has been proposed in this research is to conduct an EFA on the VMI items. The five constructs planning, recruitment, training and support, recognition and performance management measured by a set of items identified by Cuskelly et al. (2006) were originally based on the Voluntary Management Inventory (VMI) and were assigned to measure the five constructs through an iterative process using focus groups and wordings of the items. According to Cuskelly et al. (2006) an established scale or inventory to measure volunteer management practice does not exist. Here it is evident that the scales developed by Cuskelly et al. (2006) do not use any factorization process (e.g. EFA) involving statistical analysis to identify each factor that could be measured by a set of items. Thus there was a need to factorise the VMI items identified by Cuskelly et al. (2006) using a statistical test and see whether a different set of constructs could emerge. An established method that is widely used in factorization of items is the EFA. This is discussed in detail in the following sections.

Further to assessing the descriptives, reliability, internal consistency, content validity and convergent validity, the next step taken was factoring of the items in the questionnaire. As mentioned in Section 4.15.4 two types of factor analysis were conducted in this research in order to determine the optimum set of factors that will be used in this research namely the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). Again as explained in Section 5.4 EFA enabled the researcher to refine the research instrument and systematically analyse the outcome, gain knowledge on which of the questions should be retained or deleted, as also the fitness of the items to a factor based on factor loadings (Bernard, 2006) Thus the next section discusses the exploratory factor analysis.

#### **5.4 Exploratory factor analysis**

EFA was carried out using SPSS version 18. An important test that needs to be conducted prior to conducting EFA is the KMO and Bartlett's Test of sphericity. According to researchers Chi-Square values computed using KMO and Bartlett's Test should be significant at p-values below 0.05. Thus from Table 5.4 it can be seen that Chi-Square

value is significant at a p-value of 0.000 indicating that EFA could be conducted on the data.

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.935
Bartlett's Test of Sphericity	Approx. Chi-Square	14009.837
	df	1225
	Sig.	.000

**Table 5.4 KMO and Bartlett's Test to assess whether EFA should be conducted**

Further to conducting the KMO and Bartlett's Test, EFA was conducted the results of which are provided in (Appendix 8, Exploratory Factor Analysis). The highest factor loading was retained and all factor loadings less than 0.3 were suppressed a practice suggested by other researchers (e.g. Tabachnick et al. 2001). Similarly factors were merged (see Appendix 8, Exploratory Factor Analysis) that were having cross loading of items and having similar theoretical concepts. Thus five factors emerged (see Appendix 8, Exploratory Factor Analysis). Factor one had 25 items under it and was further clustered under three variables and these three variables were called MP1, MP2 and MP3. The final list of items distributed under factors is provided in Table 5.5.

No.	Description	Coding
<b>MP-1 (Factor1)</b>		
51.	Management practices: In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begin.	MP1
52.	Management practices: In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	MP2
53.	Management practices: In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	MP3
54.	Management practices: In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	MP4
55.	Management practices: In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	MP5
56.	Management practices: In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	MP6
57.	Management practices: In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	MP7
58.	Management practices: In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters,	MP8



	internet, etc.).	
<b>MP-2 (Factor1)</b>		
59.	Management practices: In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.	MP9
60.	Management practices: In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will work during the organisation.	MP10
61.	Management practices: In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).	MP11
62.	Management practices: In managing its volunteers to what extent do your organisations .....-12- Manage the work loads of individual volunteers where they are excessive.	MP12
63.	Management practices: In managing its volunteers to what extent do your organisations .....-13- Assist volunteers to access training outside the organisation (e.g. accreditation training course).	MP13
64.	Management practices: In managing its volunteers to what extent do your organisations .....-14- Cover or reimburse the costs of volunteers attendance at training or accreditation course.	MP14
65.	Management practices: In managing its volunteers to what extent do your organisations .....-15- Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.).	MP15
66.	Management practices: In managing its volunteers to what extent do your organisations .....-16- Mentor volunteers, particularly when starting in a new role.	MP16
67.	Management practices: In managing its volunteers to what extent do your organisations .....-17- Provide sufficient support for volunteers to effectively carry out their task.	MP17
<b>MP-3 (Factor1)</b>		
68.	Management practices: In managing its volunteers to what extent do your organisations .....-18- Recognize outstanding work or task performances of individual volunteers.	MP18
69.	Management practices: In managing its volunteers to what extent do your organisations .....-19- Plan for the recognition of volunteers.	MP19
70.	Management practices: In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts (e.g., informal thank yous).	MP20
71.	Management practices: In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).	MP21
72.	Management practices: In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	MP22
73.	Management practices: In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers.	MP23
74.	Management practices: In managing its volunteers to what extent do your organisations .....-24- Provide feedback to individual volunteers.	MP24
<b>SATISFAC (Factor2)</b>		
75.	Satisfaction:-25-My relationship with paid staff.	SAT1
76.	Satisfaction:-26-How often the organisation acknowledges the work I do.	SAT2

77.	Satisfaction:-27-The degree of cohesiveness I experience within the organisation.	SAT3
78.	Satisfaction:-28-The chance I have to utilize my knowledge and skills in my volunteer work.	SAT4
79.	Satisfaction:-29-The access I have to information concerning the organisation.	SAT5
80.	Satisfaction:-30-The freedom I have in deciding how to carry out my volunteer assignment.	SAT6
81.	Satisfaction:-31-My relationship with other volunteers in the organisation	SAT7
82.	Satisfaction:-32-The amount of interaction I have with other volunteers in the organisation.	SAT8
83.	Satisfaction:-33-The amount of time spent with other volunteers.	SAT9
<b>MOT (Factor3)</b>		
84.	Motivation:-34-No matter how bad I've been feeling, volunteering helps me to forget about it.	MOT1
85.	Motivation:-35-I am concerned about those less fortunate than myself.	MOT2
86.	Motivation:-36-I am genuinely concerned about the particular group I am serving.	MOT3
87.	Motivation:-37-I feel compassion toward people in need.	MOT4
88.	Motivation:-38-I feel it is important to help others.	MOT5
89.	Motivation:-39-I can do something for a cause that is important to me.	MOT6
90.	Motivation:-40-Volunteering allows me to gain a new perspective on things.	MOT7
91.	Motivation:-41-Volunteering lets me learn things through direct, hands on experience.	MOT8
92.	Motivation:-42- I can explore my own strengths.	MOT9
93.	Motivation:-43-Volunteering increases my self-esteem.	MOT10
94.	Motivation:-44-Volunteering makes me feel needed.	MOT11
<b>RTN (Factor4)</b>		
95.	Retention :-45-I plan to continue volunteering at this organisation until end of this year.	RET1
96.	Retention :-46-I plan to continue volunteering at this organisation next year	RET2
97.	Retention :-47-I am likely to be volunteering at this organisation three years from now.	RET3
<b>RTN1 (Factor5)</b>		
98.	Retention:-48-I intend leaving this organisation altogether within 12 months	RET4
99.	Retention:-49-I intend to volunteer in the next 12 months but with a different organisation	RET5
100.	Retention:-50-I intend to cease volunteering at this organisation as soon as another volunteer can be found to replace me.	RET6

**Table 5.5 List of factors and items loading on them**

The results of the EFA require re-specification of the model. Two models emerged. One model indicates RTN as the dependent variable and the other indicates RTN1 as the dependent variable as two distinct factors have been thrown up during EFA. The redrawn models are provided in Figures 5.5 and 5.6.

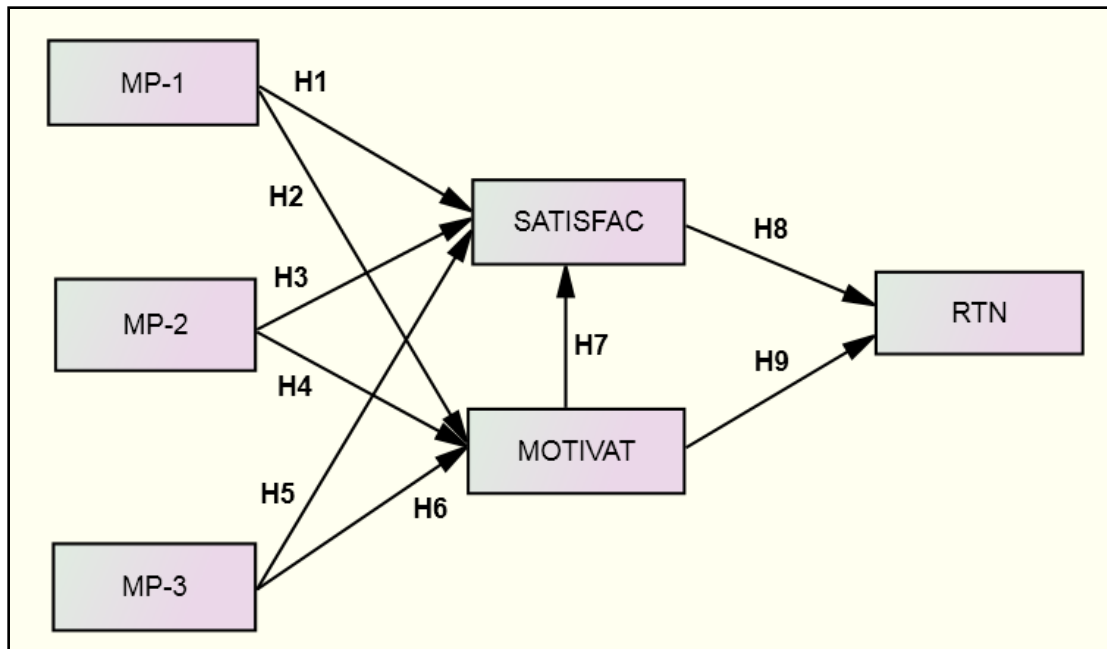


Figure 5.5 Re-specified model with RTN as dependent variable

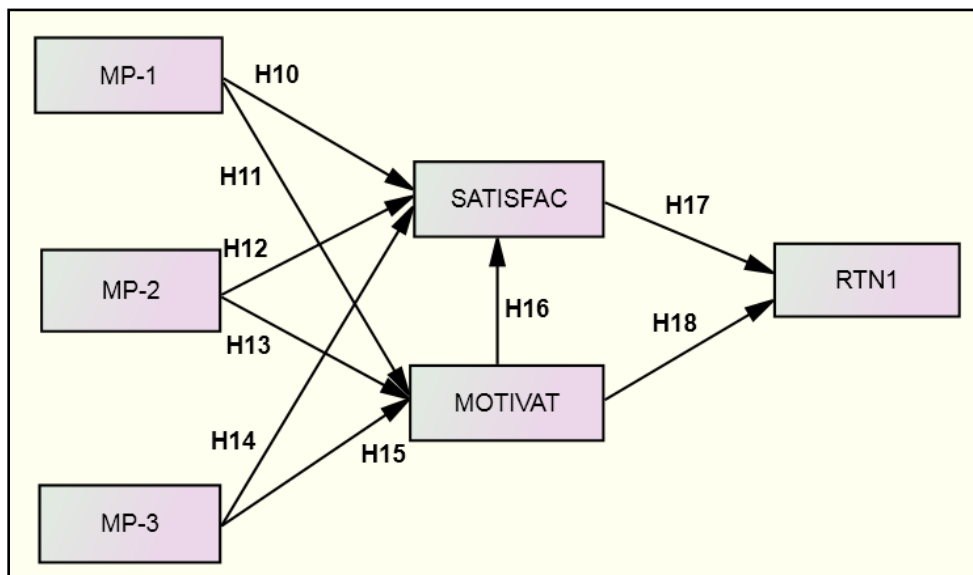


Figure 5.6 Re-specified model with RTN1 as dependent variable

The re-specified models require re-specified hypotheses.

### 5.5 Hypotheses for re-specified model with RTN as dependent variable

H1: Volunteer management practice construct MP-1 has a positive influence on volunteer satisfaction.

H2: Volunteer management practice construct MP-1 has a positive influence on volunteer motivation.

H3: Volunteer management practice construct MP-2 has a positive influence on volunteer satisfaction.

H4: Volunteer management practice construct MP-2 has a positive influence on volunteer motivation.

H5: Volunteer management practice construct MP-3 has a positive influence on volunteer satisfaction.

H6: Volunteer management practice construct MP-3 has a positive influence on volunteer motivation.

H7: Volunteer motivation positively influences volunteer satisfaction.

H8: Volunteer satisfaction positively influences volunteer retention RTN.

H9: Volunteer motivation positively influences volunteer retention RTN.

## **5.6 Hypotheses for re-specified model with RTN1 as dependent variable**

Hypotheses H10 to H16 are the same as hypotheses H1-H7.

H17: Volunteer satisfaction positively influences volunteer retention RTN1.

H18: Volunteer motivation positively influences volunteer retention RTN1.

After determining the new factors, the items loading on them and re-specifying the models, the next step taken was to conduct the construct reliability tests using AMOS. First all the statistical analyses were carried out on the re-specified model with RTN as dependent variable (Figure 5.5) before conducting the statistical analysis on the re-specified model with RTN1 as dependent variable.

## **5.7 Statistical analysis of re-specified model with RTN as dependent variable**

This section deals with the CFA and structural equation modeling pertaining to the re-specified model with RTN as dependent variable. As a first step the construct reliability and discriminant validity of the model were assessed at the construct level as was done in the case of items. The following sections deal with these aspects.

### 5.7.1 Construct reliability

Construct reliability provides a measure of the internal consistency existing in a set of measures and captures the extent to which a set of measures indicate the common unobserved (latent) construct (Holmes-Smith et al. 2006). One of the ways it is measured is using the squared multiple correlation (SMC) (Bollen, 1989). In order to compute the SMC the re-specified model with RTN as dependent variable that emerged from the EFA was drawn using AMOS (Figure 5.7).

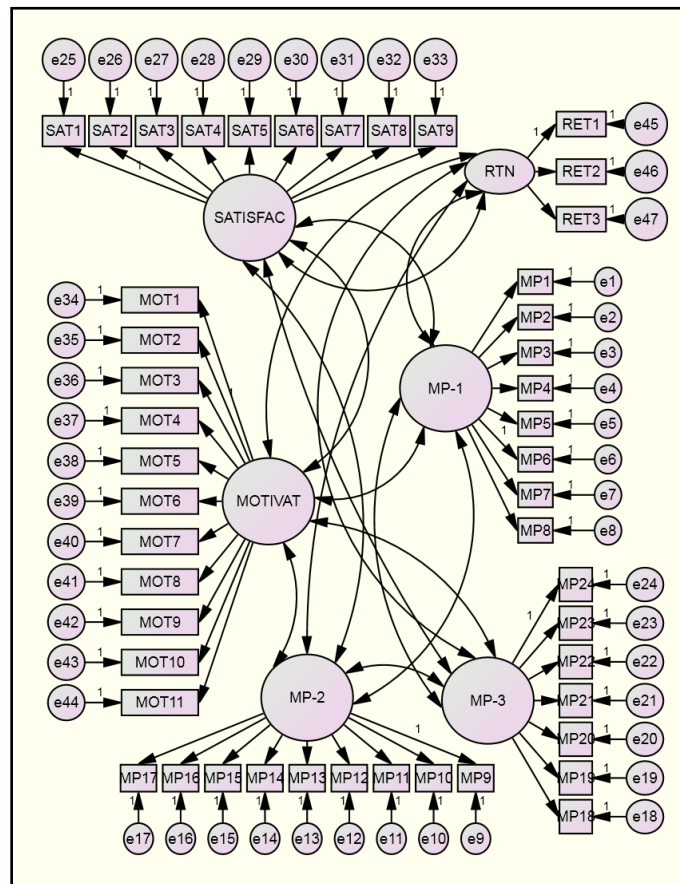


Figure 5.7 Re-specified model with RTN as dependent variable

In Figure 5.7 the circles or ellipses represent latent variables while rectangles represent observed or manifest variables. The single headed arrows indicate variances while the double headed arrows indicate covariances. The data entered in SPSS was fed into AMOS and the model was analysed for SMC. According to Holmes-Smith et al. (2006) acceptable values of SMC should exceed 0.3. Table 5.6 shows that all SMC values are

greater than 0.3 except for the item MP14 (0.288) which is very close to 0.3, indicating acceptable construct reliability.

<b>Squared Multiple Correlations: (Group number 1 - Default model) prior to other tests</b>																																																																																																					
	<table border="1"> <thead> <tr> <th>Items</th> <th>Estimate</th> </tr> </thead> <tbody> <tr><td>SAT9</td><td>0.633</td></tr> <tr><td>SAT8</td><td>0.681</td></tr> <tr><td>RET3</td><td>0.623</td></tr> <tr><td>RET2</td><td>0.962</td></tr> <tr><td>RET1</td><td>0.627</td></tr> <tr><td>MOT11</td><td>0.331</td></tr> <tr><td>MOT10</td><td>0.342</td></tr> <tr><td>MOT9</td><td>0.389</td></tr> <tr><td>MOT8</td><td>0.582</td></tr> <tr><td>MOT7</td><td>0.635</td></tr> <tr><td>MOT6</td><td>0.583</td></tr> <tr><td>MOT5</td><td>0.559</td></tr> <tr><td>MOT4</td><td>0.604</td></tr> <tr><td>MOT3</td><td>0.397</td></tr> <tr><td>MOT1</td><td>0.414</td></tr> <tr><td>MOT2</td><td>0.535</td></tr> <tr><td>SAT7</td><td>0.636</td></tr> <tr><td>SAT6</td><td>0.421</td></tr> <tr><td>SAT5</td><td>0.479</td></tr> <tr><td>SAT4</td><td>0.515</td></tr> <tr><td>SAT3</td><td>0.509</td></tr> <tr><td>SAT2</td><td>0.472</td></tr> <tr><td>SAT1</td><td>0.401</td></tr> </tbody> </table>	Items	Estimate	SAT9	0.633	SAT8	0.681	RET3	0.623	RET2	0.962	RET1	0.627	MOT11	0.331	MOT10	0.342	MOT9	0.389	MOT8	0.582	MOT7	0.635	MOT6	0.583	MOT5	0.559	MOT4	0.604	MOT3	0.397	MOT1	0.414	MOT2	0.535	SAT7	0.636	SAT6	0.421	SAT5	0.479	SAT4	0.515	SAT3	0.509	SAT2	0.472	SAT1	0.401		<table border="1"> <thead> <tr> <th>Items</th> <th>Estimate</th> </tr> </thead> <tbody> <tr><td>MP1</td><td>0.463</td></tr> <tr><td>MP2</td><td>0.609</td></tr> <tr><td>MP3</td><td>0.466</td></tr> <tr><td>MP4</td><td>0.592</td></tr> <tr><td>MP5</td><td>0.645</td></tr> <tr><td>MP8</td><td>0.35</td></tr> <tr><td>MP7</td><td>0.582</td></tr> <tr><td>MP6</td><td>0.565</td></tr> <tr><td>MP17</td><td>0.654</td></tr> <tr><td>MP16</td><td>0.599</td></tr> <tr><td>MP15</td><td>0.502</td></tr> <tr><td>MP14</td><td>0.288</td></tr> <tr><td>MP13</td><td>0.412</td></tr> <tr><td>MP12</td><td>0.624</td></tr> <tr><td>MP11</td><td>0.703</td></tr> <tr><td>MP10</td><td>0.617</td></tr> <tr><td>MP9</td><td>0.492</td></tr> <tr><td>MP18</td><td>0.68</td></tr> <tr><td>MP19</td><td>0.686</td></tr> <tr><td>MP20</td><td>0.444</td></tr> <tr><td>MP21</td><td>0.562</td></tr> <tr><td>MP22</td><td>0.559</td></tr> <tr><td>MP23</td><td>0.645</td></tr> <tr><td>MP24</td><td>0.685</td></tr> </tbody> </table>	Items	Estimate	MP1	0.463	MP2	0.609	MP3	0.466	MP4	0.592	MP5	0.645	MP8	0.35	MP7	0.582	MP6	0.565	MP17	0.654	MP16	0.599	MP15	0.502	MP14	0.288	MP13	0.412	MP12	0.624	MP11	0.703	MP10	0.617	MP9	0.492	MP18	0.68	MP19	0.686	MP20	0.444	MP21	0.562	MP22	0.559	MP23	0.645	MP24	0.685
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RET1	0.627																																																																																																				
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MOT10	0.342																																																																																																				
MOT9	0.389																																																																																																				
MOT8	0.582																																																																																																				
MOT7	0.635																																																																																																				
MOT6	0.583																																																																																																				
MOT5	0.559																																																																																																				
MOT4	0.604																																																																																																				
MOT3	0.397																																																																																																				
MOT1	0.414																																																																																																				
MOT2	0.535																																																																																																				
SAT7	0.636																																																																																																				
SAT6	0.421																																																																																																				
SAT5	0.479																																																																																																				
SAT4	0.515																																																																																																				
SAT3	0.509																																																																																																				
SAT2	0.472																																																																																																				
SAT1	0.401																																																																																																				
Items	Estimate																																																																																																				
MP1	0.463																																																																																																				
MP2	0.609																																																																																																				
MP3	0.466																																																																																																				
MP4	0.592																																																																																																				
MP5	0.645																																																																																																				
MP8	0.35																																																																																																				
MP7	0.582																																																																																																				
MP6	0.565																																																																																																				
MP17	0.654																																																																																																				
MP16	0.599																																																																																																				
MP15	0.502																																																																																																				
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MP12	0.624																																																																																																				
MP11	0.703																																																																																																				
MP10	0.617																																																																																																				
MP9	0.492																																																																																																				
MP18	0.68																																																																																																				
MP19	0.686																																																																																																				
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MP21	0.562																																																																																																				
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MP23	0.645																																																																																																				
MP24	0.685																																																																																																				

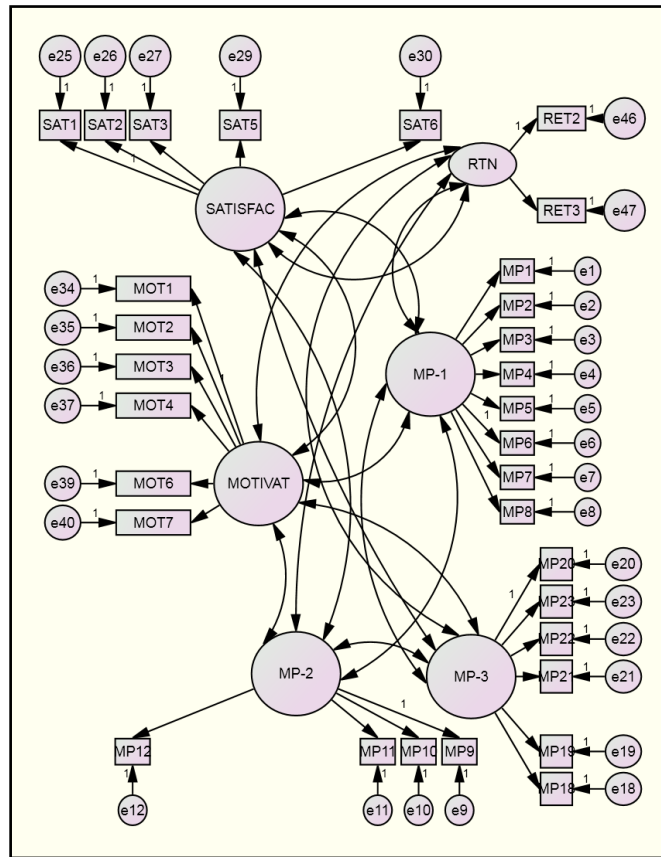
**Table 5.6 Construct reliability measurement using SMC for Re-specified model with RTN as dependent variable**

After testing the data for construct reliability, the next taken was to assess the discriminant validity which was tested using AMOS as part of the CFA.

### **5.7.2 Discriminant Validity**

In order to test the discriminant validity two tests were conducted namely sample correlations and standard residual covariance which is in line with the recommendations

of other researchers (Hair et al. 2006, Jöreskog & Sörbom 1984). According to researchers sample correlations between items and constructs should be within 0.8 or 0.9 (Holmes-Smith et al. 2006). Larger values than this are considered to indicate lack of discriminant validity. Similarly standard residual covariances should be within an absolute value of 2.0 in order to validate data (Eom, 2008). The foregoing arguments were applied to the results of the discriminant validity tests provided in (Appendix 9). While sample correlations indicate that there are no large correlations (all correlations are found to be less than 0.8), standard residual covariance values showed higher than 2.0 necessitating their deletion from the model. The items deleted were MP13, MP14, MP15, MP16, MP17, MP24, SAT4, SAT7, SAT8, SAT9, MOT5, MOT8, MOT9, MOT10, MOT11 and RET1. The resultant table in (Appendix 9) shows that all covariance values are within 2.0 which indicate that discriminant validity exists. The resulting model is provided in Figure 5.8.



**Figure 5.8 Re-specified model with RTN as dependent variable validated for discriminant validity**

An important aspect of discriminant validity is the test of goodness fit of the model to data (see Section 4.15.6). As explained in Section 5.7.3 the model was tested to examine whether it is fit to data using goodness fit indices.

### 5.7.3 Goodness fit of the re-specified model with RTN as dependent variable to data

As explained in Section 4.15.6 researchers usually test the goodness fit of the models to understand how well observed data. A large class of omnibus tests exists which include Root Mean Square Residual (RMR), Comparative fit index (CFI), Tucker-Lewis index (TLI), Root Mean Square Error of Approximation (RMSEA), Chi-square, Normed Fit Index (NFI) and Goodness-of-Fit-Index (GFI) (Schermelleh-Engel et al. 2003). According to researchers different indices provide different information on model fit and it is common to report more than one index although there is no consensus on which set of indices should be reported (Hayduk, 1996). As a result of this confusion, researchers tend to report different indices. However in this research in order to test the re-specified model with RTN as dependent variable some of the widely used indices namely, RMSEA, RMR, CFI, TLI and Incremental Fit Index (IFI) (Schreiber et al. 2006) were tested. Table 5.7 provides the results of the goodness of fit indices produced by AMOS. According to researchers acceptable goodness of fit index values should exceed 0.9 (Kline, 1998). Similarly, Jöreskog and Sörbom (1993) argue that RMSEA values should be  $\leq 0.08$  for an acceptable fit while RMR should be as small as possible with zero indicating perfect fit (Schreiber et al. 2006). Keeping the above values in mind when the values provided in Table 5.7 are compared it can be seen that the data fits the model.

Model	IFI Delta2	TLI rho2	CFI	RMR	RMSEA	LO 90	HI 90	PCLOSE
Default model	.931	.923	.931	.049	.056	.051	.061	.028
Saturated model	1.000		1.000	.000				
Independence model	.000	.000	.000	.461	.201	.197	.205	.000

**Table 5.7 Goodness of fit indices values**

After ascertaining the model fit to data, the structural equation modeling was used to identify the model, model estimation and model fit. Prior to conducting the structural



equation modeling it was necessary to specify the structural model, which is given in Figure 5.9.

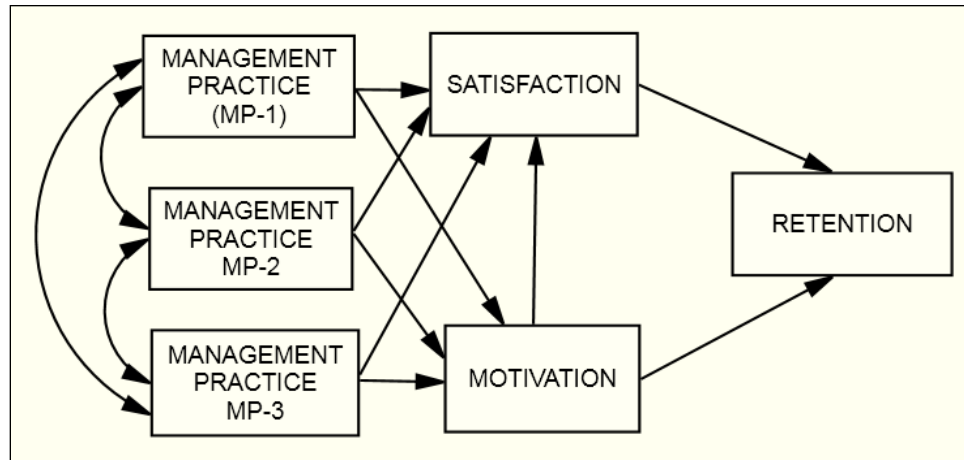


Figure 5.9 Initial structural model-RTN

## 5.8 Structural equation modeling

As mentioned in Section 4.15.6 structural equation modeling was used to verify the hypotheses about the relationship among the observed and latent variables (Hoyle, 1995). According to Abramson, (Abramson et al. 2005) five steps are involved in SEM. They are model specification, model identification, measure selection to data preparation, model analysis (model estimation), model evaluation (model fit) and model re-specification. Each one of these steps will be described while testing the model in Figure 5.9.

### 5.8.1 Model specification

A model specification is an important necessity for conducting SEM. Model specification involves a mathematical or diagrammatic representation of the relationship between variables (Kline, 1998). The initial model that was specified for this research is given in Figure 5.9 which was derived from Figure 5.5. There are three exogenous constructs namely Management Practice (MP-1), Management Practice (MP-2) and Management Practice (MP-3) and three endogenous constructs namely Motivation (MOTIVAT), Satisfaction (SATISFAC) and Retention (RTN) in the model.

### 5.8.2 Model Identification

According to researchers (e.g. Kline, 1998) an important step involved in SEM is the theoretical identification of a model and such identification enabled the researcher to examine whether there is a unique solution that exists for every parameter in the model. Furthermore theoretically identified models are considered to be recursive in nature implying that there is a unidirectional causal relationship between the constructs within the model (Arbuckle & Wothke, 1999; Byrne, 2001; Kline, 1998; Ullman, 2001). AMOS generates a report on theoretically identified models and indicates whether the model is recursive or not. According to the report generated by AMOS for the model in Figure 5.9 (see Table 5.8) the model has been found to be recursive indicating that the model is theoretically identified.

Notes for Group (Initial structural model)
The model is recursive
Sample size = 386

**Table 5.8 Initial structural model**

### 5.8.3 Measure selection to data preparation

This step involves sub-steps involved between measures that need to be selected to test the quality of the data and prepare the data for testing the model. According to Abramson, (Abramson et al. 2005) sub-steps involved are measure selection, data collection, data cleaning and data preparation. Measure selection involves the selection of items or manifest variables that measure a latent construct. Minimum number of manifest variables that must be present to measure a latent variable recommended by researchers (Jöreskog, 1977) is two. This condition has been satisfied in the structural model presented in Figure 5.10.

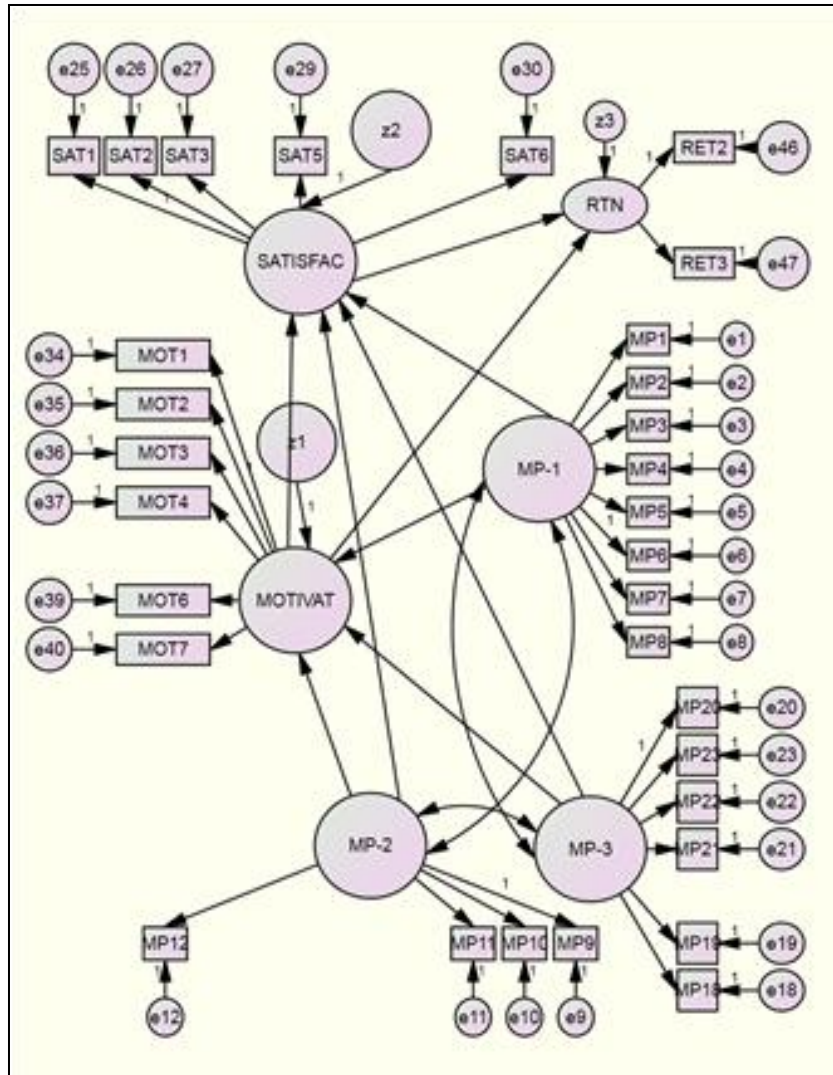


Figure 5.10 Initial structural model-RTN

Furthermore the measures selected needed to exhibit good psychometric properties in terms of reliability and validity. Reliability was checked using internal consistency measure namely Cronbach's alpha (see Section 5.2) with a minimum value of 0.7 to be achieved and it was concluded that the measures are reliable. As far as validity was concerned content, convergent and discriminant validities were assessed (Sections 5.3 & 5.7.2) and the measures were found to satisfy the minimum conditions that needed to be met (Kline, 1998).

As far as data collection was concerned a sufficiently large sampled was needed to be drawn from the targeted population to analyse the model in Figure 5.8. Researchers

recommended a minimum sample of 200 cases (Curran et al. 2002; Kline, 1998). The sample size in this research used was 386 confirming that the data collection process ensured adequacy of sample size. The next step involved the cleaning up of the data to check the accuracy of the data entry. Data was collected on-line and checked using descriptive (Kline, 1998; Tabachnick et al. 2001) (see Section 5.1) for any wrong entry and it was found that the accuracy of data entry was higher than 95%. The data after being checked for accuracy was prepared by testing for normality, missing data, outliers and multicollinearity (see Section 5.1). After the step “measure selection to data preparation” the next step taken was to analyse the model (model estimation).

#### **5.8.4 Initial structural model-RTN analysis**

The initial structural model-RTN (Figure 5.10) analysis uses the Maximum Likelihood (ML) to estimate as recommended by other researchers as this method provides statistically robust results with complete data irrespective of the normal distribution of the data (Little & Rubin, 1987). ML method also provides estimates of all the parameters in the model simultaneously with model estimation (Kline 1998). According to Kline (1998) ML method estimates parameters taking into account the associations within the model that are unanalyzed between exogenous variables. AMOS, the software used in this research, facilitates the use of ML method, enabled the researcher to generate estimated outputs of the model in two formats namely the unstandardized output and the standardized output. Reports generated by AMOS as standardised output, provide model parameter measurements in the same metric uniformly for the entire model while the unstandardized output provides parameter measurements in metrics that are particular to each variable. The main disadvantage of unstandardized output is that the reports generated by AMOS are not comparable across variables (Abramson et al. 2005). Additionally, standardized reports generated by AMOS provide regression coefficients with absolute values. According to Kline (1998) regression weights with absolute values 0.1, 0.3 and 0.5 are classified as small, moderate and large. These arguments support the easy understanding and interpretation of standardized reports generated by AMOS. A major point that needs to be considered at this point is that unstandardized report generated by AMOS addresses individual exogenous variable variance directly on the

model whereas endogenous variable variance is reported by AMOS in terms of squared multiple correlation directly on the model as standardized output. In view of the fact two different types but relevant information is reported by AMOS under two different reports, both unstandardized and standardized outputs are normally reported by researchers. Thus Figures 5.11 and 5.12 outputs generated by AMOS pertain to unstandardized and standardized reports of the Initial structural model-RTN.

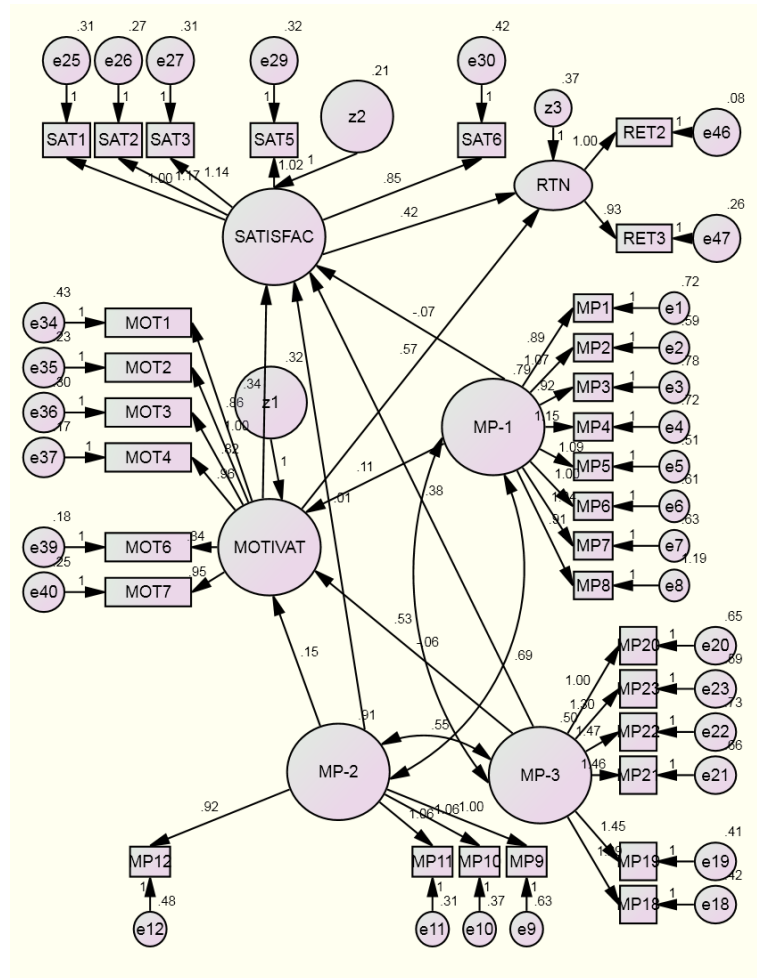
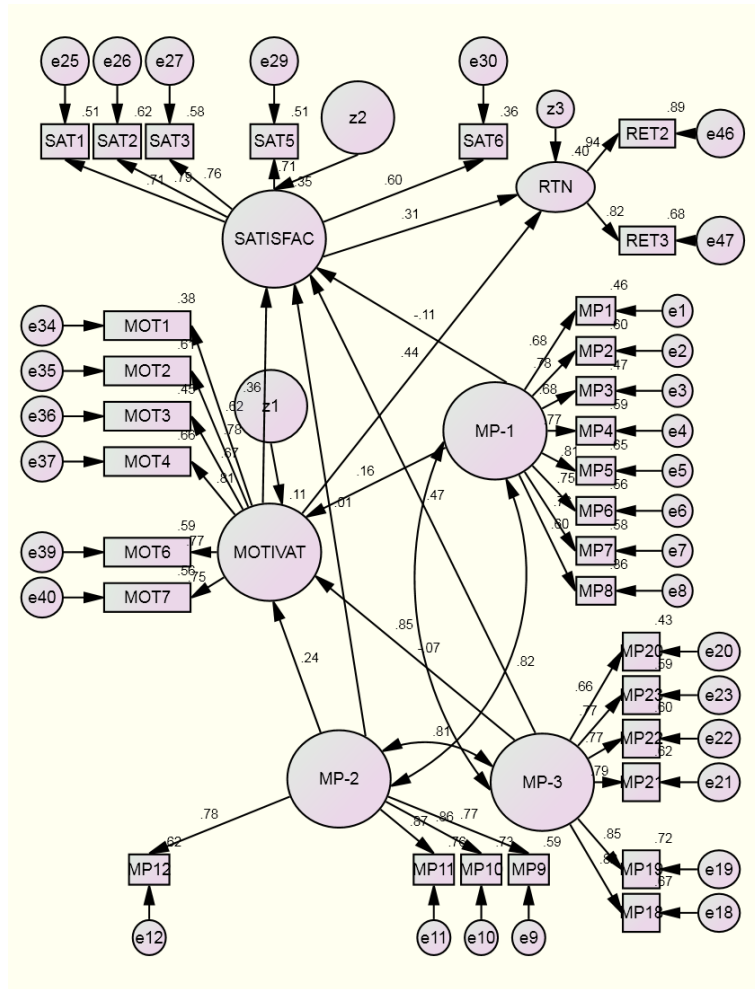


Figure 5.11 Unstandardised initial structural model-RTN



**Figure 5.12 Standardised initial structural model-RTN**

The initial structural model-RTN was examined for validity by examining the sample correlation, standard residual covariance and the goodness fit of the model to the data. (Appendix 10) provides the sample correlation tabulation. Reference value of sample correlation set as acceptable was 0.8 based on the recommendation of other researchers 9 (Holmes-Smith et al. 2006). Appendix 10 shows that all correlation values are less than 0.8. (Appendix 11) tabulates the standardized residual covariance values. Acceptable value of standardized residual covariance recommended by researchers is less than  $\pm 2.0$  (Eom, 2008). One item MP17 was a cause of concern with respect to the standardized residual covariance values and was deleted. The resulting standardized residual covariance generated by AMOS is given in (Appendix 11) which indicates that all values are less than or equal to  $\pm 2.0$ . Goodness fit was measured using RMR, IFI, TLI, CFI and

RMSEA. As explained in Section 5.7.3 goodness fit measures were found to be satisfactory (see Appendix 12). Next the paths linking the different variables in the model were analysed. The regression weight report produced by AMOS is given in Table 5.10. Paths were analysed beginning with the examination of the p-value of significance for each one of the relationship between variables. According to researchers (e.g. DeCoster & Claypool, 2004) p-value determines whether a relationship is significant or not. According to Albright and Park (2009) p-values less than 0.05 provide the basis to reject the null hypothesis while values greater than 0.05 provide the basis for reject the alternate hypothesis and hence the corresponding relationship between the independent and dependent variables. From these arguments and an inspection of Table 5.9 it was possible to infer that the paths MP-2 → MOTIVAT, MP-3 → SATISFAC, MOTIVAT → SATISFAC, MOTIVAT → RTN and SATISFAC → RTN were found to be significant while the paths MP-1 → MOTIVAT, MP-3 → MOTIVAT, MP-1 → SATISFAC and MP-2 → SATISFAC were found to be insignificant.

Regression Weights: (Group number 1 - Default model)							
			Estimate	S.E.	C.R.	P	Label
MOTIVAT	<---	MP-2	.149	.076	1.956	.050	par_33
MOTIVAT	<---	MP-1	.109	.092	1.191	.234	par_34
MOTIVAT	<---	MP-3	-.056	.114	-.495	.621	par_36
SATISFAC	<---	MP-1	-.069	.081	-.863	.388	par_30
SATISFAC	<---	MP-3	.379	.104	3.643	***	par_31
SATISFAC	<---	MP-2	.005	.067	.077	.938	par_32
SATISFAC	<---	MOTIVAT	.341	.056	6.093	***	par_35
RTN	<---	SATISFAC	.424	.079	5.341	***	par_29
RTN	<---	MOTIVAT	.575	.075	7.626	***	par_37

**Table 5.9 Initial model-RTN**

In order to understand how the results of this analysis stand with respect to findings of other researchers it was essential to define MP-1 and MP-2 and MP-3. Using the contents of Table 5.5 it was possible to describe the factors MP-1 and MP-2 and MP-3. From Section 4.9 where it has been described how the various items were extracted from already published research work, it can be seen that factor MP-1 comprises items that measure management practice pertaining to planning (MP1-MP4) and recruitment (MP5-MP9). Thus factor MP-1 was named as Management Practice (P&R) (i.e. Management

Practice-Planning and Recruitment). Similarly items MP9-MP17 measuring the factor MP-2, were found to represent training and support to the volunteers and were extracted from already published literature (Cuskelly et al. 2006). Hence factor MP-2 was named as Management Practice (T&S) (i.e. Management Practice-Training and Support). Finally the items measuring factor MP-3 were found to measure recognition of volunteers (MP18-MP22) and performance management of volunteers (MP23 & MP24). These items were also adopted from already published literature (Cuskelly et al. 2006). Therefore based on the contents and naming of the constructs by previous researchers factor MP-3 was named as Management Practice (RGN&PM) (i.e. Management Practice-Recognition& Performance Management). The resulting table with renamed factors is provided in Table 5.10.

No.	Description	Coding
	<b>MP-1 (Factor1): Management Practice (P&amp;R) (Management Practice-Planning and Recruitment)</b>	
1.	Management practices: In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begin.	MP1
2.	Management practices: In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	MP2
3.	Management practices: In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	MP3
4.	Management practices: In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	MP4
5.	Management practices: In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	MP5
6.	Management practices: In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	MP6
7.	Management practices: In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	MP7
8.	Management practices: In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters, internet, etc.).	MP8
	<b>MP-2 (Factor1): Management Practice (T&amp;S) (Management Practice-Training and Support)</b>	
9.	Management practices: In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.	MP9
10.	Management practices: In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will work during the organisation.	MP10



11.	Management practices: In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).	MP11
12.	Management practices: In managing its volunteers to what extent do your organisations .....-12-Manage the work loads of individual volunteers where they are excessive.	MP12
13.	Management practices: In managing its volunteers to what extent do your organisations .....-13-Assist volunteers to access training outside the organisation (e.g. accreditation training course).	MP13
14.	Management practices: In managing its volunteers to what extent do your organisations .....-14-Cover or reimburse the costs of volunteers attendance at training or accreditation course.	MP14
15.	Management practices: In managing its volunteers to what extent do your organisations .....-15-Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.)	MP15
16.	Management practices: In managing its volunteers to what extent do your organisations .....-16-Mentor volunteers, particularly when starting in a new role.	MP16
17.	Management practices: In managing its volunteers to what extent do your organisations .....-17-Provide sufficient support for volunteers to effectively carry out their task.	MP17
	<b>MP-3 (Factor1): Management Practice (RGN&amp;PM) (Management Practice-Recognition &amp; Performance Management)</b>	
18.	Management practices: In managing its volunteers to what extent do your organisations .....-18-Recognize outstanding work or task performances of individual volunteers.	MP18
19.	Management practices: In managing its volunteers to what extent do your organisations .....-19-Plan for the recognition of volunteers.	MP19
20.	Management practices: In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts (e.g., informal thank you).	MP20
21.	Management practices: In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).	MP21
22.	Management practices: In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	MP22
23.	Management practices: In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers	MP23
24.	Management practices: In managing its volunteers to what extent do your organisations .....-24-Provide feedback to individual volunteers.	MP24

**Table 5.10 Renamed constructs pertaining to Management Practice**

The validity of the paths MP-2 → MOTIVAT and MP-3 → SATISFAC is similar to other findings of researchers (e.g. Cuskelly et al. 2006) who explained through their study of the literature that human resource management practices of volunteers is related to motivation and satisfaction. This led the researcher to the inference that the results strengthen existing findings in the literature with regard to the two relationships MP-2 →

MOTIVAT and MP-3 → SATISFAC. Similarly the validity of the paths MOTIVAT → RTN and SATISFAC → RTN finds support from the findings of other researchers for instance Dolnicar and Randle (2007) who contend that motivation and satisfaction are important factors that help in retaining volunteers. Finally the validity of the relationship MOTIVAT → SATISFAC finds widespread support from volunteer literature for instance Ferreira et al. (2012) who argue that motivations influence volunteer satisfaction. An important caveat that must be added here is that while the findings of this research find support from the literature regarding the significance of the relationships MP-2 → MOTIVAT, MP-3 → SATISFAC, MOTIVAT → RTN and SATISFAC → RTN it is seen that empirical studies linking management practice to retention available in the literature is very limited. For instance some researchers (e.g. Cuskelly et al. 2006) have argued that much of the focus in the volunteer literature is on predicting volunteer motivation and satisfaction not retention. Cuskelly et al. (2006) argue that their work on relating management practice directly to volunteer retention in the context of volunteering in sports is one of the initial efforts. In this situation the findings of this research although indirectly linking management practice to volunteer retention with regard to volunteering in general regardless of contexts provides one of the first contributions to empirical research. Another point that signifies the findings is that the major management practice aspects that have been found to influence volunteer retention are training, support, recognition and performance management. This is an important finding that contributes to the current body of knowledge to volunteer management practice.

It must also be noted here that lack of significance of paths relating certain management practices to motivation and satisfaction namely MP-1 → MOTIVAT, MP-3 → MOTIVAT, MP-1 → SATISFAC and MP-2 → SATISFAC is contradictory to the explanations given in the extant literature. For instance MP-1 which represents the planning and recruitment part of management practice and MP-3 which represents recognition and performance management have been found to be related to volunteer motivation by researchers (see Fisher & Cole, 1993) who advocate that best practices of managing volunteers should involve responding to volunteer motivations. Best practices

could involve a number of aspects which could include support and manage, recruitment and public relations efforts to attract volunteers, orientation and training to prepare volunteers for their responsibilities, recognition events to reward and reinforce volunteers' motivation and sense of purpose (Brudney, 1990). The reason for this contradiction could be that training and support could be a greater motivator than planning, recruitment, recognition and performance management in general. In fact Brudney (1990) argues that training volunteers to prepare them for their responsibilities reinforces volunteer motivation. Thus while the results of this research which indicates that the paths MP-1 → MOTIVAT and MP-3 → MOTIVAT are not significant could be due to the greater importance given by volunteers to training and support.

Similar arguments are found with regard to the management practice-volunteer satisfaction relationship. For instance with regard to MP-1 and MP-2 (represents training and support management) Owens (1991) quotes other researchers as arguing that training and other performance management factors such as volunteer responsibility and promotion are associated with volunteer satisfaction. The reasons for finding this contradictory result could be that volunteers could have felt that recognition and performance management could be greater satisfying factors than the planning, recruitment, training and support. For instance (Ferreira et al. 2012) argue that a major influencing factor that leads to extrinsic satisfaction in volunteers is volunteer recognition. In similar vein (Tziner et al. 2001) argue that employee performance appraisal is related to employee satisfaction implying that performance management of employees could lead to employee satisfaction. Similar sentiments are echoed by other researchers, for instance Tidwell (2005) (also see Mathews & Kling, 1988). Mathews and Kling (1988) argue that volunteer management including performance management is an important factor that influences the association between volunteer satisfaction and performance.

While the paths MP-1 → MOTIVAT, MP-3 → MOTIVAT, MP-1 → SATISFAC and MP-2 → SATISFAC are found to be statistically not valid, it must be noted that the relationship MP-2 → MOTIVAT → SATISFAC is statistically significant implying that

training and support contributes to volunteer motivation as well as satisfaction. This leads to the inference that training, support, recognition and performance management are related to volunteer satisfaction while training and support are related to volunteer motivation.

Although the findings that the statistical validity of the paths MP-1 → MOTIVAT, MP-3 → MOTIVAT, MP-1 → SATISFAC and MP-2 → SATISFAC appear to be contradictory to some research outcomes found in the literature, there are also supporting arguments for the findings of this research. This indicates that the findings of this research using the support of the arguments of those researchers provide the basis to argue that in comparison to the insignificant relationships, the significant relationships are more important in the views of the volunteers. This argument can further be extended that the linkage of management practice to volunteer retention through the mediating effects of motivation and satisfaction offers a new ways to interpret the relationships between management practice and volunteer retention mediated by volunteer motivation and satisfaction.

Further to an understanding of the path analysis on the various relationships between the exogenous and endogenous variables, the next step was to find the extent to which variance in the endogenous variables is accounted for by the exogenous variables using squared multiple correlations (Table 5.11). From Table 5.11 it can be seen that the exogenous variables MP-1, MP-2 and MP-3 account for 10.7% of the variance in MOTIVAT, 35% of the variance in SATISFAC and 40.4% of variance in RTN. While the percentage of variance in the endogenous variables is ranging from small to moderate, what is significant is that the results highlight the influence of management practice on volunteer retention through the mediation of volunteer motivation and satisfaction.

Squared Multiple Correlations: (Group number 1 - Default model)	
	Estimate
MOTIVAT	.107
SATISFAC	.350
RTN	.404

**Table 5.11 Squared Multiple Correlations-Initial model-RTN**

After examining the variance in endogenous variables caused by the exogenous variables the next step involved analyzing the regression weights of the valid paths (Table 5.12) which enabled the researcher to understand the relative affect of each independent variable on the dependent variable directly (Hair et al. 2006).

Standardized Regression Weights: (Initial model-RTN)			
			Estimate
MOTIVAT	<---	MP-2	.238
MOTIVAT	<---	MP-1	.163
MOTIVAT	<---	MP-3	-.067
SATISFAC	<---	MP-1	-.109
SATISFAC	<---	MP-3	.473
SATISFAC	<---	MP-2	.009
SATISFAC	<---	MOTIVAT	.359
RTN	<---	SATISFAC	.306
RTN	<---	MOTIVAT	.436

**Table 5.12 Regression Weights, Initial model-RTN**

From Table 5.12, it can be seen that the paths MP-1 → MOTIVAT, MP-3 → MOTIVAT, MP-1 → SATISFAC and MP-2 → SATISFAC are not significant. That is to say those hypotheses H1, H2, H3 and H6 are rejected and H4, H5, H7, H8 and H9 are accepted. That is to say the paths MP-2 → MOTIVAT, MP-3 → SATISFAC, MOTIVAT → SATISFAC, MOTIVAT → RTN and SATISFAC → RTN which are valid indicate that training and support influence volunteer motivation, recognition and performance management influence volunteer satisfaction, volunteer motivation influences volunteer satisfaction and volunteer retention and volunteer satisfaction influences volunteer retention.

From Table 5.12 the relative affect between MP-2 and volunteer motivation (0.238), MP-3 and volunteer satisfaction (0.473), volunteer motivation and satisfaction (0.359), volunteer motivation and volunteer retention (0.436) and volunteer satisfaction and volunteer retention (0.306) show strong paths that are statistically significant. This means that higher is the level of management practice (training and support) higher is the level of volunteer motivation; higher is the level of management practice (recognition and performance management) higher is the level of volunteer satisfaction; higher is the level

of volunteer motivation higher is the level of volunteer satisfaction; higher the level of volunteer motivation, higher is the level of volunteer retention; and higher is the level of volunteer satisfaction higher is the level of volunteer retention.

The regression weights analysis indicate how the cause and effect relationship between the exogenous and endogenous variables can be explained. In the same way the covariance between the exogenous variables MP-1, MP-2 and MP-3 were assessed to understand the association between the variables (Table 5.13). All the three covariance paths show statistically significant association between each pair of the exogenous variables with a large correlation between them. For instance from Table 5.13 it can be seen that MP-1 is highly associated with MP-2 (0.693) and MP-3 (0.534) indicating that higher the level of planning and recruitment higher will be the level of volunteer motivation and satisfaction and vice-versa. Similarly, MP-2 and MP-3 are highly correlated (0.55) which can be interpreted in a way that higher is the level of training and support provided to the volunteer, higher will be level of recognition and performance management of the volunteers. These arguments also lead to the inference that while MP-1 and MP-3 are not statistically related to MOTIVAT, it can be said that they may be acting as moderators of MP-2. That is to say that training and support activities which are part of the management practice stands to be strengthened and moderated by the two management practice elements planning and recruitment and recognition and performance management leading to higher motivation of volunteers. Similarly in the case of the statistically insignificant paths between MP-1 and MP-2 on the one hand and SATISFAC on the other, it can be argued that MP-1 and MP-2 may be acting as moderators of MP-3. That is to say that recognition and performance management of volunteers is strengthened and moderated by the two management practice elements planning and recruitment and training and support. The foregoing arguments conclude the Initial model-RTN analysis. The next step was to evaluate the Initial model-RTN.

Covariances: (Initial model-RTN)							
			Estimate	S.E.	C.R.	P	Label
MP-2	<-->	MP-1	.693	.073	9.545	***	par_26
MP-3	<-->	MP-2	.550	.061	8.943	***	par_27
MP-3	<-->	MP-1	.534	.059	9.014	***	par_28

**Table 5.13 Initial model-RTN**

### 5.8.5 Initial model-RTN evaluation (model fit)

According to the researchers, measure of fit is assessed using measure of parsimony, population discrepancy function, sample discrepancy function, comparison to a baseline model and goodness fit (Arbuckle & Wothke, 1999). According to Weston and Gore (2006) a model is parsimonious if there are fewer numbers of degrees of freedom when compared to the number of parameters in the model. AMOS report provides an idea about this (Table 5.14). It can be seen that the number of parameters at 74 is fewer than the degrees of freedom at 422 indicating that the model is parsimonious.

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	74	920.994	422	.000	2.182
Saturated model	496	.000	0		
Independence model	31	7668.111	465	.000	16.491

**Table 5.14 Number of degrees of freedom to parameters**

Population discrepancy was tested using RMSEA, which is a widely used practice by researchers (e.g. Lai & Kelley, 2011). According to Kelley and Lai (2011), RMSEA values lower than 0.08 are considered acceptable. From Table 5.15 it can be seen that RMSEA was computed by AMOS as 0.055 which indicates that the population discrepancy is minimum.

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.055	.051	.060	.034
Independence model	.201	.197	.205	.000

**Table 5.15 Population discrepancy function**

Similarly, sample discrepancy was measured using CFI (Hu & Bentler, 1999). According to Hu and Bentler (1999), CFI greater than 0.9 is considered as acceptable to decide that the sample discrepancy is minimum. From Table 5.16 it can be seen that CFI value

computed by AMOS is 0.931 indicating that the sample discrepancy is minimum in the model.

Baseline Comparisons					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.880	.868	.931	.924	.931
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

**Table 5.16 Sample discrepancy and baseline comparisons**

Again baseline comparison report generated by AMOS (Table 5.16) indicates that the default model which is the research model was found to have goodness fit indices better than the independence model indicating that the model is fit. Similarly, with regard to goodness fit indices, it can be seen that the three indices chosen for this research namely IFI, TLI and CFI exceed the reference value of 0.9 indicating that the model's goodness fit to data is acceptable. Thus it can be concluded that the model has been evaluated and found to meet the reference values set for this research. The foregoing discussions on the initial model-RTN analysis and evaluation enabled the researcher to derive the finally specified model called the 'volunteer management practice-retention model' (Figure 5.13) which is the last step in SEM. In the model the solid lines indicate the statistically significant paths while the thin lines indicate statistically not significant paths.  $\gamma_1$ ,  $\gamma_2$  and  $\gamma_3$  indicate the correlation between the exogenous variables. From Figure 5.13 the following inferences can be made:

- Management Practice (planning and recruitment) (MP-1) and Management Practice (training and support) (MP-2) are strongly correlated.
- Management Practice (training and support) (MP-2) and Management Practice (recognition and performance management) (MP-3) are strongly correlated.
- Management Practice (planning and recruitment) (MP-1) and Management Practice (performance management and recognition) (MP-3) are strongly correlated.



- The path Management Practice (training and support) (MP-2) to volunteer motivation (MOTIVAT) is significant.
- The path Management Practice (performance management and recognition) (MP-3) to volunteer satisfaction (SATISFAC) is significant.
- The path volunteer motivation (MOTIVAT) to volunteer satisfaction (SATISFAC) is significant.
- The path volunteer motivation (MOTIVAT) to volunteer retention (RTN) is significant.
- The path volunteer satisfaction (SATISFAC) to volunteer retention (RTN) is significant.

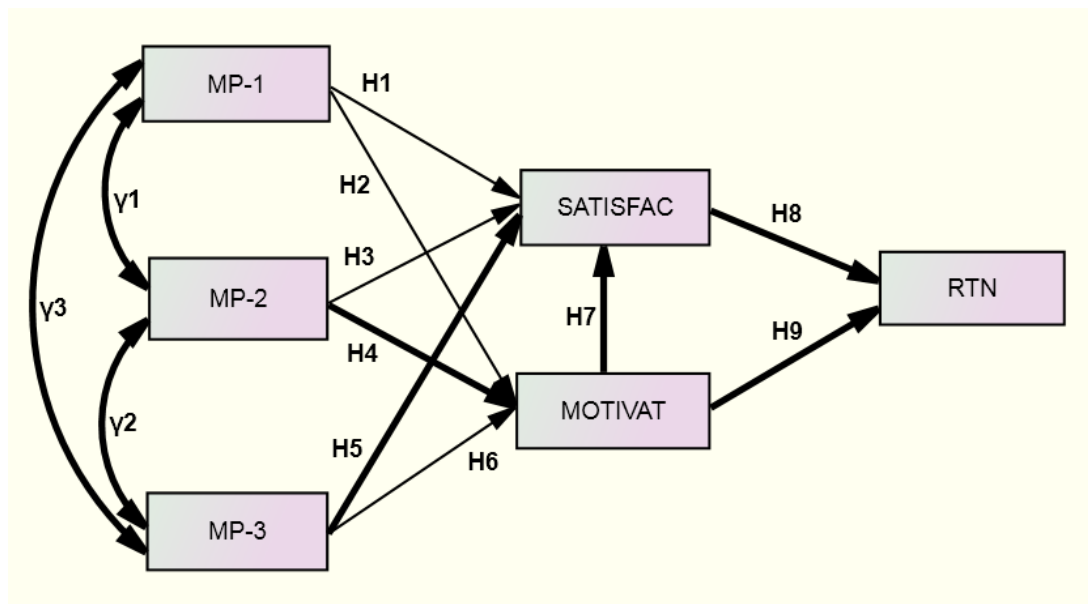


Figure 5.13 Volunteer management practice-retention model

## 5.9 Unidimensionality

After analyzing the model using SEM researchers suggest that the model should be tested for unidimensionality. According to researchers (e.g. Janssens et al. 2008) a model is unidimensional if only one dimension is found to be underlying in common. Janssens et al. (2008) argue that AMOS reports could be used to test unidimensionality. The table titled Regression Weights: (Group number 1 - Default model) under Maximum

Likelihood Estimates is suggested to be used by Janssens et al. (2008) for testing the unidimensionality. The minimum values recommended by Janssens et al. (2008) are:

- Readings under the column ‘Estimate’ should be higher than 0.5.
- Readings under the column ‘Critical Ratio’ should be higher than  $\pm 1.96$
- Overall goodness fit of the measurement model should be established using such measures as IFI, TLI, CFI, RMR and RMSEA

From Table 5.17 it can be seen that all the estimates of the significant paths (p-value <0.05) are above 0.5 and C.R. values are above  $\pm 1.96$ .

Regression Weights: (Volunteer management practice-retention model)							
			Estimate	S.E.	C.R.	P	Label
MOTIVAT	<---	MP-2	.149	.076	1.956	.050	par_33
MOTIVAT	<---	MP-1	.109	.092	1.191	.234	par_34
MOTIVAT	<---	MP-3	-.056	.114	-.495	.621	par_36
SATISFAC	<---	MP-1	-.069	.081	-.863	.388	par_30
SATISFAC	<---	MP-3	.379	.104	3.643	***	par_31
SATISFAC	<---	MP-2	.005	.067	.077	.938	par_32
SATISFAC	<---	MOTIVAT	.341	.056	6.093	***	par_35
RTN	<---	SATISFAC	.424	.079	5.341	***	par_29
RTN	<---	MOTIVAT	.575	.075	7.626	***	par_37
MP20	<---	MP-3	1.000				
MP23	<---	MP-3	1.298	.098	13.260	***	par_1
MP22	<---	MP-3	1.467	.110	13.350	***	par_2
MP21	<---	MP-3	1.460	.108	13.529	***	par_3
MP19	<---	MP-3	1.455	.101	14.405	***	par_4
MP18	<---	MP-3	1.288	.092	13.957	***	par_5
MP9	<---	MP-2	1.000				
MP10	<---	MP-2	1.063	.059	17.927	***	par_6
MP11	<---	MP-2	1.055	.057	18.360	***	par_7
MP12	<---	MP-2	.922	.057	16.165	***	par_8
SAT1	<---	SATISFAC	1.000				
SAT2	<---	SATISFAC	1.173	.085	13.848	***	par_9
SAT3	<---	SATISFAC	1.145	.085	13.440	***	par_10
SAT5	<---	SATISFAC	1.018	.080	12.692	***	par_11
MP6	<---	MP-1	1.000				
MP7	<---	MP-1	1.041	.068	15.219	***	par_12
MP8	<---	MP-1	.911	.078	11.695	***	par_13
MP5	<---	MP-1	1.091	.067	16.310	***	par_14

Regression Weights: (Volunteer management practice-retention model)							
			Estimate	S.E.	C.R.	P	Label
MP3	<---	MP-1	.925	.068	13.525	***	par_15
MP2	<---	MP-1	1.065	.068	15.636	***	par_16
MP1	<---	MP-1	.887	.066	13.489	***	par_17
MOT2	<---	MOTIVAT	1.000				
MOT1	<---	MOTIVAT	.863	.071	12.145	***	par_18
MOT3	<---	MOTIVAT	.820	.062	13.237	***	par_19
MOT4	<---	MOTIVAT	.957	.058	16.501	***	par_20
MOT6	<---	MOTIVAT	.837	.054	15.470	***	par_21
MOT7	<---	MOTIVAT	.945	.063	15.069	***	par_22
MP4	<---	MP-1	1.152	.074	15.473	***	par_23
RET2	<---	RTN	1.000				
RET3	<---	RTN	.926	.061	15.291	***	par_24
SAT6	<---	SATISFAC	.855	.079	10.761	***	par_25

**Table 5.17 Volunteer management practice-retention model-Unidimensionalitytest**

Similarly, from Table 5.16 it can be seen that the values of IFI, TLI and CFI are above the reference value of 0.9. Thus it can be concluded that the Volunteer management practice-retention model is unidimensional.

### **5.10 Common method bias**

Further to testing the unidimensionality, the researcher tested whether there is common method bias in the data collected. According to researchers (e.g. Podsakoff et al. 2003), common method bias could be present if a single method (common method) is employed to collect data for instance the online survey. The bias element creeps in due to systematic response bias while participants in the survey are answering the questionnaires and could manifest as inflated or deflated responses. In this research the presence of common method bias was tested by average variance extracted (AVE) figure computed for the Volunteer management practice-retention model (Merrilees et al. 2011). Table 5.18 provides the AVE for the Volunteer management practice-retention model.

	MP-1	MP-2	MP-3	MOTIVAT	SATISFAC	RTN
MP-1	<b>0.534</b>					
MP-2	0.666	<b>0.676</b>				
MP-3	0.717	0.661	<b>0.6</b>			
MOTIVAT	0.091	0.1	0.070	<b>0.541</b>		
SATISFAC	0.165	0.174	0.232	0.206	<b>0.515</b>	
RTN	0.051	0.071	0.069	0.33	0.253	<b>0.783</b>

**Table 5.18 Average Variance Extracted (AVE)**

According to researchers (e.g. Janssens et al. 2008) AVE values of the diagonal values in Table 5.18 should exceed 0.5 if common method bias is absent. It can be seen that the results comply with this argument and hence it can be concluded that common method bias is not present in the responses. After completing the statistical analysis of re-specified model with RTN as dependent variable the next section deals with the statistical analysis of re-specified model with RTN1 as dependent variable in similar lines as in Sections 5.7 and 5.8.

### **5.11 Statistical analysis of re-specified model with RTN1 as dependent variable**

The initial model is provided in Figure 5.6. The main difference between the models in Figures 5.5 and 5.6 is the dependent variable. In Figure 5.5 the dependent variable is RTN while in Figure 5.6 the dependent variable is RTN1. The reason for bringing in two models was the outcome of the EFA (see Section 5.4). Furthermore the other difference between RTN and RTN1 is that although the theoretical underpinning for both the independent variables is similar and related to the concept of volunteer retention, the scales that measured the two are different. Thus two tests involving RTN and RTN1 separately as independent variables was considered useful to see whether any other underlying theoretical construct other than volunteer retention could be extracted through this process. Thus the same tests as outlined in Sections 5.7 and 5.8 were repeated. The factorized model is provided in Figure 5.14.

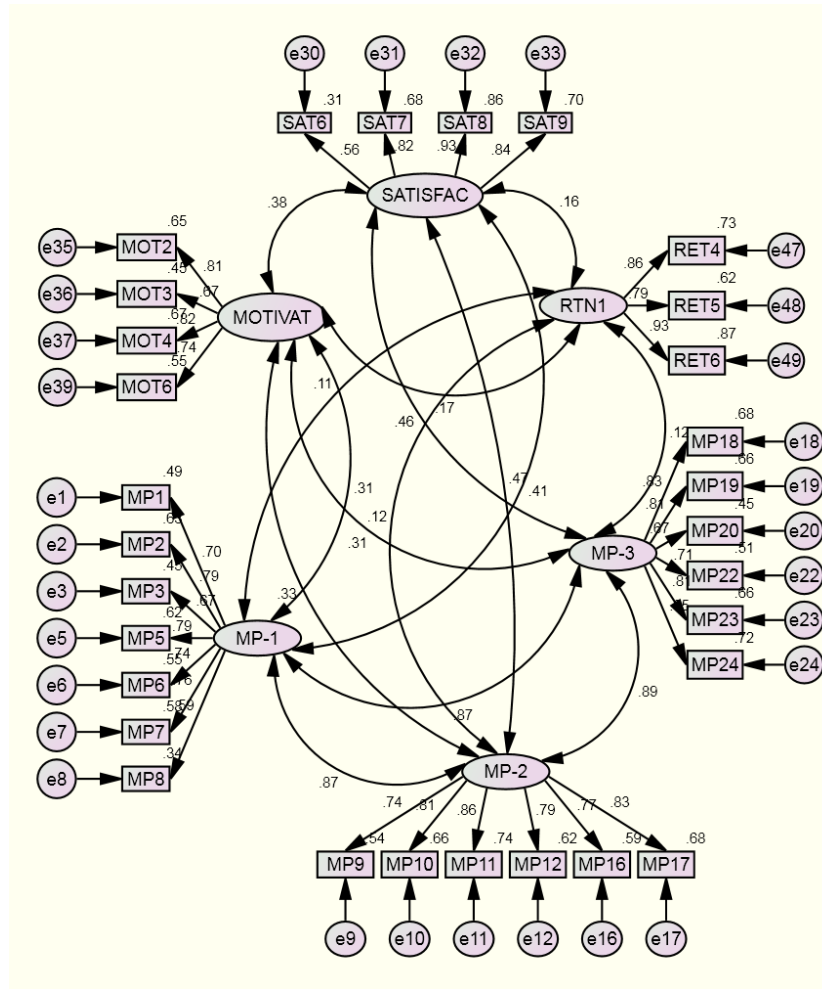


Figure 5.14 Standardised estimates of the factorised model for RTN1

The corresponding readings for sample correlation, squared multiple correlation, standard covariance and goodness were analysed. This model in Figure 5.14 was further tested using SEM to check the causal relationship amongst the variables. The initial structural model tested is given in Figure 5.15. The regression estimates of the structural model produced by AMOS were inspected straightaway (Table 5.19).

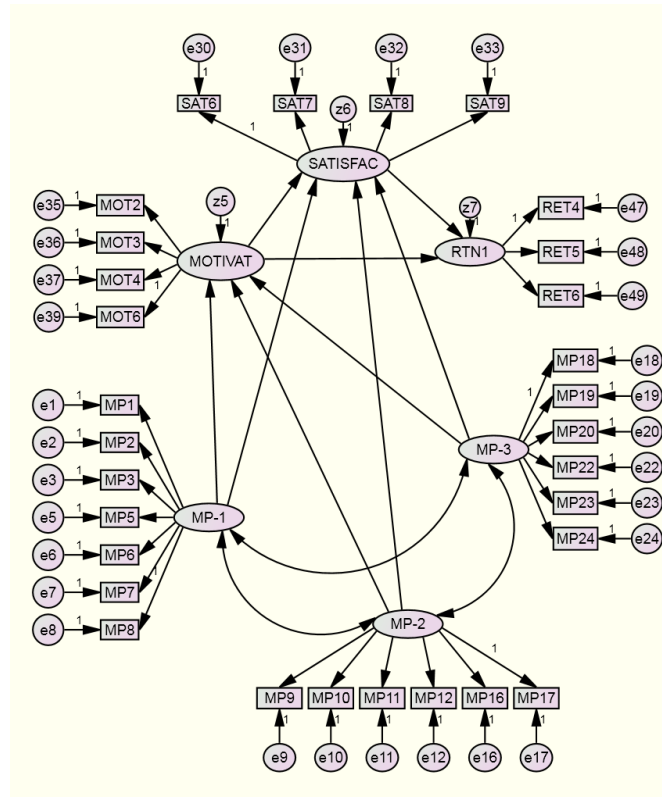


Figure 5.15 Initial structural model-RTN1

Regression Weights: (Initial structural model-RTN1)							
			Estimate	S.E.	C.R.	P	Label
MOTIVAT	<---	MP-1	.044	.094	.465	.642	par_28
MOTIVAT	<---	MP-2	.117	.093	1.259	.208	par_30
MOTIVAT	<---	MP-3	.027	.091	.302	.763	par_33
Satisfac	<---	MP-1	-.061	.078	-.773	.439	par_29
Satisfac	<---	MP-2	.140	.078	1.791	.073	par_31
Satisfac	<---	MP-3	.109	.075	1.444	.149	par_32
Satisfac	<---	MOTIVAT	.237	.055	4.319	***	par_36
RTN1	<---	MOTIVAT	.284	.144	1.979	.048	par_34
RTN1	<---	Satisfac	.279	.149	1.869	.062	par_35

Table 5.19 Standardised estimates - Regression weights for the initial structural model-RTN1

From Table 5.19 it can be seen that none of the relationships between management practice variables MP-1, MP-2 and MP-3 on the one hand and volunteer motivation and satisfaction on the other are significant as the p-value of significance with respect to those relationships have been found to be insignificant at values higher than 0.05. While two relationships namely MOTIVAT → Satisfac (p-value significant at 0.01) and

MOTIVAT → RTN1 (p-value significant at 0.048) have been found to be statistically significant, these relationships do not merit any attention as the main relationship between the management practice variables and, satisfaction and motivation leading to retention which are primary to this research are found to be statistically insignificant. Hence this model was not further investigated. This led to the conclusion that all the hypotheses H10 to H18 related to the initial structural model with RTN1 as dependent variable stand rejected. Thus in conclusion it can be seen that out of the two models given in Figures 5.5 and 5.6, the one in Figure 5.5 is accepted as it withstood the rigorous statistical analysis supported by theoretical arguments.

### **5.12 Summary**

This chapter analysed the theoretical model developed for this research in Figures 3.2 and 3.3 through statistical methods to check the validity of the relationship between the variables. The original model developed by Cuskelly et al. (2006) did not yield statistically significant relationship between any of the five volunteer management practice constructs namely planning, recruitment, training and support, performance management and recognition, and volunteer retention. This confirmed that the initial model developed by Cuskelly et al. (2006) needs to be modified. Thus the second model developed for this research was tested. This involved factorising the management practice construct. EFA threw up multiple factors that needed consideration. Management Practice as a single independent variable was split into three independent factors namely Management Practice (MP-1) (Planning and Recruitment), Management Practice (MP-2) (Training and Support) and Management Practice (MP-3) (Recognition and Performance Management). Retention as a dependent variable was split into two dependent factors RTN and RTN1. Two models were carved out from the initial model, one with MP-1, MP-2 and MP-3 as independent variables and RTN as the dependent variable and the other with MP-1, MP-2 and MP-3 as independent variables and RTN1 as the dependent variable. While the model with RTN as dependent variable has been found to be significant and valid, the model with RTN1 as dependent variable has not been found to be valid. The re-specified model with MP-1, MP-2 and MP-3 as independent variables and RTN as dependent variable indicated that management practice variables MP-2 and

MP3 are indirectly related to RTN through volunteer motivation and satisfaction. While MP-1 did not find any relationship to RTN, it was found to be significantly correlated to MP-2 and MP-3. Thus the findings of this chapter provided the basis for the discussions on the findings (Chapter 6).



## **Chapter 6**

### **Discussions**

#### **6 Introduction**

In this chapter the findings from the previous chapters have been discussed in detail and examined to know whether the results help the researcher to answer the research questions and support the hypotheses formulated for this research. Furthermore the chapter also brings out the uncovered aspects within the research. Additionally the chapter attempts to find out whether the model developed satisfies the goodness fit to the data or a more specific model needs to be generated to fit the data using statistical techniques. The discussions provide a detailed interpretation of the findings to enable the researcher to conclude on the causal link between management practice of the volunteering organisations and volunteer retention. Such a link could be very useful to managers in volunteering organisations to enhance the effectiveness of their management practices leading to longer retention of volunteers as well as enable volunteers to understand the effect of management practices on their volunteering activities. Here it must be noted that the discussions will focus on the re-specified model and hypotheses formulated under Section 5.4, 5.5 and 5.6. To begin with the chapter addresses the research questions followed by the verification of hypotheses.

##### **6.1 RQ1: What are the underlying factors of volunteer management practice?**

One of the main supporting papers that was used in this research was the one published by Cuskelly et al. (2006). While examining the efficacy of volunteer management practices in predicting perceived problems in volunteer retention, Cuskelly et al. (2006) identified a set of 36 observed variables for measuring seven latent volunteer management practice constructs and allowed the observed variables to freely correlate with the seven volunteer management practice constructs. The seven latent management practice constructs hypothesized were planning, recruitment, screening, orientation, training and support, performance management, and recognition. Cuskelly et al. (2006) conducted confirmatory factor analysis to examine the relationship between the

hypothesized management practice constructs and volunteer retention construct. Cuskelly et al. (2006) fell back on the work of Jarvis et al. (2003) to construct the measurement model while relating the seven volunteer management constructs to volunteer retention. The results obtained by Cuskelly et al. (2006) shows that out of the seven latent management practice constructs only two namely planning and orientation were found to be significantly related to volunteer retention. This was further confirmed through this research which showed that the direct relationships between five management constructs identified by Cuskelly et al. (2006) and volunteer retention were not found to be statistically significant. This resulted in the necessity to modify the model developed by Cuskelly et al. (2006) and investigate further whether management practice as a construct could be analysed statistically (see Section 3.5) to know whether the construct could be broken down into the same set of factors as identified by Cuskelly et al. (2006) or some other.

Keeping this outcome at the backdrop this research proceeded to examine whether the grouping of the observed variables to measure the individual management practice constructs done by Cuskelly et al. (2006) can be subjected to factorization again and redefine the management practice constructs based on statistical analysis. Exploratory factor analysis was used to factorise the items. However out of the 36 variables six variables were removed. These six variables were two variables that measured the management practice construct screening while the remaining four measured the construct orientation. The remaining 26 observed variables that measured five management practice constructs planning, recruitment, training and support, performance management and recognition were considered for EFA. In addition to the 26 observed variables six variables pertaining to measuring the construct retention used by Hoye et al. (2008) were included in EFA in order to determine the underlying factors. Combining observed variables pertaining to management practice and retention in EFA was done in line with the experiment conducted by Cuskelly et al. (2006) wherein the latent management practice constructs were related to the latent volunteer retention construction.

EFA included observed variables that measured other factors namely volunteer satisfaction and volunteer motivation other than the ones measuring the management practices constructs and retention construct as they are part of the research model. However the discussion in this section focuses on the results of EFA of those observed variables that were used to measure the latent volunteer management practice constructs and volunteer retention construct only so that the research question could be answered.

From the results of factorization (see Section 5.4) it can be seen that observed variables pertaining to the latent construct management practice have been grouped under three factors namely MP-1, MP-2 and MP-3 while observed variables pertaining to the latent construct retention have been grouped under two factors RTN and RTN1. Considering the phrases within those observed variables and the research outcomes of Cuskelly et al. (2006) the three factors pertaining to the latent construct management practice were named as follows (see Tables 5.5 & 5.10):

- MP-1: Management Practice (P&R) (Management Practice-Planning and Recruitment).
- MP-2: Management Practice (T&S) (Management Practice-Training and Support).
- MP-3: Management Practice (RGN&PM) (Management Practice-Recognition& Performance Management).

The confirmatory factor analysis that followed and discussed under Section 5.7 confirmed the validity of the data as well as the factorization. The structural equation modeling conducted thereafter enabled the researcher to conclude that the factorization and subsequent re-specification of factors enabled the researcher to answer the remaining research questions (see Sections 6.2, 6.3 and 6.4). Thus it can be inferred that the research question RQ1 has been answered.

## **6.2 RQ2: What factors affect the relationship between volunteer management practice and volunteer retention in volunteer organisations?**

The answer to this question is provided by Chapters 3. The literature review on volunteerism has enabled the researcher to identify volunteer motivation and satisfaction as important factors that influence and mediate in the linkage between volunteer management practice and volunteer retention. While literature review shows that there are many factors that impact volunteer management practice and volunteer retention, this research has chosen volunteer motivation and satisfaction as the factors that impact the two main constructs because of the important role played by volunteer motivation and satisfaction in volunteer management. Justification for the choice of volunteer motivation and volunteer satisfaction is provided under Section 3.3 in Chapter 3 related to the theoretical framework. The statistical analysis of the data and findings derived provided in Chapter 5 support the inclusion of volunteer motivation and volunteer satisfaction as mediating constructs in the relationship between volunteer management variables and volunteer retention.

The need for the two factors and their relevance to the model is supported by research findings of other researchers for instance Hager and Brudney (2004) who argued that both volunteer motivation and satisfaction are important factors that need to be addressed if volunteer organisations want to retain volunteers. In similar Bang and Ross (2009) argue that effective volunteer management practices must take into account volunteers' motivational aspects and satisfaction. However an important difference that is noticed between the findings of other researchers and the findings of this research is that most of the researchers have only addressed specific management practices as linked to volunteer motivation and satisfaction, like Clary (2004) who argued that greater understanding of volunteer motivation is imperative while framing effective volunteer recruitment strategies. Clary (2004) seems to focus on recruitment aspect of volunteers as influencing volunteer motivation whereas volunteer management practice is considered to encompass more than just recruitment. This is evident from the findings of the current research which indicate that volunteer motivation is influenced by training and support activities while volunteer satisfaction is influenced by management practice (recognition and

performance management) which are part of the volunteer management practice (see Sections 5.8.4 and 5.8.5).

Findings of the research with respect to the use of mediating variables are supported by extant research. For instance, the need for the two factors and their relevance to the model is supported by research findings of other researchers like Hager and Brudney (2004) who argued that both volunteer motivation and satisfaction are important factors that need to be addressed if volunteer organisations want to retain volunteers. In similar vein Bang and Ross (2009) argue that effective volunteer management practices must take into account volunteers' motivational aspects and satisfaction. While the findings are supported by the research outcomes of other researchers, it must be noted that an important difference that can be noticed between the findings of other researchers and the findings of this research is that most of the researchers have only addressed specific management practices as linked to volunteer motivation and satisfaction and not many of them in a single research. For instance Clary (2004) argued that greater understanding of volunteer motivation is imperative while framing effective volunteer recruitment strategies. Clary (2004) seems to focus on recruitment aspect of volunteers as influencing volunteer motivation whereas volunteer management practice is considered to encompass more than just recruitment for instance training and support. This is evident from the findings of the current research which indicate that volunteer motivation is influenced by training and support activities while volunteer satisfaction is influenced by management practice (recognition and performance management) which are part of the volunteer management practice (see Sections 5.8.4 and 5.8.5). Thus the research findings expand the linkage between management practice correlates and motivation and satisfaction by investigating the influence of more than one management practice correlate in a model.

In addition to this the findings from this research indicate that volunteer Management Practice (Training & Support) activities have significant association with two other volunteer management practice constructs namely Management Practice (Planning & Recruitment) (correlation 0.693) and Management Practice (Recognition & Performance Management) (correlation 0.55). This implies that apart from recruitment as a volunteer

management practice construct there are other practices namely training and support that influence volunteer motivation directly while practices namely planning, recognition and performance management could act as moderators of the linkage between management practice (training & support) and volunteer motivation. Similarly apart from recruitment as a volunteer management practice construct management practice (recognition and performance management) has been shown to influence volunteer satisfaction directly while practices namely planning, training and support could act as moderators of the linkage between management practice (recognition and performance management) and volunteer satisfaction. These findings differ from the limited research outcomes found in volunteer management literature in two aspects.

The first one is that most of the research outcomes have only highlighted the need to relate some volunteer management practice constructs to volunteer retention taking into account volunteer motivation and satisfaction but have not brought out models that could be implemented. For instance Pinkham et al. (2013) have strongly argued on the need to understand in-depth the motivation of young volunteers, their satisfaction and their retention, based on their empirical study on 33 respondents. However they have not developed any conceptual model to test their hypotheses and their research suffers from the limitation of very low sample size. Similar results could be seen in the extant literature (e.g. Randle & Dolnicar, 2009) although research outcomes have largely remained inconclusive and have not directly linked satisfaction and motivation in the relationship between volunteer management practice constructs and volunteer retention. In the current research a research model has been developed that has brought into play the mediation effect of volunteer motivation and satisfaction in the relationship between volunteer management practice constructs and volunteer retention. In contrast the current research outcomes provided in Section 5.8 clearly demonstrate the importance of volunteer motivation and satisfaction as factors influencing the relationship between volunteer management practice constructs and volunteer retention.

The second is that some research outcomes have specifically highlighted the need to link volunteer management practice variables to volunteer retention taking into account

volunteer motivation and satisfaction although such research outcomes have not dealt with an array of volunteer management practice constructs that affect volunteer retention. For instance, Nassar and Talaat (2009) argued that motivation is an essential component of volunteer management but failed to establish any relationship between volunteer management practice and volunteer motivation and retention. Further, Nassar and Talaat (2009) argue that management practice should include training and support as an important factor to motivate, satisfy and retain volunteers although their findings did not find statistical significance.

In similar vein Skoglund (2006) argues that training is a very important component of volunteer management that helps to motivate volunteers which in turn influences organisations to retain volunteers. Skoglund (2006) extends the argument to volunteer satisfaction by quoting Wymer and Starnes (2001) and implying that training and support could influence volunteer satisfaction and retention. Thus it can be seen that researchers while attempting to link volunteer management practice to volunteer motivation, satisfaction and retention have focused on limited number of specific variables such as training and support, clearly indicating that hardly any research has attempted to investigate the impact of a set of volunteer management practice constructs on volunteer retention mediated by volunteer motivation and satisfaction. This research provides one of the first attempts in which a set of management practice factors have been considered and investigated to understand their influence on volunteer retention mediated by volunteer motivation and satisfaction.

Furthermore the research findings in Chapter 5 (see Sections 5.8.4 and 5.8.5) have clearly brought out the correlation between the following constructs that have been found to be statistically significant and which explain the importance and need for including volunteer motivation and satisfaction as factors affecting volunteer management and retention:

- The path Management Practice (training and support) (MP-2) to volunteer motivation (MOTIVAT) is significant.

- The path Management Practice (recognition and performance management) (MP-3) to volunteer satisfaction (SATISFAC) is significant.
- The path volunteer motivation (MOTIVAT) to volunteer retention (RTN) is significant.
- The path volunteer satisfaction (SATISFAC) to volunteer retention (RTN) is significant.
- Management Practice (planning and recruitment) (MP-1) and Management Practice (training and support) (MP-2) are strongly correlated.
- Management Practice (training and support) (MP-2) and Management Practice (recognition and performance management) (MP-3) are strongly correlated.
- Management Practice (planning and recruitment) (MP-1) and Management Practice (recognition and performance management) (MP-3) are strongly correlated.

The foregoing arguments answer the research question RQ2.

### **6.3 RQ3: What is the nature of the relationship that exists between volunteer management practice factors and volunteer retention?**

This research has established a linkage between volunteer management practice constructs and volunteer retention initially through the model developed in Chapter three (see Figure 3.3) and finally through the re-specified model drawn in Chapter 5 based on the results of factorization and SEM (see Section 5.8 and Figure 5.13). The linkage is not direct but through two mediating constructs namely motivation and satisfaction. In addition the latent construct management practice has been factorised into three factors MP-1, MP-2 and MP-3 and the latent construct retention has been factorised into two factors RTN and RTN1. The factorization required the modification of the model portrayed in Chapter 3 (see Figure 3.3). Re-specified models have been provided in Figures 5.5 and 5.6. While Figure 5.5 shows the relationship between the latent constructs MP-1, MP-2 and MP-3 as independent variables and RTN as the dependent variable, Figure 5.6 shows the relationship between the latent constructs MP-1, MP-2 and MP-3 as independent variables and RTN1 as the dependent variable. The difference between RTN and RTN1 is that RTN as a latent construct is measured by observed



variables that were indicating the intentions and timing of the plans of participants to continue volunteering while RTN1 as a latent construct is measured by observed variables that were indicating the intentions and timing of their plans to leave volunteering. The scales were adopted from the article published by Hoyer et al. (2008). It can be seen that Hoyer et al. (2008) measured retention as a single latent construct using six observed variables which comprised of the three shown in this research as measuring RTN and the other three shown as measuring RTN1. Thus this research takes a departure from the way retention was measured by Hoyer et al. (2008) and argues that measuring the intention of a volunteer to continue in an organisation could be sufficient enough to understand volunteer retention thus making the measuring instrument more efficient which uses optimum number of observed variables to understand the volunteer retention as dependent variable.

While the above arguments point out that volunteer management practice as an independent variable, originally assumed as single latent construct in Figure 3.3, has been factorized into three latent constructs and related to RTN and RTN1 the dependent variables, the relationship between the independent and dependent variables have been shown to be mediated by two variables volunteer satisfaction and volunteer motivation. This follows the original concept developed in this research and explained in Chapter 3. Thus the relationship between the latent management practice constructs MP-1, MP-2 and MP-3 on the one hand and the latent construct volunteer satisfaction on the other now shows that there are three new relationships (Figures 5.5 and 5.6) that have been specified after factorization. A similar situation can be seen with regard to the latent construct volunteer motivation (Figures 5.5 and 5.6). Thus the original set of hypotheses was also redefined (see Sections 5.5 and 5.6).

From the foregoing arguments it can be seen that the relationship between the latent management practice constructs as independent variables and the latent retention constructs as dependent variables is seen to be one of an indirect relationship mediated by latent construct volunteer satisfaction and volunteer motivation. Already the justification for including the volunteer satisfaction and volunteer motivation in the relationship

between volunteer management practice construct and volunteer retention construct has already been discussed in detail in Chapter 3. Thus it can be seen that while the model developed by this research has attempted to understand the relationship between volunteer management practice and volunteer retention using mediating variables, at the same time it sought to build and expand on the arguments of Cuskelly et al. (2006). While the research outcomes of Cuskelly et al. (2006) applied to a single context of volunteers associated with sports organisations, this research has attempted to apply the research outcomes to a broad spectrum of volunteers disregarding the need to specify a particular type of volunteer organisations and thus generalizing the research findings across volunteer organisations.

Next, the research outcomes obtained by Cuskelly et al. (2006), by directly relating volunteer management practice constructs to volunteer retention, show that only one aspect of management practice namely planning has been found to have a significant relationship to retention while the remaining four constructs (recruitment, training and support, performance management, and recognition) have been found to have no significance at all to volunteer retention. However in this research exploratory factor analysis of the 24 observed variables measuring the latent construct pointed to the possibility to group the observed variables under three factors instead of the five factors identified by Cuskelly et al. (2006) (see Section 5.4). By this way three new latent management constructs were identified and the model was re-specified. These three new factors are named as MP-1 (Management Practice (P&R) (Management Practice-Planning and Recruitment)) and MP-2 (Management Practice (T&S) (Management Practice-Training and Support)) and MP-3 (Management Practice (RGN&PM) (Management Practice-Recognition & Performance Management)) and linked to volunteer satisfaction and volunteer motivation directly which in turn have been linked to RTN (Figure 5.5) and RTN1 (Figure 5.6). From the foregoing discussions it is possible to conclude that research question RQ3 has been answered.

Further, the two models depicted in Figures 5.5 and 5.6 have been tested details of which are provided in the following sections. In addition findings were derived from the data

analysis provided under Section 5.8.4 which enabled the researcher to answer RQ4, test the relationship between management practice constructs and retention, and verify the hypotheses.

#### **6.4 RQ4: How do the factors volunteer motivation and satisfaction affect the relationship between volunteer management practice factors and volunteer retention?**

To demonstrate how the factors affecting the relationship between volunteer management practice factors and volunteer retention influence the relationship researcher developed an empirical model based on the theoretical framework provided in Chapter 3. The basis for developing the model was the research findings of various researchers involved in volunteer research. However primary support was taken for the development of the model was the motivation provided by Cuskelly et al. (2006) who partially demonstrated that in the field of sports a relationship between volunteer management and volunteer retention could be established although with limited number of management practice constructs and inconclusive results. Other researchers (e.g. Hoye et al. 2008; Galindo-Kuhn & Guzley, 2002; Yanay & Yanay, 2008; Stukas et al. 2009) have also espoused similar sentiments although there is no clinching evidence on researchers having produced a research model that has addressed the linkage between volunteer management practice constructs and volunteer retention mediated by leading and important constructs volunteer motivation and satisfaction. Further a generalized model was a need for use by both volunteer organisations and volunteers to ensure greater retention of volunteer using effective management practice. Thus the model developed for this research is a need. The logic and rationale behind the development of the model has been fully described in Chapter 3.

Furthermore the model was tested using empirical data the analysis of which is provided in Chapter 5. Besides the hypotheses developed for this research which were revised based on the results of the data analysis were verified using path analysis provided in Sections 6.4.1 to 6.4.7. The original set of hypotheses developed for this research is

provided in Chapter 3 while the revised set of hypotheses is provided under Sections 5.5 and 5.6.

#### **6.4.1 Path analysis I**

The path between the construct Management Practice MP-2 and volunteer motivation (MOTIVAT) (that is MP-2 → MOTIVAT) is statistically significant (correlation weight 0.238) (see Table 5.12). This implies that if MP-2 increases by one standard deviation, then MOTIVAT will increase by 0.238 standard deviation. Similarly the path between the construct volunteer motivation (MOTIVAT) volunteer retention (RTN) (that is MOTIVAT → RTN) is statistically significant (correlation weight 0.436) (see Table 5.12). That is to say that if MOTIVAT increases by one standard deviation, then RTN will increase by 0.436 standard deviation. Then the correlation weight of the path MP-2 → MOTIVAT → RTN can be calculated as  $[(0.238)(0.436)]=0.104$ . This can be interpreted as: If MP-2 increases by one standard deviation, then retention increases by 0.104 standard deviation. This implies that with improved training and support to the volunteers as part of the volunteer management practices, volunteer retention is expected to be higher and vice versa.

The above two arguments indicate that the path MP-2 → MOTIVAT → RTN is significant. That is to say that the management practice construct MP-2 named as training and support is indirectly but positively related to volunteer retention mediated by volunteer motivation. Comparison of the results achieved in this research for the path MP-2 → MOTIVAT → RTN with other research findings was found to be hard as hardly any empirical study linking training and support as a volunteer management practice to retention mediated by volunteer motivation could be found. However the results of this research could be compared with other research findings for the two paths MP-2 → MOTIVAT and MOTIVAT → RTN individually. The results indicate that the findings of this research are in line with the research outcomes of other researchers. For instance researchers Bussell and Forbes (2006) assert that training and support impacts volunteer motivation while Finkelstein (2008) argued that volunteer motivation enables organisations to ensure that volunteers remain with them for a longer period. Thus the

results of this research can be considered to be supported by findings of other researchers although the linkage  $MP-2 \rightarrow MOTIVAT \rightarrow RTN$  appears to be unique to this research not found in other models in volunteer management practice literature. Thus it is reasonable to infer that volunteer training support as a volunteer management practice influences volunteer retention mediated by motivation. Thus based on the foregoing arguments it is possible to provide verification of the following hypotheses.

*H4: Volunteer management practice construct MP-2 has a positive influence on volunteer motivation is accepted.*

*H9: Volunteer motivation positively influences volunteer retention RTN is accepted.*

#### **6.4.2 Path analysis II**

The path between the construct Management Practice MP-3 and volunteer satisfaction (SATISFAC) (that is  $MP-3 \rightarrow SATISFAC$ ; correlation weight 0.473) (see Table 5.12) is found to be statistically significant. This can be interpreted in way that if management practice (recognition & performance management) construct increases by one standard deviation, then volunteer satisfaction increases by 0.473 standard deviation. Similarly the path between the construct Management Practice volunteer satisfaction (SATISFAC) and volunteer retention (RTN) (that is  $SATISFAC \rightarrow RTN$ : correlation weight 0.306) (see Table 5.12) is found to be statistically significant. That is if volunteer satisfaction increases by one standard deviation, then volunteer retention increases by 0.306 standard deviation. Using these results it is possible to calculate the correlation weight of the path  $MP-3 \rightarrow SATISFAC \rightarrow RTN$ . That is  $[(0.473)(0.306)] = 0.145$ . That is, if management practice (recognition & performance management) increases by one standard deviation then volunteer retention increases by 0.145 standard deviation. This implies that the path  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  is significant. This indicates that the volunteer management practice construct MP-3 named as Management (Practice-Recruitment & Performance Management) is indirectly but positively related to volunteer retention and is mediated by volunteer satisfaction. The meaning of this argument is that if as part of the management practice adopted by volunteer managers if recognition and performance management

aspects are taken care of then the volunteers are likely to be retained by volunteer organisations and vice versa.

Like in the case of the management practice (training & support) construct, comparative research investigations that have examined the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  are hard to be found in the extant literature. Although there have been exploratory studies (e.g. Skoglund, 2006) that have emphasized on the need to link volunteer management to retention in general, taking into account volunteer satisfaction as the intervening construct, specific studies that have analysed the  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  relationships appear to be lacking in the volunteer literature. Different studies have discussed the volunteer recognition-volunteer satisfaction-volunteer retention linkage in various ways.

For instance, some studies (e.g. Nassar & Talaat, 2009) have highlighted the need to link recognition and reward to volunteer satisfaction and volunteer satisfaction to volunteer retention. Similarly some researchers (e.g. Larocque et al. 2005) have reported that recognition leads to volunteer satisfaction. Again some other researchers (e.g. Silverberg et al. 2001) have argued that volunteer satisfaction is linked to volunteer retention and volunteer managers need to take care of volunteer satisfaction. In addition many researchers (e.g. Hager & Brudney 2004) have argued that volunteer recognition is directly related to volunteer retention. These arguments show that recognition as a volunteer management practice while being related to volunteer retention by researchers in the extant literature, viewing the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  as a combination of two individual relationships namely  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$  could provide a way to compare the findings of this research with the findings of the other researchers. Thus it is interpreted that the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  found to be significant in this research derives support from the extant literature. This can be established based on the argument that if researchers have found the relationships  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$  as significant then the combination of the relationships  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$  depicted by the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  should be significant.

In addition it must be noted that MP-3 not only comprises volunteer recognition but also volunteer performance management. It is necessary to compare the findings of this research with respect to MP-3 → SATISFAC → RTN taking into consideration volunteer performance management also. Volunteer performance management which is an important component of volunteer management practice has been found by researchers (e.g. Barber, 1986) to be associated with volunteer satisfaction. That is to say that MP-3 → SATISFAC with regard to volunteer performance management has been found to be a valid relationship in the extant literature. In addition in the previous paragraph it has been explained that the relationship SATISFAC → RTN has been found to be valid by other researchers involved in volunteer research. Thus the extant literature shows that the two relationships MP-3 → SATISFAC and SATISFAC → RTN with respect to volunteer performance management have been found to be valid. This argument is similar to the arguments provided in the previous paragraph related to volunteer recognition. Thus while combining the two relationships MP-3 → SATISFAC and SATISFAC → RTN with regard to volunteer performance management it is possible to argue that that the resultant relationship MP-3 → SATISFAC → RTN could also be valid. This argument in essence has been confirmed by the findings of this research in the case of MP-3 (volunteer performance management).

The above mentioned arguments show that the findings of this research with regard to the relationship MP-3 → SATISFAC → RTN extends the currently available knowledge on the relationship between management practice (volunteer recognition & volunteer performance), volunteer satisfaction and volunteer retention further by uniquely linking volunteer management practice, volunteer satisfaction and volunteer retention constructs. Based on this argument it is possible to infer that the indirect, positive and significant relationship of management practice (recognition & performance management) to volunteer retention mediated by volunteer satisfaction is supported by the findings in the extant literature. From the foregoing discussions it is possible to verify the following hypotheses:

*H5: Volunteer management practice construct MP-3 has a positive influence on volunteer satisfaction is accepted.*

*H8: Volunteer satisfaction positively influences volunteer retention RTN is accepted.*

### **6.4.3 Path analysis III**

The path MP-2 → MOTIVAT (correlation weight 0.238) has been found to be significant already (see Section 6.4.1). The path between volunteer motivation (MOTIVAT) and volunteer satisfaction (SATISFAC) (that is MOTIVAT → SATISFAC; correlation weight 0.359) has also been found to be significant (see Tables 5.9 & 5.12). The path SATISFAC → RTN (correlation weight 0.306) is significant (see Section 6.4.2). Using the arguments in Sections 6.4.1 and 6.4.2 it is possible to argue that combining the relationships MP-2 → MOTIVAT, MOTIVAT → SATISFAC and SATISFAC → RTN it is possible to write the resulting relationship as MP-2 → MOTIVAT → SATISFAC → RTN. This implies that the management practice construct training and support is also indirectly linked to RTN mediated by both motivation and satisfaction.

As regards the calculation of the correlation weight of the indirect relationship between management practice construct training and support is also indirectly linked to RTN mediated by both motivation and satisfaction it turns out to be  $[(0.238)(0.359)(0.306)]=0.026$ . That is to say: If management practice construct, training and support, increases by one standard deviation the RTN increases by 0.026 standard deviation. This implies that management practice construct training and support has a weaker correlation to RTN through the path MP-2 → MOTIVAT → SATISFAC → RTN when compared to the path MP-2 → MOTIVAT → RTN (correlation 0.104; see Section 6.4.1). This can be interpreted in a way that the influence of management practice construct training and support on volunteer retention through motivation is higher than through the path MP-2 → MOTIVAT → SATISFAC → RTN. In both the instances management practice construct training and support produces an indirect but positive effect on volunteer retention.



The statistical results indicate that motivation acts as a more significant mediator in the relationship between management practice construct training and support and volunteer retention. Thus the influence of management practice construct training and support on volunteer retention through the path MP-2 → MOTIVAT → SATISFAC → RTN could be considered less important in comparison to the path MP-2 → MOTIVAT → RTN. This implies that volunteer managers while providing training and support to volunteers should ensure that their motivation is high leading to longer duration of volunteering by the volunteer with the volunteering organisation. This argument has been already shown to derive support from other research results obtained by earlier researchers involved in this field (see Section 6.4.1).

Another important point emerges at this point pertaining to the relationship between volunteer motivation and volunteer satisfaction. The results indicate that the correlation weight for the path MOTIVAT → SATISFAC is significant and stands at 0.359. This implies that if volunteer motivation increases by one standard deviation then volunteer satisfaction increases by 0.359 standard deviation. That is to say that volunteer motivation influences volunteer satisfaction directly, in the positive direction. This finding confirms similar findings by other researchers (e.g. Bang & Ross, 2009) who argue that volunteer managers must focus on the motivational factors that most influence the volunteer satisfaction. From the foregoing arguments it is possible to infer as follows:

*H7: Volunteer motivation positively influences volunteer satisfaction is accepted.*

#### **6.4.4 Path analysis IV**

The path between management practice (MP-1) and volunteer motivation (MOTIVAT) (that is MP-1 → MOTIVAT) is found to be statistically insignificant. Moreover, even though the following path MOTIVAT → RTN is statistically significant, it emerges that the construct MP-1 named as Management Practice-Planning and Recruitment is not related to volunteer retention when mediated by volunteer motivation (that is the relationship MP-1 → MOTIVAT → RTN is not significant). The findings of this research in this aspect are contrary to the arguments of other researchers (e.g. Nassar & Talaat,

2009) who argue that planning and recruitment affect motivation. One of the reasons for this could be that planning and recruitment are such factors that may require additional factors to be associated in their relationship with a construct like motivation. For instance the path MP-1 ↔ MP-2 (correlation weight 0.693; see Table 5.13) and MP-2 → MOTIVAT (correlation weight 0.238) may provide some support for this argument. The resulting effect of MP-1 on MOTIVAT is  $[(0.693)(0.238)]=0.164$  indicating that one standard deviation increase in MP-1 effects an increase of 0.164 standard deviation increase in MOTIVAT. This implies that management practice (planning and recruitment) associated with MP-2, moderates the relationship between MP-2 (management practice (training and support)) and volunteer motivation. This means that training and support provided to volunteers need the support of planning and recruitment as part of volunteer management practice in order to influence volunteer motivation.

These findings can be compared with existing literature in two steps. Firstly the finding that volunteer planning and recruitment is associated with volunteer training and support for volunteers is corroborated by the findings by Cuskelly et al. (2006) who found item-scale correlation between the items measuring the planning, recruitment, training and support were acceptable. Thus the findings of this research which found the association between MP-1 and MP-2 are in conformity with the findings of Cuskelly et al. (2006). The second step involved the assessment of the relationship between MP-1 and MOTIVAT. This has been already discussed under section 6.4.1 and found to be significant. Thus the argument that management practice (planning & recruitment) could influence volunteer motivation through management practice (training and support) gains currency and hence the findings of this research can be said to be in line with the findings found in the current volunteer management literature. The above arguments could be extended to volunteer retention through the paths MP-1 ↔ MP-2, MP-2 → MOTIVAT, MOTIVAT → RTN. These paths have been already been found to be statistically significant. In terms of the correlation weight it can be seen that the indirect effect of MP-1 on RTN is calculated as  $[(0.693)(0.238)(0.436)]=0.072$ . This can be interpreted in a way that when MP-1 increases by one standard deviation, RTN correspondingly increases by 0.072 standard deviation indicating an indirect but positive relationship between MP-1

and RTN through the path  $MP-1 \leftrightarrow MP-2 \rightarrow MOTIVAT \rightarrow RTN$ . Thus it is possible to imply that planning and recruitment activities as part of volunteer management associate directly and positively with management practice activities related to training and support of volunteers which in turn positively influences volunteer retention mediated by volunteer motivation. Further, it is possible to infer that the association between planning and recruitment on the one hand and training and support on the other influence volunteer motivation which needs to be taken into account by volunteer managers if they want the volunteer to work longer for their organisation. This finding is unique to this research and similar findings in the volunteer management literature are hard to find. From the foregoing discussions the following inference could be made.

*H2: Volunteer management practice construct MP-1 has a positive influence on volunteer motivation is rejected.*

#### **6.4.5 Path analysis V**

The path between management practice (MP-1) and volunteer satisfaction (SATISFAC) (that is  $MP-1 \rightarrow SATISFAC$ ) is found to be statistically insignificant. Besides, even though the path  $SATISFAC \rightarrow RTN$  is statistically significant, it emerges that the relationship  $MP-1 \rightarrow SATISFAC \rightarrow RTN$  is not significant and the construct MP-1 (Management Practice-Planning and Recruitment) is not related to volunteer retention when mediated by volunteer satisfaction. As in the case of the relationship  $MP-1 \rightarrow MOTIVAT$  explained in Section 6.4.4, the finding that management practice (planning and recruitment) is not statistically significant is contradicting to the findings of other researchers (e.g. Nassar & Talaat, 2009). The arguments of Nassar and Talaat (2009) indicate that planning and recruitment affect volunteer satisfaction. One of the reasons for this could be that the relationship between volunteer planning and recruitment on the one hand and volunteer satisfaction on the other may require additional factors to support the relationship. In this context it is worthwhile to examine the paths  $MP-1 \leftrightarrow MP-3$  (correlation weight 0.534; see Table 5.13) and  $MP-3 \rightarrow SATISFAC$  (correlation weight 0.473) as these paths have been found to be statistically significant. Combining the two paths it is possible to derive the resultant path as  $MP-1 \leftrightarrow MP-3 \rightarrow SATISFAC$ . The

influence of MP-1 on SATISFAC is calculated using the correlation weights of the two relationships  $MP-1 \leftrightarrow MP-3$  and  $MP-3 \rightarrow SATISFAC$  which is  $[(0.534)(0.473)]=0.253$ .

This result can be interpreted in a way that if management practice (planning and recruitment) increases by one standard deviation, then volunteer satisfaction increases by 0.253 standard deviation. The implication could be that the relationship between MP-1 and SATISFAC can be meaningful in case the relationship is influenced by another factor such as management practice (recognition and performance management) (MP-3). That is, the relationship between MP-1 and SATISFAC is that MP-1 acts as a moderator in the relationship  $MP-3 \rightarrow SATISFAC$  as it is statistically found to be significantly associated with MP-3. The finding that the association between management practice (planning and recruitment) and management practice (recognition and performance management) is significant is supported by the findings of other researchers (e.g. Cuskelly et al. 2006). Similarly it was seen in Section 6.4.2 that the findings of this research with regard to the relationship  $MP-3 \rightarrow SATISFAC$  have been supported by the findings of other researchers. Thus, it is possible to infer that through an examination of the path  $MP-1 \leftrightarrow MP-3 \rightarrow SATISFAC$ , that planning activities in volunteer management and volunteer recruitment influence the satisfaction of the volunteers. This finding confirms similar findings of other researchers involved in volunteer management.

As a corollary it emerges that the entire combination of the paths  $MP-1 \leftrightarrow MP-3$ ,  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$  can also be statistically analysed for understanding the influence of MP-1 on RTN. Thus using the correlation weights provided in Tables 5.12 and 5.13 it is possible to write  $[(0.534)(0.473)(0.306)]=0.077$  which implies that if MP-1 increases by one standard deviation, volunteer retention increases by 0.077 standard deviation. Thus there is a statistically significant path between MP-1 and RTN. It is possible to interpret this relationship in a way that the construct management practice (planning & recruitment) could act as a moderator of the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  indicating that management practice (planning & recruitment) could influence volunteer retention through the path  $MP-1 \leftrightarrow MP-3$ ,  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$ . It is therefore possible to argue that planning

and recruitment activities in volunteer management directly and positively influence the volunteer recognition and performance management which in turn indirectly and positively influences volunteer retention mediated positively by volunteer satisfaction. This finding is unique to this research as similar findings elsewhere in volunteer management research is hard to find. From the foregoing discussions it is possible to derive the following inference.

*H1: Volunteer management practice construct MP-1 has a positive influence on volunteer satisfaction is rejected.*

#### **6.4.6 Path analysis VI**

The path between management practice (MP-3) and volunteer motivation (MOTIVAT) (that is MP-3 → MOTIVAT) is found to be statistically insignificant. Then, even though the following path MOTIVAT → RTN is statistically significant, it emerges that the construct MP-3 named as Management Practice-Recognition and Performance Management is not related to volunteer retention mediated by volunteer motivation. However by an application of the arguments provided in 6.4.4 here, it is possible to examine the paths MP-3 ↔ MP-2, MP-2 → MOTIVAT and MOTIVAT → RTN which have been found statistically significant (see Tables 5.9 and 5.13). Multiplying the correlation weights for the path MP-3 ↔ MP-2 → MOTIVAT → RTN it is possible to get the resultant correlation weight. That is  $[(0.55)(0.238)(0.436)]=0.057$ . This indicates that if there is a one standard deviation increase in MP-3 then there is an expected increase of 0.057 standard deviation in RTN. This implies that the direct and positive association between volunteer recognition and performance management on the one hand and volunteer training and support on the other positively and indirectly influence volunteer retention mediated by volunteer motivation.

Although the finding that association between volunteer recognition and performance management on the one hand and volunteer training and support on the other is significant finds support from similar findings of Cuskelly et al. (2006) the finding that the relationship MP-3 ↔ MP-2 → MOTIVAT → RTN is significant is unique to this

research. The effect of MP-3 on volunteer motivation and retention appears to be one of a moderator which positively influences the relationship  $MP-2 \rightarrow MOTIVAT \rightarrow RTN$  in association with volunteer training and support. Thus the result of the verification of hypothesis H6 is as follows:

*H6: Volunteer management practice construct MP-3 has a positive influence on volunteer motivation is rejected.*

#### **6.4.7 Path analysis VII**

The path between management practice (MP-2) and volunteer satisfaction (SATISFAC) (that is  $MP-2 \rightarrow SATISFAC$ ) is found to be statistically insignificant. It can be seen further that even though the following path  $SATISFAC \rightarrow RTN$  is statistically significant, it emerges that the construct MP-2 named as Training and Support is not related to volunteer retention mediated by volunteer satisfaction. Applying those arguments provided in Section 6.4.5 here, it is possible to examine the paths  $MP-2 \leftrightarrow MP-3$ ,  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$ . These paths have been found to be statistically significant (see Tables 5.9 and 5.13). The resulting path  $MP-2 \leftrightarrow MP-3 \rightarrow SATISFAC \rightarrow RTN$  was tested by multiplying the correlation weights the individual relationships between each pair of the constructs  $MP-2 \leftrightarrow MP-3$ ,  $MP-3 \rightarrow SATISFAC$  and  $SATISFAC \rightarrow RTN$ . That is  $[(0.55)(0.473)(0.306)]=0.08$ . This result implies that when volunteer training and support as a variable increases by one standard deviation, volunteer retention increases by 0.08 standard deviation. That is to say that the direct and positive association between volunteer training and support on the one hand and volunteer recognition and performance management other indirectly but positively influences volunteer retention mediated by volunteer satisfaction. Thus volunteer training and support can be considered to act as a moderator of the relationship  $MP-3 \rightarrow SATISFAC \rightarrow RTN$ .

While the findings of the research on the positive and direct association between MP-2 and MP-3 are in line with the research findings of Cuskelly et al. (2006) the finding that the relationship  $MP-2 \leftrightarrow MP-3 \rightarrow SATISFAC \rightarrow RTN$  is statistically significant is in a

way unique to this research. The researcher is unaware of any such finding in volunteer research. Thus while there is no significance between the direct relationship between volunteer training and support and volunteer satisfaction, the findings suggest that volunteer training and support could have an indirect effect on volunteer satisfaction as an associate of volunteer recognition and performance management. Thus the verification of hypothesis H3 led to the following result:

*H3: Volunteer management practice construct MP-2 has a positive influence on volunteer satisfaction is rejected.*

From the foregoing discussions it emerges that amongst the three exogenous constructs Training and Support (MP-2) and Management Practice-Recruitment & Performance Management (MP-3) are the only constructs found to be related to retention and not the construct Management Practice-Planning and Recruitment (MP-1). Further the relationship between MP-2 and MP-3 on the one hand and RTN on the other is mediated varyingly. While the relationship between MP-2 and retention is mediated by volunteer motivation through the path  $MP-2 \rightarrow MOTIVAT \rightarrow RTN$  the same relationship is mediated by both volunteer motivation and satisfaction through another path namely  $MP-2 \rightarrow MOTIVAT \rightarrow SATISFAC \rightarrow RTN$ . From the discussions provided in Section 6.4.3 it can be seen that the relationship  $MP-2 \rightarrow MOTIVAT \rightarrow SATISFAC \rightarrow RTN$  is statistically less significant than  $MP-2 \rightarrow MOTIVAT \rightarrow RTN$ . Further, the relationship between MP-3 and RTN is mediated by SATISFAC through the path  $MP-3 \rightarrow SATISFAC \rightarrow RTN$  indicating that there is a third path that indirectly links MP-3 to RTN. However the lack of significant and direct relationship between specific exogenous and endogenous pairs of variables has provided an opportunity to examine the relationships through other indirect paths. Thus the lack of significant relationship between MP-1 & SATISFAC, MP-1 & MOTIVAT, MP-2 & SATISFAC and MP-3 & MOTIVAT were examined through the covariance paths  $MP-1 \leftrightarrow MP-3$  and  $MP-2 \leftrightarrow MP-3$ . New and significant relationships were found. All the three management practice constructs planning and recruitment (MP-1), training and support (MP-2), and recognition and performance management (MP-3) have been found to be associated with

each other and the associations have been found to influence volunteer motivation, satisfaction and retention. This is a unique finding that may require more detailed investigation.

Finally it must be pointed out here that the model depicted in Figure 5.6 developed based on the theoretical framework (see Chapter 3) was not found to be valid (see Section 5.11) and hence there was no requirement to discuss about that model. This enabled the researcher to conclude that hypotheses H10-H18 have been rejected. Thus it can be concluded that research question RQ4 has been answered.

### **6.5 Inferences from the findings**

From the foregoing discussions it can be seen that the relationship between the exogenous variables representing the volunteer management practice constructs and the endogenous variable volunteer retention is indirect although mediated by variables MOTIV and SATISFAC. Other findings were derived from this discussion. Firstly management practice constructs identified by Cuskelly et al. (2006) needed factorization again. The constructs developed by Cuskelly et al. (2006) were based on the factorization of Volunteer Management Inventory. The factorization carried out by Cuskelly et al. (2006) and the resulting factors might not have been precise and the observed variables used to measure the factors apparently did not converge on the concepts developed by Cuskelly et al. (2006). Thus a fresh look at the factorization was needed which is confirmed by the results of this research.

The results of this research indicate that the direct relationship between management practice constructs and retention attempted by Cuskelly et al. (2006) is not the optimum way and such a relationship needs to be mediated by very important and vital constructs essential for volunteer retention namely volunteer satisfaction and volunteer motivation, an argument supported by the findings of Hoye et al. (2008). In fact the results of this research are partially in agreement with Hoye et al. (2008) who used multiple dimensions as motivators, to predict volunteer retention. For instance Hoye et al. (2008) found that as part of management practice managers and volunteer coordinators need to design



volunteer recruitment messages that are likely to influence a variety of possible motives for volunteering and hence retain them. Similarly volunteer motivation is an important part of volunteer management practice if organisations want to retain volunteers. Hoye et al. (2008) also argued that there is a relationship between volunteer management practice, volunteer commitment and hence retention implying mediating factors are needed in the linkage between volunteer management practice and volunteer retention. Thus the findings of this research can be said to find theoretical support from the extant literature on the subject of volunteer retention.

Moreover, the scale used by Cuskelly et al. (2006) to measure retention might also have contributed to the lack of significant relationship between all but one management practice construct and retention. In this research retention was tested using the instrument that was developed based on the instrument tested by Hoye et al. (2008). Another important factor that might have contributed to the lack of significant relationship between management practice and retention in the research conducted by Cuskelly et al. (2006) is the sample size of volunteers used by Cuskelly et al. (2006). Thus the main findings of this research are contradictory to the findings of Cuskelly et al. (2006) and showed that significant modifications were needed to the model developed by Cuskelly et al. (2006).

In addition to the above the theoretical framework in Chapter 3 provided the support of the theories and concepts to validate the re-specified model. Statistical testing of the data collected using the research instrument developed for the research resulted in establishing a strong correlation amongst the four constructs identified for this research namely MP-1, MP-2, MP-3 (volunteer management practice), motivation, satisfaction and volunteer retention. The influence of volunteer management practice constructs on retention has been found to be valid if only the motivation and satisfaction of the volunteers are linked to management practice. Thus the re-specified model developed and tested in Chapter 5 and the results of the data analysis provided in the same chapter clearly show that the four research questions RQ1-RQ4 have been answered. In addition the performance of the

model was found to be in line with the results published by other researchers the details of which are as follows:

1. Cuskelly et al. (2006) found that there is a relationship between volunteer management practice constructs and volunteer retention.
2. Hoyer et al. (2008), Salas (2008) and Unstead-Joss (2008) have highlighted the need to motivate of volunteers and keep it very high through effective management practice.
3. Galindo-Kuhn and Guzley (2002) and Penner and Finkelstein, (1998) established a relationship between volunteer satisfaction and some of the sub-correlates of management practice.
4. Millette and Gagné (2008), Salas (2008), Finkelstein (2008), Clary et al. (1998) and Stukas et al. (2009) showed that volunteer satisfaction could depend on volunteer motivation
5. Omoto and Snyder's (1995) found a significant correlation between satisfaction and the period of that volunteers spend along with volunteer work (Omoto & Snyder, 1995)
6. Mesch et al. (1998), Rehberg (2005), Yanay and Yanay (2008) and Finkelstein (2008) found motivation to be a factor that affects both volunteers and volunteering organisations and that enables organisations to ensure that the volunteers remain with them for a longer period.
7. The discussions enabled the researcher to verify the hypotheses also. Table 6.1 provides the final list of hypotheses that have been accepted and rejected.

No.	Code	Hypothesis	Result
		<b>Model in Figure 5.5 (Dependent variable RTN)</b>	
1.	H1	Volunteer management practice construct MP-1 has a positive influence on volunteer satisfaction.	Rejected
2.	H2	Volunteer management practice construct MP-1 has a positive influence on volunteer motivation.	Rejected
3.	H3	Volunteer management practice construct MP-2 has a positive influence on volunteer satisfaction.	Rejected
4.	H4	Volunteer management practice construct MP-2 has a positive influence on volunteer motivation.	Accepted
5.	H5	Volunteer management practice construct MP-3 has a positive influence on volunteer satisfaction.	Accepted
6.	H6	Volunteer management practice construct MP-3 has a positive influence on volunteer motivation.	Rejected
7.	H7	Volunteer motivation positively influences volunteer satisfaction.	Accepted
8.	H8	Volunteer satisfaction positively influences volunteer retention RTN.	Accepted
9.	H9	Volunteer motivation positively influences volunteer retention RTN.	Accepted
		<b>Model in Figure 5.6 (Dependent variable RTN1)</b>	
10.	H10	Volunteer management practice construct MP-1 has a positive influence on volunteer satisfaction.	Rejected
11.	H11	Volunteer management practice construct MP-1 has a positive influence on volunteer motivation.	Rejected
12.	H12	Volunteer management practice construct MP-2 has a positive influence on volunteer satisfaction.	Rejected
13.	H13	Volunteer management practice construct MP-2 has a positive influence on volunteer motivation.	Rejected
14.	H14	Volunteer management practice construct MP-3 has a positive influence on volunteer satisfaction.	Rejected
15.	H15	Volunteer management practice construct MP-3 has a positive influence on volunteer motivation.	Rejected
16.	H16	Volunteer motivation positively influences volunteer satisfaction.	Accepted
17.	H17	Volunteer satisfaction positively influences volunteer retention RTN1	Rejected
18.	H18	Volunteer motivation positively influences volunteer retention RTN1.	Accepted

**Table 6.1 Final list of hypotheses accepted and rejected**

## **6.6 Summary**

This chapter has provided a detailed discussion on how the statistical analysis enabled the researcher to answer the research questions and derive findings. The findings indicate that the volunteer management practice constructs volunteer training and support (MP-2), and volunteer recognition and performance management (MP-3) are related to volunteer retention (RTN) indirectly but positively. Relationship between MP-2 and RTN is mediated by volunteer motivation. Relationship between MP-3 and RTN is mediated by volunteer satisfaction. Planning volunteering activities and recruitment of volunteers (MP-1) has not been found to be related to RTN indirectly either through volunteer motivation or satisfaction. Similarly MP-2 has not been found to be related to volunteer satisfaction and MP-3 has not been found to be related to volunteer motivation. However MP-1, MP-2 and MP-3 have been found to be associated with each other acting as moderators to some of the relationships between the exogenous and endogenous variables. The discussions have compared the findings with other research findings produced by researchers involved in volunteer management research. Findings that confirm and those that contradict already published outcomes have been provided based on a comparison with the relevant literature. Finally the chapter has also tested the research model by verifying the hypotheses. The list of accepted and rejected hypotheses has been provided. This chapter thus sets the basis to draw the conclusions for this research which are provided in the next chapter.

## **Chapter 7**

### **Conclusions**

#### **7 Introduction**

Many of the problems faced by volunteering organisations in retaining volunteers have been highlighted in Chapter 1. This research has addressed some of them by developing a model that could be meaningfully implemented by volunteering organisations to retain volunteers through effective management practice. Using the main perspective of human resource management, correlates that signify management practice and identified by other researchers (e.g. Cuskelly et al. 2006) also, have been further investigated and elaborated (Chapters 3 and 5). Further, the management practice correlates were investigated for their ability to act as determinants of volunteer retention using mediating variables volunteer motivation and volunteer satisfaction. Literature review (Chapter 2) provided the theoretical underpinning to relate the variables and develop the model (Figure 3.3) for this research. The model was tested using the data collected and verification of the hypothesis (Chapter 5) and the results suggest that it is possible to improve volunteer retention by improving the effectiveness of volunteer training and support as well as volunteer recognition and performance management but through volunteer motivation and volunteer satisfaction (Chapter 5). These findings now need to be assessed in order to know whether the initial aim and objectives set for this research are achieved. Thus in this chapter the researcher discusses the extent to which the stated aim and objectives of this research have been achieved leading to conclusions. To begin with the research objectives are addressed followed by the aim set for this research. Following this are the contributions to knowledge, methodology, practice and policy as well as limitations of this research and recommendations for future research.

## **7.1 Assessment of the extent to which the objectives and aim has been achieved - Objective 1**

*To study the various models, concepts and theories related to volunteer management practice and volunteer retention to understand the relationship between volunteer management practice factors and volunteer retention.*

The aspect of studying the various models, concepts and theories related to volunteer management practice and volunteer retention and the possible relationship between the two concepts have been dealt with in Chapters 2 and 3. For instance the researcher studied the model developed by Cuskelly et al. (2006) who related management practice correlates to volunteer retention directly. The research outcomes produced by Cuskelly et al. (2006) clearly provided the way to link volunteer management practice factors or correlates and volunteer retention. Similar arguments have been provided by Hager and Brudney (2004) that lent support to the researcher to investigate further into the relationship between the two concepts.

In addition a review of the literature indicates (e.g. Hoye et al. 2008) that hardly any theory has been developed by researchers to address the issue of volunteer retention using management practice suggesting the need to investigate into the concept of the relationship between volunteer management practice and volunteer retention further. Besides, factors that are identified as management practice correlates by other researchers (e.g. Cuskelly et al. 2006) were not found to be conclusively related to volunteer retention. In their first major research effort, Cuskelly et al. (2006) identified planning, recruitment, screening, orientation, training and support, performance management and recognition as factors of management practice and related them to volunteer retention. However except for the factors planning and orientation Cuskelly et al. (2006) did not find statistically significant relationship with volunteer retention, although the theoretical aspects used by Cuskelly et al. (2006) indicated that there is distinct possibility that the remaining factors of volunteer management practice could be related to volunteer retention. The model developed by Cuskelly et al. (2006) was tested again in this research in a context free environment and it was found that the relationship between the factors

identified by Cuskelly et al. (2006) and volunteer retention. Thus on the one hand there was a need to investigate further into the relationship between volunteer management practice factors themselves and volunteer retention. On the other there was a need to understand whether modifications could be made to the model developed by Cuskelly et al. (2006) to see whether the factors recruitment, screening, orientation, training and support, performance management and recognition could be meaningfully related to volunteer retention.

Another important aspect that needed attention was that several of the volunteer management practice factors that were not found to be related to volunteer retention by Cuskelly et al. (2006) were investigated in the context of volunteers involved in the field of sports. Therefore there was a necessity to investigate into the management practice factors identified by Cuskelly et al. (2006) in a context free environment if it can be concluded that those factors are not really related to volunteer retention. Thus in this research one of the objectives was to test the relationship between volunteer management practice factors identified by Cuskelly et al. (2006) and volunteer retention in a context free environment taking into consideration already available theoretical underpinnings.

Furthermore, a study of the literature revealed that many researchers have found many other factors of management practice (Table 2.4) and the list in fact could extend further if more investigations are conducted. However in this research the researcher restricts to the factors determined by Cuskelly et al. (2006) and further investigations into other factors was not found necessary as the main focus was to understand the relationship between correlates of volunteer management practice and volunteer retention and not on the list of factors that represent volunteer management practice. Thus based on the foregoing arguments it can be said that the first objective has been achieved.

## **7.2 Objective 2**

*To examine how volunteer motivation and satisfaction as factors influence the relationship between volunteer management practice and volunteer retention.*

The model developed by Cuskelly et al. (2006) related volunteer management practice factors or correlates directly to volunteer retention in the context of volunteers involved in sports. However many researchers have argued that the volunteer management practice factors are related to other variables other than management practice such as volunteer satisfaction (Galindo-Kuhn & Guzley, 2002) and volunteer motivation (Hoye et al. 2008; Salas, 2008; Unstead-Joss, 2008). Although there could be other factors that may also be influenced by volunteer management practice factors such as commitment and intention to leave (Salas, 2008), the findings of this research from the literature review (Table 2.2) clearly indicate that the majority of the researchers have pointed out that broadly volunteer motivation and volunteer satisfaction are two most common volunteer attributes that play a role in volunteers' decision to be attached to a particular volunteering organisation. Thus the focus of this research was on volunteer motivation and volunteer satisfaction.

Furthermore, from Sections 2.6 and 2.7 it can be seen that current research outcomes that have tended to relate volunteer management practice correlates to volunteer motivation and satisfaction suffer from serious limitations implying the need for further investigations into the relationship between management practice factors on the one hand and volunteer motivation and volunteer satisfaction on the other. In addition, while some researchers argue that volunteer motivation (Finkelstein, 2008) and volunteer satisfaction (Omoto & Snyder, 1995) are essential elements to retain volunteers, taking into account the arguments that management practice correlates influence volunteer motivation and volunteer satisfaction, it can be argued that volunteer management practice correlates could be related to volunteer retention through volunteer motivation and volunteer satisfaction. Such an argument provides a new way to look at the relationship between volunteer management practice factors and volunteer retention. A search in the extant literature shows that such a relationship has not been investigated. Thus this research has chosen volunteer motivation and satisfaction as potential factors that influence the relationship between volunteer management practice correlates and volunteer retention. Thus it can be argued and concluded that the second objective has been achieved.



### **7.3 Objective 3**

*To develop a research relationship model using the constructs volunteer management practice factors, volunteer retention and volunteer motivation and satisfaction to understand the influence of volunteer management practice.*

The literature review in Chapter 2 led the researcher to develop the theoretical framework in Chapter 3. From the theoretical framework the researcher developed the research model provided in Figure 3.3. The figure shows that volunteer management practice as a single variable has been related to mediating volunteer motivation and volunteer satisfaction directly and indirectly to volunteer retention through the mediating variables. Theoretical support for establishing each one of the relationships has been provided both in Chapter 2 and Chapter 3. An important aspect that was incorporated in the model was the influence of volunteer motivation on volunteer satisfaction which led the researcher to investigate three different paths to volunteer retention namely: volunteer management practice → volunteer motivation → volunteer retention, management practice → volunteer satisfaction → volunteer retention and management practice → volunteer motivation → volunteer satisfaction → volunteer retention. While the discussions related to objectives one and two have provided ample evidence to include volunteer motivation and volunteer satisfaction as factors influencing the relationship between volunteer management practice correlates and volunteer retention, an important aspect pertaining to the influence of volunteer motivation on volunteer satisfaction was found to be necessary to be included based on the wide support found in the literature. For instance Millette and Gagné (2008) and Salas (2008) highlighted the need to link volunteer motivation to volunteer satisfaction as a determinant. Thus the researcher considered that a path relating volunteer motivation and volunteer satisfaction as essential to be included in the model.

However, the researcher began with volunteer management practice as a single independent variable with sub-correlates represented by a set of items as variables (a total of 24 items were initially used to measure volunteer management practice comprising measures for the sub-correlates planning, recruitment, training and support, performance

management and recognition; see Table 5.3). It must be noted that these items were extracted from the work of Cuskelly et al. (2006) although the set of sub-correlates did not include volunteer screening and orientation. The decision to exclude volunteer screening was based on the recommendation of Cuskelly et al. (2006) who did not find the relationship between this correlate and volunteer retention significant as well as the arguments given under Section 3.3 where orientation was considered to be part of training and support.

Furthermore, the set of 24 items used to measure volunteer management practice along with the items used to measure volunteer motivation, volunteer satisfaction and volunteer retention were subjected to exploratory factor analysis (see Section 5.4). The need for conducting exploratory factor analysis arose in order to test whether the factors identified by the researcher in the research model were the only factors that are being measured using the measuring instrument developed for this research (see Appendix 1) or some unnoticed underlying factors could emerge. The outcome of the exploratory factor analysis indicated that volunteer motivation and volunteer satisfaction factors were extracted as factors measured by the items identified to measure them. However, volunteer management practice as a single correlate needed to be grouped under three factors namely: Management Practice (P&R) (Management Practice-Planning and Recruitment), Management Practice (T&S) (Management Practice-Training and Support) and Management Practice (RGN&PM) (Management Practice-Recognition & Performance Management). It must be mentioned here that exploratory factor analysis yielded only three factors. This is different to the research conducted by Cuskelly et al. (2006) based on whose paper the sub-correlates of volunteer management practice were identified in this research. The essential difference is that Cuskelly et al. (2006) identified the factors planning, recruitment, training and support, performance management and recognition as individually affecting volunteer retention whereas in the exploratory factor analysis conducted in this research the factors planning and recruitment were thrown up as one factor and performance management and recognition were also thrown up as a single factor. Training and support was extracted as a single factor which is in line with the research efforts of Cuskelly et al. (2006). Similarly, with respect to volunteer

retention two factors were extracted. This is in contrast to the research work of Hoye et al. (2008). Hoye et al. (2008) measured volunteer intention to stay (retention) using a set of six items which was adopted in this research. However, exploratory factor analysis conducted in this research threw up two underlying factors of retention in place of the one identified by Hoye et al. (2008). These two factors were named as RTN and RTN1. The above findings necessitated the research model to be re-drawn. Thus the research relationship model assumed the shape given in Figures 5.5 and 5.6 with RTN as the dependent variable in Figure 5.5 and RTN1 as the dependent variable in Figure 5.6.

It can be seen that the revised research model still had the support of the volunteer management literature. The independent variable volunteer management practice was split into three factors which is very similar to the research work carried out by Cuskelly et al. (2006). Theoretical underpinning of the relationships (planning and recruitment) → volunteer motivation, (training and support) → volunteer motivation, (performance management and recognition) → volunteer motivation, (planning and recruitment) → volunteer satisfaction, (training and support) → volunteer satisfaction and (performance management and recognition) → volunteer satisfaction have been provided in Chapters 2 and 3. As far as the relationships volunteer motivation → volunteer retention (RTN and RTN1) and volunteer satisfaction → volunteer retention (RTN and RTN1) are concerned the theoretical support provided under Sections 2.6, 2.7 and 2.8 still hold good. It is possible to conclude that the research model is in line with the arguments provided in the volunteer management research and hence it is possible to argue that objective three has been achieved.

#### **7.4 Objective 4**

*To test the model and verify its validity.*

To test the initial model the methodology described in Chapter 4 was adopted. Quantitative research method was adopted. A research instrument was developed to collect data and test the model details of which are provided under Section 4.9. A pilot survey was conducted to test the research instrument using the initial model in Figure 3.3

and the initial results showed that research instrument was reliable and valid with respect to the wordings, content, format and presentation of the instrument. As explained in Section 4.9 data collection instrument is an important tool needed to test the research model and required by the researcher to test whether the aim and objectives set for this research have been achieved or not. It must be borne in mind that pilot survey is only a basic test through which data was collected from a very small sample of subjects and hence the outcomes of the pilot survey were serving only a limited purpose. The main survey with a large sample of population was therefore conducted by the researcher to test the model using more rigorous statistical tests.

Further to collecting the data through the main survey data analysis was conducted details of which are provided in Chapter 5. Detailed and rigorous statistical tests were conducted. From the discussions given in Chapter 5 it can be seen that the initial model in Figure 3.3 was modified as given in Figures 5.5 and 5.6 based on exploratory factor analysis. The original set of hypotheses given in Chapter 3 was replaced by the new set of hypotheses given in Sections 5.5 and 5.6. The revised model was statistically tested for ascertaining the reliability and validity of the test instrument and both were established for the model in Figure 5.5 (see Section 5.7) while the model in Figure 5.6 was found to be not valid statistically (see Section 5.11). The argument that the model in Figure 5.6 was found to be statistically invalid, led the researcher to conclude that the hypotheses H10-H18 (see Section 5.6) are not established.

After establishing the reliability and validity of the instrument, the model in Figure 5.5 was tested using SEM (see Sections 5.8). The results of SEM enabled the researcher to determine the validity of the various paths and verify hypothesis H1-H9 (see Section 5.5). Details of the paths that were found to be statistically significant are provided under Section 5.8.5. The validity of significant paths and insignificant ones were compared with already published literature (see Section 5.8.4). Inferences on whether the findings are in line with already established research outcomes or differ from them have been provided under Section 5.8.4 and Chapter 6. Thus the final model with valid paths was arrived at and is given in Figure 5.13. From the discussions provided in Sections 5.8-5.10 as well as

Chapter 6, it was concluded that hypotheses H4, H5, H7, H8 and H9 were accepted and hypotheses H1, H2, H3 and H6 were rejected. Detailed comparisons of the findings of the research with respect to hypotheses that have been accepted and rejected were made with respect to contemporary knowledge available in the literature and discussed (see Chapter 6). Thus while practically the model was tested using the collected data and SEM, the findings were also compared with existing literature, enabling the researcher to conclude that objective four was achieved.

### **7.5 Aim of the research**

*The aim of this research is to develop a relationship between volunteer management practice factors and volunteer retention using which volunteer organisation could enhance volunteer retention.*

It can be seen from the foregoing discussions in Sections 7.1 to 7.4, that a model relating volunteer management practice factors and volunteer retention has been developed by the researcher and has been validated using rigorous statistical tests and SEM. The results show that volunteer management practice factors identified by Cuskelly et al. (2006) and not found to be significantly related to volunteer retention could be combined and redefined as explained in Chapters 5 and 6 of this research and a significant relationship with volunteer retention could be achieved using volunteer motivation and volunteer satisfaction as mediating variables. Thus the findings of the data analysis provided in Chapter 5, the discussions on the findings of the data analysis provided in Chapter 6 and the achievement of the objectives (Sections 7.1 to 7.4) enabled the researcher to conclude that the aim set for this research has been achieved.

After concluding that the aim and objectives set for this research have been achieved, this chapter proceeds towards discussing the contributions made by the researcher to theory, method and practice. Thus the following sections explain the contributions made by this research.

## **7.6 Contribution to theory**

This research contributes to volunteerism literature in many ways. First the research applies the concept of management practice to volunteers defined as people in a formal volunteering organisation, functioning out of their own free volition, without anticipating any remuneration and helping others (Cnaan, et al. 1996). This contribution fits into a research stream that enables the use and adaptation of management theories applicable to for-profit to a non-profit and volunteer dependent organisation as existing research has paid scant respect to this aspect but almost exclusively focused on the for-profit organisation (Cuskelly et al. 2006). Secondly, the research has advanced the theoretical arguments of Cuskelly et al. (2006) that management practice correlates could determine volunteer retention, an argument that has not virtually attracted any attention. This contribution could help volunteering organisations to retain volunteers longer than currently seen by improving their management practices, for instance continuous motivation, training, support, recruitment and rewarding good performance and recognize contribution. Thirdly research outcomes further show that in the process of exchange that takes place between the volunteer and the volunteering organisation, there is a need to bring in volunteer satisfaction if the influence of management practice correlates is to have to be effective on volunteer retention. It is argued that if satisfaction of volunteers is enhanced using appropriate reward and recognition then it is likely that volunteers remain longer with an institution. The role play of social exchange theory and the HRM theory can be seen in this behavior of volunteers and volunteering organisations. Previous research has either predominantly applied social exchange theory (e.g. Pauline, 2011) or HRM theory (e.g. Cuskelly et al. 2015) to explain volunteer retention. Combination of two divergent theories to explain the organisational and individual behavior in volunteering literature when exchange takes place resulting in predicting the volunteer retention using management practice correlates.

Thirdly the research has integrated the social exchange aspects such as rewards, recruitment and recognition with volunteer satisfaction and motivation that are important psychological constructs that affect volunteers and their future intentions (Pauline, 2011) Volunteers' motivation and satisfaction have been found to be important mediators in the

relationship between volunteer management practice constructs and volunteer intention to stay with an organisation. Particularly the research does not bind itself into any specific context, thus making it possible to make a modest claim of generalizing the findings across multiple contexts where volunteers work. The concept of generalists and specialists has been brought in to support this argument. While it is commonly witnessed that volunteers are having multitasking ability and therefore fit into many different organisational contexts and environment, hardly any theoretical explanation was provided in the literature on how to retain such a valuable asset. It is argued that with appropriate exchange between the volunteer organisations and volunteers, proper motivation could be provided to them and hence their satisfaction increased leading to their staying longer with an organisation.

Finally the research has enabled a better categorization of HRM correlates. Management theory is used to ground HRM practices in organisations to better explain high-performance HRM practices in volunteer organisations whereas literature does not speak of a universal list of such practices. This research has conducted a scientific analysis of the management practices that could be followed by volunteering organisations while ensuring longer stay of volunteers with an organisation. While there is no conclusive evidence on the existence of the best management practices that could be practiced by a volunteering organisation, this research has used the factors identified by Cuskelly et al. (2006), and through factorization identified at least three correlates of the management practice as affecting volunteer retention namely training and support, performance management and recognition. This list of management practices can be supported in terms of the exchange that could occur between the volunteer and volunteering organisation thus affecting the volunteer behavior to stay longer with the organisation. While Cuskelly's findings were not confirmed, it was seen that introduction of volunteer motivation and satisfaction as psychological constructs and mediators has certainly helped in creating a new explanation on how volunteer retention could be achieved using the exchange parameters training and support, recognition and performance management.

## **7.7 Theoretical implications**

From the point of view of theory the model developed by the researcher provides an understanding about the relationship between volunteer management practice correlates as determinants of volunteer retention, the dependent variable and offers a new way to understand how certain volunteer management practice correlates could be related to volunteer retention based on a cross-sectional study. As it is the model developed in this research expanded the research model developed by Cuskelly et al. (2006). The model developed by Cuskelly et al. (2006) was tested again and found that the management practice correlates do not have statistically significant relationship with volunteer retention. Then the model developed by Cuskelly et al. (2006) was modified using social exchange theory and HRM theories. In addition the model has been tested in a context free environment unlike Cuskelly et al. (2006) who tested their model in the field of sports volunteerism. While the research outcome produced by Cuskelly et al. (2006) found only two correlates of volunteer management practice namely planning as influencing the volunteer retention, in this research three correlates of volunteer management practice have been found to influence volunteer retention although indirectly. Thus in contrast to the findings of Cuskelly et al. (2006) the findings in this research it was found that three important correlates of volunteer management practice namely volunteer training and support, volunteer performance management and volunteer recognition have been found to indirectly influence volunteer retention.

A significant difference between the model developed by Cuskelly et al. (2006) and the one developed in this research is the use of moderating variables namely volunteer motivation and volunteer satisfaction in the relationship between volunteer management practice correlates and volunteer retention (see Figures 5.5 and 5.6). Cuskelly et al. (2006) related the volunteer management practice correlates directly to volunteer retention whereas in this research volunteer management practice correlates were related to volunteer motivation and volunteer satisfaction directly which in turn were related to volunteer retention. Such a deviation was found necessary to improve the concept put forward by Cuskelly et al. (2006) as extant literature indicated that volunteer management practice correlates identified by Cuskelly et al. (2006) could be related to



volunteer motivation and volunteer satisfaction (see Sections 2.5, 2.6 and 2.7). This is a major theoretical implication which indicated that management practice correlates require mediators to ensure greater volunteer retention in organisations, a concept not addressed by researchers so far in the volunteerism research. Besides, the above the research contributes to theory as follows.

### **7.7.1 Key determinants**

The five volunteer management practice correlates adopted from the research produced by Cuskelly et al. (2006) were combined to form one variable namely volunteer management practice in this research. The items measuring volunteer management practice were subjected to EFA. The result showed that volunteer management practice variable can be factored into three factors namely Management Practice (planning and recruitment), Management Practice (training and support) and Management Practice (performance management and recognition). Thus by factoring the volunteer management practice into three factors, three new determinants of volunteer retention were theorized. Such theorizing found support from Cuskelly et al. (2006) who theorized seven correlates of volunteer management practice (see Section 2.5) using human resource management theories. Although the set of factors determined by Cuskelly et al. (2008) and the ones in this research differed, the difference was only in the combining of the factors determined by Cuskelly et al. (2006). Thus basic nature of the factors representing volunteer management practice remained the same. For instance while Cuskelly et al. (2006) identified planning as the factor, in this research planning and recruitment together were found to be a single factor during factorization. Similar arguments could be extended to the factorization of performance management and recognition as a single factor although the factor training and support remained the same as identified by Cuskelly et al. (2006). Keeping the above arguments as the background it is possible to now discuss the other contributions made by this research to theory.

Firstly it can be seen from the findings in Chapter 5 (see Section 5.8.5) that out of the three volunteer management practice constructs, only Management Practice (training and support) and Management Practice (performance management and recognition) were

found to have an indirect influence on volunteer retention. Management Practice (planning and recruitment) did not have any influence on volunteer retention. These findings are contrary to the findings of Cuskelly et al. (2006) who found planning as a volunteer management construct had a direct influence on volunteer retention and did not find recruitment, training and support, performance management and recognition to have significant influence on volunteer retention. The reason for the contradictory findings could be that Cuskelly et al. (2006) directly related the volunteer management practice constructs to volunteer retention whereas in this research mediators were used to relate the volunteer management correlates to volunteer retention. Another reason could be that this research was conducted in a context free environment whereas the research conducted by Cuskelly et al. (2006) was in the field of sports where there is a possibility that certain management practice may have limited applicability.

Furthermore, Cuskelly et al. (2006) acknowledge that there were limitations such as lack of complete data that could have impacted the final outcome of their research. The reason why there is no significant relationship between Management Practice (planning and recruitment) and volunteer retention could be explained in a way that volunteers probably felt that unlike the factors training and support and performance management and recognition which have direct relationship to their volunteering after they have joined an organisation, planning and recruitment may influence their decision to join an organisation rather than retention. For instance planning process may not be felt by the volunteers because it involves a number of steps that do not directly involve the volunteers but their managers. Important steps such as mission of the organisation, policies and procedures, organisational objectives, job description, development of strategies and key performance indicators, identification of potential volunteers and succession planning drive the process of planning (Culp, 2009; Shin & Kleiner, 2003; Sozanska et al. 2004). These activities involve very few volunteers whose full time job is volunteering and hence there is a possibility the participants in this research had felt that planning process may not influence their retention aspect. Similar arguments could be advanced with regard to recruitment which involves fewer volunteers in the organisations although selection of volunteers who could be loyal to an organisation and remain with

that organisation is a major challenge. Thus the results of this research although appearing to be contradictory to the arguments put forward by other researchers may in real life situation may be acceptable. Thus it can be seen that this research has contributed to theorise the relationship between four volunteer management practice correlates and volunteer retention using mediators.

Secondly, the results of this research point out that Management Practice (training and support) is related to volunteer retention only through volunteer motivation and not through volunteer satisfaction although other researchers (see Section 2.5.3) argue that Management Practice (training and support) influences volunteer satisfaction. The results of this research contradict this line of thought of other researchers. The reason for this could be that training and support to volunteers could influence the motivational aspect more than the satisfaction because during process of getting trained volunteers are getting ready for the volunteering job and are motivated while satisfaction could be only derived after they have experienced their association with a particular organisation. Although contradictory to the existing research outcomes, the results could in fact be the ground reality. Similarly it can be seen that Management Practice (performance management and recognition) is related to volunteer retention only through volunteer satisfaction and not through volunteer motivation. Here again other researchers (see Section 2.5.5) argue that Management Practice (performance management and recognition) influences volunteer motivation. This is another contradiction to the published outcomes in the extant literature which has been found through this research. Possible reason for this contradiction is that participants in the survey might have felt that Management Practice (performance management and recognition) are end result of their contribution to the organisation and hence the outcome of their effort if recognized based an appropriate management of their performance is likely to satisfy them. Thus it is possible to conclude that Management Practice (training and support) motivates volunteers and precedes Management Practice (performance management and recognition) which makes them satisfied. This finding is an important contribution to knowledge as there are no research outcomes that have found how management correlates impact volunteer motivation and satisfaction and ultimately influence their retention.

Thirdly, the significant association between the following exogenous variables provides valuable information.

- Management Practice (planning and recruitment) and Management Practice (training and support);
- Management Practice (training and support) and Management Practice (performance management and recognition);
- Management Practice (performance management and recognition) and Management Practice (planning and recruitment).

The association indicates the importance of the interrelationship between the variables. Statistically significant association amongst the three indicates that there is a possibility to interpret that although Management Practice (planning and recruitment) is not shown to be related to volunteer retention through mediating variables, it can act as a moderator of the relationship between Management Practice (training and support) and volunteer retention on the one hand and Management Practice (performance management and recognition) and volunteer retention on the other. This is a significant finding which could indicate that this finding of this research is partially in agreement with findings of other researchers. How? Extant literature (see Sections 2.5.1 and 2.5.2) clearly indicated that Management Practice (planning and recruitment) influences volunteer motivation, volunteer satisfaction and eventually volunteer retention. Although the research findings of this research (see Section 5.8.5) indicate that Management Practice (planning and recruitment) is not having a statistically significant relationship with volunteer motivation, volunteer satisfaction and volunteer retention, it can influence volunteer retention through its association with Management Practice (training and support) and Management Practice (performance management and recognition), possibly as a moderator. Thus organisations need to take into account the role played by Management Practice (planning and recruitment) in understanding how Management Practice (training and support) and Management Practice (performance management and recognition) could be dealt with in retaining volunteers. This is an important contribution that has not been addressed in the extant literature. Besides, the interrelation between Management Practice

(training and support) and Management Practice (performance management and recognition) attracts attention. The association between these two correlates is statistically significant indicating that Management Practice (training and support) supports Management Practice (performance management and recognition) and vice versa. This implies that volunteer training and support or volunteer performance management and recognition as correlates need to be implemented together as part of implementing management practice if volunteer motivation and satisfaction are enhanced leading to greater chances of retaining volunteers. This is a novel contribution of this research to the existing body of knowledge.

Fourthly, the findings of this research that there is significant relationship between volunteer motivation and volunteer satisfaction, volunteer motivation and volunteer retention and volunteer satisfaction and volunteer retention is in line with similar findings of other researchers (see Sections 2.6, 2.7 and 2.8) and affirms the already existing findings.

### **7.7.2 Key mediators**

The research findings provided in Chapter 5 showed that mediating variables played a key role in the relationship between volunteer management practice correlates and volunteer retention. Volunteer motivation and volunteer satisfaction were the two mediating variables identified in this research. Justification for the choice of these variables has been provided under Section 3.3. The initial assumption made in this research regarding the need to include mediating variables if management practice correlates were to have any significant relationship (although indirect) with volunteer retention was justified by the findings of this research provided in Chapter 5.

When the model was tested it was found that volunteer motivation was determined by only management practice (training and support) correlate and volunteer satisfaction was determined only by management practice (performance management and recognition) (see Section 5.8.5). Management Practice (planning and recruitment) was not found to be related to either volunteer motivation or volunteer satisfaction. Possible reasons for the

above have been already discussed in Section 7.6.1. The key findings of this research with regard to mediators are as follows.

Firstly, volunteer motivation and volunteer satisfaction have been found to have a direct relationship with volunteer retention that is statistically significant. This implies that volunteer retention is directly determined by volunteer satisfaction and volunteer motivation. This finding is consistent with the findings of other researchers (see Section 3.5). Combining this argument with the argument that volunteer management correlates are directly related to volunteer motivation and volunteer satisfaction, it is possible to infer that volunteer management practice correlates have an indirect relationship with volunteer retention through volunteer motivation and volunteer satisfaction. Discussion on this finding has already been provided in Section 6.3. Precisely, volunteer (training and support) was found to have direct and significant relationship with volunteer motivation whereas volunteer (performance management and recognition) was found to have a direct and significant relationship with volunteer satisfaction. These arguments imply that volunteer (training and support) influences volunteer motivation, volunteer (performance management and organisation) influences volunteer satisfaction and hence indirectly both influences volunteer retention. Thus volunteer managers have to ensure that volunteer (training and support) and volunteer (performance management) are identified as important management practice factors if they want to improve volunteer retention in their organisations. This is an important finding that contributes to volunteer management practice literature.

Secondly, the interrelationship between volunteer motivation and volunteer satisfaction, with volunteer motivation determining volunteer satisfaction, a concept supported in the extant literature (see Section 3.4), provided another way to look at the influence of volunteer management practice (training and support) on volunteer retention through two paths namely  $MP-2 \rightarrow MOTIVAT \rightarrow RTN$  and  $MP-2 \rightarrow MOTIVAT \rightarrow SATISFAC \rightarrow RTN$ . The discussions provided in Section 6.4.3 clearly point out that with regard to the two paths namely Management Practice (training and support)  $\rightarrow$  volunteer motivation  $\rightarrow$  volunteer retention on the one hand and Management Practice (training and support)

→ volunteer motivation → volunteer satisfaction → volunteer retention on the other the research findings show that volunteer (training and support) is having a greater influence through the path Management Practice (training and support) → volunteer motivation → volunteer retention and not through Management Practice (training and support) → volunteer motivation → volunteer satisfaction → volunteer retention. Thus motivation acts as an important mediator that influences volunteer retention. However it is important to understand that with regard to volunteer retention both the paths are important and the combined influence exerted by volunteer motivation and volunteer satisfaction through the two paths need to be taken into account and not the path that has higher statistical influence on volunteer retention. Thus the findings of this research indicate that volunteer (training and support) not only motivates volunteers but also influences their satisfaction and hence if this management practice correlate is addressed properly, there is a greater chance that volunteers are retained with the organisation. This is an important and novel contribution of this research to existing literature on volunteer management practice.

## **7.8 Contribution to method**

With regard to contributions to method, this researcher recognized the need to develop and apply an appropriate method that can address the research questions. Volunteer retention is a concept that is a concern of both the volunteering organisations and volunteers. With lack of in-depth research to address this concern, the researcher chose the concept of volunteer management practice as the determinant of volunteer retention. Although not much of research has been conducted in relating volunteer management practice to volunteer retention, much of research has employed testing of conceptual models and verifying hypotheses using correlational study (e.g. Cuskelly et al. 2006; Hoye et al. 2008). This study adopts similar research method and contributes to existing knowledge by confirming that the method used which is in line with those used by other researchers in studying volunteer retention concept could yield acceptable results.

Use of conceptual models and verifying hypotheses to test the relationship between volunteer management practice correlates to volunteer retention using mediating variables led the researcher to quantitative research method. The results of this research

are in line with the research outcomes of other researchers (e.g. Cuskelly et al. 2006; Hoye et al. 2008) who have used only quantitative research method in the study the relationship between volunteer management practice correlates to volunteer retention using mediating variables enabling the researcher to conclude that quantitative research method is the most appropriate method for volunteer management practice research. This finding again confirms that use of quantitative research method as used by other researchers in studying volunteer retention concept could yield acceptable results.

With regard to collecting data, this research uses survey questionnaire and distribution through online mechanism. While most researchers have depended on using distribution of hard copies of questionnaires, such procedures invariably resulted in depending of a cluster of volunteers corresponding to a particular field like sports (e.g. Pauline, 2011), tourism (e.g. Nassar & Talaat, 2009) and others. However this research has eliminated the necessity of the context by approaching volunteers in different fields through the online facility. Considering the fact that volunteer management practice is common to all types of volunteer organisations, it was worthwhile to attempt a context free research. Thus this research has contributed to method in terms of using the online portal facility to post the survey questionnaire and collect data in a context free environment. Further the use of probabilistic sampling procedure enabled the researcher to ensure that context free environment does not affect the research as every element in the population under study had an equal and independent chance of being chosen and the choice one element did not influence the choice of the other. The use of probabilistic sampling is a practice currently used by many researchers (e.g. Pauline, 2011) which confirms that this research uses research methods that are in line with those of others.

Furthermore while most researchers have used statistical tests such as CFA (Cuskelly et al. 2006), analysis of variance (Pauline, 2011) and Chi-square tests (Nassar & Talaat, 2009), this research contributes in terms of using structural equation modelling that enabled the researcher to understand the structure and direction of the relationship between the exogenous and endogenous variables. This is a major contribution of this research to method in volunteer management practice research.



Moreover, the research uses the concept of mediators in the model which is not a common method adopted by researchers in volunteerism research. By using the concept of mediation it was possible to determine how volunteer motivation and satisfaction can be successfully used in relating volunteer management practice correlates to volunteer retention. Mediation provided new knowledge on how other factors can influence the relationship between the dependent (volunteer retention) and independent variables (management practice correlates). This is an important contribution to the body of knowledge in the field of volunteerism with respect to research method.

Finally the research used EFA to identify the management correlates using scientific statistically techniques whereas the study conducted by Cuskelly et al. (2006) depended on theoretical arguments only to determine management practice correlates. Successful use of EFA provides a useful idea for researcher to adopt EFA in future research to extract the most appropriate loading factors on items of management practice using statistical technique. This is an important contribution to the research method.

## **7.9 Contribution to practice**

The findings of this research have significant practical implications to the managers of volunteers and volunteers themselves. For instance volunteer managers can now focus on volunteer training and support to enhance the motivation and satisfaction of volunteers leading to greater chances of retaining them. Similarly volunteer managers can concentrate on improving the satisfaction of volunteers and hence improve the chances of retaining them by improving the performance management and recognition of volunteers. The model developed in this research (see Figure 3.3) provided the linkage between the key determinants of volunteer retention and volunteer retention and the mediating variables. Following contribution to practice have been made by the findings of this research.

Firstly, volunteer management practice as an important determinant of volunteer retention is not a well addressed topic in the extant literature and correlates of volunteer management practice were not brought out in the literature (Cuskelly et al. 2006)

resulting in the lack of appropriate method by which volunteer managers could tackle the issue of volunteer retention. While the research outcome of Cuskelly et al. (2006) brought out the need to plan volunteer activities as the only volunteer management practice correlate that could be linked to volunteer retention, this research found that volunteer training and support as well as volunteer performance management and recognition are important factors that must be part of the management practice of managers of volunteers.

Secondly, although Cuskelly et al. (2006) found volunteer planning as an important determinant of volunteer retention, in this research it was found to be not linked to volunteer retention. However, volunteer planning along with volunteer recruitment was found to be a significant associate of volunteer training and support on the one hand and volunteer performance management and recognition on the other. This implies that volunteer managers necessarily need to focus on appropriate planning and recruitment as it is found to be a covariant of volunteer training and support, and volunteer performance management and recognition. That is, if appropriate volunteer planning and recruitment are implemented by volunteer managers then it is expected that volunteer training and support as well as performance management and recognition are likely to influence volunteer motivation, volunteer satisfaction and eventually volunteer retention.

Thirdly for the volunteers, the finally specified model provides an opportunity to understand that volunteer training and support as well as the management of their performance and recognition for their work are important factor that enables to be associated with a volunteer organisation for longer periods. Volunteers can now solicit training and support from their organisation in order to performance better and also expect recognition from their organisations for their contribution. The findings of this research provide an opportunity for the volunteers to recommend to their organisations to implement policies and procedures that enhance the training and support from the organisation, manage their performance better and recognize their contribution to their organisation. Volunteers can highlight that retaining volunteers is only possible if they are motivated and satisfied through appropriate management practices. There is a need

for volunteer organisations to examine the findings of this research for implementation leading to better volunteer retention.

### **7.10 Limitations of the current research**

Although this research has produced valuable findings as the research is based on models already tested by other researchers, still there are some limitations that could be attributed to this research. For instance the research attempts to generalize the outcomes across different segments of volunteers without considering the contextual characteristics. While the collected data indicates that volunteers from different types of fields might have participated, it was not practical to ascertain the exact field in which the participants worked as volunteers. Although this could be considered a limitation, it is difficult to disregard the fact that the researcher in deed attempted to collect data from a wide spectrum of volunteers, in which it is possible that volunteers belonging to different fields could have participated. To a greater extent it is possible to believe that volunteers from more than one field could have participated in this research but the researcher acknowledges that such a belief could stand scrutiny if in the questionnaire the field as an item could have been added to collect data regarding the field in which the responding volunteer was engaged in. However the statistical tests conducted on the model indicate that the results are reliable and valid which support the claim of the researcher that the research could be considered as applicable across various segments of volunteers.

Another important aspect is that this research limits itself to volunteer management correlates identified by Cuskelly et al. (2006). As can be seen from Table 2.4 there could be more correlates of volunteer management practice like role of the volunteer or empowerment of the volunteer that may have influence on volunteer retention. While this concern is acknowledged by the researcher, it is important to mention here that within the scope of a single PhD research it may not be practical to address all the correlates of volunteer management practice. Thus to a large extent it is possible to justify that this research provides the basis for further investigations which may address newer correlates of volunteer management practice while determining volunteer retention.

Lastly in this research only two mediators have been used in the relationship between volunteer management practice correlates and volunteer retention. Other mediators such as volunteer commitment could also play a significant role in mediating between volunteer management practice correlates and volunteer retention.

### **7.11 Further research**

The findings of this research and the limitations offer new opportunities for further research in the area of volunteer management practice and volunteer retention. The final model (Figure 5.13) tested in this research provides researchers has created new avenue for investigating into newer volunteer management practice correlates that could influence volunteer retention. This research expanded the work of Cuskelly et al. (2006) in two ways namely factorise the volunteer management practice correlates identified by Cuskelly et al. (2006) and include mediators between volunteer management practice correlates and volunteer retention. Such an expansion yielded results that threw new light on the operationalization of the volunteer management practice correlates and their influence on volunteer retention. Unlike the results obtained by Cuskelly et al. (2006) the outcomes of this research indicated that management practices namely training and support, performance management and recognition can determine volunteer retention while planning and recruitment can act as moderators. In similar lines further investigations could be conducted on other volunteer management practice correlates as determinants of volunteer retention which may reveal other useful hidden relationships between volunteer management practice correlates and volunteer retention.

In addition, in this research volunteer motivation and satisfaction have been used as mediators in the relationship between volunteer management practice correlates and volunteer retention. In future other mediators that influence the relationship between volunteer management practice correlates and volunteer retention could be attempted. For instance volunteer commitment could be considered as a mediator in future research. Such an investigation could enable a greater understanding of how volunteer management practice correlates could be dealt with by managers in volunteering organisation to enhance the retention of volunteers.

## References

- AAKKO, E., WEED, N., KONRAD, R. & WIESMAN, J., 2008. Rethinking volunteer management using a centralized volunteer staging and training area. *Disaster Medicine and Public Health Preparedness*. 2 (2). pp.127-129.
- ABRAMSON, R., RAHMAN, S., & BUCKLEY, P., 2005. Tricks and traps in Structural Equation Modelling: A GEM Australia example using AMOS Graphics. *Paper presented at the Australasian Business and Behavioural Sciences Association Conference*. Cairns, Australia August 5-7.
- AHMAD, A., JEHAZEB, K., & ALKELABI, S. A. H., 2012. Role of learning theories in training while training the trainers. *International Journal of Academic Research in Business and Social Sciences*. 2 (11). pp.181-189.
- ALI, H. & BIRLEY, S., 1999. Integrating deductive and inductive approaches in a study of new ventures and customer perceived risk. *Qualitative Market Research: An International Journal*. 2 (2). pp.103-110.
- AMABILE, T., 1982. Social psychology of creativity: A consensual assessment technique. *Journal of Personality and Social Psychology*. 43 (5). pp.997-1013.
- ANDERSON, T., ANTONUCCI, F., & BLAINE, L. L., 2004. *Community-based Volunteer Management: A Quick Reference Guide for Rural Community and Economic Development Leaders*. Macomb, IL: Illinois Institute for Rural Affairs.
- ARBUCKLE, J. L. & WOTHKE, W., 1999. *Amos 4.0 User's Guide*. Chicago: SPSS Incorporated.
- ARBUCKLE, J. L., 2010. *IBM SPSS Amos19 User's Guide*. Crawfordville, FL: Amos Development Corporation.
- AVERY, D. R., & MCKAY, P. F., 2006. Target practice: An organisational impression management approach to attracting minority and female job applicants. *Personnel Psychology*. 59 (1). pp.157-187.
- BANDURA, A., 1986. *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice Hall.
- BANDURA, A., 1997. *Self-Efficacy: The Exercise of Control*. New York, NY: Freeman

- BANDURA, A., 1999. Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, 2 (1). pp.21-41.
- BANG, H., & CHELLADURAI, P., 2003. Motivation and satisfaction in volunteering for 2002 World Cup in Korea. *Paper presented at the 18<sup>th</sup> Conference of the North American Society for Sport Management*. Ithaca, New York. June 4-7, 2003
- BANG, H., & ROSS, S., 2009. Volunteer motivation and satisfaction. *Journal of Venue and Event Management*. 1 (1). pp.61-77.
- BARMAN, E., 2007. What is the bottom line for nonprofit organisations? A history of measurement in the British voluntary sector. *Voluntas: International Journal of Voluntary and Nonprofit Organisations*. 18 (2). pp.101-115.
- BARNARD, M. E., & ROGERS, R. A., 2000. How are internally oriented HRM policies related to high-performance work practices? Evidence from Singapore. *International Journal of Human Resource Management*. 11 (6). pp.1017-1046.
- BARNES, M. & SHARPE, E. 2009. Looking beyond traditional volunteer management: a case study of an alternative approach to volunteer engagement in parks and recreation. *Voluntas: International Journal of Voluntary and Nonprofit Organisations*, 20 (2). pp.169-187.
- BARON, R.M., & KENNY, D. A., 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 51 (6). p. 1173.
- BAUM, T., & LOCKSTONE, L., 2007. Volunteers and mega sporting events developing a research framework. *International Journal of Event Management Research*. 3 (1). pp.29-41.
- BEER, M., LAWRENCE, P.R., MILLS, D.Q., & WALTON, R.E., 1984. *Managing Human Assets*. New York: Free Press.
- BERNARD, H.R., 2006. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Oxford, UK: Altamira press.
- BOEZEMAN, E. J., & ELLEMERS, N., 2008. Pride and respect in volunteers' organisational commitment. *European Journal of Social Psychology*. 38 (1). pp.159-172.
- BOLLEN, K. A., 1989. *Structural Equations with Latent Variables*. New York: John Wiley and Sons.

- BOND, S., 1993. Experimental research in nursing: Necessary but not sufficient. In A. KITSON., (ed.). *Nursing: Art and Science*. London: Chapman and Hall.
- BOULTON, A., (ed.) 2006. *The Art of Volunteer Development*. South Temple Salt Lake City: Utah Arts Council Publication.
- BOYD, B., 2003. Competencies for leaders of volunteers during the next decade: A national delphi study. *Journal of Agricultural Education*. 44 (4). pp.47-56.
- BOZ, I., & PALAZ, S., 2007. Factors influencing the motivation of Turkey's community volunteers. *Nonprofit and Voluntary Sector Quarterly*. 36 (4). pp.643-661.
- BRADLEY, K. D., ROYAL, K. D., CUNNINGHAM, J. D., WEBER, J. A., & ELI, J. A., 2008. What constitutes good educational research? A consideration of ethics, methods and theory. *Mid-Western Educational Researcher*. 21 (1). pp.26-35.
- BRADLEY, S., PETRESCU, A. , & SIMMONS, R., 2004. The impacts of human resource management practices and pay inequality on workers' job satisfaction. *Paper presented at the Western Economic Association 79th Annual Conference*. Vancouver, B.C., Canada. June 29-July 3, 2004.
- BREMER, S., & GRAEFF, P., 2007. Volunteer management in german national parks— from random action toward a volunteer program. *Human Ecology*. 35 (4). pp.489-496.
- BREWIS, G., HILL, M., & STEVENS, D., 2010. *Valuing Volunteer Management Skills*. London: Institute for Volunteering Research.
- BRONOWSKI, J., 1956. Science and human values. *Higher Education Quarterly*. 11 (1). pp.26-42.
- BROWN, K. W., COZBY, P. C., KEE, D. W. & WORDEN, P. E., 1999. *Research Methods in Human Development*. California: Mayfield Publishing Company.
- BROWN, P.J., BOVEY, J.D., & CHEN, X., 1997. Context-aware applications: from the laboratory to the marketplace. *Personal Communications, IEEE*. 4 (5). pp.58-64.
- BRUDNEY, J., & NEZHINA, T., 2005. What is old is new again: Achieving effectiveness with volunteer programs in Kazakhstan. *International Journal of Voluntary and Nonprofit Organisations*. 16 (3). pp.293-308.
- BRUDNEY, J. L., 1990. *Fostering Volunteer Programs in the Public Sector: Planning, Initiating, and Managing Voluntary Activities*. San Francisco: Jossey-Bass.

- BRUDNEY, J.L., & MEIJS, L.C., Models of volunteer management: Professional volunteer program management in social work. *Human Service Organisations: Management, Leadership & Governance*. 38 (3). pp.297-309.
- BRUYERE., B. & RAPPE., S., 2007. Identifying the Motivations of Environmental Volunteers. *Journal of Environmental Planning and Management*. 50 (4). pp.503 – 516.
- BUCHANAN, D. A., & BRYMAN, A., 2007. Contextualizing methods choice in organisational research. *Organisational Research Methods*. 10 (3). pp.483-501.
- BUFORD, J. A., BEDEIAN, A. G., & LINDNER, J. R., 1995. *Management in Extension*. (3rd ed.). Piketon: The Ohio State University.
- BURRELL, G., & MORGAN, G., 1979. *Social Paradigms and Organisational Analysis-Elements of the Sociology of Corporate Life*. London: Heinemann Educational.
- BURT, R.S., 1992. *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- BURT, R.S., 2001. Structural holes versus network closure as social capital. In N. K. LIN, K. COOK, R.S. BURT, (eds.). *Social Capital: Theory and Research*. New York: Aldine De Gruyter.
- BURTON, K., LYDON, J., D ALESSANDRO, D., & KOESTNER, R., 2006. The differential effects of intrinsic and identified motivation on well-being and performance: Prospective, experimental, and implicit approaches to self-determination theory. *Journal of Personality and Social Psychology*. 91 (4). p. 750.
- BUSINESS PERFORMANCE MANAGEMENT., 2005. *Industry Framework Document. Final version 5.0*. BPM Standards Group. [online] Available at: <http://www.bpmpartners.com/documents/BPMIndustryFramework-V5.pdf> (Accessed 15 September, 2014).
- BUSSELL, H., & FORBES, D., 2006. Volunteer management in arts organisations: A case study and managerial implications. *International Journal of Arts Management*. 9 (2). pp.16-28.
- BUSSELL, H., & FORBES, D., 2001. Understanding the volunteer market: The what, where, who and why of volunteering. *International Journal of Nonprofit and Voluntary Sector Marketing*. 7 (3). pp.244-257.



- BYRNE, B. M., 2005. Factor analytic models: Viewing the structure of an assessment instrument from three perspectives. *Journal of Personality Assessment*. 85 (1). pp.17-32.
- BYRNE, B. M., 2009. *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. New York: Routledge/Taylor & Francis.
- CAMPLIN, J. C., 2009. Volunteers leading volunteers. *Professional Safety*. 54 (5). pp.36-42.
- CARTER, S. M., & LITTLE, M., 2007. Justifying knowledge, justifying method, taking action: Epistemologies, methodologies, and methods in qualitative research. *Qualitative Health Research*. 17 (10). pp.1316-1328.
- CAVAYE, A., 1996. Case study research: a multi-faceted research approach for IS. *Information Systems Journal*. 6 (3). pp.227-242.
- CHACON, F., VECINA, M. L. & DVILA, M. C., 2007. The three-stage model of volunteers' duration of service. *Society for Personality Research*. 35 (5). pp.627-642.
- CEMALCILAR, Z., 2009. Understanding individual characteristics of adolescents who volunteer. *Personality and Individual Differences*. 46 (4). pp.432-436.
- CHAN, Y. 2003. Biostatistics 101: data presentation. *Singapore Medical Journal*. 44 (6). pp.280-285.
- CHEN, L-J., & CHEN, J. S., 2011. The motivations and expectations of international volunteer tourists: A case study of “Chinese Village Traditions”. *Tourism Management*. 32 (2). pp.435-442.
- CIEH, 2010. CIEH and Host boroughs: Olympic/Paralympics 2012-Volunteer support. *Information Report*. [online] Available at:[http://www.cieh.org/uploadedFiles/Core/Policy/2012\\_Olympics\\_and\\_Paralympics/Volunteer\\_programme\\_information\\_report.pdf](http://www.cieh.org/uploadedFiles/Core/Policy/2012_Olympics_and_Paralympics/Volunteer_programme_information_report.pdf) (Accessed 10 January, 2015).
- CIVIL SERVICE BRANCH, 1996. Guide on Developing a HRM Plan. [online] Available at:[http://www.csb.gov.hk/english/publication/files/Develop\\_HRM\\_Plan\\_e.pdf](http://www.csb.gov.hk/english/publication/files/Develop_HRM_Plan_e.pdf) (Accessed 13 September, 2012).
- CLARK, A., 1998. The qualitative quantitative debate: moving from positivism and confrontation to post positivism and reconciliation. *Journal of Advanced Nursing*. 27 (6). pp.1242-1249.

- CLARY, E., 2004. Volunteer sustainability: how nonprofits can sustain volunteers' commitment. *Snapshots: Research Highlights from the Nonprofit Sector Research Fund*. (36). pp.1-6.
- CLARY, E. G., RIDGE, R. D., STUKAS, A. A., SNYDER, M., COPELAND, J., HAUGEN, J. & MIENE, P., 1998. Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*. 74 (6). pp.1516-1530.
- CLARY, E. G., SNYDER, M. & RIDGE, R. 1992. Volunteers' motivations: A functional strategy for the recruitment, placement, and retention of volunteers. *Nonprofit Management and Leadership*. 2 (4). pp.333-350.
- CLOKE, P., PHILO, C. & SADLER, D., 1991. *Approaching Human Geography: An Introduction to Contemporary Theoretical Debates*. London: Paul Chapman.
- CNAAN, R., HANDY, F., & WADSWORTH, M., 1996. Defining who is a volunteer: Conceptual and empirical considerations. *Nonprofit and Voluntary Sector Quarterly*. 25 (3). pp.364-384.
- CNAAN, R.A. & GOLDBERG-GLEN, R. S., 1991. Measuring motivation to volunteer in human services. *Journal of Applied Behavioral Science*. 27 (3). pp.269-284.
- COCHRAN, M. M., 1977. A comparison of group day and family child-rearing patterns in Sweden. *Child development*. 48 (2). pp.702-707.
- COHEN, L., MANION, L., & MORRISON, K., 2007. *Research Methods in Education*. London: Routledge.
- COLLIS, J., & HUSSEY, R., 2003. *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. New York: Palgrave Macmillan.
- THE UNIVERSITY OF TEXAS, 2012. *Structural Equation Modeling Using AMOS an Introduction*. Austin: The University of Texas.
- CONWAY, J. M. & HUFFCUTT, A. I., 2003. A review and evaluation of exploratory factor analysis practices in organisational research. *Organisational Research Methods*. 6 (2). pp.147-168.
- COYLE-SHAPIRO, J., HOQUE, K., KESSLER, I., PEPPER, A., RICHARDSON, R., & WALKER, L., 2013. *Human Resource Management*. London: University of London International Programmes.

- CRAVENS, J., 2006. Involving international online volunteers: Factors for success, organisational benefits, and new views of community. *The International Journal of Volunteer Administration*. 24 (1). pp, 15-23.
- CRESWELL, J., PLANO CLARK, V., GUTMANN, M. & HANSON, W., 2003. Advanced mixed methods research designs. In A. TASHAKKORI, & C. TEDDLIE, (eds.). *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: Sage. pp.209-240.
- CROMPTON, J., 1999. *Financing and acquiring park and recreation resources*. Champaign, IL: Human Kinetics.
- CROTTY, M., 1998. *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage.
- CULP, K., 2009. Building a multi-generational volunteer base: Understanding how human development impacts volunteer service. *Journal of Extension*. 47 (1). pp.1-7.
- HOLMES-SMITH, P., COOTE, L., & CUNNINGHAM, E., 2006. *Structural Equation Modelling: From the Fundamentals to Advanced Topics*. Melbourne: School Research, Evaluation and Measurement Services (SREAMS).
- CURRAN, P. J., BOLLEN, K. A., PAXTON, P., KIRBY, J. & CHEN, F., 2002. The noncentral chi-square distribution in misspecified structural equation models: Finite sample results from a Monte Carlo simulation. *Multivariate Behavioral Research*. 37 (1), pp.1-36.
- CUSKELLY, G., 2004. Volunteer retention in community sport organisations. *European Sport Management Quarterly*. 4 (2). pp.59-76.
- CUSKELLY, G., MCINTYRE, N. & BOAG, A., 1998. A longitudinal study of the development of organisational commitment amongst volunteer sport administrators. *Journal of Sport Management*. 12 (3). pp.181-202.
- CUSKELLY, G., TAYLOR, T., HOYE, R. & DARCY, S., 2006. Volunteer management practices and volunteer retention: A Human Resource Management Approach. *Sport Management Review*. 9 (2). pp.141-163.
- CZAJA, R., 1998. Questionnaire pretesting comes of age. *Marketing Bulletin*. 9. pp.52-66.

- D'AMOUR, C., 2008. How to make your volunteers feel like VIPs. *Associations Now*. 4 (5). pp.22-22.
- DANISH, R.Q. AND A. USMAN, Impact of reward and recognition on job satisfaction and motivation: An empirical study from Pakistan. *International Journal of Business and Management*. 5 (2). p. 159.
- DAVIS, A., & SHANNON, J., 2011. *The Definitive Guide to HR Communication. Engaging Employees in Benefits, Pay, and Performance*. New Jersey: Pearson Education.
- DAVIS, M., HALL, J., & MEYER, M., 2003. The first year: Influences on the satisfaction, involvement, and persistence of new community volunteers. *Personality and Social Psychology Bulletin*. 29 (2). pp.248-260.
- DE VAUS, D., 2002. *Surveys in Social Research*. St. Leonards, NSW: Allen & Unwin.
- DECARLO, L. T., 1997. On the meaning and use of kurtosis. *Psychological Methods*. 2 (3). 292-307.
- DECI, E. L., & RYAN, R. M., 1991. A motivational approach to self: Integration in personality. In R. DIENSTBIER (ed.). *Nebraska Symposium on Motivation: Perspectives on Motivation*. Vol. 38., Lincoln: University of Nebraska Press. pp.237–288.
- DECOSTER, J. & CLAYPOOL, H. M., 2004. A meta-analysis of priming effects on impression formation supporting a general model of informational biases. *Personality and Social Psychology Review*. 8 (1). pp.2-27.
- DECOSTER, J., 2000. *Scale Construction Notes*. University of Alabama: Department of Psychology University of Alabama.
- DENZIN, N. & LINCOLN, Y., 2000. The Discipline and practice of qualitative research. *Handbook of Qualitative Research* (2<sup>nd</sup> edn.). Thousand Oaks, CA: Sage. pp.1-28.
- DEY, A., & ABOWD, G., 2000. Towards a better understanding of context and context-awareness. *Proceedings of the Workshop on the What, Who, Where, When and How of Context-Awareness*. Affiliated to the CHI 2000 Conference on human factors in computer systems. New York, NY: ACM Press.
- DILLMAN, D. A., 2006. Why choice of survey mode makes a difference. *Public Health Reports*. 121 (1). pp.11-13.
- DOHERTY, A., 1998. Managing our human resources: A review of organisational behaviour in sport. *Sport Management Review*. 1 (1). pp.1-24.

- DOLNICAR, S. & RANDLE, M., 2007. What motivates which volunteers? psychographic heterogeneity among volunteers in Australia. *Voluntas: International Journal of Voluntary & Nonprofit Organisations*. 18 (2). pp.135-155.
- DOYAL, L., 1993. On discovering the nature of knowledge in a world of relationships. In A. KISTAON (ed.). *Nursing: Art and Science*. London: Chapman & Hall. pp.1-10.
- CLARY, E. G., & SNYDER, M., 1999. The motivations to volunteer: Theoretical and practical considerations. *Current Directions in Psychological Science*. 8 (5). pp.156-159.
- EASTERBY-SMITH, M., THORPE, R. & LOWE, A., 2002. *Management Research: An Introduction*. London: Sage.
- EISELEN, R., UYS, T. & POTGIETER, N., 2005. *Analysing Survey Data Using SPSS11: A Workbook* (3<sup>rd</sup> ed.). Johannesburg: STATKON, University of Johannesburg.
- EOM, M., 2008. Underlying factors of MELAB listening constructs. *Spain Fellow Working Papers in Second or Foreign Language Assessment*. 6 (1). pp.77-94.
- ERVILIA, F. T., & HERSTATT, C., 2007. Exploring the correlation of patent ownership and firm success. *Working Paper*. No. 47. pp.1-34.
- ESMOND, J. & DUNLOP, P., 2004. *Developing the Volunteer Motivation Inventory to Assess the Underlying Motivational Drives of Volunteers in Western Australia*. [online] Available at: <http://biggestdifference.com/morevolunteers/resources/MotivationFinalReport.pdf> (Accessed 7th January, 2015.).
- FABERMAN, R.J., 2011. How do businesses recruit? *Federal Reserve Bank of Philadelphia Business Review*. Q4. pp.9-17.
- FARRELL, J.M., JOHNSTON, M.E. , & TWYNAM, G.D.,1998. Volunteer motivation, satisfaction, and management at an elite sporting competition. *Journal of Sport Management*. 12 (4). pp.288-300.
- FERREIRA, M. R., PROENCA, T. & PROENCA, J. F., 2012. Organisational influence on volunteer satisfaction and attitudes towards HRM practices: the case of hospital volunteers. *International Review on Public and Nonprofit Marketing*. 9 (1). pp.27-42.
- FINKELSTEIN, M. A., 2008. Volunteer satisfaction and volunteer action: A functional approach. *Social Behavior and Personality*. 36 (1). pp.9-19.

- FINKELSTEIN, M. A., PENNER, L. A. & BRANNICK, M., 2005. Society for personality research. Motive, role identity, and prosocial personality as predictors of volunteer activity. *Social Behavior and Personality*. 33 (4). pp.403-418.
- FISHER, J. C., & COLE, K. M., 1993. *Leadership and Management of Volunteer Programs: A guide for Volunteer Administrators*. San Francisco. Jossey-Bass.
- FISHER, R.J., & ACKERMAN, D., 1998. The effects of recognition and group need on volunteerism: A social norm perspective. *Journal of Consumer Research*. 25 (3). pp.262-275.
- FITCH, R. T., 1987. Characteristics and Motivations of College Students Volunteering for Community Service. *Journal of College Student Personnel*. 28 (5). pp.424-431.
- FLAP, H., 1999. Creation and returns of social capital. A new research program. *La Revue Tocqueville*. XX (1). pp.5-26.
- FLOOD, J. P., 2005. Managing volunteers: Developing and implementing an effective program. In J. G. PEDEN, & R. M. SCHUSTER, (eds.). *Proceedings of the 2005 Northeastern Recreation Research Symposium*. Bolton Landing, NY. April 10-12, 2005. pp.80-88.
- FORBES, D. A., KING, K. M., KUSHNER, K. E., LETOURNEAU, N. L., MYRICK, A. F., & PROFETTO-MCGRATH, J., 1999. Warrantable evidence in nursing science. *Journal of Advanced Nursing*. 29 (2). pp.373-379.
- FREIMUTH, H., 2009. Educational Research: An introduction to basic concepts and terminology. *UGRU Journal*. 8. pp.1-11.
- GALINDO-KUHN, R., & GUZLEY, R. M., 2002. The Volunteer Satisfaction Index - Construct Definition, Measurement, Development, and Validation. *Journal of Social Service Research*. 28 (1). pp.45 - 68.
- GASKIN, K., 2003. *A Choice Blend: What Volunteers Want from Organisation and Management*. London: Institute for Volunteering Research.
- GASSON, S., 2003. Subjectivity, context, and perceptions of quality in empirical research. *Paper presented at the AMCIS 2003 Proceedings*. Tampa, Florida. August 4-5, 2003.

- GERBING, D. W., & ANDERSON, J. C., 1988. An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing research*. 25 (2). pp.186-192.
- GERSTEIN, L. H., ANDERSON, H. & WILKESON, D. A., 2004. Differences in motivations of paid versus nonpaid volunteers. *Psychology Reports*. 94 (1). pp.163-175.
- GHAZALI, R. M., 2003. *Motivational Factors of Volunteerism*. Wisconsin, USA: University of Wisconsin-Stout.
- GIDDENS, A., 1993. *New Rules of Sociological Method: A Positive Critique of Interpretative Sociologies*. Cambridge. UK: Polity Press.
- GIDRON, B., 1983. Sources of job satisfaction among service volunteers. *Nonprofit and Voluntary Sector Quarterly*. 12 (1). pp.20-35.
- GIDRON, B., 1985. Predictors of retention and turnover among service volunteer workers. *Journal of Social Service Research*. 8 (1). pp.1-16.
- GIOIA, D. A., 2003. Give it up! reflections on the interpreted world (a commentary on Meckler and Baillie). *Journal of Management Inquiry*. 12 (3). pp.285-292.
- GLASOW, P. A., 2005. *Fundamentals of Survey Research Methodology*. Washington, Virginia: MITRE.
- GREENE, J., & CARACELLI, V., 1997. *Advances in Mixed-Method Evaluation: The Challenges and Benefits of Integrating Diverse Paradigms*. San Francisco: Jossey-Bass.
- GUMMERE, S., 2003. *Making A Better Place: Planning, Implementing, & Managing a Student Volunteer Program*. Eugene. PhD. University of Oregon.
- HACKMAN, R.J., & OLDMAN, G.R., 1980. *Work Redesign*. Canada: Addison-Wesley.
- HAGER, M., & BRUDNEY, J., 2004. *Volunteer Management Practices and Retention of Volunteers*. Washington, DC: The Urban Institute.
- HAGER, M., 2004. Volunteer management capacity in America's charities and congregations. *A Briefing Report*. Washington, DC: The Urban Institute.
- HAIR, J., BLACK, W., BABIN, B., ANDERSON, R. E., & TATHAM, R. L., 2006. *Multivariate Data Analysis* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- HALEPOTA, H. A., 2005. Motivational Theories and Their Application in Construction. *Cost Engineering*. 47 (3). pp.14-18.

- HANDY, F., & SRINIVASAN, N., 2004. Valuing volunteers: An economic evaluation of the net benefits of hospital volunteers. *Nonprofit and Voluntary Sector Quarterly*. 33 (1). pp.28-54.
- HANDY, F., & CNAAN, R.A., 2007. The role of social anxiety in volunteering. *Nonprofit Management and Leadership*. 18 (1). pp.41-58.
- HATCH, M. J., 2012. *Organisation theory: Modern, Symbolic and Postmodern Perspectives*. Oxford, UK: Oxford university press.
- HAYDUK, L. A., 1996. *LISREL Issues, Debates and Strategies*. Baltimore, MD: Johns Hopkins University Press.
- HAYES, M. & PRITCHARD, J., 2013. Estimation of internal reliability. *Report*. Ofqual/13/5258. [online] Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/378056/2013-01-17-estimation-of-internal-reliability.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/378056/2013-01-17-estimation-of-internal-reliability.pdf) (Accessed 6<sup>th</sup> October, 2014).
- HAYGHE, H., 1991. Volunteers in the US: Who donates the time. *Monthly Labor Review*. 114 (2). pp.17-23.
- HELMIG, B., JEGERS, M., & LAPSLEY, I., 2004. Challenges in managing nonprofit organisations: a research overview. *Voluntas: International Journal of Voluntary and Nonprofit Organisations*. 15 (2). pp.101-116.
- HIDALGO, M. C., & MORENO, P., 2009. Organisational socialization of volunteers: the effect on their intention to remain. *Journal of Community Psychology*. 37 (5). pp.594–601.
- HIGHHOUSE, S., & BECKER, A. S., 1993. Facet measures and global job satisfaction. *Journal of Business and Psychology*. 8 (1). pp.117-127.
- HIRSCHMAN, E. C., 1986. Humanistic inquiry in marketing research: philosophy, method, and criteria. *Journal of Marketing Research*. 23 (3). pp.237-249.
- HOLDEN, M. T. & LYNCH, P., 2004. Choosing the appropriate methodology: understanding research philosophy. *The Marketing Review*. 4 (4). pp.397-409.
- HOLLAND, J.L., 1985. *The Self-Directed Search Professional Manual* (ed.). Odessa, Fl.: Psychological Assessment Resources.



- HOLTOM, B.C., MITCHELL, T. R., LEE, T. W., & EBERLY, M. B., 2008. Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*. 2 (1). pp.231-274.
- HOLTON III, E. F., BATES, R. A., BOOKTER, A. I. & YAMKOVENKO, V. B., 2007. Convergent and divergent validity of the learning transfer system inventory. *Human Resource Development Quarterly*. 18 (3). pp.385-419.
- HOM, P. W., KATERBERG, R., & HULIN, C. L., 1979. Comparative examination of three approaches to the prediction of turnover. *Journal of Applied Psychology*. 64 (3). pp.280-290.
- HOULE, B. J., SAGARIN, B. J. & KAPLAN, M. F., 2005. A Functional Approach to Volunteerism: Do Volunteer Motives Predict Task Preference?. *Basic and Applied Social Psychology*. 27 (4). pp.337-344.
- HOX, J. J. & BECHGER, T. M., 1998. An introduction to structural equation modeling. *Family Science Review*. 11. pp.354-373.
- HOYE, R., CUSKELLY, G., TAYLOR, T., & DARCY, S., 2008. Volunteer motives and retention in community sport. *Australian Journal on Volunteering*. 13 (2). pp.40-48.
- HOYLE, R. H., 1995. *Structural Equation Modeling: Concepts, Issues, and Applications*. London: Sage.
- HU, L. T., & BENTLER, P. M., 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*. 6 (1). pp.1-55.
- HUGHES, J., & SHARROCK, W. W., 1990. *The Philosophy of Social Research*. London: Addison-Wesley Longman.
- HUGHES, J. A., & SHARROCK, W. W., 1997. *The Philosophy of Social Research* (edn.). London: Routledge.
- Hughes, L., 2006. *A Guide for training volunteers (Part A)*. Melbourne: Volunteering Australia.
- HUSSEY, J. & HUSSEY, R., 1997. *Business Research: A practical guide for undergraduate and postgraduate students*. Basingstoke: Macmillan Business.

- JACKSON, S. E., & SCHULER, R. S., 1995. Understanding human resource management in the context of organisations and their environments. *Annual Review of Psychology*. 46. pp.237-264.
- JAFFE, E., AVIEL, E., AHARONSON-DANIEL L., NAVE, M., & KNOBLER, H.Y., 2010. Factors influencing the willingness of volunteer paramedics to re-volunteer in a time of war. *The Israel Medical Association Journal*. 12 (9): pp.526-530.
- JANSSENS, W., DE PELSMACKER, P., WIJNEN, K. & VAN KENHOVE, P., 2008. *Marketing Research with SPSS*. Essex: Pearson Education.
- JOHARI, J., YAHYA, K. K., MIT, D. A. C. & OMAR, A., 2011. The dimensions of job characteristics: A validation study in a Malaysian context. *International Business Management*. 5 (2). pp.91-103.
- JOHNSON, P., & DUBERLEY, J., 2000. *Understanding Management Research: An Introduction to Epistemology*. London: Sage.
- JONES, S. R., & HILL, K. E., 2003. Understanding patterns of commitment: Student motivation for community service involvement. *The Journal of Higher Education*. 74 (5). pp.516-539.
- JÖRESKOG, K. G., & SÖRBOM, D., 1993. *Lisrel 8: Structural Equation Modeling with the Simplis Command Language*. Chicago, IL, US: Scientific Software International.
- JÖRESKOG, K. G., 1977. Structural equation models in the social sciences: Specification, estimation and testing. In P. R. KRISHNAIAH (ed.). *Proceedings of the Symposium on Applications of Statistics*. New York: Academic Press.
- KEMP, S., 2002. The Hidden workforce: Volunteers' learning in the Olympics. *Journal of European Industrial Training*. 26 (2/3/4). pp.109-116.
- KIM, M., CHELLADURAI, P., & TRAIL, G., 2007. A model of volunteer retention in youth sport. *Journal of Sport Management*. 21 (2). pp.151-171.
- KLINE, R., 1998. *Principles and Practice of Structural Equation Modeling*. New York: Guilford Press.
- KLINE, R., 2005. *Principles and practice of structural equation modeling*. New York: Guilford Press.

- KOMAKI, J., COOMBS, T., & SCHEPMAN, S., 1996. Motivational implications of reinforcement theory. In R.M. STEERS, L.W. PORTER, & G.A. BIGLEY (Eds.), *Motivation and Leadership at Work*. New York: McGraw-Hill. pp.34-52.
- KREJECIE, R.V., & MORGAN, D.W. ,1970. Determining Sample Size for Research Activities. *Educational and Psychological Measurement*. 30 (3). p. 607-610.
- KUNNAN, A. J., 1998. An introduction to structural equation modelling for language assessment research. *Language Testing*. 15 (3). pp.295-332.
- KWON, O. B., 2004. Modeling and generating context-aware agent-based applications with amended colored petri nets. *Expert Systems with Applications*. 27 (4). pp.609–621.
- LAI, K. & KELLEY, K., 2011. Accuracy in parameter estimation for targeted effects in structural equation modeling: Sample size planning for narrow confidence intervals. *Psychological Methods*. 16 (2). pp.127-48.
- LAROCQUE, L., GRAVELLE, F., & KARLIS, G., 2005. Volunteerism and serious leisure: The case of the Francophone Games. *World Leisure Journal*. 47 (1). pp.45–51.
- LEEDY, P., & ORMROD, J., 2001. *Practical research: Planning and Design*. Upper Saddle River, NJ: Merrill Prentice Hall.
- LEIBOWITZ, Z. B., & SCHLOSSBERG, N. K., 1981. Training managers for their role in a career development system. *Training and Development Journal*. 35 (7). pp.72-79.
- LEITER, J., 2008. Nonprofit isomorphism: An Australia–United States comparison. *Voluntas: International Journal of Voluntary and Nonprofit Organisations*. 19 (1). pp.67-91.
- LEWIS, J., 1993. Developing the mixed economy of care: emerging issues for voluntary organisations. *Journal of Social Policy*. 22 (2). pp.173-192.
- LIN, N., 2002. *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.
- LITTLE, R. J., & RUBIN, D. B., 1987. *Statistical Analysis with Missing Data*. New York: John Wiley & Sons.
- LIU, Y., & ZUMBO, B. D., 2007. The impact of outliers on Cronbach's coefficient alpha estimate of reliability: visual analogue scales. *Educational and Psychological Measurement*. 67 (4). pp.620-634.

- LUTHANS, F., & STAJKOVIC, A.D., 2006. The impact of recognition on employee performance: Theory, Research and Practice. [online] Available at: [http://www.researchgate.net/publication/228536942\\_The\\_Impact\\_of\\_Recognition\\_on\\_Employee\\_Performance\\_Theory\\_Research\\_and\\_Practice](http://www.researchgate.net/publication/228536942_The_Impact_of_Recognition_on_Employee_Performance_Theory_Research_and_Practice) (Accessed on 12<sup>th</sup> September 2014).
- LUTHANS, F., & STAJKOVIC, A.D., 1999. Reinforce for performance: The need to go beyond pay and even rewards. *Academy of Management Perspectives*. 13 (2). pp.49-57.
- LYSACK, C., & KREFTING, L., 1993. Community-based rehabilitation cadres: their motivation for volunteerism. *International Journal of Rehabilitation Research*. 16 (2). pp.133-142.
- MACDUFF, N., NETTING, F. E., KATHERINE, M., O'CONNOR & MERRILL, M., 2006. rethinking the nature of Volunteerism: A multi-paradigmatic approach to volunteer management. *Paper presented at the Annual Meeting of the Association for Research on Nonprofit Organisations and Voluntary Action*. Chicago, IL. November 16-18, 2006.
- MACHIN, J., & PAINE, A. E., 2008. *Management Matters: A National Survey of Volunteer Management Capacity*. London: Institute for Volunteering Research.
- MACK, N., WOODSONG, C., MACQUEEN, K. M., & NAMEY, E., 2005. *Qualitative research methods: A data collector's field guide*. North Carolina: FHI.
- MADDUX, J. E., 1995. *Self-Efficacy, Adaptation, and Adjustment: Theory, Research, and Application*. New York, NY: Springer US.
- MARSHALL, M. N., 1996. Sampling for qualitative research. *Family Practice*. 13 (6). pp.522-526.
- MATHEWS, R. C., & KLING, K. J., 1988. Self-transcendence, time perspective, and prosocial behavior. *Nonprofit and Voluntary Sector Quarterly*. 17 (2). pp.4-24.
- MATSUNAGA, M., 2010. How to Factor-Analyze Your Data Right: Do's, Don'ts, and How-To's. *International Journal of Psychological Research*. 3 (1). pp.97-110.
- MAY, T., 1997. *Social research: Issues, Methods and Process*. Buckingham: Open University Press.
- MAYS, N., & POPE, C., 1995. Qualitative research: Rigour and qualitative research. *British Medical Journal*. 311 (6997). pp.109-112.

- MCBRIDE, A.M., & LOUGH, B.J., 2010. Access to international volunteering. *Nonprofit Management and Leadership*, 21 (2): pp.195-208.
- MCCRAE, R. R., ZONDERMAN, A. B., COSTA JR, P. T., BOND, M. H., & PAUNONEN, S. V., 1996. Evaluating replicability of factors in the Revised NEO Personality Inventory: Confirmatory factor analysis versus Procrustes rotation. *Journal of Personality and Social Psychology*. 70 (3). pp.552-566.
- MCFARLAND, B., 2005. *Volunteer Management for Animal Care Organisations*. Washington, D.C.: Humane Society Press.
- MEADE, A. W., WATSON, A. M., & KROUSTALIS, C. M., 2007. Assessing common methods bias in organisational research. *Paper presented at 22nd Annual Meeting of the Society for Industrial and Organisational Psychology*. The Marriott Marquis, New York, New York. April 27-29, 2007.
- MEIER, S., & STUTZER, A., 2004. Is Volunteering Rewarding in Itself?. *IEW - Working Paper No. 180*. Zurich: University of Zurich.
- MERRILEES, B., RUNDLE-THIELE, S., & LYE, A., 2011. Marketing capabilities: Antecedents and implications for B2B SME performance. *Industrial Marketing Management*. 40 (3). pp.368-375.
- MESCH, D. J., TSCHIRHART, M., PERRY, J. L. & LEE, G., 1998. Altruists or egoists? Retention in stipended service. *Nonprofit Management & Leadership*. 9 (1). pp.3-21.
- MILES, I., SULLIVAN, W., & KUO, F., 2000. Psychological benefits of volunteering for restoration projects. *Ecological Restoration*. 18 (4). pp.218-227.
- MILLER, A., 2008. *Effectively Recruiting and Retaining Volunteers in Rural Emergency Services Through Better Management*. [online] Available at: <http://www.huntingdoncounty.net/Dept/EMA/Documents/2008%20Volunteer%20Responnder%20Study.pdf> (Accessed 14 June, 2014).
- MILLER, L., POWELL, G., & SELTZER, J., 1990. Determinants of turnover among volunteers. *Human Relations*. 43 (9). pp.901-917.
- MILLETTE, V., & GAGNE, M., 2008. Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motivation and Emotion*. 32 (1). pp.11-22.

- MOCCIA, P., 1988. A critique of compromise: Beyond the methods debate. *Advances in Nursing Science*. 10 (4). pp.1-9.
- MORGAN, D. L., 2007. Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*. 1 (1). pp.48-76.
- MORGAN, G., & SMIRCICH, L., 1980. The case for qualitative research. *Academy of Management Review*. 5 (4). pp.491-500.
- MORRIS, R., 1991. Limitations of quantitative methods for research on values in sexuality education. *Canadian Journal of Education/Revue canadienne de l'education*. 16 (1). 82-92.
- MUELLER, R. O., & HANCOCK, G. R., 2008. Best practices in structural equation modeling. In J. W. OSBORNE (ed.). *Best Practices in Quantitative Methods*. Thousand Oaks, CA: Sage. pp.488-508.
- NASSAR, N. & TALAAT, N. 2009. Motivations of young volunteers in special events. *Tourismos*. 4 (1). pp.135-152.
- NELSON, H., HOOKER, K., DEHART, K., EDWARDS, J., & LANNING, K., 2004. Factors important to success in the volunteer long-term care ombudsman role. *The Gerontologist*. 44 (1). pp.116-120.
- NESBARY, D., 2000. The taxation of Internet commerce. *Social Science Computer Review*. 18 (1). pp.17-39.
- NGUYEN, S., 2009 Consideration of corporate social orientation in managing sport organisations' internal stakeholders. *Paper presented at the Proceedings of the 25th IMP Conference Euromed Management*. Marseilles, France. 3 -5 September, 2009.
- NICHOLS, G., & KING, L., 1998. Volunteers in the Guide Association: Problems and solutions. *Voluntary Action*. 1 (1). pp.21-32.
- NICHOLS, G., TAYLOR, P., JAMES, M., & KING, L., 2003. Pressures on sports volunteers arising from partnerships with the central government. *Loisir et societe/Society and Leisure*. 26 (2). p. 419-430.
- PINKHAM, N., ROBSON, L. M., & SAMENFINK, W., 2013. *Understanding Event Volunteer Motivations*. [Online] Available at: <http://www.mpiweb.org/docs/default-source/Research-and-Reports/WEC13-Volunteers.pdf> (Accessed 14 June, 2015).

- NORD, W. R., & CONNELL, A. F., 1993. From quicksand to crossroads: An agnostic perspective on conversation. *Organisation Science*. 4 (1). pp.108-120.
- NUNNALLY, J. C., & BERNSTEIN, I. H., 1994. *Psychometric Theory*. New York: McGraw Hill.
- OCKENDEN, N., & HUTIN, M., 2008. *Volunteering to lead: A Study of Leadership in Small, Volunteer-Led Groups*. London: Institute for Volunteering Research.
- OMOTO, A., & SNYDER, M., 1995. Sustained helping without obligation: Motivation, longevity of service, and perceived attitude change among AIDS volunteers. *Journal of Personality and Social Psychology*. 68 (4). pp.671-686.
- OMOTO, A., & SNYDER, M., 2002. Considerations of community: The context and process of volunteerism. *American Behavioral Scientist*. 45 (5). pp.846-867.
- PAE, H. K., 2012. A psychometric measurement model for adult English language learners: Pearson Test of English Academic. *Educational Research and Evaluation: An International Journal on Theory and Practice*. 18 (3). pp.211-229.
- PALLANT, J., 2005. *SPSS Survival Manual. A Step by Step Guide to Data Analysis Using SPSS for Windows (Version 12)* (2<sup>nd</sup> edn.). Crows Nest NSW, Australia: Allen & Unwin.
- PARAHOO, K., 2006. *Nursing research: principles, process and issues*. London: Palgrave Macmillan.
- PAULINE, G., 2011. Volunteer satisfaction and intent to remain: an analysis of contributing factors among professional golf event volunteers. *International Journal of Event Management Research*. 6 (1): pp.10-32.
- PENNER, L. A., & FINKELSTEIN, M. A., 1998. Dispositional and structural determinants of volunteerism. *Journal of Personality and Social Psychology*. 74 (2). pp.525-537.
- PERRY, C., 2000. Case research in marketing. *The Marketing Review*. 1 (3). pp.303-323.
- PETERSON, D. 2004. Recruitment strategies for encouraging participation in corporate volunteer programs. *Journal of Business Ethics*. 49 (4). pp.371-386.
- PETRIDES, G., 1973. *Programming the Generalist Volunteer: A Survey of Suggestions and Achievements*. Washington, D.C.: Peace Corps.

- PLAYLE, J. F., 1995. Humanism and positivism in nursing: contradictions and conflicts. *Journal of Advanced Nursing*. 22 (5). pp.979-984.
- PODSAKOFF, P. M., MACKENZIE, S. B., LEE, J-Y., & PODSAKOFF, N. P., 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*. 88 (5). pp.879-903.
- POLIT, D. F., BECK, C. T., & HUNGLER, B, F.. 2001. *Study guide to accompany essentials of nursing research: Methods, Appraisal, and Utilization*. Philadelphia: Lippincott.
- POPPER, K., 1959. The propensity interpretation of probability. *British Journal for the Philosophy of Science*. 10 (37). pp.25-42.
- PORTER, L. W., & STEERS, R. M., 1973. Organisational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*. 80 (2). pp.151-176.
- PROCTOR, S., 1998. Linking philosophy and method in the research process: the case for realism. *Nurse Researcher*. 5 (4). pp.73-90.
- QUALTRICS, 2013. [online]. Available at <http://www.qualtrics.com>. (Accessed 25 February 2013).
- RAO, T.V., 2004. *Performance Management and Appraisal Systems: HR Tools for Global Competitiveness*. New Delhi: Response Books.
- RAYKOV, T., 1998. On the use of confirmatory factor analysis in personality research. *Personality and Individual Differences*. 24 (2). pp.291-293.
- REESER, J., BERG, R., RHEA, D. & WILLICK, S., 2005. Motivation and satisfaction among polyclinic volunteers at the 2002 Winter Olympic and Paralympic Games. *British Journal of Sports Medicine*. 39 (4). e20.
- REHBERG, 2005. Altruistic individualists: Motivations for international volunteering among young adults in Switzerland. *Voluntas: International Journal of Voluntary and Nonprofit Organisations*. 16(2). pp.109-122.
- REMENYI, D., WILLIAMS, B., MONEY, A., & SWARTZ, E., 1998. *Doing Research in Business and Management. An Introduction to Process and Method*. London: Sage.
- RICE, S., & FALLON, B., Retention of volunteers in the emergency services: exploring interpersonal and group cohesion factors. *The Australian Journal of Emergency Management*. 26 (1). pp.18-23.



- ROBINSON, J. P., SHAVER, P. R. & WRIGHTSMAN, L. S., 1991. Criteria for scale selection and evaluation. In J. P. ROBINSON, P. R. SHAVER, & L. S. WRIGHTSMAN, (Eds.). *Measures of Personality and Social Psychological Attitudes*. San Diego, CA: Academic Press. pp.1-16.
- ROBINSON, J. P., SHAVER, P. R. & WRIGHTSMAN, L. S., 1998. *Measures of Political Attitudes*. San Diego, CA: Academic Press.
- ROOS, W., & VAN EEDEN, R., 2008. The relationship between employee motivation, job satisfaction and corporate culture: empirical research. *SA Journal of Industrial Psychology*. 34 (1). pp.54-63.
- RUSSELL, L., & SCOTT, 1997. The impact of the contract culture on volunteers. *Social Policy Research*. 119. [online] Available at: <http://www.jrf.org.uk/publications/impact-contract-culture-volunteers> (Accessed 14<sup>th</sup> June, 2014).
- RYAN, N., PASCOE, J., & MORSE, D., 1999. Enhanced reality fieldwork: the context aware archaeological assistant. In L. S. Dingwall, E. V. Gaffney, S. Laflin, & M. van Leusen, (eds.), *Archaeology in the Age of the Internet. CAA97. Computer Applications and Quantitative Methods in Archaeology. Proceedings of the 25th Anniversary Conference*. University of Birmingham. April 1997 (BAR International Series 750). Oxford: Archaeopress. pp.269-274.
- SALAMON, L. M., & SOKOLOWSKI, W., 2001. *Volunteering in Cross-National Perspective: Evidence from 24 Countries*. Baltimore, Maryland: Institute for Policy Studies, Johns Hopkins University.
- SALAS, G. R., 2008. *Volunteer Functions, Satisfaction, Commitment, and Intention to Leave Government Volunteering*. Ann Arbor, USA. *PhD*. Lynn University.
- SANDRA, K., 2003. Volunteer Development. *Practice Application Brief No. 26*. Washington, D.C.: ERIC.
- SAPSFORD, R., & JUPP, V., 2006. *Data collection and analysis* (2<sup>nd</sup> edn.). London: Sage.
- SAUNDERS, M., LEWIS, P., & THORNHILL, A., 2009. *Research Methods for Business Students* (5<sup>th</sup> edn.). Harlow: Prentice Hall.

- SCANDURA, T. A., & WILLIAMS, E. A., 2000. Research methodology in management: Current practices, trends, and implications for future research. *Academy of Management Journal*. 43 (6). pp.1248-1264.
- SCHAPPER, J., DE CIERI, H., & COX, J. W., 2005. The ontological and epistemologica dimensions of complex organisations. In *ANZAM 2005: Proceedings of the 19th ANZAM Conference*. Canberra, Australia. 7-10 December, 2005.
- SCHERMELLEH-ENGEL, K., MOOSBRUGGER, H., & MULLER, H., 2003. Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*. 8 (2). pp.23-74.
- SCHMIDT, A., AIDOO, K. A., TAKALUOMA, A., TUOMELA, U., VAN LAERHOVEN, K., & VAN DE VELDE, W., 1999. Advanced interaction in context. *Proceedings of the 1st International Symposium on Handheld and Ubiquitous Computing (HUC99)*. London: Springer-Verlag. pp.89-101.
- SCHRAM, V. R., 1985. Motivating volunteers to participate. In E. F. MOORE, (ed.). *Motivating Volunteers: How the Rewards of Unpaid Work can Meet People's NEEDS*. Vancouver, B.C.: Vancouver Volunteer Center. pp. 68-89.
- SERENKO, A., 2008. A model of user adoption of interface agents for email notification. *Interacting with Computers*. 20 (4-5). pp.461-472.
- SHEATSLEY, P. B., 1983. Questionnaire construction and item writing. In P. H. ROSSI, J. D. WRIGHT, & A. B. ANDERSON (eds.). *Handbook of Survey Research*. New York: Academic Press. pp.195-230.
- SHERR, M. E., 2008. *Social Work with Volunteers: Developing Context-Specific Optimal Partnerships*. Chicago, IL: Lyceum Press.
- SHIN, S., & KLEINER, B. H., 2003. How to manage unpaid volunteers in organisations. *Management Research News*. 26 (2/3/4). pp.63-71.
- SILVERBERG, K. E., MARSHALL, E. K., & ELLIS, G. D., 2001. Measuring job satisfaction of volunteers in public parks and recreation. *Journal of Park and Recreation Administration*. 19 (1). pp.79-92.
- SILVERMAN, D., 2005. *Doing qualitative research: A practical handbook*. London: Sage.

- SKOGLUND, A., 2006. Do not forget about your volunteers: a qualitative analysis of factors influencing volunteer turnover. *Health and Social Work*. 31 (3). 217-220.
- SMITH, D. H., 1981. Altruism, Volunteers, and Volunteerism. *Nonprofit and Voluntary Sector Quarterly*. 10 (1). pp.21-36.
- SMITH, J.D., 1998. *The 1997 National Survey of Volunteering*. London: Home Office.
- SMITH, M. J., 1998. *Social Science in Question*. London: Sage.
- SMITH, M., GERDNER, L. A., HALL, G. R., & BUCKWALTER, K. C., 2004. History, development, and future of the progressively lowered stress threshold: a conceptual model for dementia care. *Journal of the American Geriatrics Society*. 52 (10): p. 1755-1760.
- SMITH, P. C., M. KENDALL, L. M., & HULIN, C. L., 1969. *The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes*. Skokie, IL: Rand McNally.
- SOZANSKA, O., TOSNER, J., & FRIC, P., 2004. Management of Volunteers in Nonprofit Organisations'. In A. ZIMMER, & E. PRILLER, (ed.). *Future of Civil Society: Making Central European Non-Profit Organisations Work*. Berlin: VS Verlag für Sozialwissenschaften. pp.315-340.
- SPARROW, P., & HILTROP J., 1994. *European Human Resource Management in Transition*. London: Prentice Hall.
- SPECTOR, P., 1997. *Job Satisfaction: Application, Assessment, Causes, and Consequences*. London: Sage.
- STEDMAN, N.L., & RUDD, R., 2004. Volunteer administration: Theoretical dimensions of the discipline. *Journal of Leadership Education*. 3 (1). pp.4-16.
- STUKAS, A., WORTH, K., CLARY, E., & SNYDER, M., 2009. The matching of motivations to affordances in the volunteer environment: An index for assessing the impact of multiple matches on volunteer outcomes. *Nonprofit and Voluntary Sector Quarterly*. 38 (1). pp.5-28.
- SUDMAN, S., 1983. The network polls: a critical review. *Public Opinion Quarterly*. 47 (4). pp.490-496.
- TABACHNICK, B. G., FIDELL, L. S., & OSTERLIND, S. J., 2001. *Using Multivariate Statistics*. Boston: Allyn and Bacon.

- TAMAS, A., WHITEHORSE, Y., & ALMONTE, O., 2000. *System Theory in Community Development*. Ontario: Whitehorse, Yukon and Almonte.
- TANIGUCHI, H., 2006. Men's and women's volunteering: gender differences in the effects of employment and family characteristics. *Nonprofit and Voluntary Sector Quarterly*. 35 (1). pp.83-101.
- TARNOFF, C., 2014. The Peace Corps: Current Issues. *CRS Report*. Congressional Research Service. [online] Available at: <http://fas.org/sgp/crs/misc/RS21168.pdf> (Accessed 25 February, 2015).
- TASHAKKORI, A., & TEDDLIE, C., 1998, *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage.
- TASHAKKORI, A. & TEDDLIE, C., 2003. *Handbook of Mixed Methods in the Behavioral and Social Sciences*. Thousand Oaks: Sage.
- TAYLOR, T., & MCGRAW, P., 2006. Exploring human resource management practices in nonprofit sport organisations. *Sport Management Review*. 9 (1). pp.229-251.
- TEDRICK, T., & HENDERSON, K., 1989. *Volunteers in Leisure. A Management Perspective*. American Alliance for Health, Physical Education, Recreation and Dance, Reston, VA: The American Association for Leisure and Recreation.
- YANAY, G. V., & YANAY, N., 2008. The decline of motivation?: From commitment to dropping out of volunteering. *Nonprofit Management and Leadership*. 19 (1). pp.65-78.
- THEMUNDO, N.S., 2009. Gender and the nonprofit sector. *Nonprofit and Voluntary Sector Quarterly*. 38 (4). pp.663-683.
- THOMPSON, B., 2004. *Exploratory and Confirmatory Factor Analysis: Understanding Concepts and Applications*. Washington DC: American Psychological Association.
- TICEHURST, G., & VEAL, A., 2000. *Business Research Methods*. Frenchs Forest, Australia: Longman.
- TICHY, N. M., FOMBRUN, C.J., & DEVANNA, M. A., 1982. Strategic human resource management. *Sloan Management Review*. 23 (2). pp.47-61.
- TOOKSOON, H. M. P., 2011 Conceptual framework on the relationship between human resource management practices, job satisfaction, and turnover. *Journal of Economics and Behavioral Studies*. 2 (2). pp.41-49.

- TROCHIM, W., 2006. *Positivism and Post-Positivism. Research Methods Knowledge Base*. [online] Available at <http://www.socialresearchmethods.net/kb/> (Accessed 4 June, 2014).
- TOPPE, C. M., ARTHUR D. KIRSCH, A. D., & MICHEL, J., 2001. *Giving & Volunteering in the United States: Findings from a National Survey*. Waldorf, MD: Independent sector.
- TZINER, A., MURPHY, K. R., CLEVELAND, J. N., & ROBERTS-THOMPSON, G. P., 2001. Relationships between attitudes toward organisations and performance appraisal systems and rating behavior. *International Journal of Selection and Assessment*. 9 (3). pp.226-239.
- ULLMAN, J. B., 2001. Structural equation modelling. In B. G. TABACHNICK, & L. S. FEDELL, (eds.). *Using Multivariate Statistics*. Boston: Allyn and Bacon.
- ULLMAN, J. B., & BENTLER, P. M., 2003. Structural equation modeling. In J. A. SCHINKA, & W. F. VELICER, (eds.). *Handbook of Psychology, Volume 2. Research Methods in Psychology*. New York: Wiley. pp.607-634.
- UNSTEAD-JOSS, R., 2008. An analysis of volunteer motivation: implications for international development. *Voluntary Action: The Journal of the Institute for Volunteering Research*. 9 (1). pp.3-20.
- VARNER JR, A. F., 1983. What Motivates the Volunteer? *Nonprofit World Report*. 1 (2). pp.12-15.
- Volunteering Australia, 2009. *Contribution of the Not for Profit Sector*. Melbourne: Volunteering Australia.
- WILSON, J., 2000. Volunteering. *Annual Review of Sociology*. 26. pp.215-240.
- WARNER, S., NEWLAND, B.L., & GREEN, B.C., 2011. More than motivation: Reconsidering volunteer management tools. *Journal of Sport Management*. 25 (5): pp.391-407
- WEBB, C., 1989. Action research: philosophy, methods and personal experiences. *Journal of Advanced Nursing*. 14 (5). pp.403-410.
- WEBER, R., 2004. Editor's comments: The rhetoric of positivism versus interpretivism: A personal view. *MIS Quarterly*. 28 (1). pp.iii-xii.

- WILCOX, R., 2005. *Introduction to Robust Estimation and Hypothesis Testing* (2<sup>nd</sup> edn.). San Diego, CA: Academic Press.
- WILLIAMS, C., 2007. Research Methods. *Journal of Business & Economic Research*. 5 (3). pp.65-72.
- WONG, L. P., CHUI, W. H., & KWOK, Y. Y., 2011. The volunteer satisfaction index: A validation study in the Chinese cultural context. *Social Indicators Research*. 104 (1). pp.19-32.
- WYMER JR, W. W., & SAMU, S., 2003. Dimensions of business and nonprofit collaborative relationships. *Journal of Nonprofit & Public Sector Marketing*. 11 (1). pp.3-22.
- WYMER, W. W., & STARNES, B. J., 2001. Conceptual foundations and practical guidelines for recruiting volunteers to serve in local nonprofit organisations: Part I. *Journal of Nonprofit & Public Sector Marketing*. 9 (1-2). pp.63-96.
- YAMNILL, S., & MCLEAN, G.N., 2001 Theories supporting transfer of training. *Human Resource Development Quarterly*. 12 (2). pp.195-208
- ZAFIROVSKI, M., 2005. Social exchange theory under scrutiny: A positive critique of its economic-behaviorist formulations. *Electronic Journal of Sociology*. 2 (2). pp.1-40.
- ZIKMUND, W., 2003. *Business Research Methods* (7th edn.). Ohio: Thomson/South-Western.
- ZUCKER, A., 1996. *Introduction to the Philosophy of Science*. Upper Saddle, NJ: Prentice Hall.
- ZUMBO, B. D., & JENNINGS, M. J., 2002. The robustness of validity and efficiency of the related samples t-test in the presence of outliers. *Psicológica*. 23 (2). pp.415-450.

## Appendixes

### Appendix 1

Dear Sir/Madam

As part of a PhD research in volunteerism, we are studying the concept with respect to volunteer management practice, motivation, satisfaction, and retention. It is a relatively new covenant field that requires additional studies, research, and extensive measures.

A field study will be conducted on the topic "**Impact of Volunteer Management Practice on Volunteer Motivation and Satisfaction to Enhance Volunteer Retention**". The purpose of this questionnaire is to determine the vital factors that are applicable to volunteering.

Your candid and thoughtful response is crucial in providing the necessary information to complete this research. Most people are able to complete the questionnaire in less than 30 minutes. Your response and any comments will be treated with greatest confidentiality and will be used solely for the purpose of this research.

Your response and time is greatly appreciated.

Sincerely,  
O. S. Al-Mutawa

PhD Researcher  
Brunel University, Britain

**The questionnaire instructions:**

1. Answering this questionnaire takes approximately 15-20 minutes.
2. There are two options in completing this questionnaire
  - a. Answering on the original questionnaire paper-sheet.
  - b. Answering the questionnaire electronically.
3. Please answer the following questions by selecting the most suitable answer.

**Personal information:**

- 1- **[GEN] Gender:**     Male     Female
  
- 2- **[AGE] Age (please tick the one that describes you)**  
  
 20 years or younger     21- 30  
 31 – 40     41 - 50  
 51 – 60     61-70
- 3-  70 years or older     did not provide  
  
 Primary     Intermediate     Secondary  
 Diploma     Bachelor     Postgraduate
- 4- **[OCC] Occupation**.....



**5- [YR\_INC] Income( yearly )**

less than \$10000     \$10000-19999

\$20000- \$29999     \$30000-39999

\$40000-\$49000     \$50000-\$59999

\$60000-\$69000     greater than \$70000

did not provide

**6- [VOL\_SER] Volunteer service**

Anew volunteer- just starting

less than three month

3-6 months

6-12 months

1-2 years

2-4 years

4-6 years

6-8 years

8-10 years

10-15 year

15-20 years

over 20 years

did not provide

Please read carefully and answer to what best describes your opinion in the following questionnaire:

**Section A**

Management practices		1= never	2= rarely	3=Sometimes	4=often	5=always
<b>In managing its volunteers to what extent does your organisation...</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	[PLAN1] Identify potential volunteers before events begins.					
2.	[PLAN2] Provide role or job description for individual volunteers.					
3.	[PLAN3] Actively encourage turnover of volunteers in key position.					
4.	[PLAN4] Maintain database of volunteers' skills ,qualification and Experience.					
5.	[RECR1] Match the skills, experience and interests of volunteers to specific roles.					
6.	[RECR2] Develop positions to meet the needs of individual volunteers.					
7.	[RECR3] Actively recruit volunteers from diverse background.					
8.	[RECR4] Use advertising for volunteer recruitments (e.g., newsletters, online,...)					
9.	[TRSU1] Encourage volunteers to operate within a code of acceptable behavior.					
10.	[TRSU2] Introduce new volunteers to people with whom they will work during the organisation.					
11.	[TRSU3] Provide support to volunteers in their roles (e.g., assist with the resolution of conflict).					
12.	[TRSU4] Manage the work loads of individual volunteers where they are excessive.					
13.	[TRSU5] Assist volunteers to access training outside the organisation (e.g., accreditation training course)					
14.	[TRSU6] Cover or reimburse the costs of volunteers attendance at training or accreditation course .					
15.	[TRSU7] Conduct induction sessions for specific group of volunteers (e.g., supervisor, team leader,...)					
16.	[TRSU8] Mentor volunteers, particularly when staring in a new role.					
17.	[TRSU9] Provide sufficient support for volunteers to effectively carry out their task.					
18.	[RECG1] Recognize outstanding work or task performances of individual volunteers.					
19.	[RECG2] plan for the recognition of volunteers.					
20.	[RECG3] Thank volunteers for their efforts(e.g., informal thanks you)					
21.	[RECG4] Publicly recognize the efforts of volunteers (e.g., in newsletters, special events)					
22.	[RECG5] Provide special awards for long serving volunteers(e.g., life membership)					
23.	[PEMG1] Monitor the performance of individual volunteers.					
24.	[PEMG2] Provide feedback to individual volunteers.					

## Section B

Satisfaction	1= Very dissatisfied	2= dissatisfied	3= unsure	4= satisfied	5=Very satisfied				
<b>Satisfaction:</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
25.	[SATS1] My relationship with paid staff.								
26.	[SATS2] The support I receive from people in the organisation.								
27.	[SATS3] The amount of information I receive about what the organisation is doing.								
28.	[SATS4] How often the organisation acknowledges the work I do.								
29.	[SATS5] The degree of cohesiveness I experience within the organisation								
30.	[SATS6] The difference my volunteer work is making.								
31.	[SATS7] How worthwhile my contribution is.								
32.	[SATS8] The amount of effort I put in as equaling the amount of change Influence.								
33.	[SATS9] The chance I have to utilize my knowledge and skills in my volunteer Work.								
34.	[SATS10] The access I have to information concerning the organisation.								
35.	[SATS11] The freedom I have in deciding how to carry out my volunteer assignment								
36.	[SATS12] My relationship with other volunteers in the organisation								
37.	[SATS13] The amount of interaction I have with other volunteers in the organisation								
38.	[SATS14] The amount of time spent with other volunteers.								

## Section C

Motivation	1= Not at all important	2 =Very unimportant	3 = Neither important nor unimportant	4 =Very important	5 = Extremely important				
<b>Motivation:</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
39.	[MOTV1] No matter how bad I've been feeling, volunteering helps me to forget about it.								
40.	[MOTV2] By volunteering I feel less lonely.								
41.	[MOTV3] Doing volunteer work relieves me of some of the guilt over being more fortunate than others.								
42.	[MOTV4] Volunteering helps me work through my own personal problems.								
43.	[MOTV5] Volunteering is a good escape from my own troubles.								
44.	[MOTV6] I am concerned about those less fortunate than myself.								
45.	[MOTV7] I am genuinely concerned about the particular group I am serving.								

46.	[MOTV8] I feel compassion toward people in need.					
47.	[MOTV9] I feel it is important to help others.					
48.	[MOTV10] I can do something for a cause that is important to me.					
49.	[MOTV11] Volunteering can help me to get my foot in the door at a place where I would like to work.					
50.	[MOTV12] I can make new contacts that might help my business or career.					
51.	[MOTV13] Volunteering allows me to explore different career options.					
52.	[MOTV14] Volunteering will help me to succeed in my chosen profession.					
53.	[MOTV15] Volunteering experience will look good on my resume.					
54.	[MOTV16] My friends volunteer.					
55.	[MOTV17] People I'm close to want me to volunteer.					
56.	[MOTV18] People I know share an interest in community service.					
57.	[MOTV19] Others with whom I am close place a high value on community service.					
58.	[MOTV20] Volunteering is an important activity to the people I know best.					
59.	[MOTV21] I can learn more about the cause for which I am working.					
60.	[MOTV22] Volunteering allows me to gain a new perspective on things.					
61.	[MOTV23] Volunteering lets me learn things through direct, hands on experience.					
62.	[MOTV24] I can learn how to deal with a variety of people.					
63.	[MOTV25] I can explore my own strengths.					
64.	[MOTV26] Volunteering makes me feel important.					
65.	[MOTV27] Volunteering increases my self-esteem.					
66.	[MOTV28] Volunteering makes me feel needed.					
67.	[MOTV29] Volunteering makes me feel better about myself.					
68.	[MOTV30] Volunteering is a way to make new friends.					

**Section D**

<b>Retention</b>	<b>1=Strongly Disagree</b>	<b>2 = Disagree</b>	<b>3 = Undecided</b>	<b>4 = Agree</b>	<b>5 = Strongly Agree</b>				
<b>Retention :</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>69.</b>	[RETN1] I plan to continue volunteering at this organisation until end of this year.								
<b>70.</b>	[RETN2] I plan to continue volunteering at this organisation next year								
<b>71.</b>	[RETN3] I am likely to be volunteering at this organisation three years from now.								

<b>Retention</b>	<b>1=Strongly Agree</b>	<b>2=Agree</b>	<b>3=Undecided</b>	<b>4=Disagree</b>	<b>5=Strongly Disagree</b>				
<b>Retention :</b>					<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>72.</b>	[RETN4] I intend leaving this organisation altogether within 12 months								
<b>73.</b>	[RETN5] I intend to volunteer in the next 12 months but with a different organisation								
<b>74.</b>	[RETN6] I intend to cease volunteering at organisation as soon as another volunteer can be found to replace me								

## Appendix 2

### Covering note on the e-mail about the survey and its purpose

Dear Sir/Madam -

As part of a PhD research in volunteerism, we are studying the concept with respect to volunteer management practice, motivation, satisfaction, and retention. It is a relatively new covenant field that requires additional studies, research, and extensive measures.

A **field study** will be conducted on the topic "**Impact of Volunteer Management Practice on Volunteer Motivation and Satisfaction to Enhance Volunteer Retention**". The purpose of this questionnaire is to determine the vital factors that are applicable to volunteering.

Your candid and thoughtful response is crucial in providing the necessary information to complete this research. Most people are able to complete the questionnaire in less than 20 minutes. Your response and any comments will be treated with greatest confidentiality and will be used solely for the purpose of this research.

please open the link:

[https://qtrial.qualtrics.com/SE/?SID=SV\\_4ZW55TOGSK1AZlq](https://qtrial.qualtrics.com/SE/?SID=SV_4ZW55TOGSK1AZlq)

Your response and time is greatly appreciated.

Sincerely,

O. S. Al-Mutawa

PhD Researcher  
Brunel University, Britain

## Appendix 3

### Coding sheet

Questions Number (Coding)	Description
<b>Management practices</b>	
MP1	Identify potential volunteers before events begins.
MP2	Provide role or job description for individual volunteers.
MP3	Actively encourage turnover of volunteers in key position.
MP4	Maintain database of volunteers' skills ,qualification and Experience.
MP5	Match the skills, experience and interests of volunteers to specific roles.
MP6	Develop positions to meet the needs of individual volunteers.
MP7	Actively recruit volunteers from diverse background.
MP8	Use advertising for volunteer recruitments (e.g., newsletters, online,...)
MP9	Encourage volunteers to operate within a code of acceptable behavior.
MP10	Introduce new volunteers to people with whom they will work during the organisation.
MP11	Provide support to volunteers in their roles (e.g., assist with the resolution of conflict).
MP12	Manage the work loads of individual volunteers where they are excessive.
MP13	Assist volunteers to access training outside the organisation (e.g., accreditation training course)
MP14	Cover or reimburse the costs of volunteers attendance at training or accreditation course .
MP15	Conduct induction sessions for specific group of volunteers (e.g., supervisor, team leader,...)
MP16	Mentor volunteers, particularly when starting in a new role.
MP17	Provide sufficient support for volunteers to effectively carry out their task.
MP18	Recognize outstanding work or task performances of individual volunteers.
MP19	plan for the recognition of volunteers.
MP20	Thank volunteers for their efforts(e.g., informal thanks you)
MP21	Publicly recognize the efforts of volunteers (e.g., in newsletters, special events)
MP22	Provide special awards for long serving volunteers(e.g., life membership)
MP23	Monitor the performance of individual volunteers.
MP24	Provide feedback to individual volunteers.
<b>Satisfaction</b>	
SATS1	My relationship with paid staff.
SATS2	The support I receive from people in the organisation.
SATS3	The amount of information I receive about what the organisation is doing.
SATS4	How often the organisation acknowledges the work I do.
SATS5	The degree of cohesiveness I experience within the organisation
SATS6	The difference my volunteer work is making.
SATS7	How worthwhile my contribution is.
SATS8	The amount of effort I put in as equaling the amount of change Influence.
SATS9	The chance I have to utilize my knowledge and skills in my volunteer Work.
SATS10	The access I have to information concerning the organisation.
SATS11	The freedom I have in deciding how to carry out my volunteer assignment
SATS12	My relationship with other volunteers in the organisation
SATS13	The amount of interaction I have with other volunteers in the organisation
SATS14	The amount of time spent with other volunteers.

	<b>Motivation</b>
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MOTV2	By volunteering I feel less lonely.
MOTV3	Doing volunteer work relieves me of some of the guilt over being more fortunate than others.
MOTV4	Volunteering helps me work through my own personal problems.
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MOTV6	I am concerned about those less fortunate than myself.
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MOTV9	I feel it is important to help others.
MOTV10	I can do something for a cause that is important to me.
MOTV11	Volunteering can help me to get my foot in the door at a place where I would like to work.
MOTV12	I can make new contacts that might help my business or career.
MOTV13	Volunteering allows me to explore different career options.
MOTV14	Volunteering will help me to succeed in my chosen profession.
MOTV15	Volunteering experience will look good on my resume.
MOTV16	My friends volunteer.
MOTV17	People I'm close to want me to volunteer.
MOTV18	People I know share an interest in community service.
MOTV19	Others with whom I am close place a high value on community service.
MOTV20	Volunteering is an important activity to the people I know best.
MOTV21	I can learn more about the cause for which I am working.
MOTV22	Volunteering allows me to gain a new perspective on things.
MOTV23	Volunteering lets me learn things through direct, hands on experience.
MOTV24	I can learn how to deal with a variety of people.
MOTV25	I can explore my own strengths.
MOTV26	Volunteering makes me feel important.
MOTV27	Volunteering increases my self-esteem.
MOTV28	Volunteering makes me feel needed.
MOTV29	Volunteering makes me feel better about myself.
MOTV30	Volunteering is a way to make new friends.
	<b>Retention</b>
RETN1	I plan to continue volunteering at this organisation until end of this year.
RETN2	I plan to continue volunteering at this organisation next year
RETN3	I am likely to be volunteering at this organisation three years from now.
RETN4	I intend leaving this organisation altogether within 12 months.
RETN5	I intend to volunteer in the next 12 months but with a different organisation.
RETN6	I intend to cease volunteering at organisation as soon as another volunteer can be found to replace me.





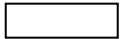




## **Appendix 4**

### **Advantages of using Structural Equation Modelling**

- Assumptions underlying the statistical analyses are clear and testable, giving the investigator full control and potentially furthering understanding of the analyses.
- Graphical interface software boosts creativity and facilitates rapid model debugging (a feature limited to selected SEM software packages).
- SEM programs provide overall tests of model fit and individual parameter estimate tests simultaneously.
- Regression coefficients, means, and variances may be compared simultaneously, even across multiple between-subjects groups.
- Measurement and confirmatory factor analysis models can be used to purge errors, making estimated relationships among latent variables less contaminated by measurement error.
- Ability to fit non-standard models, including flexible handling of longitudinal data, databases with autocorrelated error structures (time series analysis), and databases with non-normally distributed variables and incomplete data.
- This last feature of SEM is its most attractive quality. SEM provides a unifying framework under which numerous linear models may be fit using flexible, powerful software.

## Appendix 5

### Glossary of Structural Equation Modelling terms (Weston & Gore Jr. 2006; Arbuckle & Wothke, 1999; Byrne, 2001; Kline, 1998; Ullman, 2001; Baron & Kenny, 1986)

Term Used	Alternative Term(s)	Definition	Symbol
Latent variable	Factor, construct	Unobserved hypothetical variable (e.g., occupational interests).	 
Indicator	Measured or manifest variable	Observed variable (e.g., Strong Interest Inventory).	 
Factor loading	Path loading	Correlation between latent variable and indicator.	→
Direct effect	Path coefficient, path	Correlation between two latent variables.	→
Non-directional association	Covariance, correlation	Correlation between two latent variables.	↔
Indicator error	Predictor error, measurement error	Error in indicator that is not accounted for by latent variable. Indicator error is also considered a latent variable.	
Disturbance	Predictor error	Error in dependent latent variable not accounted for by predictors.	
Explained		Percentage of variance in dependent latent variable accounted for by predictor(s).	$R^2$
Parameter	Path	Hypothesized association between two variables.	→, ↔
Independent variable	Exogenous variable, predictor	Variable that is not dependent on or predicted by other latent variables or indicators.	-----
Dependent variable	Endogenous variable, criterion	Variable that is predicted by other latent variables or indicators.	-----
Set parameter	Constrained parameter; Fixed path	Parameter that is set at a constant and not estimated. Parameters fixed at 1.0 reflect an expected 1:1 association between variables. Parameters set at 0 reflect the assumption that no relationship exists.	Parameters set at nonzero values should be labeled:  Parameters set at 0 are omitted.
Free parameter	Estimated parameter	Parameter that is not constrained and is to be estimated using observed data.	Represented with an asterisk or simply unlabeled.
Covariance matrix	Sample matrix	Unstandardized associations between all pairs of variables.	$\Sigma$ ; S
Skewness	Asymmetry	Degree of asymmetry observed in the distribution for a variable.	
Kurtosis	Flatness or peakedness	Degree of the peakedness of the distribution for a variable.	
Mediating variable	-----	Variables that affect the relationship between two other variables	
Recursive model		Recursive models have unidirectional “causal” relationships.	
Non-recursive model	-----	Non-recursive models have bidirectional “causal” relationships, that is, feedback loops, correlated error terms, or both.	

## Appendix 6

### Normality of data

**Table 1**

### Skewness and Kurtosis

	N		Mean	Median	Std. Deviation	Skewness	Kurtosis
	Valid	Missing					
Management practices : In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begins.	386	0	3.55	4.00	1.162	-.553	-.366
Management practices : In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	386	0	3.47	4.00	1.221	-.451	-.680
Management practices : In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	386	0	2.85	3.00	1.207	.095	-.843
Management practices : In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	386	0	2.93	3.00	1.333	-.015	-1.156
Management practices : In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	386	0	3.28	3.00	1.205	-.358	-.704
Management practices : In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	386	0	2.96	3.00	1.186	-.080	-.780
Management practices : In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	386	0	3.22	3.00	1.223	-.277	-.803
Management practices : In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters, internet, etc.)	386	0	2.84	3.00	1.359	.039	-1.232
Management practices : In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.	386	0	3.97	4.00	1.242	-1.029	-.009
Management practices : In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will work during the organisation.	386	0	3.78	4.00	1.186	-.820	-.134
Management practices : In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).	386	0	3.65	4.00	1.153	-.640	-.317
Management practices : In managing its volunteers to what extent do your organisations .....-12-Manage the work loads of individual volunteers where they are excessive.	386	0	3.26	3.00	1.122	-.346	-.488
Management practices : In managing its volunteers to what extent do your organisations .....-13-Assist volunteers to access training outside the organisation (e.g. accreditation training course)	386	0	2.67	3.00	1.271	.235	-.999
Management practices : In managing its volunteers to what extent do your organisations .....-14-Cover or reimburse the costs of volunteers attendance at training or accreditation course .	386	0	2.43	2.00	1.306	.494	-.916
Management practices : In managing its volunteers to what extent do your organisations .....-15-Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.)	386	0	2.89	3.00	1.306	.046	-1.068
Management practices : In managing its volunteers to what extent do your organisations .....-16-Mentor volunteers,	386	0	3.40	4.00	1.236	-.430	-.695

particularly when starting in a new role.								
Management practices : In managing its volunteers to what extent do your organisations .....-17-Provide sufficient support for volunteers to effectively carry out their task.	386	0	3.62	4.00	1.104	-.637	-.156	
Management practices : In managing its volunteers to what extent do your organisations .....-18-Recognize outstanding work or task performances of individual volunteers.	386	0	3.60	4.00	1.120	-.584	-.296	
Management practices : In managing its volunteers to what extent do your organisations .....-19-Plan for the recognition of volunteers.	386	0	3.35	3.00	1.215	-.357	-.697	
Management practices : In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts(e.g., informal thank yous).	386	0	4.18	5.00	1.076	-1.339	1.197	
Management practices : In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).	386	0	3.40	4.00	1.318	-.428	-.899	
Management practices : In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	386	0	3.06	3.00	1.346	-.125	-1.149	
Management practices : In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers.	386	0	3.26	3.00	1.200	-.271	-.736	
Management practices : In managing its volunteers to what extent do your organisations .....-24-Provide feedback to individual volunteers.	386	0	3.42	3.00	1.138	-.328	-.568	
Satisfaction:-25-My relationship with paid staff.	386	0	4.01	4.00	.796	-.661	.725	
Satisfaction:-26-How often the organisation acknowledges the work I do.	386	0	3.95	4.00	.848	-.902	1.146	
Satisfaction:-27-The degree of cohesiveness I experience within the organisation.	386	0	3.90	4.00	.857	-.923	1.191	
Satisfaction:-28-The chance I have to utilize my knowledge and skills in my volunteer work.	386	0	4.04	4.00	.806	-.907	1.248	
Satisfaction:-29-The access I have to information concerning the organisation.	386	0	4.02	4.00	.812	-.847	1.055	
Satisfaction:-30-The freedom I have in deciding how to carry out my volunteer assignment.	386	0	4.06	4.00	.812	-1.076	1.804	
Satisfaction:-31-My relationship with other volunteers in the organisation	386	0	4.21	4.00	.751	-1.099	2.249	
Satisfaction:-32-The amount of interaction I have with other volunteers in the organisation.	386	0	4.16	4.00	.783	-1.041	1.919	
Satisfaction:-33-The amount of time spent with other volunteers.	386	0	4.10	4.00	.793	-1.005	1.615	
Motivation:-34-No matter how bad I've been feeling, volunteering helps me to forget about it.	386	0	3.88	4.00	.834	-.832	1.476	
Motivation:-35-I am concerned about those less fortunate than myself.	386	0	4.21	4.00	.767	-.972	1.552	
Motivation:-36-I am genuinely concerned about the particular group I am serving.	386	0	4.29	4.00	.734	-1.228	2.974	
Motivation:-37-I feel compassion toward people in need.	386	0	4.31	4.00	.707	-.874	1.265	
Motivation:-38-I feel it is important to help others.	386	0	4.48	5.00	.657	-1.348	3.045	
Motivation:-39-I can do something for a cause that is important to me.	386	0	4.40	4.00	.654	-1.086	2.575	
Motivation:-40-Volunteering allows me to gain a new perspective on things.	386	0	4.22	4.00	.755	-.929	1.515	
Motivation:-41-Volunteering lets me learn things through direct, hands on experience.	386	0	4.18	4.00	.796	-1.009	1.624	
Motivation:-42- I can explore my own strengths.	386	0	3.98	4.00	.807	-.613	.549	
Motivation:-43-Volunteering increases my self-esteem.	386	0	3.86	4.00	.911	-.657	.305	
Motivation:-44-Volunteering makes me feel needed.	386	0	3.98	4.00	.912	-.817	.755	
Retention : -45-I plan to continue volunteering at this organisation until end of this year.	386	0	4.29	4.00	.833	-1.096	1.049	
Retention : -46-I plan to continue volunteering at this organisation next year	386	0	4.26	4.00	.837	-.833	.047	
Retention : -47-I am likely to be volunteering at this organisation three years from now.	386	0	4.11	4.00	.889	-.733	.129	
Retention:-48-I intend leaving this organisation altogether within 12 months	386	0	3.90	4.00	1.293	-1.082	.108	
Retention:-49-I intend to volunteer in the next 12 months but with a different organisation	386	0	3.57	4.00	1.198	-.483	-.515	
Retention:-50-I intend to cease volunteering at this organisation as soon as another volunteer can be found to replace me.	386	0	3.89	4.00	1.261	-.961	-.066	

## Appendix 6

Table 2

### Mahalanobis distance –Management Practice

No.	D <sup>2</sup>	51.	16.92857	101.	8.32516	151.	14.41049
1.	23.70965	52.	11.69971	102.	8.25367	152.	30.93994
2.	21.64413	53.	17.22131	103.	43.49785	153.	18.26442
3.	18.99044	54.	19.56777	104.	32.02674	154.	20.98407
4.	17.15394	55.	15.96669	105.	50.67801	155.	29.41905
5.	10.04496	56.	33.70006	106.	14.51803	156.	5.92258
6.	20.63526	57.	10.05161	107.	18.32777	157.	54.86478
7.	37.62546	58.	18.89647	108.	10.64348	158.	13.64342
8.	24.43612	59.	14.84064	109.	39.26434	159.	18.48511
9.	2.56405	60.	15.24776	110.	22.75941	160.	13.88766
10.	16.67019	61.	25.33391	111.	13.69168	161.	24.80423
11.	35.75099	62.	19.66464	112.	10.9531	162.	11.1541
12.	51.10196	63.	5.92258	113.	19.59968	163.	13.50593
13.	23.82596	64.	10.76615	114.	15.83431	164.	16.30632
14.	17.88088	65.	33.36849	115.	42.6744	165.	14.21262
15.	10.24138	66.	45.04271	116.	38.1787	166.	16.01715
16.	40.06234	67.	21.11968	117.	49.80734	167.	13.26495
17.	23.11115	68.	25.88428	118.	26.35717	168.	33.72293
18.	21.48309	69.	21.32004	119.	10.29078	169.	34.54766
19.	36.00912	70.	35.47356	120.	11.10035	170.	34.39563
20.	18.40115	71.	12.76865	121.	11.17108	171.	2.56405
21.	13.64477	72.	20.98297	122.	30.59916	172.	11.03943
22.	12.16975	73.	12.70649	123.	15.81093	173.	15.27902
23.	4.9245	74.	7.64486	124.	16.48595	174.	23.78386
24.	18.80574	75.	5.92258	125.	28.11414	175.	20.35771
25.	10.12089	76.	8.02123	126.	24.1645	176.	15.55708
26.	36.24603	77.	20.50078	127.	3.77855	177.	22.29268
27.	50.01647	78.	9.86303	128.	10.64348	178.	26.65742
28.	10.64348	79.	49.2199	129.	16.42601	179.	7.95407
29.	15.86584	80.	35.83126	130.	16.97755	180.	25.62527
30.	23.78146	81.	61.5822	131.	33.96749	181.	6.37767
31.	53.46933	82.	43.27104	132.	14.94136	182.	29.6924
32.	9.50957	83.	18.0695	133.	20.01079	183.	8.9818
33.	46.29675	84.	20.89277	134.	18.88637	184.	7.13159
34.	44.89424	85.	26.06957	135.	26.73366	185.	24.30683
35.	56.83292	86.	5.92258	136.	23.33252	186.	5.92258
36.	45.90783	87.	10.53764	137.	15.50791	187.	50.18742
37.	20.28585	88.	8.75847	138.	2.23135	188.	23.41278
38.	8.48069	89.	16.95061	139.	17.6925	189.	19.32439
39.	13.33631	90.	44.94229	140.	2.56405	190.	18.14267
40.	25.59514	91.	25.89145	141.	19.71937	191.	15.63212
41.	4.9245	92.	19.56133	142.	18.73268	192.	10.56622
42.	10.16139	93.	20.06951	143.	30.38654	193.	14.59556
43.	9.8704	94.	31.68651	144.	33.82422	194.	17.84083
44.	14.8614	95.	14.91375	145.	2.23135	195.	10.64348
45.	15.82937	96.	12.12855	146.	11.40756	196.	25.7394
46.	22.09206	97.	10.07397	147.	26.39026	197.	31.63409
47.	21.78825	98.	72.00937	148.	92.21637	198.	31.42066
48.	18.2561	99.	24.91014	149.	30.72908	199.	63.55879
49.	16.35693	100.	40.47122	150.	21.50991	200.	10.60723
50.	14.56703						

## Appendix 6

**Table 2**

### Mahalanobis distance –Management Practice – Continued

201.	43.67061
202.	10.64348
203.	35.47924
204.	26.00316
205.	18.46521
206.	46.91928
207.	21.80243
208.	24.51741
209.	16.88773
210.	7.30817
211.	28.46844
212.	13.51821
213.	9.93246
214.	38.50231
215.	41.72241
216.	47.82709
217.	22.81123
218.	20.29863
219.	15.55671
220.	71.76715
221.	20.45573
222.	12.95587
223.	5.4502
224.	48.98767
225.	10.14798
226.	50.40754
227.	13.93855
228.	21.10182
229.	26.36664
230.	36.22737
231.	61.34242
232.	37.56518
233.	7.64846
234.	28.19473
235.	29.00034
236.	17.30259
237.	5.92258
238.	22.15915
239.	23.98287
240.	30.43005
241.	21.83871
242.	8.39474
243.	34.75605
244.	7.33115
245.	26.14785
246.	16.94477
247.	14.17168
248.	24.81606
249.	7.71894
250.	29.58163
251.	18.64183
252.	22.9322
253.	59.97998
254.	9.92312
255.	26.93195
256.	45.11756
257.	6.32681
258.	11.94813
259.	22.2151
260.	11.00563
261.	31.11632
262.	32.52906
263.	21.02729
264.	29.3501
265.	21.63615
266.	21.89926
267.	29.53215
268.	50.19452
269.	39.3577
270.	61.49219
271.	23.03306
272.	16.20015
273.	18.94541
274.	8.81428
275.	27.51768
276.	10.72842
277.	78.15927
278.	49.46109
279.	12.85348
280.	21.29136
281.	12.93473
282.	5.28602
283.	44.77587
284.	60.47637
285.	29.21485
286.	42.84732
287.	9.63919
288.	15.22477
289.	12.74065
290.	2.23135
291.	15.74883
292.	10.20288
293.	56.84408
294.	12.59991
295.	48.4726
296.	10.64348
297.	13.48119
298.	38.00136
299.	31.36837
300.	51.36222
301.	10.86639
302.	20.48971
303.	23.89156
304.	31.2521
305.	52.82246
306.	56.37853
307.	13.17364
308.	12.14227
309.	42.40342
310.	23.48901
311.	33.06796
312.	35.14496
313.	24.38494
314.	28.05826
315.	30.63906
316.	21.76788
317.	5.19809
318.	39.33123
319.	10.64348
320.	54.56634
321.	17.06556
322.	19.164
323.	8.35634
324.	28.85935
325.	29.35529
326.	5.92258
327.	10.12785
328.	30.21937
329.	17.90197
330.	6.52726
331.	41.19827
332.	11.91156
333.	16.27235
334.	11.26154
335.	2.56405
336.	5.92258
337.	36.60792
338.	15.98778
339.	33.83965
340.	61.62608
341.	46.51688
342.	20.29766
343.	38.21417
344.	17.14991
345.	21.35846
346.	38.9798
347.	12.61943
348.	16.96403
349.	19.1345
350.	25.47992
351.	54.68417
352.	13.41031
353.	26.00885
354.	22.31038
355.	10.64348
356.	27.57389
357.	35.16868
358.	42.05779
359.	5.92258
360.	20.5512
361.	21.9838
362.	8.13173
363.	34.38667
364.	32.10946
365.	31.65799
366.	33.67746
367.	16.68647
368.	77.21812
369.	21.09981
370.	15.89068
371.	9.19018
372.	11.13883
373.	31.58618
374.	49.89504
375.	12.65719
376.	28.0524
377.	11.60142
378.	43.36024
379.	40.50126
380.	12.65454
381.	19.99957
382.	13.71059
383.	27.85741
384.	31.34435
385.	15.32586
386.	40.56721

Mahalanobis distance ( $D^2/df$ ) value should be less than 4.0.  $df$  is equal to number of items in the questionnaire measuring Management Practice which is 24. The maximum value of  $D^2$  is found to be 92.21637. Therefore  $(D^2/df) = (92.21637/24)$  which is less than 4.0. Thus normality is established.

## Appendix 6

**Table 3**

### Mahalanobis distance – Satisfaction

No.	D <sup>2</sup>	51.	3.59133	101.	4.47533	151.	10.5133	201.	39.42909
1.	17.90825	52.	4.87746	102.	9.30142	152.	2.5517	202.	0.18319
2.	4.80276	53.	10.63568	103.	3.81567	153.	2.5517	203.	15.17038
3.	9.71299	54.	11.08236	104.	7.953	154.	10.62121	204.	8.57931
4.	14.76847	55.	17.66529	105.	24.15875	155.	2.96209	205.	10.13821
5.	0.18319	56.	9.59008	106.	4.75738	156.	0.18319	206.	7.32199
6.	3.08033	57.	0.18319	107.	0.18319	157.	3.70253	207.	3.70253
7.	9.67702	58.	0.18319	108.	5.8202	158.	7.15274	208.	7.24773
8.	6.33695	59.	7.15174	109.	4.98014	159.	10.16954	209.	7.90636
9.	2.5517	60.	6.53701	110.	11.35764	160.	11.57195	210.	5.22529
10.	12.12162	61.	8.38806	111.	3.20167	161.	5.51449	211.	13.2568
11.	3.28761	62.	5.87798	112.	10.56602	162.	0.18319	212.	7.08308
12.	22.69936	63.	2.5517	113.	4.44377	163.	16.14769	213.	11.94733
13.	2.5517	64.	10.87017	114.	0.18319	164.	5.34093	214.	8.32629
14.	24.34993	65.	9.22115	115.	13.27592	165.	10.95092	215.	4.51469
15.	7.63736	66.	12.5636	116.	2.5517	166.	8.77453	216.	21.24392
16.	10.22584	67.	0.18319	117.	12.19107	167.	7.8731	217.	18.98798
17.	4.92147	68.	4.90372	118.	25.91525	168.	33.43156	218.	10.45268
18.	8.56756	69.	13.00124	119.	7.68871	169.	0.18319	219.	4.47533
19.	58.06106	70.	9.43781	120.	0.18319	170.	14.40433	220.	2.5517
20.	18.59677	71.	2.5517	121.	0.18319	171.	0.18319	221.	11.75554
21.	3.28761	72.	4.05151	122.	2.5517	172.	9.87563	222.	6.7634
22.	2.5517	73.	9.22642	123.	23.37829	173.	0.18319	223.	46.15219
23.	0.18319	74.	0.18319	124.	0.18319	174.	5.51449	224.	17.7433
24.	19.38076	75.	2.5517	125.	14.41931	175.	3.04281	225.	4.89813
25.	3.70253	76.	3.04281	126.	2.5517	176.	6.34916	226.	21.02864
26.	4.75738	77.	12.33692	127.	0.18319	177.	2.96209	227.	6.42022
27.	10.86264	78.	3.70253	128.	0.18319	178.	19.5036	228.	11.72991
28.	6.78394	79.	11.49066	129.	27.30542	179.	5.87798	229.	7.09371
29.	0.18319	80.	3.04281	130.	5.99421	180.	0.18319	230.	11.53711
30.	6.59793	81.	3.28761	131.	5.87971	181.	2.5517	231.	4.44377
31.	8.50995	82.	2.5517	132.	5.95481	182.	13.39139	232.	36.87797
32.	10.59404	83.	4.97971	133.	7.08667	183.	5.59553	233.	10.91696
33.	2.5517	84.	17.59588	134.	9.21302	184.	4.90372	234.	6.65049
34.	7.16441	85.	0.18319	135.	23.26917	185.	2.5517	235.	3.53036
35.	2.5517	86.	2.5517	136.	5.03153	186.	2.5517	236.	6.63025
36.	0.18319	87.	4.51469	137.	9.34971	187.	16.75037	237.	12.01146
37.	10.23472	88.	5.22529	138.	0.18319	188.	12.2599	238.	0.18319
38.	6.90206	89.	0.18319	139.	9.49318	189.	6.32117	239.	2.5517
39.	5.68944	90.	2.5517	140.	0.18319	190.	7.27068	240.	2.5517
40.	7.97982	91.	23.36862	141.	5.98007	191.	5.06286	241.	11.08236
41.	0.18319	92.	0.18319	142.	4.73464	192.	12.04891	242.	19.34983
42.	9.04589	93.	10.21817	143.	13.67502	193.	25.16843	243.	4.91219
43.	0.18319	94.	2.89794	144.	7.68175	194.	18.94103	244.	2.5517
44.	10.63984	95.	15.89276	145.	3.28761	195.	3.04281	245.	12.23852
45.	3.09621	96.	20.27917	146.	10.29689	196.	11.51768	246.	6.35339
46.	3.07661	97.	9.88234	147.	19.52862	197.	3.28761	247.	0.18319
47.	8.63831	98.	3.28761	148.	2.5517	198.	32.17127	248.	6.07578
48.	2.5517	99.	4.90372	149.	17.05825	199.	15.76138	249.	4.33367
49.	8.28031	100.	50.48441	150.	0.18319	200.	2.5517	250.	14.7853
50.	0.18319								

## Appendix 6

**Table 3**

### Mahalanobis distance – Satisfaction – Continued

251.	8.58963
252.	14.02521
253.	2.5517
254.	3.04281
255.	48.72825
256.	9.3759
257.	0.18319
258.	7.56853
259.	3.04281
260.	5.99421
261.	0.18319
262.	12.64824
263.	0.18319
264.	9.39195
265.	6.32705
266.	6.12066
267.	7.53532
268.	11.3145
269.	2.5517
270.	12.30305
271.	6.95512
272.	3.04281
273.	24.70109
274.	0.18319
275.	13.62163
276.	14.84868
277.	54.15286
278.	30.08573
279.	13.09512
280.	2.87505
281.	5.03153
282.	25.70831
283.	8.58595
284.	11.61861
285.	0.18319
286.	12.37763
287.	11.57328
288.	6.49552
289.	4.05151
290.	9.89462
291.	32.97993
292.	0.18319
293.	54.27631
294.	14.36451
295.	19.28489
296.	4.75738
297.	21.66582
298.	5.2143
299.	11.88193
300.	5.63466
301.	9.9626
302.	8.06221
303.	7.15274
304.	4.97971
305.	2.5517
306.	42.61758
307.	3.04281
308.	0.18319
309.	20.28783
310.	4.49631
311.	5.59881
312.	19.38103
313.	4.95555
314.	9.72243
315.	9.56739
316.	5.8978
317.	31.19824
318.	16.28544
319.	2.87505
320.	3.28761
321.	22.45381
322.	11.80036
323.	0.18319
324.	28.20807
325.	9.9451
326.	2.5517
327.	3.07661
328.	11.2823
329.	4.19462
330.	2.5517
331.	18.65487
332.	0.18319
333.	12.72665
334.	4.49631
335.	0.18319
336.	2.5517
337.	6.61345
338.	10.51831
339.	27.06671
340.	4.33367
341.	2.87505
342.	5.34093
343.	4.73464
344.	21.58787
345.	20.5744
346.	2.5517
347.	0.18319
348.	2.89794
349.	0.18319
350.	2.5517
351.	29.36852
352.	0.18319
353.	4.97971
354.	2.5517
355.	5.37716
356.	0.18319
357.	9.4678
358.	15.85394
359.	2.5517
360.	7.3865
361.	15.7303
362.	4.91219
363.	0.18319
364.	0.18319
365.	0.18319
366.	0.18319
367.	0.18319
368.	2.5517
369.	12.44771
370.	0.18319
371.	2.22634
372.	6.21591
373.	6.42022
374.	2.5517
375.	8.79062
376.	5.87971
377.	24.89638
378.	30.28731
379.	6.12594
380.	21.06942
381.	7.06926
382.	4.19462
383.	12.71497
384.	4.39486
385.	7.20882
386.	8.09168

Mahalanobis distance ( $D^2/df$ ) value should be less than 4.0.  $df$  is equal to number of items in the questionnaire measuring Satisfaction which is 9. The maximum value of  $D^2$  was found to be 58.06106. ( $D^2/df$ ) = (58.06106/9) which is greater than 4.0. Similar problem was found with five other responses out of 386. Although some responses indicated non-normality, the percentage of responses that showed non-normality (2.3%) is very low and hence it was concluded that the data obtained was normal.



## Appendix 6

**Table 4**

### Mahalanobis distance – Motivation

No.	D <sup>2</sup>	51.	12.00275	101.	16.51123	151.	9.06218
1.	23.92733	52.	20.63893	102.	6.57431	152.	9.7024
2.	10.06681	53.	8.85923	103.	7.34068	153.	2.71527
3.	6.47423	54.	15.21751	104.	10.25364	154.	9.28626
4.	26.594	55.	35.5087	105.	28.14349	155.	2.71527
5.	0.99782	56.	14.07314	106.	2.71527	156.	0.99782
6.	2.71527	57.	15.25315	107.	10.11829	157.	6.27121
7.	15.69804	58.	13.50831	108.	11.87616	158.	5.10218
8.	12.28273	59.	7.14507	109.	7.1783	159.	11.41616
9.	0.99782	60.	8.56746	110.	18.12233	160.	16.19765
10.	7.97332	61.	8.69639	111.	6.01295	161.	4.76069
11.	8.22254	62.	10.76665	112.	17.68586	162.	0.99782
12.	50.50298	63.	12.09404	113.	7.50236	163.	7.07919
13.	10.95639	64.	11.18738	114.	4.44763	164.	11.18074
14.	7.98869	65.	24.52748	115.	14.8687	165.	15.45353
15.	11.53249	66.	5.01701	116.	9.46338	166.	10.62394
16.	13.88707	67.	0.99782	117.	7.20857	167.	18.24275
17.	9.75698	68.	13.26167	118.	8.22355	168.	12.86383
18.	22.24677	69.	5.36487	119.	13.38362	169.	0.99782
19.	11.22544	70.	9.16984	120.	2.31556	170.	41.54604
20.	10.06902	71.	2.71527	121.	5.65686	171.	0.99782
21.	6.18228	72.	7.34068	122.	8.68401	172.	20.41018
22.	12.86016	73.	17.85065	123.	11.35739	173.	2.71527
23.	0.99782	74.	10.82059	124.	4.44763	174.	8.21651
24.	19.58007	75.	6.18228	125.	13.41808	175.	5.80504
25.	6.92005	76.	0.99782	126.	6.18114	176.	15.44501
26.	6.35295	77.	7.47454	127.	0.99782	177.	18.25563
27.	41.68986	78.	4.36689	128.	4.41519	178.	21.17259
28.	10.57637	79.	13.04294	129.	13.0311	179.	4.47187
29.	6.18228	80.	3.60487	130.	12.97928	180.	7.27373
30.	4.61831	81.	6.18228	131.	14.20106	181.	2.71527
31.	2.71527	82.	3.60487	132.	20.65511	182.	3.07691
32.	12.40335	83.	2.71527	133.	3.42369	183.	9.68549
33.	58.79153	84.	6.20434	134.	15.01319	184.	4.3531
34.	18.12043	85.	13.62811	135.	13.05957	185.	2.71527
35.	3.60487	86.	2.71527	136.	26.29875	186.	2.71527
36.	6.10377	87.	4.76069	137.	5.01701	187.	2.71527
37.	4.76069	88.	5.37198	138.	6.18228	188.	6.77202
38.	8.27571	89.	4.36689	139.	14.88612	189.	9.7163
39.	14.62428	90.	6.99106	140.	0.99782	190.	4.47187
40.	12.51825	91.	19.34409	141.	12.59592	191.	10.42126
41.	0.99782	92.	2.31556	142.	6.01295	192.	18.21214
42.	6.39471	93.	11.95545	143.	59.47184	193.	12.10531
43.	2.31556	94.	2.31556	144.	0.99782	194.	10.43068
44.	8.99344	95.	7.73784	145.	6.18228	195.	9.46559
45.	13.2018	96.	0.99782	146.	11.40122	196.	18.09141
46.	6.57194	97.	2.71527	147.	5.25204	197.	30.47854
47.	27.05692	98.	2.71527	148.	35.62989	198.	7.15021
48.	0.99782	99.	7.15782	149.	40.19201	199.	9.72116
49.	11.61057	100.	21.66641	150.	9.50279	200.	2.71527
50.	11.35231						

## Appendix 6

**Table 3**

### Mahalanobis distance – Motivation - Continued

201.	3.60487	251.	9.1884	301.	30.1557	351.	3.60487
202.	3.60487	252.	8.37125	302.	8.71112	352.	10.0195
203.	18.60754	253.	2.71527	303.	10.96347	353.	2.71527
204.	18.45162	254.	5.99086	304.	25.53301	354.	2.71527
205.	10.39695	255.	35.17044	305.	2.71527	355.	2.31556
206.	10.0195	256.	21.92119	306.	37.93217	356.	20.01202
207.	12.18009	257.	0.99782	307.	6.56027	357.	7.41273
208.	2.99204	258.	7.17236	308.	5.03491	358.	8.45127
209.	5.91844	259.	4.0294	309.	12.54402	359.	2.71527
210.	8.27624	260.	2.71527	310.	5.14695	360.	31.43671
211.	6.62839	261.	0.99782	311.	0.99782	361.	11.70089
212.	6.45281	262.	2.71527	312.	8.66677	362.	0.99782
213.	2.71527	263.	8.44249	313.	10.91469	363.	0.99782
214.	6.68382	264.	8.87886	314.	26.99791	364.	6.84119
215.	15.53625	265.	8.33574	315.	9.32021	365.	8.0668
216.	16.8431	266.	12.31818	316.	13.89662	366.	9.20594
217.	3.60487	267.	5.61706	317.	7.65528	367.	3.91477
218.	26.90956	268.	9.04164	318.	2.71527	368.	2.71527
219.	10.17376	269.	2.71527	319.	24.8864	369.	9.5865
220.	2.71527	270.	16.64518	320.	42.27011	370.	5.64418
221.	24.44419	271.	18.54887	321.	16.68572	371.	15.17897
222.	13.8719	272.	2.71527	322.	17.31123	372.	12.20997
223.	6.18228	273.	11.04741	323.	10.7562	373.	15.06328
224.	15.41472	274.	0.99782	324.	31.54673	374.	2.71527
225.	6.45281	275.	14.77568	325.	10.19141	375.	14.19543
226.	4.44763	276.	27.92246	326.	75.73751	376.	7.92776
227.	0.99782	277.	17.29444	327.	3.79369	377.	0.99782
228.	10.80642	278.	14.01937	328.	13.90708	378.	24.35806
229.	26.95693	279.	21.4419	329.	8.21499	379.	49.74466
230.	7.34384	280.	8.02757	330.	2.71527	380.	4.5956
231.	18.95063	281.	18.1193	331.	37.50668	381.	8.21191
232.	7.18835	282.	34.34495	332.	0.99782	382.	4.5956
233.	2.71527	283.	10.82059	333.	10.32646	383.	11.72441
234.	6.77091	284.	10.89414	334.	2.71527	384.	6.69856
235.	8.25669	285.	12.07091	335.	0.99782	385.	10.19034
236.	2.71527	286.	8.73112	336.	5.67126	386.	30.97558
237.	2.71527	287.	3.60254	337.	19.97599		
238.	4.76069	288.	7.20857	338.	9.71681		
239.	2.71527	289.	6.77091	339.	13.18252		
240.	2.71527	290.	6.18228	340.	7.17524		
241.	14.73324	291.	19.97743	341.	4.44763		
242.	8.57723	292.	2.31556	342.	2.89192		
243.	8.52145	293.	57.00907	343.	0.99782		
244.	2.71527	294.	12.80057	344.	2.31556		
245.	20.83406	295.	8.90522	345.	7.28855		
246.	5.64418	296.	2.71527	346.	36.08713		
247.	12.09404	297.	4.81498	347.	2.71527		
248.	12.66053	298.	12.04172	348.	0.99782		
249.	8.98329	299.	0.99782	349.	2.89192		
250.	21.08509	300.	20.21485	350.	4.28049		

Mahalanobis distance ( $D^2/df$ ) value should be less than 4.0.  $df$  is equal to number of items in the questionnaire measuring Motivation which is 11. The maximum value of  $D^2$  was found to be 75.73751.  $(D^2/df) = (75.73751/9)$  which is greater than 4.0. Similar problem was found with five other responses out of 386. Although some responses indicated non-normality, the percentage of responses that showed non-normality (1.6%) is very low and hence it was concluded that the data obtained was normal.

## Appendix 6

**Table 4**

### Mahalanobis distance – Retention

No.	D <sup>2</sup>	51.	0.82493	101.	3.96072	151.	0.82493
1.	3.38047	52.	4.30817	102.	2.03107	152.	1.75175
2.	1.50426	53.	2.72382	103.	2.03107	153.	2.03107
3.	1.98502	54.	3.73713	104.	2.6219	154.	7.70644
4.	0.82493	55.	0.82493	105.	1.75175	155.	9.83265
5.	9.83265	56.	5.48327	106.	32.86262	156.	1.98502
6.	2.03107	57.	0.41761	107.	2.72382	157.	5.3939
7.	9.01041	58.	4.94882	108.	5.00182	158.	2.72382
8.	2.03107	59.	0.82493	109.	1.75175	159.	6.08265
9.	6.38194	60.	7.13953	110.	11.00867	160.	4.28215
10.	0.41761	61.	2.03107	111.	10.13115	161.	2.03107
11.	4.66855	62.	7.52224	112.	7.26495	162.	3.02163
12.	29.82222	63.	2.03107	113.	2.03107	163.	1.98502
13.	9.83265	64.	7.57627	114.	9.83265	164.	6.6459
14.	0.41761	65.	11.4553	115.	23.19513	165.	0.41761
15.	12.55453	66.	9.83265	116.	4.66855	166.	5.4007
16.	4.82599	67.	22.01489	117.	9.83265	167.	2.03107
17.	2.03107	68.	2.03107	118.	13.72661	168.	4.30817
18.	1.31483	69.	1.75175	119.	2.03107	169.	18.73924
19.	9.5506	70.	1.99979	120.	4.50077	170.	2.03107
20.	2.72382	71.	2.03107	121.	4.21964	171.	0.41761
21.	2.72382	72.	0.62796	122.	2.03107	172.	5.21562
22.	1.31483	73.	7.29874	123.	33.88018	173.	3.88614
23.	2.72382	74.	2.03107	124.	1.98502	174.	9.83265
24.	11.84445	75.	2.72382	125.	3.55791	175.	3.02163
25.	2.03107	76.	0.82493	126.	2.03107	176.	0.41761
26.	2.27971	77.	6.08265	127.	3.62874	177.	4.33959
27.	2.03107	78.	2.72382	128.	1.75175	178.	3.06261
28.	1.98502	79.	4.66645	129.	6.85921	179.	0.41761
29.	6.75247	80.	14.50033	130.	2.03107	180.	1.98502
30.	2.97402	81.	2.72382	131.	21.66009	181.	9.83265
31.	30.25147	82.	2.03107	132.	2.80231	182.	10.05779
32.	0.41761	83.	4.66855	133.	11.88396	183.	4.25734
33.	6.10202	84.	18.45413	134.	3.38047	184.	19.19057
34.	2.03107	85.	9.83265	135.	4.58264	185.	5.04513
35.	9.83265	86.	2.03107	136.	9.83265	186.	2.03107
36.	2.03107	87.	14.9579	137.	9.83265	187.	4.66855
37.	27.67517	88.	2.03107	138.	11.37513	188.	2.03107
38.	2.03107	89.	2.9655	139.	7.01143	189.	1.98502
39.	2.9655	90.	9.83265	140.	0.41761	190.	2.03107
40.	20.09054	91.	2.03107	141.	0.41761	191.	0.41761
41.	0.41761	92.	1.98502	142.	2.72382	192.	1.98502
42.	5.03056	93.	7.45318	143.	4.66855	193.	2.72382
43.	2.9655	94.	5.77267	144.	6.39916	194.	17.61601
44.	2.03107	95.	7.11059	145.	2.72382	195.	11.52272
45.	11.84445	96.	2.72382	146.	3.81778	196.	2.03107
46.	1.75175	97.	2.03107	147.	4.66855	197.	7.93723
47.	3.55791	98.	2.03107	148.	2.03107	198.	2.72382
48.	2.03107	99.	22.22595	149.	11.80702	199.	2.03107
49.	4.81304	100.	4.69184	150.	7.52224	200.	4.66855
50.	1.75175						

## Appendix 6

**Table 4**

### Mahalanobis distance – Retention - Continued

201.	2.03107	248.	2.03107	295.	3.55791	342.	11.4553
202.	2.03107	249.	0.82493	296.	2.72382	343.	3.81778
203.	13.47993	250.	18.50833	297.	1.98502	344.	0.62796
204.	2.72382	251.	2.6219	298.	9.78152	345.	3.81778
205.	2.03107	252.	1.75175	299.	4.42837	346.	2.03107
206.	25.35402	253.	2.03107	300.	2.03107	347.	9.82727
207.	2.9655	254.	3.38409	301.	7.15055	348.	0.41761
208.	1.98502	255.	10.79913	302.	1.75175	349.	2.67345
209.	8.48811	256.	9.83265	303.	0.41761	350.	2.03107
210.	3.55791	257.	0.41761	304.	9.83265	351.	10.40264
211.	6.2738	258.	4.85128	305.	2.03107	352.	0.41761
212.	5.15895	259.	12.41451	306.	9.83265	353.	2.03107
213.	2.03107	260.	2.80231	307.	0.41761	354.	2.03107
214.	5.48327	261.	2.97402	308.	3.47471	355.	4.30817
215.	17.1274	262.	2.03107	309.	2.03107	356.	2.72382
216.	2.72382	263.	0.82493	310.	2.03107	357.	1.75175
217.	9.83265	264.	6.83881	311.	1.98502	358.	4.21964
218.	0.82493	265.	14.50033	312.	4.09975	359.	2.03107
219.	2.03107	266.	13.3495	313.	7.53122	360.	1.75175
220.	2.03107	267.	1.75175	314.	6.38194	361.	0.41761
221.	34.19915	268.	4.66855	315.	5.48327	362.	4.24027
222.	3.38409	269.	15.57685	316.	5.63946	363.	1.98502
223.	2.72382	270.	19.67398	317.	3.66152	364.	4.1294
224.	2.03107	271.	2.03107	318.	4.85128	365.	5.77267
225.	4.55378	272.	4.1294	319.	2.03107	366.	4.50077
226.	7.29874	273.	3.38047	320.	2.72382	367.	3.38047
227.	4.21964	274.	0.62796	321.	2.72382	368.	9.83265
228.	1.92357	275.	6.2738	322.	5.57077	369.	1.31483
229.	1.72878	276.	4.30817	323.	0.62796	370.	4.24027
230.	2.03107	277.	5.31394	324.	3.55791	371.	2.27971
231.	21.65785	278.	2.03107	325.	3.06261	372.	12.10105
232.	29.6261	279.	14.88809	326.	19.09527	373.	2.72382
233.	9.75583	280.	2.03107	327.	1.72878	374.	2.03107
234.	4.30817	281.	3.57052	328.	4.66855	375.	1.98502
235.	59.34021	282.	10.34011	329.	0.41761	376.	14.59763
236.	10.50793	283.	2.03107	330.	2.03107	377.	2.72382
237.	61.33476	284.	9.64466	331.	9.83265	378.	17.43508
238.	2.72382	285.	2.72382	332.	0.41761	379.	1.98502
239.	2.03107	286.	2.6219	333.	4.66855	380.	4.24586
240.	4.66855	287.	12.61398	334.	15.57685	381.	2.03107
241.	1.98502	288.	2.03107	335.	0.41761	382.	0.41761
242.	2.72382	289.	7.67018	336.	11.52272	383.	11.58934
243.	9.03672	290.	2.72382	337.	1.72878	384.	0.41761
244.	2.03107	291.	35.8476	338.	1.75175	385.	0.41761
245.	11.21516	292.	0.41761	339.	0.82493	386.	16.72723
246.	2.03107	293.	39.0761	340.	3.55791		
247.	3.00765	294.	10.32493	341.	1.99979		

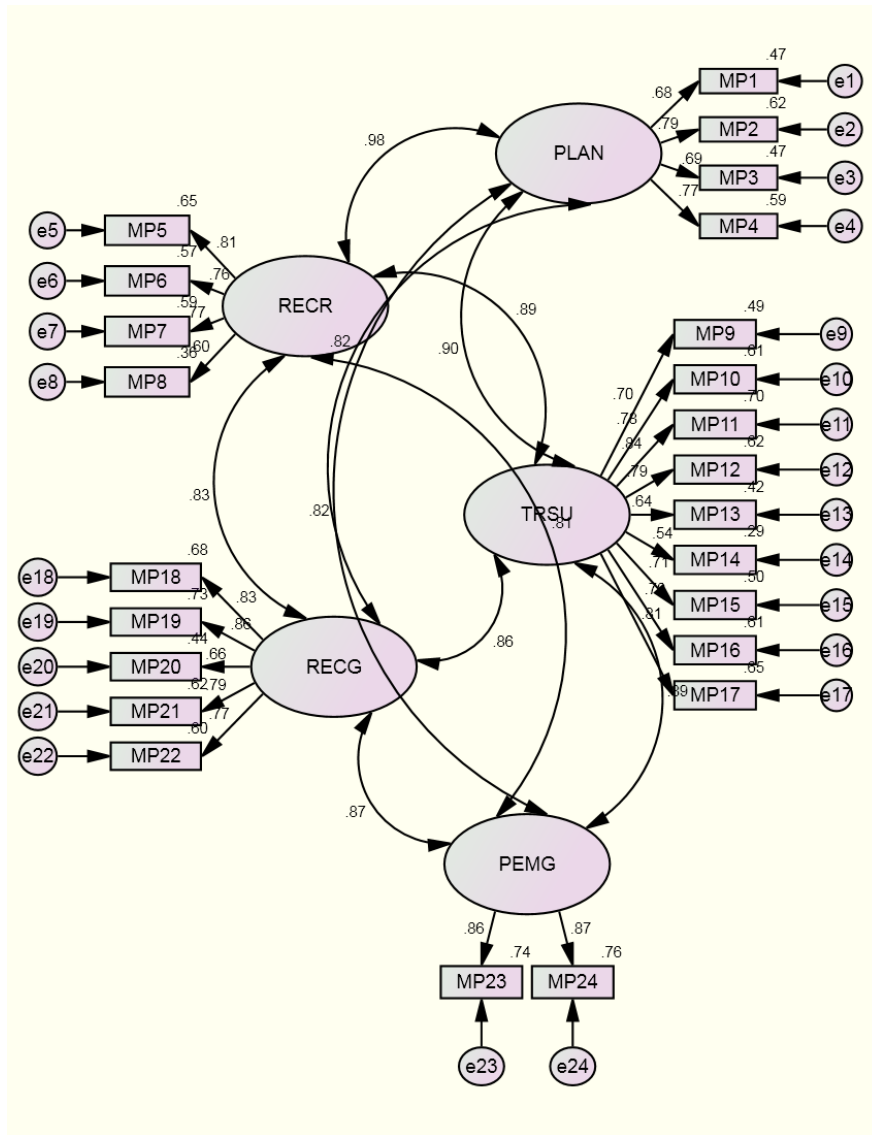
Mahalanobis distance ( $D^2/df$ ) value should be less than 4.0.  $df$  is equal to number of items in the questionnaire measuring Retention which is 11. The maximum value of  $D^2$  was found to be 61.33476. ( $D^2/df$ ) = (61.33476/9) which is greater than 4.0. Similar problem was found with two other responses out of 386. Although some responses indicated non-normality, the percentage of responses that showed non-normality (0.8%) is very low and hence it was concluded that the data obtained was normal.

## Appendix 7

### Confirmatory factor analysis on the model developed by Cuskelly et al. (2006)

Statistical tests conducted on five management practice constructs (planning, recruitment, training and support, recognition and performance management) identified by Cuskelly et al. (2006)

### AMOS output for testing the correlation amongst the items measuring the five constructs



**Appendix 7 -Continued**

**AMOS output on sample correlations (Group number 1) amongst the items measuring five constructs identified above**

	MP23	MP24	MP18	MP19	MP20	MP21	MP22	MP17	MP16	MP15	MP14	MP13	MP12	MP11	MP10	MP9	MP5	MP6	MP7	MP8	MP4	MP3	MP2	MP1
MP23	1.000																							
MP24	.746	1.000																						
MP18	.631	.691	1.000																					
MP19	.618	.643	.706	1.000																				
MP20	.506	.564	.613	.526	1.000																			
MP21	.556	.541	.614	.683	.530	1.000																		
MP22	.592	.569	.591	.683	.413	.715	1.000																	
MP17	.617	.670	.699	.607	.566	.493	.475	1.000																
MP16	.670	.667	.620	.547	.478	.462	.461	.709	1.000															
MP15	.556	.504	.462	.536	.353	.508	.539	.513	.586	1.000														
MP14	.452	.429	.431	.459	.225	.377	.543	.340	.396	.578	1.000													
MP13	.539	.481	.432	.519	.260	.449	.503	.426	.462	.674	.617	1.000												
MP12	.589	.608	.584	.615	.504	.486	.467	.650	.551	.531	.412	.508	1.000											
MP11	.637	.652	.595	.584	.525	.495	.518	.692	.647	.543	.366	.490	.682	1.000										
MP10	.536	.551	.535	.571	.528	.510	.476	.615	.562	.489	.322	.432	.658	.753	1.000									
MP9	.525	.491	.507	.476	.500	.433	.415	.573	.505	.403	.245	.334	.546	.671	.710	1.000								
MP5	.524	.570	.573	.541	.459	.504	.496	.564	.558	.535	.415	.476	.556	.556	.513	.476	1.000							
MP6	.530	.579	.517	.539	.347	.438	.478	.509	.518	.511	.476	.507	.571	.496	.449	.398	.665	1.000						
MP7	.577	.561	.523	.605	.410	.519	.528	.579	.585	.560	.423	.522	.537	.596	.577	.518	.588	.537	1.000					
MP8	.369	.367	.373	.468	.292	.475	.466	.408	.324	.438	.413	.387	.399	.405	.391	.371	.461	.433	.538	1.000				
MP4	.555	.476	.494	.557	.385	.499	.531	.512	.541	.616	.461	.568	.524	.505	.465	.371	.692	.626	.571	.454	1.000			
MP3	.518	.525	.484	.502	.317	.469	.513	.431	.451	.540	.430	.534	.487	.458	.412	.366	.509	.564	.466	.386	.555	1.000		
MP2	.546	.562	.526	.548	.457	.427	.417	.601	.569	.504	.366	.437	.570	.573	.557	.580	.613	.557	.579	.435	.560	.577	1.000	
MP1	.488	.513	.466	.490	.480	.433	.418	.499	.479	.458	.289	.372	.506	.528	.546	.525	.533	.444	.507	.405	.455	.446	.630	1.000

Condition number = 71.207

Eigenvalues

12.886 1.575 1.059 .897 .814 .635 .564 .551 .535 .456 .427 .409 .379 .335 .320 .315 .280 .266 .259 .251 .213 .208 .186 .181

## Appendix 7 -Continued

### Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
MP1	<---	PLAN	1.000				
MP2	<---	PLAN	1.210	.085	14.300	***	par_1
MP3	<---	PLAN	1.045	.084	12.424	***	par_2
MP4	<---	PLAN	1.288	.095	13.528	***	par_3
MP8	<---	RECR	1.000				
MP7	<---	RECR	1.151	.097	11.921	***	par_4
MP6	<---	RECR	1.101	.094	11.669	***	par_5
MP5	<---	RECR	1.197	.098	12.212	***	par_6
MP9	<---	TRSU	1.000				
MP10	<---	TRSU	1.065	.072	14.841	***	par_7
MP11	<---	TRSU	1.113	.070	15.833	***	par_8
MP12	<---	TRSU	1.016	.069	14.743	***	par_9
MP13	<---	TRSU	.942	.079	11.958	***	par_10
MP14	<---	TRSU	.808	.081	10.012	***	par_11
MP15	<---	TRSU	1.066	.081	13.167	***	par_12
MP16	<---	TRSU	1.108	.076	14.499	***	par_13
MP17	<---	TRSU	1.024	.068	15.086	***	par_14
MP22	<---	RECG	1.000				
MP21	<---	RECG	.994	.059	16.710	***	par_15
MP20	<---	RECG	.681	.052	13.098	***	par_16
MP19	<---	RECG	.997	.055	18.281	***	par_17
MP18	<---	RECG	.888	.052	17.127	***	par_18
MP24	<---	PEMG	1.000				
MP23	<---	PEMG	1.039	.049	21.256	***	par_19

### Covariances: (Group number 1 - Default model)

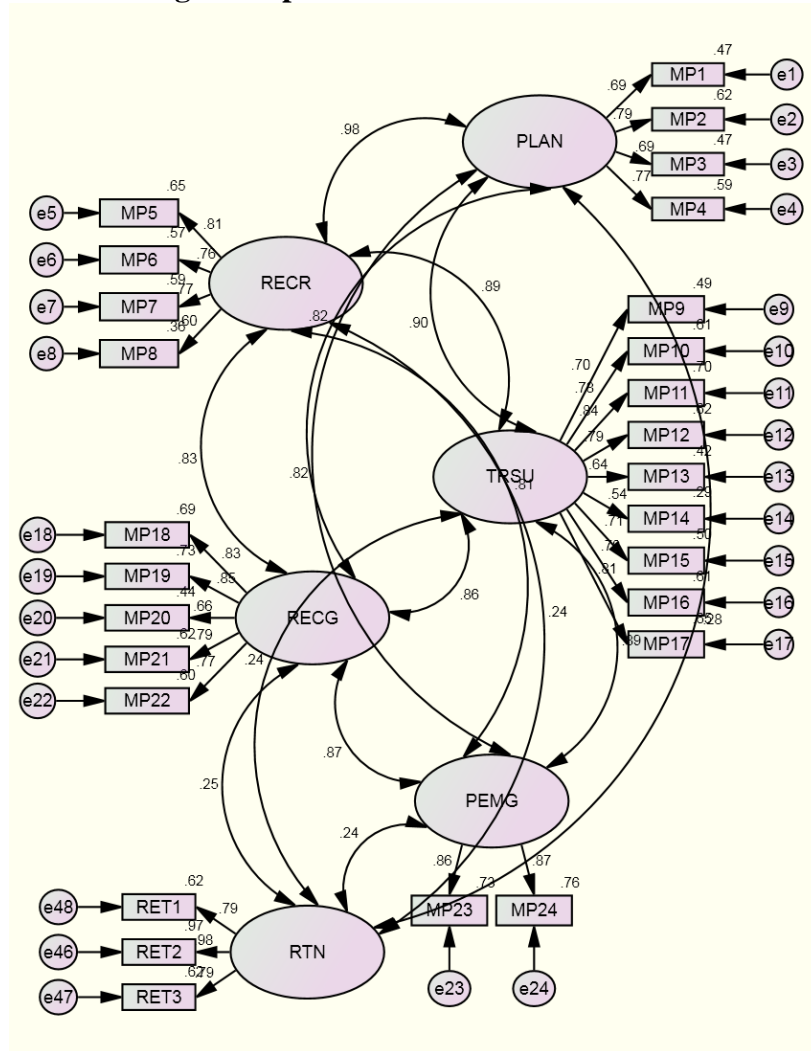
			Estimate	S.E.	C.R.	P	Label
PLAN	<-->	RECR	.632	.074	8.552	***	par_20
RECR	<-->	TRSU	.627	.074	8.442	***	par_21
RECR	<-->	RECG	.705	.083	8.488	***	par_22
RECR	<-->	PEMG	.654	.075	8.771	***	par_23
PLAN	<-->	TRSU	.619	.068	9.040	***	par_24
PLAN	<-->	PEMG	.644	.068	9.436	***	par_25
PLAN	<-->	RECG	.675	.074	9.077	***	par_26
TRSU	<-->	PEMG	.767	.076	10.093	***	par_27
TRSU	<-->	RECG	.777	.082	9.518	***	par_28
RECG	<-->	PEMG	.899	.086	10.468	***	par_29

**Inference:** The five management practice constructs planning, recruitment, training and support, recognition and performance management are correlated and have statistically significant relationship.

**Appendix 7 -Continued**

**Statistical tests conducted on five management practice constructs (planning, recruitment, training and support, recognition and performance management) identified by Cuskelly et al. (2006) and retention**

**AMOS output for testing the correlation amongst the items measuring the five management practice constructs and retention**





## Appendix 7 -Continued

AMOS output on sample correlations (Group number 1) amongst the items measuring five constructs identified above and retention

	RET1	RET2	RET3	MP23	MP24	MP18	MP19	MP20	MP21	MP22	MP17	MP16	MP15	MP14	MP13	MP12	MP11	MP10	MP9	MP5	MP6	MP7	MP8	MP4	MP3	MP2	MP1	
RET1	1.000																											
RET2	.777	1.000																										
RET3	.609	.775	1.000																									
MP23	.125	.142	.160	1.000																								
MP24	.209	.249	.246	.746	1.000																							
MP18	.212	.226	.207	.631	.691	1.000																						
MP19	.166	.153	.163	.618	.643	.706	1.000																					
MP20	.216	.201	.160	.506	.564	.613	.526	1.000																				
MP21	.157	.196	.214	.556	.541	.614	.683	.530	1.000																			
MP22	.166	.202	.202	.592	.569	.591	.683	.413	.715	1.000																		
MP17	.196	.219	.202	.617	.670	.699	.607	.566	.493	.475	1.000																	
MP16	.171	.185	.196	.670	.667	.620	.547	.478	.462	.461	.709	1.000																
MP15	.123	.152	.188	.556	.504	.462	.536	.353	.508	.539	.513	.586	1.000															
MP14	.044	.059	.093	.452	.429	.431	.459	.225	.377	.543	.340	.396	.578	1.000														
MP13	.039	.051	.116	.539	.481	.432	.519	.260	.449	.503	.426	.462	.674	.617	1.000													
MP12	.116	.146	.140	.589	.608	.584	.615	.504	.486	.467	.650	.551	.531	.412	.508	1.000												
MP11	.184	.207	.170	.637	.652	.595	.584	.525	.495	.518	.692	.647	.543	.366	.490	.682	1.000											
MP10	.211	.179	.191	.536	.551	.535	.571	.528	.510	.476	.615	.562	.489	.322	.432	.658	.753	1.000										
MP9	.252	.228	.201	.525	.491	.507	.476	.500	.433	.415	.573	.505	.403	.245	.334	.546	.671	.710	1.000									
MP5	.182	.161	.148	.524	.570	.573	.541	.459	.504	.496	.564	.558	.535	.415	.476	.556	.556	.513	.476	1.000								
MP6	.092	.140	.139	.530	.579	.517	.539	.347	.438	.478	.509	.518	.511	.476	.507	.571	.496	.449	.398	.665	1.000							
MP7	.227	.242	.250	.577	.561	.523	.605	.410	.519	.528	.579	.585	.560	.423	.522	.537	.596	.577	.518	.588	.537	1.000						
MP8	.104	.129	.150	.369	.367	.373	.468	.292	.475	.466	.408	.324	.438	.413	.387	.399	.405	.391	.371	.461	.433	.538	1.000					
MP4	.127	.158	.184	.555	.476	.494	.557	.385	.499	.531	.512	.541	.616	.461	.568	.524	.505	.465	.371	.692	.626	.571	.454	1.000				
MP3	.121	.151	.207	.518	.525	.484	.502	.317	.469	.513	.431	.451	.540	.430	.534	.487	.458	.412	.366	.509	.564	.466	.386	.555	1.000			
MP2	.223	.231	.224	.546	.562	.526	.548	.457	.427	.417	.601	.569	.504	.366	.437	.570	.573	.557	.580	.613	.557	.579	.435	.560	.577	1.000		
MP1	.288	.262	.200	.488	.513	.466	.490	.480	.433	.418	.499	.479	.458	.289	.372	.506	.528	.546	.525	.533	.444	.507	.405	.455	.446	.630	1.000	

Condition number = 91.734

Eigenvalues

13.095 2.354 1.517 1.060 .888 .811 .634 .560 .554 .542 .473 .428 .412 .380 .352 .332 .318 .305 .280 .265 .260 .250 .216 .210 .185  
.176 .143

## Appendix 7 -Continued

### Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
MP1	<---	PLAN	1.000				
MP2	<---	PLAN	1.206	.084	14.424	***	par_1
MP3	<---	PLAN	1.036	.083	12.450	***	par_2
MP4	<---	PLAN	1.276	.094	13.561	***	par_3
MP8	<---	RECR	1.000				
MP7	<---	RECR	1.150	.097	11.913	***	par_4
MP6	<---	RECR	1.101	.094	11.669	***	par_5
MP5	<---	RECR	1.198	.098	12.213	***	par_6
MP9	<---	TRSU	1.000				
MP10	<---	TRSU	1.065	.072	14.842	***	par_7
MP11	<---	TRSU	1.113	.070	15.834	***	par_8
MP12	<---	TRSU	1.016	.069	14.740	***	par_9
MP13	<---	TRSU	.941	.079	11.948	***	par_10
MP14	<---	TRSU	.808	.081	10.006	***	par_11
MP15	<---	TRSU	1.066	.081	13.163	***	par_12
MP16	<---	TRSU	1.108	.076	14.499	***	par_13
MP17	<---	TRSU	1.024	.068	15.088	***	par_14
MP22	<---	RECG	1.000				
MP21	<---	RECG	.994	.059	16.714	***	par_15
MP20	<---	RECG	.682	.052	13.115	***	par_16
MP19	<---	RECG	.996	.055	18.250	***	par_17
MP18	<---	RECG	.889	.052	17.142	***	par_18
MP24	<---	PEMG	1.000				
MP23	<---	PEMG	1.037	.049	21.135	***	par_19
RET3	<---	RTN	1.000				
RET2	<---	RTN	1.179	.060	19.738	***	par_30
RET1	<---	RTN	.939	.054	17.461	***	par_31

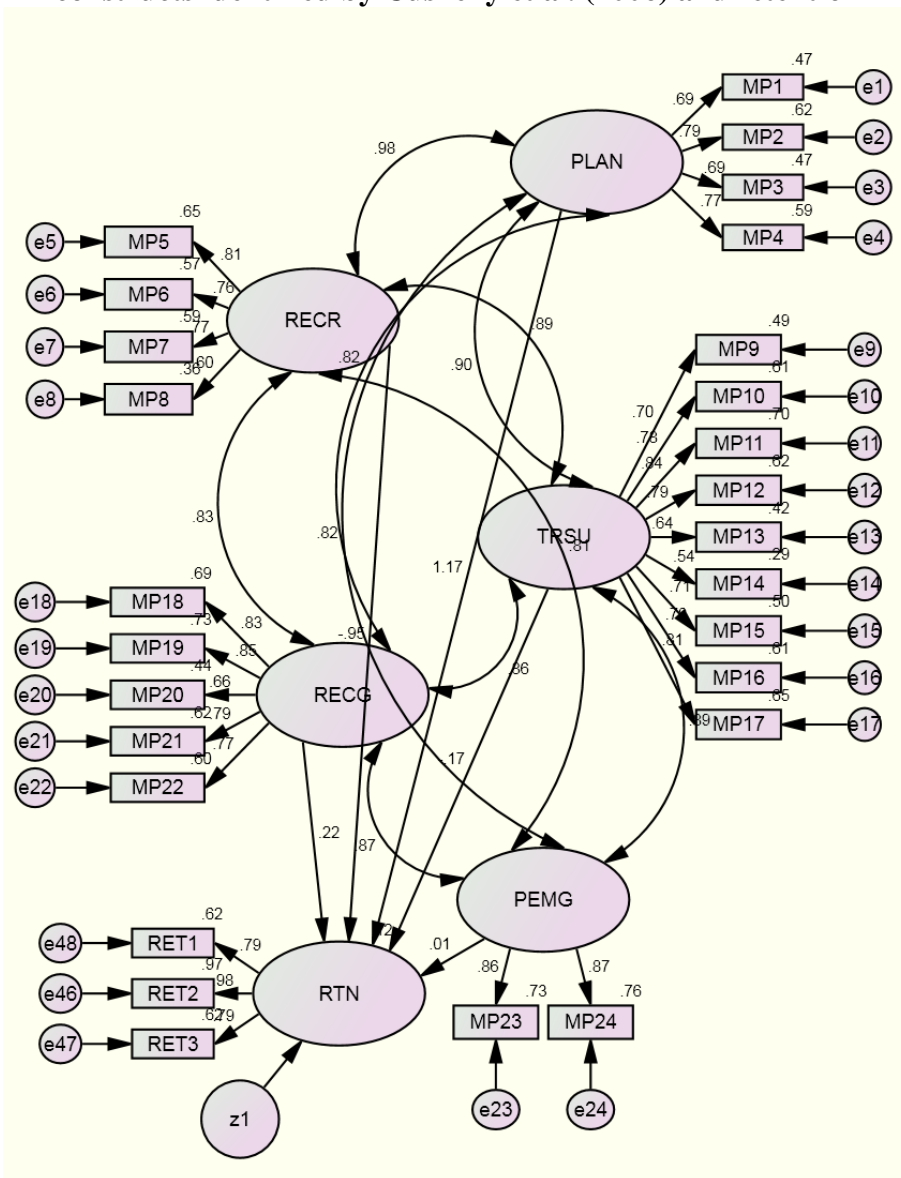
### Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PLAN	<-->	RECR	.635	.074	8.574	***	par_20
RECR	<-->	TRSU	.627	.074	8.442	***	par_21
RECR	<-->	RECG	.705	.083	8.488	***	par_22
RECR	<-->	PEMG	.655	.075	8.773	***	par_23
PLAN	<-->	TRSU	.622	.069	9.069	***	par_24
PLAN	<-->	PEMG	.648	.068	9.470	***	par_25
PLAN	<-->	RECG	.679	.075	9.104	***	par_26
TRSU	<-->	PEMG	.768	.076	10.098	***	par_27
TRSU	<-->	RECG	.777	.082	9.519	***	par_28
RECG	<-->	PEMG	.900	.086	10.474	***	par_29
RECG	<-->	RTN	.181	.043	4.224	***	par_32
PEMG	<-->	RTN	.164	.041	3.984	***	par_33
TRSU	<-->	RTN	.143	.035	4.042	***	par_34
RECR	<-->	RTN	.135	.035	3.850	***	par_35
PLAN	<-->	RTN	.156	.035	4.440	***	par_36

**Inference:** The correlation between the five management practice constructs and retention is statistically significant.

Appendix 7 -Continued

Structural equation modelling of the relationship between the five management practice constructs identified by Cuskelly et al. (2006) and retention



## Appendix 7 -Continued

### Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
RTN	<---	RECG	.150	.153	.979	.328	par_32
RTN	<---	PEMG	.005	.170	.027	.978	par_33
RTN	<---	TRSU	-.137	.222	-.618	.537	par_34
RTN	<---	RECR	-.815	.963	-.846	.398	par_35
RTN	<---	PLAN	1.024	.999	1.025	.305	par_36

**Inference:** None of the structural relationships between the five management practice constructs identified by Cuskelly et al. (2006) and retention are statistically significant.

In addition to the above CFA was conducted to test whether each one of the five constructs has statistically significant relationship with volunteer satisfaction and motivation results or not. AMOS output is presented below.

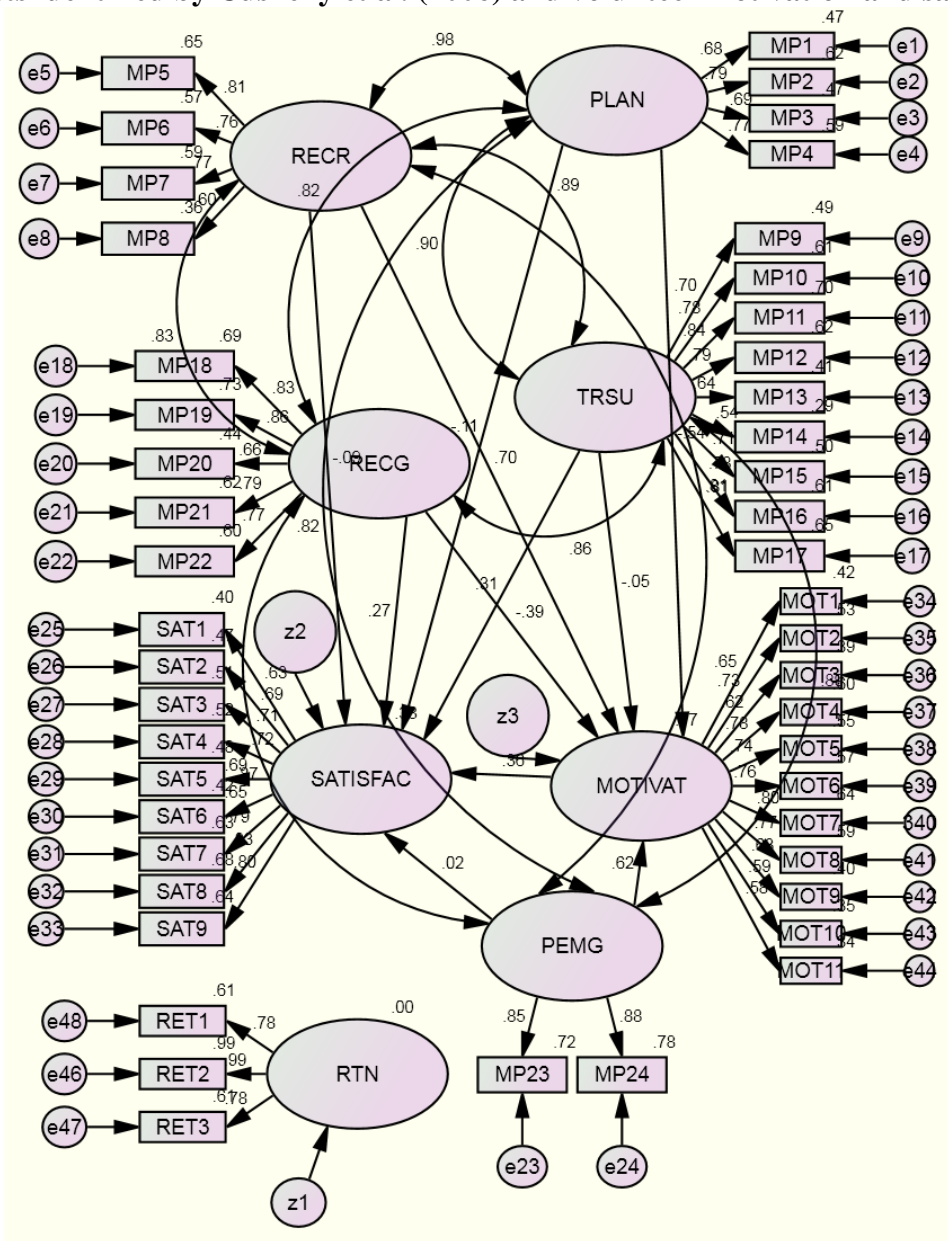
### AMOS output showing covariances amongst the management practice constructs, volunteer motivation and satisfaction: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PLAN	<-->	RECR	.631	.074	8.542	***	par_20
RECR	<-->	TRSU	.626	.074	8.434	***	par_21
RECR	<-->	RECG	.701	.083	8.469	***	par_22
RECR	<-->	PEMG	.661	.075	8.807	***	par_23
PLAN	<-->	TRSU	.618	.068	9.034	***	par_24
PLAN	<-->	PEMG	.649	.069	9.465	***	par_25
PLAN	<-->	RECG	.672	.074	9.059	***	par_26
TRSU	<-->	PEMG	.774	.076	10.143	***	par_27
TRSU	<-->	RECG	.773	.081	9.500	***	par_28
RECG	<-->	PEMG	.905	.086	10.515	***	par_29
MOTIVAT	<-->	SATISFAC	.162	.024	6.832	***	par_50
RECG	<-->	MOTIVAT	.140	.034	4.132	***	par_51
TRSU	<-->	MOTIVAT	.142	.029	4.853	***	par_52
RECR	<-->	MOTIVAT	.133	.029	4.624	***	par_53
PLAN	<-->	MOTIVAT	.122	.028	4.424	***	par_54
RECG	<-->	SATISFAC	.317	.044	7.246	***	par_55
RECR	<-->	SATISFAC	.223	.036	6.172	***	par_56
TRSU	<-->	SATISFAC	.272	.038	7.225	***	par_57
PLAN	<-->	SATISFAC	.213	.034	6.201	***	par_58
PEMG	<-->	SATISFAC	.320	.043	7.504	***	par_59
PEMG	<-->	MOTIVAT	.196	.035	5.548	***	par_60

**Inference:** The correlation between the five management practice constructs, volunteer motivation and satisfaction are statistically significant. This led the researcher to test the structural aspects of the model to know whether the original model developed by Cuskelly et al. (2006) could be enhanced by inducting two vital variables, volunteer motivation and satisfaction, into the relationship between the five volunteer management practice constructs and retention using the AMOS results provided next.

Appendix 7 -Continued

Structural equation modelling of the relationship between the five management practice constructs identified by Cuskelly et al. (2006) and volunteer motivation and satisfaction



## Appendix 7 -Continued

### Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
MOTIVAT	<---	RECG	-.201	.107	-1.870	.061	par_54
MOTIVAT	<---	RECR	.463	.638	.727	.467	par_55
MOTIVAT	<---	TRSU	-.033	.152	-.216	.829	par_56
MOTIVAT	<---	PLAN	-.368	.658	-.559	.576	par_57
MOTIVAT	<---	PEMG	.335	.120	2.798	.005	par_58
SATISFAC	<---	RECG	.165	.101	1.632	.103	par_50
SATISFAC	<---	TRSU	.225	.143	1.576	.115	par_51
SATISFAC	<---	PLAN	-.085	.576	-.147	.883	par_52
SATISFAC	<---	RECR	-.070	.560	-.126	.900	par_53
SATISFAC	<---	PEMG	.014	.114	.121	.904	par_59
SATISFAC	<---	MOTIVAT	.427	.074	5.801	***	par_60

**Inference:** From the table above it can be seen that one of the structural relationship between the management practice constructs and volunteer motivation and satisfaction is statistically significant except for performance management which is the sole management practice construct found to have statistically significant relationship with volunteer motivation. The lack of statistical significance between the management practice constructs and volunteer motivation and satisfaction is contradicting the theoretical arguments found in the literature. Two options were there at this stage. One option was to report the AMOS output as it is and conclude that management practice constructs are not related to retention mediated by volunteer motivation and satisfaction. Another option was to explore whether the management practice constructs could be re factored by regrouping the items measuring all the five constructs under one classification called management practice and use EFA to see whether a new set of factors are underlying. This experiment was conducted and complete details and findings are provided in Section 5.4.

## Appendix 8

### Exploratory Factor Analysis

Rotated Component Matrix								
	Component							
	1	2	3	4	5	6	7	8
Management practices : In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begins.	.409	.544						
Management practices : In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	.560	.512						
Management practices : In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	.671							
Management practices : In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	.768							
Management practices : In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	.659	.406						
Management practices : In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	.714							
Management practices : In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	.617	.428						
Management practices : In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters, internet, etc.)	.600							
Management practices : In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.		.709						
Management practices : In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will work during the organisation.	.317	.738						
Management practices : In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).	.414	.701						
Management practices : In managing its volunteers to what extent do your organisations .....-12-Manage the work loads of individual volunteers where they are excessive.	.470	.607						
Management practices : In managing its volunteers to what extent do your organisations .....-13-Assist volunteers to access training outside the organisation (e.g. accreditation training course)	.733							
Management practices : In managing its volunteers to what extent do your organisations .....-14-Cover or reimburse the costs of volunteers attendance at training or accreditation course .	.701							
Management practices : In managing its volunteers to what extent do your organisations .....-15-Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.)	.734							
Management practices : In managing its volunteers to what extent do your organisations .....-16-Mentor volunteers, particularly when starting in a new role.	.474	.580						
Management practices : In managing its volunteers to what extent do your organisations .....-17-Provide sufficient support for volunteers to effectively carry out their task.	.379	.691						
Management practices : In managing its volunteers to what extent do your organisations .....-18-Recognize outstanding work or task performances of individual volunteers.	.394	.650						
Management practices : In managing its volunteers to what extent do your organisations .....-19-Plan for the recognition of volunteers.	.515	.570						.317
Management practices : In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts(e.g., informal thank yous).		.741						

Management practices : In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).	.447	.490								.446
Management practices : In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	.562	.389								.458
Management practices : In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers.	.510	.578								
Management practices : In managing its volunteers to what extent do your organisations .....-24-Provide feedback to individual volunteers.	.439	.609								
Satisfaction:-25-My relationship with paid staff.					.614					.394
Satisfaction:-26-How often the organisation acknowledges the work I do.					.725					
Satisfaction:-27-The degree of cohesiveness I experience within the organisation.					.694					
Satisfaction:-28-The chance I have to utilize my knowledge and skills in my volunteer work.					.750					
Satisfaction:-29-The access I have to information concerning the organisation.					.682					
Satisfaction:-30-The freedom I have in deciding how to carry out my volunteer assignment.					.711					
Satisfaction:-31-My relationship with other volunteers in the organisation					.732					
Satisfaction:-32-The amount of interaction I have with other volunteers in the organisation.		.321	.728							
Satisfaction:-33-The amount of time spent with other volunteers.			.721							
Motivation:-34-No matter how bad I've been feeling, volunteering helps me to forget about it.					.508	.448				
Motivation:-35-I am concerned about those less fortunate than myself.					.796					
Motivation:-36-I am genuinely concerned about the particular group I am serving.					.708					
Motivation:-37-I feel compassion toward people in need.					.824					
Motivation:-38-I feel it is important to help others.					.776					
Motivation:-39-I can do something for a cause that is important to me.					.720					
Motivation:-40-Volunteering allows me to gain a new perspective on things.					.656	.418				
Motivation:-41-Volunteering lets me learn things through direct, hands on experience.					.558	.498				
Motivation:-42- I can explore my own strengths.					.304	.702				
Motivation:-43-Volunteering increases my self-esteem.						.823				
Motivation:-44-Volunteering makes me feel needed.						.775				
Retention :-45-I plan to continue volunteering at this organisation until end of this year.										.780
Retention :-46-I plan to continue volunteering at this organisation next year					.359					.779
Retention :-47-I am likely to be volunteering at this organisation three years from now.										.756
Retention:-48-I intend leaving this organisation altogether within 12 months									.887	
Retention:-49-I intend to volunteer in the next 12 months but with a different organisation									.868	
Retention:-50-I intend to cease volunteering at this organisation as soon as another volunteer can be found to replace me.									.914	



## Appendix 8-Continued

Rotated Component Matrix								
	Component							
	1	2	3	4	5	6	7	8
Management practices : In managing its volunteers to what extent do your organisations .....-1- Identify potential volunteers before events begins.		.544						
Management practices : In managing its volunteers to what extent do your organisations .....-2- Provide role or job description for individual volunteers.	.560							
Management practices : In managing its volunteers to what extent do your organisations .....-3- Actively encourage turnover of volunteers in key position.	.671							
Management practices : In managing its volunteers to what extent do your organisations .....-4- Maintain database of volunteers' skills, qualifications, and experience.	.768							
Management practices : In managing its volunteers to what extent do your organisations .....-5-Match the skills, experience, and interests of volunteers to specific roles.	.659							
Management practices : In managing its volunteers to what extent do your organisations .....-6- Develop positions to meet the needs of individual volunteers.	.714							
Management practices : In managing its volunteers to what extent do your organisations .....-7- Actively recruit volunteers from diverse backgrounds.	.617							
Management practices : In managing its volunteers to what extent do your organisations .....-8-Use advertising for volunteer recruitments (e.g. newsletters, internet, etc.)	.600							
Management practices : In managing its volunteers to what extent do your organisations .....-9- Encourage volunteers to operate within a code of acceptable behavior.		.709						
Management practices : In managing its volunteers to what extent do your organisations .....-10- Introduce new volunteers to people with whom they will work during the organisation.		.738						
Management practices : In managing its volunteers to what extent do your organisations .....-11- Provide support to volunteers in their roles (e.g. assist with the resolution of conflict).		.701						
Management practices : In managing its volunteers to what extent do your organisations .....-12-Manage the work loads of individual volunteers where they are excessive.		.607						
Management practices : In managing its volunteers to what extent do your organisations .....-13-Assist volunteers to access training outside the organisation (e.g. accreditation training course)		.733						
Management practices : In managing its volunteers to what extent do your organisations .....-14-Cover or reimburse the costs of volunteers attendance at training or accreditation course .		.701						
Management practices : In managing its volunteers to what extent do your organisations .....-15-Conduct induction sessions for specific groups of volunteers (e.g. supervisor, team leader, etc.)		.734						
Management practices : In managing its volunteers to what extent do your organisations .....-16-Mentor volunteers, particularly when starting in a new role.		.580						
Management practices : In managing its volunteers to what extent do your organisations .....-17-Provide sufficient support for volunteers to effectively carry out their task.		.691						
Management practices : In managing its volunteers to what extent do your organisations .....-18-Recognize outstanding work or task performances of individual volunteers.		.650						
Management practices : In managing its volunteers to what extent do your organisations .....-19-Plan for the recognition of volunteers.		.570						
Management practices : In managing its volunteers to what extent do your organisations .....-20- Thank volunteers for their efforts(e.g., informal thank yous).		.741						
Management practices : In managing its volunteers to what extent do your organisations .....-21- Publicly recognize the efforts of volunteers (e.g. in newsletters, special events, etc.).		.490						
Management practices : In managing its volunteers to what extent do your organisations .....-22- Provide special awards for long serving volunteers (e.g. life membership, etc.).	.562							

Management practices : In managing its volunteers to what extent do your organisations .....-23- Monitor the performance of individual volunteers.		.578						
Management practices : In managing its volunteers to what extent do your organisations .....-24-Provide feedback to individual volunteers.		.609						
Satisfaction:-25-My relationship with paid staff.			.614					
Satisfaction:-26-How often the organisation acknowledges the work I do.			.725					
Satisfaction:-27-The degree of cohesiveness I experience within the organisation.			.694					
Satisfaction:-28-The chance I have to utilize my knowledge and skills in my volunteer work.			.750					
Satisfaction:-29-The access I have to information concerning the organisation.			.682					
Satisfaction:-30-The freedom I have in deciding how to carry out my volunteer assignment.			.711					
Satisfaction:-31-My relationship with other volunteers in the organisation			.732					
Satisfaction:-32-The amount of interaction I have with other volunteers in the organisation.			.728					
Satisfaction:-33-The amount of time spent with other volunteers.			.721					
Motivation:-34-No matter how bad I've been feeling, volunteering helps me to forget about it.				.508				
Motivation:-35-I am concerned about those less fortunate than myself.				.796				
Motivation:-36-I am genuinely concerned about the particular group I am serving.				.708				
Motivation:-37-I feel compassion toward people in need.				.824				
Motivation:-38-I feel it is important to help others.				.776				
Motivation:-39-I can do something for a cause that is important to me.				.720				
Motivation:-40-Volunteering allows me to gain a new perspective on things.				.656				
Motivation:-41-Volunteering lets me learn things through direct, hands on experience.				.558				
Motivation:-42- I can explore my own strengths.					.702			
Motivation:-43-Volunteering increases my self-esteem.					.823			
Motivation:-44-Volunteering makes me feel needed.					.775			
Retention : -45-I plan to continue volunteering at this organisation until end of this year.							.780	
Retention : -46-I plan to continue volunteering at this organisation next year							.779	
Retention : -47-I am likely to be volunteering at this organisation three years from now.							.756	
Retention:-48-I intend leaving this organisation altogether within 12 months							.887	
Retention:-49-I intend to volunteer in the next 12 months but with a different organisation							.868	
Retention:-50-I intend to cease volunteering at this organisation as soon as another volunteer can be found to replace me.							.914	

## Appendix 8-Continued

### Exploratory Factor Analysis – Continued

Rotated Component Matrix					
	Component				
	1	2	3	4	5
Management practices : -1	.544				
Management practices : -2	.560				
Management practices : -3	.671				
Management practices : -4	.768				
Management practices : -5	.659				
Management practices : -6	.714				
Management practices : -7	.617				
Management practices : -8	.600				
Management practices : -9	.709				
Management practices : -10	.738				
Management practices : -11	.701				
Management practices : -12	.607				
Management practices : -13	.733				
Management practices : -14	.701				
Management practices : -15	.734				
Management practices : -16	.580				
Management practices : -17	.691				
Management practices :-18	.650				
Management practices :-19	.570				
Management practices :-20	.741				
Management practices :-21	.490				
Management practices :-22	.562				
Management practices : -23	.578				
Management practices :-24	.609				
Satisfaction:-25		.614			
Satisfaction:-26		.725			
Satisfaction:-27		.694			
Satisfaction:-28		.750			
Satisfaction:-29		.682			
Satisfaction:-30		.711			
Satisfaction:-31		.732			
Satisfaction:-32		.728			
Satisfaction:-33		.721			
Motivation:-34			.508		
Motivation:-35			.796		
Motivation:-36			.708		
Motivation:-37			.824		
Motivation:-38			.776		
Motivation:-39			.720		
Motivation:-40			.656		
Motivation:-41			.558		
Motivation:-42			.702		
Motivation:-43			.823		
Motivation:-44			.775		
Retention :-45				.780	
Retention :-46				.779	
Retention :-47				.756	
Retention:-48					.887
Retention:-49					.868
Retention:-50					.914

## Appendix 9

### Confirmatory Factor Analysis: Discriminant validity tests

#### Sample Correlations - Re-specified model with RTN as dependent variable

	SAT6	RET3	RET2	MOT7	MOT6	MOT4	MOT3	MOT1	MOT2	MP1	MP2	MP3	MP4	MP5	MP8	MP7	MP6
SAT6	1																
RET3	0.254	1															
RET2	0.314	0.775	1														
MOT7	0.224	0.343	0.429	1													
MOT6	0.273	0.374	0.471	0.622	1												
MOT4	0.253	0.292	0.406	0.618	0.591	1											
MOT3	0.28	0.309	0.407	0.457	0.563	0.528	1										
MOT1	0.164	0.336	0.333	0.498	0.448	0.471	0.412	1									
MOT2	0.23	0.327	0.4	0.525	0.565	0.693	0.522	0.506	1								
MP1	0.208	0.2	0.262	0.199	0.206	0.177	0.149	0.154	0.196	1							
MP2	0.236	0.224	0.231	0.2	0.197	0.218	0.156	0.113	0.211	0.63	1						
MP3	0.139	0.207	0.151	0.127	0.07	0.146	0.079	0.179	0.164	0.446	0.577	1					
MP4	0.15	0.184	0.158	0.144	0.088	0.176	0.081	0.063	0.182	0.455	0.56	0.555	1				
MP5	0.225	0.148	0.161	0.196	0.168	0.177	0.161	0.084	0.189	0.533	0.613	0.509	0.692	1			
MP8	0.114	0.15	0.129	0.072	0.08	0.105	0.116	0.13	0.184	0.405	0.435	0.386	0.454	0.461	1		
MP7	0.22	0.25	0.242	0.193	0.147	0.199	0.222	0.19	0.23	0.507	0.579	0.466	0.571	0.588	0.538	1	
MP6	0.178	0.139	0.14	0.241	0.119	0.218	0.155	0.143	0.205	0.444	0.557	0.564	0.626	0.665	0.433	0.537	1
SAT5	0.483	0.329	0.357	0.261	0.228	0.327	0.241	0.244	0.282	0.239	0.26	0.238	0.202	0.245	0.193	0.297	0.251
SAT3	0.412	0.386	0.38	0.255	0.179	0.236	0.199	0.278	0.297	0.199	0.229	0.181	0.224	0.241	0.18	0.296	0.239
SAT2	0.491	0.332	0.33	0.228	0.23	0.256	0.166	0.263	0.3	0.179	0.184	0.188	0.245	0.243	0.171	0.231	0.254
SAT1	0.389	0.348	0.287	0.257	0.21	0.237	0.193	0.298	0.279	0.208	0.174	0.212	0.218	0.18	0.222	0.234	0.22
MP17	0.307	0.202	0.219	0.199	0.23	0.224	0.22	0.144	0.24	0.499	0.601	0.431	0.512	0.564	0.408	0.579	0.509
MP12	0.191	0.14	0.146	0.189	0.159	0.195	0.115	0.122	0.212	0.506	0.57	0.487	0.524	0.556	0.399	0.537	0.571
MP11	0.289	0.17	0.207	0.249	0.209	0.226	0.21	0.165	0.252	0.528	0.573	0.458	0.505	0.556	0.405	0.596	0.496
MP10	0.219	0.191	0.179	0.14	0.223	0.136	0.192	0.182	0.182	0.546	0.557	0.412	0.465	0.513	0.391	0.577	0.449
MP9	0.262	0.201	0.228	0.226	0.255	0.206	0.207	0.18	0.236	0.525	0.58	0.366	0.371	0.476	0.371	0.518	0.398
MP18	0.232	0.207	0.226	0.186	0.138	0.215	0.163	0.125	0.22	0.466	0.526	0.484	0.494	0.573	0.373	0.523	0.517
MP19	0.192	0.163	0.153	0.077	0.111	0.144	0.178	0.11	0.181	0.49	0.548	0.502	0.557	0.541	0.468	0.605	0.539
MP21	0.172	0.214	0.196	0.084	0.153	0.132	0.156	0.118	0.167	0.433	0.427	0.469	0.499	0.504	0.475	0.519	0.438
MP22	0.134	0.202	0.202	0.144	0.124	0.151	0.181	0.21	0.198	0.418	0.417	0.513	0.531	0.496	0.466	0.528	0.478
MP23	0.267	0.16	0.142	0.183	0.164	0.156	0.17	0.168	0.188	0.488	0.546	0.518	0.555	0.524	0.369	0.577	0.53
MP20	0.19	0.16	0.201	0.171	0.219	0.164	0.136	0.099	0.185	0.48	0.457	0.317	0.385	0.459	0.292	0.41	0.347

**Appendix 9-Continued**

**Sample Correlations - Re-specified model with RTN as dependent variable - continued**

	SAT5	SAT3	SAT2	SAT1	MP17	MP12	MP11	MP10	MP9	MP18	MP19	MP21	MP22	MP23	MP20
SAT6															
RET3															
RET2															
MOT7															
MOT6															
MOT4															
MOT3															
MOT1															
MOT2															
MP1															
MP2															
MP3															
MP4															
MP5															
MP8															
MP7															
MP6															
SAT5	1														
SAT3	0.536	1													
SAT2	0.544	0.607	1												
SAT1	0.482	0.556	0.581	1											
MP17	0.308	0.335	0.276	0.319	1										
MP12	0.337	0.3	0.255	0.286	0.65	1									
MP11	0.308	0.248	0.252	0.268	0.692	0.682	1								
MP10	0.279	0.282	0.203	0.271	0.615	0.658	0.753	1							
MP9	0.268	0.2	0.161	0.197	0.573	0.546	0.671	0.71	1						
MP18	0.295	0.304	0.317	0.329	0.699	0.584	0.595	0.535	0.507	1					
MP19	0.271	0.311	0.272	0.318	0.607	0.615	0.584	0.571	0.476	0.706	1				
MP21	0.307	0.268	0.311	0.335	0.493	0.486	0.495	0.51	0.433	0.614	0.683	1			
MP22	0.251	0.321	0.262	0.303	0.475	0.467	0.518	0.476	0.415	0.591	0.683	0.715	1		
MP23	0.297	0.26	0.263	0.27	0.617	0.589	0.637	0.536	0.525	0.631	0.618	0.556	0.592	1	
MP20	0.258	0.231	0.241	0.284	0.566	0.504	0.525	0.528	0.5	0.613	0.526	0.53	0.413	0.506	1

**Appendix 9-Continued**

**Standardized Residual Covariances - Re-specified model with RTN as dependent variable**

	SAT6	RET3	RET2	MOT7	MOT6	MOT4	MOT3	MOT1	MOT2	MP1	MP2	MP3	MP4	MP5	MP8	MP7	MP6
SAT6	0																
RET3	0.07	0															
RET2	0.55	0	0														
MOT7	0.406	-0.22	0.451	0													
MOT6	1.239	0.197	1.029	0.816	0												
MOT4	0.633	-1.676	-0.566	0.203	-0.496	0											
MOT3	1.905	-0.159	0.843	-0.761	0.873	-0.238	0										
MOT1	-0.088	0.805	-0.027	0.611	-0.478	-0.541	-0.047	0									
MOT2	0.346	-0.784	-0.378	-0.993	-0.559	1.022	0.009	0.399	0								
MP1	0.82	0.879	1.648	0.889	0.962	0.227	0.235	0.545	0.711	0							
MP2	0.913	0.92	0.585	0.506	0.354	0.576	0.009	-0.605	0.57	1.718	0						
MP3	-0.513	1.01	-0.483	-0.499	-1.676	-0.38	-1.126	1.014	0.084	-0.35	0.796	0					
MP4	-0.705	0.182	-0.796	-0.557	-1.716	-0.194	-1.415	-1.547	0.04	-1.217	-0.645	0.521	0				
MP5	0.562	-0.669	-0.906	0.3	-0.322	-0.355	0.001	-1.27	0.018	-0.28	-0.237	-0.709	1.198	0			
MP8	-0.588	0.286	-0.483	-1.209	-1.1	-0.772	-0.06	0.384	0.874	-0.034	-0.526	-0.39	-0.093	-0.352	0		
MP7	0.687	1.506	0.886	0.448	-0.525	0.282	1.353	0.966	1.025	-0.197	-0.192	-0.919	-0.222	-0.402	1.512	0	
MP6	-0.083	-0.594	-1.032	1.409	-1.02	0.697	0.101	0.073	0.589	-1.175	-0.449	0.909	0.828	1.013	-0.262	-0.55	0
SAT5	1.017	0.587	0.339	0.365	-0.382	1.226	0.469	0.846	0.574	0.806	0.671	0.792	-0.378	0.236	0.396	1.497	0.668
SAT3	-0.771	1.298	0.349	-0.063	-1.614	-0.818	-0.595	1.233	0.541	-0.207	-0.189	-0.556	-0.253	-0.136	-0.067	1.192	0.159
SAT2	0.362	0.066	-0.809	-0.73	-0.829	-0.613	-1.384	0.809	0.421	-0.73	-1.208	-0.568	-0.001	-0.263	-0.37	-0.201	0.285
SAT1	-0.697	0.934	-0.991	0.278	-0.725	-0.483	-0.458	1.873	0.495	0.195	-0.984	0.27	-0.089	-1.021	0.943	0.264	0.06
MP12	-0.124	-0.384	-0.688	0.041	-0.624	-0.146	-1.017	-0.643	0.33	1.238	1.237	0.891	0.53	0.682	0.285	0.878	1.589
MP11	1.328	-0.142	0.088	0.785	-0.09	0.01	0.459	-0.142	0.672	0.722	0.29	-0.518	-0.772	-0.329	-0.383	0.924	-0.691
MP10	0.069	0.325	-0.36	-1.231	0.278	-1.624	0.188	0.249	-0.581	1.234	0.231	-1.147	-1.256	-0.865	-0.477	0.799	-1.318
MP9	1.331	0.867	0.961	0.826	1.304	0.154	0.829	0.542	0.869	1.745	1.614	-1.13	-1.992	-0.526	-0.07	0.721	-1.299
MP18	-0.077	0.657	0.563	0.461	-0.546	0.764	0.36	-0.172	0.988	-0.106	-0.204	0.213	-0.67	0.268	-0.718	-0.044	-0.026
MP19	-1.027	-0.323	-0.996	-1.775	-1.192	-0.735	0.536	-0.572	0.099	-0.021	-0.206	0.192	0.048	-0.664	0.693	1.008	-0.017
MP21	-1.06	0.936	0.129	-1.392	-0.132	-0.719	0.318	-0.21	0.09	-0.373	-1.586	0.262	-0.235	-0.567	1.413	0.243	-1.074
MP22	-1.709	0.753	0.302	-0.175	-0.648	-0.293	0.846	1.622	0.737	-0.523	-1.613	1.176	0.466	-0.546	1.363	0.536	-0.231
MP23	0.856	-0.042	-0.819	0.603	0.147	-0.176	0.66	0.818	0.562	0.795	0.704	1.339	0.956	0.006	-0.343	1.465	0.755
MP20	-0.019	0.41	0.822	0.783	1.662	0.441	0.373	-0.178	0.953	1.824	0.409	-1.172	-0.804	0.163	-0.777	-0.261	-1.298

**Appendix 9-Continued**

**Standardized Residual Covariances - Re-specified model with RTN as dependent variable – continued**

	SAT5	SAT3	SAT2	SAT1	MP12	MP11	MP10	MP9	MP18	MP19	MP21	MP22	MP23	MP20
SAT6														
RET3														
RET2														
MOT7														
MOT6														
MOT4														
MOT3														
MOT1														
MOT2														
MP1														
MP2														
MP3														
MP4														
MP5														
MP8														
MP7														
MP6														
SAT5	0													
SAT3	-0.099	0												
SAT2	-0.276	0.169	0											
SAT1	-0.48	0.232	0.332	0										
MP12	1.961	0.957	-0.083	0.971	0									
MP11	0.889	-0.583	-0.68	0.112	-0.076	0								
MP10	0.433	0.183	-1.493	0.271	-0.235	0.068	0							
MP9	0.738	-0.863	-1.752	-0.634	-0.965	-0.024	0.847	0						
MP18	0.272	0.091	0.14	0.888	1.097	0.25	-0.564	-0.06	0					
MP19	-0.407	-0.006	-0.934	0.46	1.247	-0.327	-0.34	-0.959	0.202	0				
MP21	0.697	-0.377	0.248	1.203	-0.268	-1.089	-0.637	-1.022	-0.448	0.253	0			
MP22	-0.288	0.702	-0.587	0.68	-0.477	-0.536	-1.075	-1.212	-0.661	0.434	1.797	0		
MP23	0.623	-0.395	-0.525	0.106	1.739	1.582	0.043	0.801	0.075	-0.549	-0.79	-0.012	0	
MP20	0.6	-0.199	-0.176	1.079	1.497	1.009	1.236	1.596	1.296	-0.58	0.216	-1.685	-0.001	0

## Appendix 10

### Sample correlation – Structural model

	SAT6	RET3	RET2	MOT7	MOT6	MOT4	MOT3	MOT1	MOT2	MP1	MP2	MP3	MP4	MP5	MP8	MP7	MP6
SAT6	1																
RET3	0.254	1															
RET2	0.314	0.775	1														
MOT7	0.224	0.343	0.429	1													
MOT6	0.273	0.374	0.471	0.622	1												
MOT4	0.253	0.292	0.406	0.618	0.591	1											
MOT3	0.28	0.309	0.407	0.457	0.563	0.528	1										
MOT1	0.164	0.336	0.333	0.498	0.448	0.471	0.412	1									
MOT2	0.23	0.327	0.4	0.525	0.565	0.693	0.522	0.506	1								
MP1	0.208	0.2	0.262	0.199	0.206	0.177	0.149	0.154	0.196	1							
MP2	0.236	0.224	0.231	0.2	0.197	0.218	0.156	0.113	0.211	0.63	1						
MP3	0.139	0.207	0.151	0.127	0.07	0.146	0.079	0.179	0.164	0.446	0.577	1					
MP4	0.15	0.184	0.158	0.144	0.088	0.176	0.081	0.063	0.182	0.455	0.56	0.555	1				
MP5	0.225	0.148	0.161	0.196	0.168	0.177	0.161	0.084	0.189	0.533	0.613	0.509	0.692	1			
MP8	0.114	0.15	0.129	0.072	0.08	0.105	0.116	0.13	0.184	0.405	0.435	0.386	0.454	0.461	1		
MP7	0.22	0.25	0.242	0.193	0.147	0.199	0.222	0.19	0.23	0.507	0.579	0.466	0.571	0.588	0.538	1	
MP6	0.178	0.139	0.14	0.241	0.119	0.218	0.155	0.143	0.205	0.444	0.557	0.564	0.626	0.665	0.433	0.537	1
SAT5	0.483	0.329	0.357	0.261	0.228	0.327	0.241	0.244	0.282	0.239	0.26	0.238	0.202	0.245	0.193	0.297	0.251
SAT3	0.412	0.386	0.38	0.255	0.179	0.236	0.199	0.278	0.297	0.199	0.229	0.181	0.224	0.241	0.18	0.296	0.239
SAT2	0.491	0.332	0.33	0.228	0.23	0.256	0.166	0.263	0.3	0.179	0.184	0.188	0.245	0.243	0.171	0.231	0.254
SAT1	0.389	0.348	0.287	0.257	0.21	0.237	0.193	0.298	0.279	0.208	0.174	0.212	0.218	0.18	0.222	0.234	0.22
MP12	0.191	0.14	0.146	0.189	0.159	0.195	0.115	0.122	0.212	0.506	0.57	0.487	0.524	0.556	0.399	0.537	0.571
MP11	0.289	0.17	0.207	0.249	0.209	0.226	0.21	0.165	0.252	0.528	0.573	0.458	0.505	0.556	0.405	0.596	0.496
MP10	0.219	0.191	0.179	0.14	0.223	0.136	0.192	0.182	0.182	0.546	0.557	0.412	0.465	0.513	0.391	0.577	0.449
MP9	0.262	0.201	0.228	0.226	0.255	0.206	0.207	0.18	0.236	0.525	0.58	0.366	0.371	0.476	0.371	0.518	0.398
MP18	0.232	0.207	0.226	0.186	0.138	0.215	0.163	0.125	0.22	0.466	0.526	0.484	0.494	0.573	0.373	0.523	0.517
MP19	0.192	0.163	0.153	0.077	0.111	0.144	0.178	0.11	0.181	0.49	0.548	0.502	0.557	0.541	0.468	0.605	0.539
MP21	0.172	0.214	0.196	0.084	0.153	0.132	0.156	0.118	0.167	0.433	0.427	0.469	0.499	0.504	0.475	0.519	0.438
MP22	0.134	0.202	0.202	0.144	0.124	0.151	0.181	0.21	0.198	0.418	0.417	0.513	0.531	0.496	0.466	0.528	0.478
MP23	0.267	0.16	0.142	0.183	0.164	0.156	0.17	0.168	0.188	0.488	0.546	0.518	0.555	0.524	0.369	0.577	0.53
MP20	0.19	0.16	0.201	0.171	0.219	0.164	0.136	0.099	0.185	0.48	0.457	0.317	0.385	0.459	0.292	0.41	0.347



## Appendix 10

### Sample correlation – Structural model – Continued

	SAT5	SAT3	SAT2	SAT1	MP12	MP11	MP10	MP9	MP18	MP19	MP21	MP22	MP23	MP20
SAT6														
RET3														
RET2														
MOT7														
MOT6														
MOT4														
MOT3														
MOT1														
MOT2														
MP1														
MP2														
MP3														
MP4														
MP5														
MP8														
MP7														
MP6														
SAT5	1													
SAT3	0.536	1												
SAT2	0.544	0.607	1											
SAT1	0.482	0.556	0.581	1										
MP12	0.337	0.3	0.255	0.286	1									
MP11	0.308	0.248	0.252	0.268	0.682	1								
MP10	0.279	0.282	0.203	0.271	0.658	0.753	1							
MP9	0.268	0.2	0.161	0.197	0.546	0.671	0.71	1						
MP18	0.295	0.304	0.317	0.329	0.584	0.595	0.535	0.507	1					
MP19	0.271	0.311	0.272	0.318	0.615	0.584	0.571	0.476	0.706	1				
MP21	0.307	0.268	0.311	0.335	0.486	0.495	0.51	0.433	0.614	0.683	1			
MP22	0.251	0.321	0.262	0.303	0.467	0.518	0.476	0.415	0.591	0.683	0.715	1		
MP23	0.297	0.26	0.263	0.27	0.589	0.637	0.536	0.525	0.631	0.618	0.556	0.592	1	
MP20	0.258	0.231	0.241	0.284	0.504	0.525	0.528	0.5	0.613	0.526	0.53	0.413	0.506	1

## Appendix 11

### Standardized Residual Covariances - Structural model

	SAT6	RET3	RET2	MOT7	MOT6	MOT4	MOT3	MOT1	MOT2	MP1	MP2	MP3	MP4	MP5	MP8	MP7	MP6
SAT6	0																
RET3	0.11	0															
RET2	0.562	0	0														
MOT7	0.405	-0.197	0.432	0													
MOT6	1.242	0.228	1.018	0.821	0												
MOT4	0.63	-1.654	-0.589	0.194	-0.494	0											
MOT3	1.906	-0.133	0.83	-0.759	0.884	-0.239	0										
MOT1	-0.087	0.828	-0.039	0.612	-0.469	-0.543	-0.041	0									
MOT2	0.344	-0.76	-0.397	-0.997	-0.554	1.013	0.011	0.4	0								
MP1	0.815	1.11	1.893	0.879	0.955	0.215	0.228	0.539	0.7	0							
MP2	0.904	1.18	0.857	0.492	0.343	0.559	-0.001	-0.615	0.555	1.745	0						
MP3	-0.524	1.237	-0.248	-0.514	-1.688	-0.397	-1.138	1.003	0.068	-0.334	0.807	0					
MP4	-0.719	0.433	-0.534	-0.576	-1.732	-0.216	-1.429	-1.561	0.02	-1.205	-0.64	0.518	0				
MP5	0.545	-0.41	-0.636	0.278	-0.341	-0.38	-0.017	-1.287	-0.005	-0.274	-0.238	-0.717	1.181	0			
MP8	-0.598	0.483	-0.277	-1.222	-1.111	-0.787	-0.071	0.374	0.859	-0.021	-0.519	-0.389	-0.098	-0.362	0		
MP7	0.678	1.761	1.153	0.434	-0.536	0.265	1.342	0.956	1.01	-0.173	-0.174	-0.91	-0.218	-0.404	1.519	0	
MP6	-0.101	-0.354	-0.782	1.386	-1.039	0.672	0.083	0.056	0.566	-1.174	-0.456	0.895	0.805	0.983	-0.277	-0.559	0
SAT5	1.017	0.635	0.354	0.365	-0.378	1.223	0.471	0.847	0.573	0.801	0.662	0.78	-0.393	0.217	0.385	1.487	0.648
SAT3	-0.771	1.349	0.365	-0.064	-1.61	-0.821	-0.592	1.234	0.54	-0.213	-0.199	-0.568	-0.269	-0.156	-0.079	1.181	0.137
SAT2	0.354	0.113	-0.798	-0.735	-0.83	-0.621	-1.385	0.807	0.415	-0.739	-1.223	-0.584	-0.023	-0.288	-0.385	-0.216	0.259
SAT1	-0.694	0.984	-0.974	0.279	-0.719	-0.484	-0.455	1.876	0.496	0.192	-0.992	0.26	-0.103	-1.039	0.934	0.256	0.041
MP12	-0.104	-0.613	-0.969	0.063	-0.598	-0.124	-0.995	-0.623	0.353	1.265	1.259	0.904	0.539	0.685	0.295	0.898	1.586
MP11	1.347	-0.399	-0.229	0.806	-0.065	0.031	0.481	-0.123	0.694	0.743	0.305	-0.511	-0.77	-0.334	-0.379	0.938	-0.701
MP10	0.085	0.07	-0.672	-1.213	0.301	-1.606	0.207	0.266	-0.562	1.25	0.24	-1.145	-1.26	-0.875	-0.477	0.808	-1.332
MP9	1.343	0.635	0.675	0.84	1.323	0.169	0.844	0.556	0.885	1.756	1.619	-1.132	-1.999	-0.539	-0.074	0.725	-1.317
MP18	-0.072	0.585	0.457	0.466	-0.537	0.769	0.367	-0.165	0.994	-0.09	-0.195	0.214	-0.675	0.258	-0.719	-0.036	-0.041
MP19	-1.02	-0.396	-1.103	-1.768	-1.182	-0.729	0.544	-0.565	0.106	-0.002	-0.193	0.196	0.046	-0.671	0.695	1.019	-0.03
MP21	-1.056	0.866	0.028	-1.387	-0.123	-0.714	0.325	-0.204	0.096	-0.359	-1.578	0.263	-0.24	-0.578	1.412	0.25	-1.09
MP22	-1.705	0.685	0.202	-0.169	-0.639	-0.289	0.853	1.628	0.742	-0.509	-1.604	1.177	0.462	-0.556	1.362	0.543	-0.246
MP23	0.862	-0.108	-0.915	0.61	0.157	-0.17	0.668	0.825	0.569	0.814	0.718	1.345	0.957	0.001	-0.34	1.477	0.744
MP20	-0.015	0.351	0.736	0.787	1.67	0.444	0.379	-0.173	0.958	1.837	0.417	-1.171	-0.807	0.154	-0.778	-0.255	-1.311

## Appendix 11

### Standardized Residual Covariances - Structural model – Continued

	SAT5	SAT3	SAT2	SAT1	MP12	MP11	MP10	MP9	MP18	MP19	MP21	MP22	MP23	MP20
SAT6														
RET3														
RET2														
MOT7														
MOT6														
MOT4														
MOT3														
MOT1														
MOT2														
MP1														
MP2														
MP3														
MP4														
MP5														
MP8														
MP7														
MP6														
SAT5	0													
SAT3	-0.097	0												
SAT2	-0.283	0.161	0											
SAT1	-0.476	0.237	0.329	0										
MP12	1.986	0.983	-0.061	0.997	0									
MP11	0.912	-0.559	-0.66	0.137	-0.063	0								
MP10	0.452	0.204	-1.477	0.293	-0.229	0.065	0							
MP9	0.754	-0.847	-1.74	-0.617	-0.964	-0.032	0.832	0						
MP18	0.279	0.098	0.143	0.897	1.107	0.252	-0.567	-0.067	0					
MP19	-0.399	0.003	-0.93	0.471	1.26	-0.322	-0.341	-0.964	0.202	0				
MP21	0.703	-0.371	0.25	1.211	-0.259	-1.087	-0.642	-1.029	-0.452	0.253	0			
MP22	-0.281	0.709	-0.585	0.688	-0.468	-0.534	-1.078	-1.219	-0.663	0.434	1.793	0		
MP23	0.632	-0.386	-0.52	0.117	1.753	1.589	0.044	0.798	0.077	-0.544	-0.788	-0.01	0	
MP20	0.606	-0.193	-0.174	1.086	1.505	1.011	1.233	1.59	1.294	-0.58	0.212	-1.687	0.001	0

## Appendix 12

### Goodness fit measures

<b>RMR, GFI</b>				
Model	RMR	GFI	AGFI	PGFI
Default model	0.049	0.853	0.827	0.726
Saturated model	0	1		
Independence model	0.461	0.194	0.141	0.182

<b>Baseline Comparisons</b>					
Model	NFI	RFI	IFI	TLI	CFI
	Delta1	rho1	Delta2	rho2	
Default model	0.88	0.868	0.931	0.924	0.931
Saturated model	1		1		1
Independence model	0	0	0	0	0

<b>RMSEA</b>				
Model	RMSE A	LO 90	HI 90	PCLOS E
Default model	0.055	0.051	0.06	0.034
Independence model	0.201	0.197	0.205	0