Conducting of the linkage between information systems strategy (ISS) and Operation Strategy in the case of 'X' Airlines in Arabic gulf country

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Abstract

The integration of IS/IT strategy with other business units' strategies has become an important issue. The layer of integration through business strategies requires an explanation of interrelationships so that business objectives appropriate to the available resources and market conditions can be established. This study is a comprehensive examination of the relationship between IS and operational strategy at 'X' Airlines. Operation is considered one of the core activities at 'X'. In this study, the researcher employs a qualitative method, presenting the literature on IS integration and utilising a case study approach to understand the how and why of using IS at 'X'. This study discusses the existing frameworks, both theoretical and practical, for IS strategic integration. The results show that there are strong relationships but as a traditional kind of back office support of IS for operational strategy within 'X'.

Keywords: Information systems/information technology, strategy, integration, operation activity, case study

1 INTRODUCTION

There are many reasons to align firm operations with IS. The first is to support the firm, focusing on IT applications that improve operational efficiency, by facilitating the development and implementation of the connection between business and IT strategies. The second is to increase profitability by maximising the organisation's IT investment and forging alliances between IT and business strategies. Strategic alignment focuses on IT as a new "cost centre" and on the way it affects business strategy. In addition, it also shows the fit between strategy and infrastructure as well as business-IT functional integration (Papp, 1999).

IT/IS activities have various impacts among industries and firms and within individual firms over time (Applegate et al., 1999). Nevertheless, a study by the National Computing Centre (NCC) on 420 firms (2003) showed that firms concerned with strategic issues keep IT/IS strategy aligned with business strategy (Turban et al., 2005). Strategic information systems planning (SISP) supports the success of an organisation when successfully implemented. Successful implementation means aligning the result of SISP with business needs. Thus, alignment is important for evaluating the SISP. SISP aims to positively affect the firm, and one way of doing so is to ensure that IS projects and firm objectives mesh well. "Alignment is the degree to which the information system plan reflects the business plan" (Lederer and Salmela, 1996, p: 248). Some have suggested that alignment is one of four dimensions necessary for evaluating SISP success. Here, alignment means the linkage between IS strategy and business strategy (Newkirk, Lederer and Srinivasan, 2003; Grover and Segars, 2005). Information assurance is also important for IS strategic alignment (Ezingeard et al., 2007).

This may enable organisations, such as airlines, to be successful in a global environment by obtaining valuable data through different systems. As Shore (2006) suggested, there are two pressure inconsistencies in managing a global service organisation. First, to what extent should operations be decentralised and with what business process should it be outsourced? Second, is there a competitive pressure to centralise functional management and integrate the organisation's operations? In order to succeed, integration needs to be measured. Strategic performance measurement systems (SPMS), such as balanced scorecard systems, can provide managers with feedback. This feedback may illustrate the connection between business activities and strategies (Chenhall, 2005), thereby demonstrating the need for continual IT planning (Philip, 2007).

2 BUSINESS AND FUNCTIONAL STRATEGIES

There are four categories of IS use for competitive advantage suggested by Ward and Griffiths (1996): building channels between the organisation, its customers, and suppliers; improving the value-adding process and the value chain's primary activities by integrating the organisation's use of information; using information to allow the organisation to develop or produce new products and services and markets; and support senior management in the decision-making process to develop and implement strategies. Rayport and Sviokla (1995) suggested another categorisation. They divided the effect of IS in the marketplace (the physical world) and market space (the virtual world created by IS). Robson (1997) argued that this is no longer the issue because the IS revolution impacts all existing and, in some cases, new industries. This may explain the so-called industry transformations. What he suggested is an organisational transformation in the way that the IS impacts the business in terms of both revenues and costs. Therefore, the organisation should try to construct an equation between revenues and costs, and the information should be seen from more of a management perspective and used more as a business resource.

A strategic planning approach, which involves the five-step process suggested by Porter and Millare (1985), shows the potential of obtaining a competitive advantage for an organisation. The steps assess the information's intensity, determines the role of IS in the industry's structure, identify and rank the way IS might create a competitive advantage, investigate ways IS can create new business, and generate a plan to use IS as a competitive advantage. For doing so, Robson highlighted three key points for management to judge its understanding and to use IS strategically. These are the critical relationships between the functioning of IS activity and operations on a daily basis, the critical connections between planned applications and future competitiveness, and the extent of the information intensity of the products and functional area (Robson, 1997). The price of entry for running a business is the cost of integration (Shore, 2006).

Strategic advantages can be obtained by creating strategies, such as cost leadership, differentiation, growth, alliances, innovation, internal efficiency improvement, and customer-orientated approaches. These strategic advantages can be sustained in two ways. First, an inward system, which is invisible to competitors, relies on secret information. This may prevent competitors from building such a system or more advanced systems. Second, an organisation can create difficult systems, such as those that are comprehensive, innovative, and expensive to duplicate (Turban et al., 1997). These strategies can be supported by IS so that they can be used throughout the organisation. This study focuses on the operational strategy at "X" Airlines, a single business, which involves many IT and operational functions.

Haberberg and Rieple (2001) observed that modern airlines have many specialised functions, comprising reservations, marketing, ticketing, operations, maintenance, human resources, purchasing, and IT. The marketing staff sells services, and the operational staff schedules flights and coordinates the aircrew. The maintenance staff checks the aircraft and

provides training and qualifications. Finally, the purchasing staff acquires flight provisions, and the IT staff maintains computing systems and services. The company's business strategy aims to integrate all functions and activities to add value to users. Flights should be on time, with high quality and full services, to obtain customer satisfaction. Any deviation from this may cause customer dissatisfaction. Many researchers (Grant and King, 1982; Hax and Majluf, 1984; and Haber and Schendel, 1978) have indicated that maximising competitive advantage should be the focus of business strategy (Henderson and Venkatraman, 1992), and every activity should have a target period of time, mostly short term. Activities may vary according to factors affecting future business (Haberberg and Rieple, 2001). King (1978) mentioned that IS/IT strategy is a functional strategy (Henderson and Venkatraman, 1992).

3 IS AND OPERATION

Production and operation management (POM) focuses on the business processes of a firm, transforming them into helpful output (Turban et al., 2005). IS/IT supports manufacturing or operations using methods like simulation, testing, and rapid prototyping. These help to reduce costs and product or service design cycles. Furthermore, many benefits, such as greater product or service variety, faster response and increasing productivity, can be obtained when firms use IS/IT to support flexibility (Zhang, 2005).

Turban et al. (2005) presented four areas of IT/IS support POM: in-house logistics and material management; planning production and operations; computer integrated manufacturing; and product life cycle management. These comprise inventory management, quality control, material requirement planning, manufacturing resource planning, and computer integrated manufacturing.

The International Air Transport Association (IATA) indicated that the revenue passenger kilometre (RPK), which measures actual passenger traffic, has been increased 12.6% from 2004 and 2005 in the Middle East. In addition, it also asserted that the freight tonne kilometre (FTK), which measures actual freight traffic, has been increased 13.7% in the same period (IATA, 2007).

4 STRATEGIC ALIGHNMENT AND IS INTEGRATION

There are two different terms that have mostly been used in management information systems (MIS) literature. First, there is the IS strategy planning, which is the process of formulating IS. It expresses IS use and management. In other words, it shows the targets for IS within the organisational environment. Second, there is the IS strategic planning, which emphasises the process of planning IS activities within its strategic level of importance. This importance is reviewed as the purpose and time horizon of the activity (Robson, 1997).

The IS strategic plan has two goals. First, it aims to obtain direction for IS by clearly identifying the way that IS should follow the IT mission (Robson, 1997). This mission should be directed through efficiency, effectiveness, and competitiveness (Turban et al., 2005). Second, the IS strategic plan should contain a formalised set of benchmarks (Robson, 1997). Turban et al. (2005) suggested that there are three objectives for IT strategic planning: alignment with the business strategic plan, enabling users, applications, and databases to be networked and integrated by providing IT architecture and supporting IT projects' being completed on time within the budget, and furnishing the required functionality by efficiently allocating IS development resources for these projects. There are two core elements for IS strategy. The first is the clear statement of IS objectives. The second is listing and evaluating both the current organisational capabilities and problems resulting from current practices. However, the implementation plan maps out the implementation strategies and highlights

milestones (Robson, 1997). Thus, there are two parts of strategic planning. The short-term part is the 'how' of the plan. This part involves reviewing technological change. The second is the long-term part. This part refers to directing the 'what' expressed here. The most common factors affecting the IS plan's objectives are major corporate changes, external competitive opportunities and threats, and evolutionary changes in IS maturity (Robson, 1997). IS maturity relies on the level of alignment. Figure 1 shows the classification of integration levels.

Basis for Levels	Level Names	Reference
Strategic performance and environmental changes	Low, emerging, developed, and mature	Brown (2005)
Evaluation of SISP dimensions	Preliminary, evolving, and mature	Grover and Segars (2005)
Evaluation of IS planning approaches	Technology mode, align mode, impact mode, and fit mode	Lee and Bai (2003)
Integration progresses by Synnott	No planning, standalone planning, reactive planning, linked planning, and integrative planning	Teo and King (1997)
Business transformation by Schmidt (2000)	Point-to-point integration, structural integration, process integration, and external integration	Mendoza et al. (2006)
Level of relationships: internal and external	Internal and external integration	Turban et al. (2005)

Figure 1: Classification of integration levels.

In business, strategy is an arrangement of activities to help organisations to deliver services or products in a way that satisfies customers or users who have objectives and constraints or financial issues (important stakeholders). Strategy, by accident or design, attempts to develop resources, reach targets, or deliver services or products (Haberberg and Rieple, 2001). This is the part that has been called the strategic management. A case study by Irani (2002) found that there is a positive relationship between the justification of the information system used to the operational stakeholders and the level of commitment for the project success.

5 RESEARCH METHODOLOGY

The IT/IS linkage is a strategic issue. This means that it is connected to business strategy. Hence, there are many dimensions to consider, such as strategic, organisational, managerial, and technical. The benefits of this linkage require the fit of IT/IS strategy with business units' strategies. This requires one to understand alignment issues using the 'how' and 'why' questions and to understand the factors that may impact integration (degree of measurement and purpose) using the 'what' questions. Thus, the case study approach has been utilized.

5.1 RESEARCH DESIGN AND STRATEGY

The case study is a research strategy in which real-life IT/IS might be studied within an organisation. A single case attempts to study and focus on relationships. As Chan et al. (1992) asserted, ‘to obtain a rich and detailed understanding of strategy from multiple viewpoints, consider the case studies or historical approaches’ (p: 194). The researcher must spend time in ‘the field' to understand the issues. The objective of this study is to investigate the link between IS activities and operational activities within the company, regarding the importance of connecting IS strategy with corporate strategy within the environment. This is accomplished by interviewing managers and IT staff.

5.2 DATA COLLECTION

Six interviews were conducted. The first interviewee was the vice general manager for maintenance of technical information regarding operational activity. Two managers were from marketing, namely, the manager of research operations in marketing and the manager for pricing and tariffs, and three were from IT, namely, the vice chief of information systems for strategy, the system manager for scheduling, and the system manager for crew as the operational factor. There was also one interview to collect some IT strategy documents. Semi-structured interviews were used, and all interviews were recorded and transcribed for clarity (see Appendix one). Then, they were sent to the interviewers to review them for greater validity. The maximum time for the interviews was one hour, and the minimum was about fifteen minutes. All the data from the interviews and documents were integrated. The major analysis examined the linkage between IS activity and operational activity from the interviewees’ perspectives.

6 FINDINGS AND DISCUSSION FROM THE QUALITATIVE METHOD

The focus of the analysis relies on IT in relation to the issues highlighted in the interviews, namely, the cutting of costs, the integration and coordination of strategies, centralisation, flexibility, the development of methodologies, customer relations, opportunities, culture, chief information officer (CIO) relationships, and change.

In general, the findings show that there are relationships between IT and business strategy and performance and operation. The policies and roles come from the strategy mission and vision. The implementation of strategy in a successful way comes from a good control process. Those in control must understand the roles, policies, and business processes by creating logical applications. Therefore, it is important to identify the core processes in the business that need logical applications, to meet the changes in the environment, and to identify opportunities. This may also support innovation. There are two additional points to consider. These are standardisation and the centralisation or decentralisation of management style. They are relevant to decision making and innovation processes, which are crucial to the design structure. The more centralised system leads to slow decision making. As one interviewee asserted, centralisation makes it difficult to meet changes. Regretfully, he said, ‘We don’t have a person who can make quick decisions in a suitable time in government organisations, for example, so decision making is very slow’. However, it supports the control process. High level decision making causes less flexibility, which is needed in the change processes. Hence, there is a need for stability between all these factors. There is a need for many systems, such as decision support systems and executive support systems, or a need for different levels of centralisation. This is not an easily resolved problem because the implementation of strategy differs from one organisation to another. All these points imply

the integration of core activity applications. The high level of centralisation and standards limit employees. This means that the IT staff just works as technical support for other activities because if there are any innovation or hunting opportunities, different views would emerge from the different administrative levels; as one interviewee claimed, 'We haven't reached these levels. As you know, universal progress is very swift, whether from information technology companies or business. I don't think that we have the level that would enable us to create something new. Indeed, we attempt to reach what other companies have reached. We only import the best that other companies have created. We haven't reached a stage that is superior to companies abroad. We haven't become superior to them with what we have created'.

The application and deployment of IT strategy through all levels in the firm, especially the administrative body, play a fundamental role in decision-making processes and design. They help the team to set up their own objectives and measures to support the overall IT strategy. When a department produces an unexpected result, the instructions to take appropriate action mostly come from top management rather than from the same department. Indeed, strategies play a large role in supporting research and development processes to improve services, operations, tools used in communication, reports, notes; building a performance measurement system; and evaluating the employees' performance. IT people, however, can interact with employees involved in other activities effectively. They aim to acquire information and knowledge from internal and external sources to achieve high-quality business and build a formal system using databases and reports. A system of this kind can store information and knowledge acquired from experience.

However, there is an important point in relationship between the CIO and chief executive officer (CEO). This relationship supports IT strategies, as shown in the literature review. From the findings, this may support the previous discussion 'that support is traditionally essential for survival' because the firm relies heavily on IT. When an interviewee was asked about creating a competitive advantage through IT, he responded, 'It doesn't help really'. Another said, 'It is a main part of the corporation. Support must be available 24 hours a day, 7 days a week. Information must also be present, critical information, too, as well as communications, the network, the "X" network, the network connecting the airports, reservation systems, transportation systems, human resources systems, flight operations, spare parts, and technical service and plane maintenance systems. All must be available in the IT system. These are some examples. If IT breaks down for some time, the whole corporation will be affected and so will the business centres. Therefore, it is a critical and essential part of the business'. One crucial point that needs to be mentioned is the impact of IT on the firm's culture. As one interviewee stated, 'There is a culture between sections. There are problems between sections. We attempt to find solutions as much as we can. Nevertheless, we are only a service provider to all the corporation's sections. Whoever wants the service, there it is. Sometimes, we need to impose things through the top management. Those are without exception, without argument, something like that. Things like that may always happen', so the support of the CEO is very important to IT applications.

Operational activity is the most important within 'X'. One of the interviewees said, 'It is the most important system we have. That is because it is the system that organises the running of flight operations and flight information. It organises such operations automatically in some systems'. There are two important technical service systems: flight operation systems and maintenance systems. One vital issue is the connection between operations and other activities, such as marketing. This connection concerns delivering services effectively. IT plays an efficient role in integrating or connecting these services. It provides the data in order to cultivate unity in such matters. The output of the scheduling of operations is allocated to the central database (the distribution system). Most administrators receive their schedules from one site. If there is a change in the schedule, the administrators will be informed so as to return again to the same distribution centre to retrieve their schedules. The technical

information system (TIS), for instance, is fundamental in maintenance because it organises all the spare parts for crafts. It helps to reduce the cost of searching, saves time, and prevents any technical problems in aircraft. Thus, there is a relationship between operations and IT.

6 CONCLUSION

The study applied a case study approach to "X" Airlines. There is a focus on IT and its relationship with operational activity. For this, one needs to know the business strategy and the way it is integrated. As discussed in the literature review, there are many competitive advantages to the application of IS, such as cost reductions, market leadership, and differentiation. A method involving interviews and strategic documents was implemented to gather the data.

From the findings, it is clear that there is a strong relationship among IT activities, business strategies with its measurement of performance, and operational activity because operational activity relies heavily on IT. However, this relationship involves support more than creativity and innovation, which are important factors for organisations.

6.1 LIMITATION OF THE RESEARCH

The most important limitation is the number of interviewees. This type of research requires more time and more access to collect the necessary data from a large number of employees in order to determine the main contribution of IT.

6.2 RECOMMENDATION FOR FUTURE WORK

This research investigated the relationship between IT and operations within "X". In other words it examined strategic issues for both business and IT alignment or integration. Thus, future research could also consider human aspects of IT implementation and practices in "X" because there are a huge number of employees who need to enhance their knowledge of IT applications, competitive advantage, innovation, and technical support. From the interviews conducted, it is clear that there is some difficulty in understanding certain important aspects of IT, such as innovation.

6.3 LESSONS LEARNED

In fact, some lessons were learned:

- The implementation of project management skills is helpful because there is a large number of projects that need to be monitored, in IT. These skills can make projects more successful and efficient by better managing both time and resources.
- There is a need for more training and educational sessions for senior and middle level managers across activities in order for them to obtain suitable communication skills and understand the value of IS as business resource. To do so, there is a need to relate to IS as strategic point of view.
- The implementation of an IS development methodology may support the success of practical implementation because it considers many ideas from others, who may be rich in knowledge and have broad points of view, as regards improvement. Implementation should be structured and built in a systematic way, with an understanding of circumstances and the environment.

References

Applegate, L., McFarlan, F. and McKenney (1999) *Corporate Information Systems Management: text and cases'*. Fifth edition. USA: McGraw-Hill.

Brown, P. (2005) The evolving role of strategic management development. *Journal of Management Development*, volume 24, issue 3, pages 209-222.

Chan, Y. and Huff, S. (1992) Strategy: An Information Systems Research Perspective. *Butterworth-Heinemann Ltd*, 1(4): 191-204.

Chenhall, R. (2005) 'Integrative Strategic Performance Measurement Systems, Strategic Alignment of Manufacturing, Learning and Strategic Outcomes: An Exploratory Study'. *Accounting, organizations and society*, Vol. 30, No.5, pp 395-422.

Ezingeard, J., McFadzean, E. and Birchal, D. (2007) Mastering the art of corroboration a conceptual analysis of information assurance and corporate strategy alignment. *Journal of Enterprise Information Management*. Vol. 20, Iss. 1, pp. 96-118.

Grover, V. and Segars, A. (2005), *An Empirical Evaluation of Stages of Strategic Information Systems Planning: Patterns of Process Design and Effectiveness*, Information & Management. vol.42, 761-779.

Haberberg, A. and Rieple, A. (2001) *The Strategic Management of Organization*. England: Pearson Education Limited.

Henderson, J and Venkatraman, N. (1992) *Transforming Organizations*. New york: Oxford university Press.

Irani, Z. (2002) Information systems evaluation: navigating through the problem domain. *Information & management*. Vol. 40, pp. 11-24.

Lederer, A. and Salmela, H. (1996), *Toward a Theory of Strategic Information Systems Planning*, Journal of Strategic Information Systems. Vol. 5, 237-253.

Lee, G. and Bai, R. (2003) organizational mechanisms for succful IS/IT strategic planning in the digital era. Management decision. Vol.41/1, 32-42.

Mendoza, L. Perez, M. Griman, A.(2006) Critical success factors for managing systems integration. *Information Systems Management*. Vol.23, Iss. 2; pg. 56.

Newkirk, H; Lederer, A; and Srinivasan, C (2003), *Strategic Information Systems Planning: Too Little Too Much?*, Journal of Strategic Information Systems. Vol. 12, 201-228.

Papp, R. (1999), *Business-IT Alignment : Productivity Paradox Payoff?*, Industrial Management & Data Systems. 99/8, p: 367-373).

Philip, G. (2007) IS strategic planning for operational efficiency. *Information Systems Management*. Vol.24, pp. 247-264.

Robson, W. (1997), *Strategic Management & Information Systems*, Second edition. England: Person Education Limited.

Shore, B. (2006), Enterprise in: Across the Globally Disbursed Service Organization, *Communication of the ACM*, Vol. 49, No. 6.

Teo, T. and King, W. (1997) integration between business planning and information systems planning: An evolutionary-contingency perspective. Journal of management information systems. Vol.14, Iss. 1, pg: 185, 30 pgs

Turban, E. Mcleam, E. Wetherbe, J. (1997) *Information Technology for Management: Making Connections for Strategic Advantage*. Second edition. USA: John Wiley&Sons, Inc.

Turban, R., Rainer, R. and Potter, R (2005) *Introduction to Information Technology*. USA: John Wiley&Sons, Inc.
Ward J and Griffiths, P. (1996) *Strategic Planning For Information System*. Second edition. England: John Wiley & Sons Ltd.
Zhang, M. (2005) Information Systems, Strategic Flexibility and Firm Performance: An Empirical Investigation. *Journal of engineering and technology management*.
International Air Transport Association (IATA) (2007) 2005 First Quarter Passenger Traffic Up 9.4%, Load Factors High at 73.7%. http://www.iata.org/pressroom/facts_figures/traffic_results/2005-04-28-01.htm

Appendix one

An example of the interview transcript

Version: 1

CONSENT FORM

THANK YOU FOR READING THIS INFORMATION SHEET

Title: Conducting of the linkage between information systems strategy (ISS) and Operation Strategy in the case of 'X' Airlines in Arabic gulf country

Name of researcher: Abdullah Basahel

Please initial box

1. I confirm that I understood what the study is going to be about and I have had the opportunity to ask questions ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my legal rights being affected. ☐
3. I understand that this is a research project. ☐
4. I agree to the interview being audio taped. ☐
5. I agree to take in the above study. ☐

Name of participant……

Signature……**Date**……..

Name of researcher……..

Signature…….**Date**…….

1 copy for participant and 1 for researcher

The Interview questions

The semi-structured interview questions that relate to the research title:

"Conducting of the linkage between information systems strategy (ISS) and Operation Strategy in the case of 'X' Airlines in Arabic gulf country**"**

The Interview Code: 03

Date of the interview:

Time:

Participants' Personal and Information Sheet

Participant's name: M1

Participant's occupation: Top Specialist of scheduling and operation.

Length of experience in 'X' (years): 11

- What is the work you do here?

The system group works under me. It is the project of group system. All the projects concerning the crews, their schedules, capabilities, the follow up of their schedules and how the money is counted for them: all are made here in this administration.

- How does the IT affect the flight operation?

As IT-operation we also know the business of the company. It forces those who want to use the automation to adapt to the system. For those things that they want, they must get approval. Of course, it is very difficult to schedule seven thousand crews even if they become in groups of five hundred persons. There are laws to govern the movement of those crews (the number of times in which they go, the qualification which they take, the follow up of such crews, etc).

- What is the flight system? Are you only concerned with the aircrew?

Of course, in flight operation we are concerned with aircrafts. There is another person, other than me, responsible for us. However, the passengers affect us. All those who work on the aircrafts, and all those who work on scheduling the aircrafts, including us, cooperate to make the basic schedule that the corporation issues. 'K' Group makes the basic part (the whole move) of the schedule. When it is put in use, you can change the flight.

- Well, when you make delay to the operation, what's this delay time? Are there quick steps? Is there development in delivering the service to the other divisions? For example, do you take the schedule from the marketing? Do you determine the schedule with things such as the programming of crews, and timing?

We used to have other systems (called the manuals). We used to make automation in the systems, in addition to the schedule of crews which covered the flights. The schedule was filled with people in two or one and a half months before the flight. Then there was the selection of the schedule. They followed the system. And there were always changes in the system.

- Do you think that the IT gives an opportunity of development in the flight operation?

Indeed, we discuss new things in the administration. We discuss what concerns the development of the system, I mean a complete administration in the flight operation that concerns the development of the system, how to improve the system without making changes. The overhead programs, of course, run on the same as we have here.

- Well, do changes come from you? If you go to the market and find a new program, will you give it to invention or will you apply it immediately?

They also attend meetings and conferences abroad. Some begin here, other begin abroad. Those begin here are ideas that we apply.

- What is the role of flight operation in delivering the service to customers or the end – customer in the 'X'? What is the role of the flight operation?

It is the nerve of all the airlines. They determine the suitable information, the crafts that fly, the crews that operate the craft and the captain responsible for many things. They talk about the craft control. They involve in many things. They consider the flight system important in the 'X' Airlines, and the reservation as a flight operation system.

- In this administration, do you have standards in the flight operation/ process? Is there a standard planning for the international process?

To them all the international processes must be standard. Every reservation is documented on wind flight, but the processes must be checked.

- What are the laws to the IT? Must the IT be definite?

Indeed, our state is different. We know ourselves in the documentation, the group standards, and what all such things are to the work.

- How do the IT serve you? In the IT, how do the control of flight

operation serve you?

You say how? Sometimes there are many flights, e.g. in the summer season, there are many flights, many engagements.

- What's the control and the role you do? Do you in the control

govern those operations and the arrangement of everything in time?

They use the automation, of course. According to flights we make control to the automation. As air office we always think of the number of passengers.

- Do you use such things as specific programs, e.g. the solution

programs?

There is a system like this. Many companies, three or four worldwide pioneer companies, have systems like this (in the airlines). Such systems help much in crises, especially when there are too many flights: city1, city2, city3, city4 or others. Systems help you when there is a program, when there are aircrafts standing by. They take an aircraft and leave.

- How do you get such programs?

As I have told you, we get them from the regular meetings, from the other airlines and their software.

- As for the flight operation, do you arrange it?

No. We are in the IT. But, we support the other side and decide together what to do.

- How do the flight operation deal with the other divisions? Do your schedules and products become inputs to the systems of another company such as the systems of ISS?

Nobody takes from us except the star group.

- What is the exact time, the automated, or this system: when the flight takes off exactly?

This system we have is the only one that takes information from us. It is the star group. They take the flight operation. It shows you when the plane has taken off or landed, how many hours it has spent in air, the time of taking off and so on and things like that. This serves the systems, the other systems that they take from the net. They can even take information from us…

- What is the relationship between the IT strategy and the flight operation strategy?

In general, we regard the users of the airlines and the software of the flight operation. Of course, we have the software size. We activate the automation. We arrange the number of hours that a captain should fly in a year, three months or else (one hundred hours or so).

- In seasons, as for changes, what's the role of flight operation in

arranging flights? How does it help?

In the past, flight operation, not the schedule group, used to make schedules and the marketing group used to schedule the flights of teachers, 'H' season (I mean in cases of crises and the need for extra flights). Now, things are done in flight operation.

- What opportunities can flight operation gain from the IT?

Opportunities in business, for example?

Partly there is nothing of the kind. Generally, as flight operation there is a system for scheduling crews and aircrafts at the regional level and at the global level. I mean, every airline company has its own style, and all companies too. We have a system and a style for the scheduling process. We make it differently. There are many courses of training applied for purpose in our lines.

- How do you describe the relationship between the people

responsible for the IT with the flight operation?

Our relationship is good with customers. We are the top here.