

## What Sort of Role Do Management Information Systems Undertake in Strategy Practice? A Case Study Investigation in Tourism Sector

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### Abstract

In attempt to understand how management information systems play role on strategy implementation, the study uses a case study of one branch of an internationally well-known Hotel Chain. The findings show that management information systems has an impact on the strategy implementation process in terms of contributing to develop specific procedures regarding decision making process, accelerating the decision process through providing true and fast information to the managers, and helping them to make the right decisions. The empirical evidence from the case study also suggests that management information systems play an important role in strategy implementation enabling very important information to reach into relevant parts of the organisation in a systematic way.

**Key words:** Strategy implementation; Management information system; Case study investigation

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### INTRODUCTION

The literature review that is typically done in the field of management refers to the significant interest in strategy and information studies in the last two decades. These two sub-disciplines coincide in competition and technology; the studies that start with the association of these two

topics have provided a significant repertoire especially in international literature upon getting deeper in time. The interest shown in this subject in international literature has taken delayed effect in home literature as well and studies carried out in technology topics have increased especially in the last decade. While one part of these researches tries to define the relationship between technology and the competitive advantage of businesses in different ways, the other part focuses on explanation that what kind of forces does technology does to cause a change in business nature and management type.

It is possible to say that studies carried on have made significant contributions to both academic and practice. However, it stands out that there is a significant need in literature about constructing the technology and strategy management relationship with more specific sub-branches. This study aims to explain what role do information strategy, accepted as the technology of our era, play in applying the organizational strategy to make a modest contribution to the deficiency stated in literature. Within the scope of this aim, it will be tried to define in detail what kind of function management information systems undertake in applying the strategy and what the importance of this function in the application process is.

### 1. REVIEW OF LITERATURE: THE RELATIONSHIP BETWEEN INFORMATION SYSTEMS AND STRATEGY PRACTICE

Strategy practice is the phase in which getting through strategic management's notion of practice step occurs (Stacey, 1993). It is not possible to mention about a universal explanation of strategy practice term as it is in all the social sciences terms. Moreover, it is another argument topic that even making such a the strategy

practice is to what extent reasonable (Porter, 1996). Therefore, rather than making a conceptualization study about the strategy practice in literature it can be seen to focus on how to apply the strategy and the relationship between strategy practice and executive mechanisms. The first subject to stand out of strategy practice at the relationship between strategy practice and executive mechanisms. Doz and Prahalad (1981-2010), suggest that strategy practice process is first degree related to selection, design and using management staff. Similarly, Galbraith and Kazanjian (1986), Hamermesh (1982) stated that the organizational structure, process and systems have an important role in strategy practice.

Simons (1994-1995) claimed that there is a significant relationship between management control systems and strategy. In other words, it can be seen that there is a mutual interaction between executive mechanisms and the element pertain to this mechanisms (such as information systems). In fact, this interaction is in the very center of strategic practice relationships (Barney, 2001). The performance that occurs from the mentioned mutual interaction will show how successful strategy is practiced. When this study's aim took into consideration, it can be clearly seen that making an analysis of the mentioned interaction is subject to another research. At this point, taking the focus point of this research in to the center it would be more accurate to focus on the relationship between information technologies and systems and strategy practice.

Information technology basically undertakes four functions in an organization as data transformation, data storage, data processing and communication-information flow (Fletcher, 2010). Especially in the last two decades, abilities' and functions' characteristics of information technology has grown rapidly as the reflection of both the rapid development of information technology and organizational variations emerged from these developments.

When the literature is reviewed, it is possible to say that information technologies and systems affect strategy practice process at least in two aspects. First of them is related to the effect that information technology and system create on executive mechanisms. It is one of the generally accepted approaches that information technologies can boost the capacity of executive mechanisms both in strategic management and organization. For instance, information technologies make significant contribution to especially organizations that expand to extensive geographic areas or a single organization in which stuffs done indifferent to each other even it doesn't expand to an extensive area, both inter-departments and problems between different branches in different areas and collecting the data related to performances, evaluating these, taking new precautions according to these evaluations and setting new aims.

Normally it takes long for these processes, but thanks to information technologies use now it can be done in a very short time. These points to the efficient role that information technologies undertake to collect the data needed for performance and problems (Hagstrom, 2000). Moreover, information systems and technologies significantly facilitate team-work, one of the important working styles of today's as well. Information based e-mails, tele-conferences and video-conferences did via computer both facilitate the communication between team-mates and enable the stuff that are at different areas and departments to attend the team work tasks and make suggestions for solution of the current problem without leaving their place. At this point it can be said that information technologies significantly solve the team work problems arose from the time and place differences (Rockart & Short, 2009).

The second contribution of information technologies and systems to the practice of strategy is related to the information delivery and the potential it has about learning. For example, electronic communication systems allow the employees in a business to communicate freely with each other. Thanks to this free and easy communication it is possible to debate on problems, find solutions to debated problems and share the practices that are thought to be ideal. Beside this, decision support systems and some other specialization systems ( systems set up according to the works business carries on for example if it is thought for this hotel reservation and front office systems) can take a pragmatic role in solving the specific problems that need specialization for recruits or less experienced personnel. By the way, the opportunities for online learning that information technologies provide to employee shouldn't be forgotten.

Although the facilitator potential of information systems and technologies are in practice, executive information systems can make the strategy practice process a bit more complicated. One of the important reasons for this is that, information technologies and systems require new abilities, roles and responsibilities of a business. More importantly, new information technologies come out and brought in business can lead some unanticipated problems over the business. Beside this, it should be remembered that using information technologies requires having their own cultures for both business and users. That is, information technologies aren't trend but an important tool that provides the organization competitive superiority. Culture will take an important role in development of this idea (Peppard & Ward, 2004; Atkins, 1998).

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## 2. METHODOLOGY

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As it can be understood from the title its design is a case study. The most important reason why the case study

is chosen is because it is not much possible to analyze strategic practice process independently from the business it occurs. In fact, even if it doesn't occur as much as the strategic practice process executive information systems use and ability vary depending on the business it belongs. The same information systems are used in different ways and different efficiency level from each other by different business. The determinant effect of the business is the primary reason that leads us to case study method. The selected method can serve worthless data for the process that isn't possible to be explained, interpreted and seen extrinsically between specific properties and the researched topics because of the nature of the method. This data (thought at the focus point of the study) is needed substantially.

The business in which the case study conducted is İstanbul branch of a Turkish based hotel chain that has branches in different parts of Turkey. Its name cannot be declared here as the correspondence and negotiating are still going on for the required permission from its headquarter. Data collection period is about a month in this business. During this time period of 3 senior and 2 mid-level managers in this hotel were each interviewed for two hours. The center of these interviews was the role that information systems undertake. The interviewees were asked a single question "For you what is the role of information systems in use for the strategy practice". To collect data pertaining to information systems and technologies, relevant department's manager was interviewed. In this interview the department manager was asked questions about bringing the information technologies in business, what kind of systems they use in business and political business fallow about this kind of technology and systems.

All the people interviewed are university graduate and took specialization education in their field. In the study, beside the data gathered in interviews; web sites, records taken from various departments and research reports about employees that business itself collected (for the stuff training) were also used as data source.

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### **3. DATA ANALYSIS AND INTERPRETATION**

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In the institution study carried out, four different automations are used for front office service, cost calculation, stuff and need observation and handling services. All these automations were bought from different companies. Company outscore the whole information services, employees work in information services (information department) are assigned to provide technology and systems, bought from outside, work properly. This department's stuff also decides about bringing the information technology and automation in business.

Executive information systems, in researching a hotel, changed certain works and decision process pertaining to hotel management from by no means a tough structure to a procedure which has certain principles and norms. Information technologies' role in practice is mostly about this. From this aspect, executive information systems primarily taking a significant role in strategic practice make an important contribution to developing the executive culture which undertakes a significant function in success of strategic practice process. In this executive culture, for the sake of the role that information specialists take on its dominance has risen up and it has become one of the strongest occupation in the organization. In the period when information technologies and systems didn't develop so much, the power was gathered in the hands of suppliers. In time, the suppliers have to share their power with marketers and financiers. Due to the development of information technologies and its becoming an inclusive structure for all functions of business, the power center has moved through the information specialists.

However, this situation has led to some kind of resistance towards information specialists. Required sociological background for information specialists to work easily and efficiently hasn't been formed yet. It can be interpreted that this circumstance can influence negatively especially using information technologies and systems efficiently and actively in our country. In the circumstance of occurring of this negative effect, there may be a narrowing of the role of information technologies in strategic practice naturally. Collected data shows that information systems in the research institution substantially fit in the structure described.

One of the most important effects of information systems on strategy practice is the difference they create the decision process. With information technologies some accounts (all costs) have started to be calculated automatically so the decision process has become faster. Information systems along with speeding up the decision process, it has made significant contributions to quality of decisions taken. In that what managers need mostly is accurate and valid data they are used by. The more we have accurate and usable data about a point the greater our decision's accuracy will be. It is clearly seen by various sources and interviews done with managers that the higher the use of frequency and variety of information systems is in the research business the greater percentage of right decision level will be. In addition to all these with the help of information systems, we have faster feedback mechanisms and owing to these mechanisms mutual interactions get higher and these interactions have the function of an independent data source for those who are responsible for taking a decision.

Another point information systems have an active role in strategic practice is about procedures and instructions of the strategy aimed to be implemented.

As it is known while every strategy is implemented, procedures and instructions about carrying some actions but are developed. Information systems in research hotel enable procedures and instructions arose or differentiated according to the strategy in progress to be easily followed by everyone. It can be suggested that this situation can make significant contributions to efficient use of primary time and all other sources that have an important part for strategic use, by making all actions properly that have to be done.

Another important role that information systems take in strategy practice is the role they take in organizational change strategy requires. It is well known that practicing a strategy new is always accepted as a milestone for the institution. No sooner strategy started to be used then it changes a lot of the phenomenon and technics. Their executive information systems help renewal occurs successfully by conducting such a renewal progress effectively. As it is well known in institutional change learning and training are accepted as two basic activities. In research institution information systems carry out an effective learning and training (with the help of online communication and training) task.

Automatic data transfer system come out with the help of information systems not only enhances the decision making process but also enables data which is very important in strategy practice to reach relevant department systematically. All senior, mid-level and junior managers of hotel chains have had the change to transfer their own data to each other whenever needed thanks to this data transfer system, so the information flow in the organization has become transparent and there have become valid data storages. This also serves as an effective control mechanism for institutional and lots of decision related to employees and branches are made thanks to this data.

Besides the information systems mentioned contributions in practice, providing business with information systems leads some problems for both strategy implementation in private and other general activities of institution such as the meaning attributed to system, information systems' place in institution's culture and the quality of information systems users.

Primarily it can be said that the problems defined as related to information systems are not because of the nature of information systems but culture created by institution's social structure for information systems. They are the areas, not information specialists but managers can seek solutions to. The main reason of these mentioned problems is information systems being separated and not being integrated to each other. Systems are taken from different companies at different times to carry out different functions also raise some problems for departments and communication problems between activities and carrying out associated processes. For

example, accounting and reservation systems process through two different systems bought from different companies. These two activities are linked to each other. However, using different systems both extends process duration and raise some communication problems between these two sections during activities. This separated structure sometimes effective decision taking and quality negatively in the research business. Due to these separated systems, using information systems are sometimes limited and employees try to find alternative practical solutions for themselves. (E.g. After reservation cost accounts need to be done manually and entered the system by staff). As different departments use different systems there may be sometimes some problems about carrying out activities because updates are not done by the relevant person. For instance, reservation and front office processes are done by using different interfaces. When this occasion unite with two activities' gathering in different departments there come out some problems. For example, an update not done or delayed in reserve section can lead to some serious malfunctions in front office activities. Similar occasions are the same for sale offices in other departments. Sales offices use a very different interface from hotel's other systems. This occasion sometimes raise significant problems for sales office's activities reaching to other departments and other department's making an action plan according to these activities. It is possible to add other iterate problems to these problems. However, as it was stated before these mentioned problems are about business' politics of incorporating information systems. It is a more related problem with executive preferences than information. However, information systems' finding themselves a place in academic literature as management information systems make significant implications about who should take a more active role in solving these mentioned problems.

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## CONCLUSION

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As it was stated clearly before, the main focus point of study is to debate on "the role of information systems in strategy practice. Data collected parallel to this focus point clearly indicates that information systems' may make significant contributions to strategy practice at these points.

a) In terms of decision process, contributing to forming certain procedures that enable this process function properly.

b) Boosting decision process via providing accurate and quick data.

c) Assisting taking vintage (right) decisions.

d) Enabling procedures and instructions, related to varied or arose actions according to strategy in practice, to be followed by everyone easily.

e) Enabling data that is very important in strategy practice to arrive relevant sections systematically (automatic data transfer).

Besides information systems' these mentioned contributions to strategic practice, it is observed that they cause some problems as being the extension of information and technology politics of research business. (Partial automation structure sometimes effects decision taking and the quality of decision negatively). However, these problems are not because of information systems' nature (that is, if information systems are obtained correctly and used accurately, these problems won't arise) but information politics of the research business.

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