

Executive Information System A Competitive Approach to Managing Information

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Abstract: Today's environmental forces change the way of operating a business organization. Recent trends like global competition, advancement of information technology, empowering people, quality craze, etc. create opportunities and threats for today's businesses. Managers failing to cope with these changes will create threats to the survival of the business. They will have to take strategy, either of availing opportunity or of facing threat created by the changing environment. Therefore, at this stage, managers can perform their functions effectively and efficiently only if they have constant access to reliable and relevant information. In recent the executive information systems (EIS) have proved worth to information requirement of the top management of Bangladeshi business enterprises. The challenges of these business enterprises have been analyzed on one side and the availability of information systems to the managers is examined on the other side. Finally an attempt has been made to know the role of EIS in managing information to face the challenges of the business environment. It is clear from the findings that very few managers of these businesses have got opportunity to use EIS to be competitive in managing information.

Key words: Environment, Challenge, Information and Management

Introduction

More and more organizations today face a dynamic and changing environment. This, in turn, is requiring these organizations to adapt. "Change or die" is the rallying cry among today's managers worldwide (Robbins 2001). Major shifts of today's business environment are globalization of world trade, technology advancements, changing nature of workforce, empowering people, etc. The implications of such changes may vary from organization to organization. But it is imperative for today's managers to adopt right strategies with respect to the implications of those changes occurred. Irrespective of different ideas shared by leading management thinkers, one message is clear that the current model of strategy and structure are woefully inadequate to meet the imminent challenges of the information age.

In recent years we have seen that some new industries are created in one hand and some others lost forever through legislation, new product development and technological innovation etc. In such cases the past may be of only minimal value in establishing strategy for the future strength and performance of the enterprise. If the past no longer significant guides managerial decision makers, then they must rely on new information and speculation regarding the future for the strategic planning. (Mckenna 1991). Significant advances in the related technologies of computers, telecommunications, data access and storage devices, graphics equipment, and software have created a wide spectrum of new opportunities for managers. (Parsons 1984).

The interaction of two variables viz., information technology economics and challenging business environment has generated what might be called the economic imperative of information technology (Benjamin et. al. 1984). Managers rely on relevant information to formulate strategies facing environmental challenges. The information has to be accurate and timely to them. As strategically important resource, managers have been trying to apply important approaches to manage information. Since they have to consider the relevance, efficiency and timeliness of the required information, it is important to exploit affordable information technology. It is evident from research findings that management information system (MIS) and decision support system (DSS) have failed to satisfy top management's information needs. Most recently executive information systems (EIS) have emerged as the favored candidate for providing top management with the information that they require (Fitzgerald and Murphy 1994). This study focuses the benefits of EIS to face the challenges ahead. Since, EIS has been seen useful to many business enterprises; the study is an attempt to know this information system as a competitive weapon of managing information in facing the challenges of today's business environment.

Materials and Methods

Some of the important literature in the subject matter has been reviewed first to know the way of managing information as strategically important resource. The idea shared by successful organizations in the western countries has been thought of theoretical structure of this study. The study considered fifteen midlevel managers of different business enterprise of Chittagong City. From the discussion with the sample respondent, the author tried to identify important challenging issues of the ever changing environment of their business operations. Then the author conducted a

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survey to understand the nature of the environment, information practices and also to have their preferences to manage information. Simple statistical analysis has been used to interpret the data. The most important limitation of the study is its scope. Only fifteen managers can not be fully representative of the business entries in Chittagong. However this will be no doubt bringing focus some indication which many lead to broader and comprehensive study on the topic.

Objectives: The study is an attempt to find an effective approach of information management called Executive Information System (EIS) to build strategy so as to be coped with the changing business environment. Therefore the specific objectives of the study are as follows;

To analyze the challenges of business environment to understand their implications on business enterprises,
To examine the availability of information management system to avail of opportunities and to face threats of the business environment and to understand the role of executive information system (EIS) facing the challenges of the business environment.

Framework of the study

The Business Environment: Global Context In the 1970s the world reeled from the shock of quadrupled prices for petroleum, and organizations from General Motors to the Post Office had to decide how to reconfigure themselves to take this external event into account. The 1980s saw a dramatic shift from local to a global playing field as strong organizations from Japan, Korea, Europe and other areas identified competition for markets across the world. In the 1990s new technologies for communication and information processing (ranging from inexpensive fax machines and notebook computers to super powerful new computers) and geopolitical upheavals have revolutionized the way we think about organizations. Indeed, all of these factors and many others are part of the organizational environment that managers must take into account. (Stoner et. al. 1997). The subcontinent is no exception to this new rule of business called 'globalization' and advancing of information technology. Now anything can be made anywhere and sold everywhere (Thurow 1996). The result is that the prospects for nearly developed economies look very encouraging. In line with other noted commentators the evolution of "world order" in terms of a fundamental shift in the nature of work is the move from the industrial to the information age. The world economic ranks of the twenty first century will be dominated by the "tiger" and "dragon" economies of South-East Asia and by the innovation, "Knowledge Industry" regions of the currently dominant economies. (Mc Clements and Smallman, 1998)

The implications for business in the context of advanced information technology (IT) are clear, which may be as follows:

it will become difficult for commercial organizations to gain competitive advantage over their rivals;
manufacturing location will be less important than the quality of the brand;
international ownership will become more important than it already is;
there will emerge an international market in skilled international managers; and
organizations will have to become doubly strong and sound in structure not just to survive these scale changes, but adapt to them, their driving ideologies and technologies in order to avail themselves of the new opportunities offered by the upheaval. (Mc Clements and Smallman, 1998)

Managing Information to Face the Challenges: Given the nature of the changing environment the quality of management is one of the most important factors in the success of any organization and effective management is a key factor in economic growth (Mc Clements and Smallman 1998) Managers have to analyze the industry in which they are doing business. Then they can try to identify their own strengths and weaknesses to fit into the environment. Managing the business effectively and efficiently requires important information to have a clear idea over the situational factors. Executive information system has been emerged as competitive approach to managing information as it is a user friendly, graphically oriented, computer based information system that provides rapid access to timely information and direct access to management report. (Rowely 1994) Significant advances in the created technologies of computers, telecommunications, data access and storage devices, graphics equipment and soft ware have created a wide spectrum of new opportunities for managers (Parsons 1984).

The factors identified in the literature to explain the emergence of EIS may be categorized under three board factors. (Fitzgerald and Murphy 1994).

An increased readiness on the part of executives to make use of computers

The competitive nature of today's business environment.

The availability of appropriate enabling technology.

It is common to most of the companies that top level managers are not interested to use computers to get relevant

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information for their important decisions. They want to get the same in a ready form and have a look before making decisions. Indeed, competitive nature of business looks for a way out and tries to find strategic use of information. Sometimes, EIS is useful to analyze and explain the factors of ever-changing environment, finally, the availability and affordability of IT is also a question for most of the developing countries in which technology is transferred from the west.

In such an issue, EIS must have the following features to be useful in managing information.

- Provides timely information in a form that the executive can use
- Offers arrangement of presentation formats.
- Allows the manager to browse.
- Have a simple yet powerful interface
- Offers access to wide range of external and internal data.
- Offers tailoring and customization
- Analytical and modeling features

Findings of the Study: More or less same as other parts of the world, the business enterprises of the region also faced pressures due to recent changes occurred in its business environment. The study has revealed the implications of such changes on the business enterprises considered. The responses common to all of the managers of the business enterprises of the study are given in the Table 1.

Table 1: Implications of major changes of the environment

Major Changes Occurred	Implications
Globalization	Competitive pressures from exporters
Increased production efficiency	
Ease of international trade	
Customers preference for imported goods	
Advancing IT	Better business operations
Resource efficiency increased	
More value addition to customers	
Managing People	Professionalism orientation
Empowering people	
Downsizing creates problem	

Table 2: Extent of using information in business operation

Scope of using information	Mean Score (1- least important, 5- mostly needed)
Easy access to routine business activities	3.4
Facilitates smooth operation of the system	3.2
Communication and Implementing routine decisions	4.2
Solving interpersonal problems	2.0
Formulating Strategy	1.5

The table gives a general set of implications of the changes occurred in the business environment. It does not necessary that these are the only set of implications of each change. There might be other implications of the changes, but not included in the list. The implications described here assumed to be common to most of the business enterprises. The implications of the changes have got unique responses to each of the enterprises, but the study has focused general responses common to all the business enterprises. It can help the study to get a general description of the business environment affecting all the business enterprises. It is true that there are threats as well as well opportunities of the changes occurred. Each of the business enterprises has its strategic decision to avail of opportunity and of facing threat.

It is clear from the study that EIS emerged with basic characteristics to analyze and understand the changes occurred in the business environment. This sort of analysis helps the managers to fulfill the needed information adopting strategies required to face the challenges. At this stage, the study tried to know the practices of information management of the business enterprises. Responses are showed in Table 2, which are the averages of the responses collected on a five point scale on few practices of the managers interviewed. The data reveal that the mean score of strategy formulation is below the level while the same score of communicating and implementing routine decisions is close to the maximum score. It means, the strategic use of the resource "information" is not up to the satisfactory level.

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The mean scores against each scope of using information to business operations show that most of the cases information being used to communicate and implement routine decisions. Then information is used to get easy access to routine duties and responsibilities of the employees and also to facilitate smooth operation of the system like, production system, distribution system, etc. But it was also found that information is not that much used to solve interpersonal problems like conflict between salesman and customer, supervisor and worker, etc; and to formulate strategy. Therefore, the study has revealed that information is not being used in strategically important scopes of the business operations.

The study also has revealed an interesting finding in system preferences of the managers which gives a clear picture that EIS is not familiar to most of the managers. Till the date managers depend mostly on their reports generated from business operations. They prefer to use computers to write letters and serving notice or office memo. Exceptionally some of them preferred to use MIS to provide necessary information (Table 3).

Table 3: Manager's preferred system of managing information

System Preferred	Managers responded	%
Through reports from routine business operations	12	80%
Management Information System (MIS)	3	20%
Using computers to prepare reports, to type letters, memos	5	33%
IT based information system	NIL	NIL
Executive have access to EIS	2	13%

The table shows that 80% managers of the enterprises studied preferred to use reports generated from different operations to manage information. It means they are not used to with efficient and strategically useful approach to manage information. Then only 33% managers of the study preferred to use computers to prepare reports important for business operations and decisions, type letters and memos for communication. So, the extent of organizing information using computer is also least in this case. Only 20 percent of all the managers interviewed preferred to use a separate MIS to manage information. While only 13% managers have access to EIS and none of them preferred IT based information system.

With the above preferences given by the managers of the enterprise, the study also tried to find out the importance of EIS in relation to environmental factors identified. The following table explains this relation by figures representing the number of respondents on three different scales like *agreed*, *differed* and *indifferent*

Table 4: Figures showing number of respondents find relation between environmental factor and EIS

Environmental Factor	Agreed	Differed	Indifferent
Competitive pressures form importing countries	5	8	2
Increased production efficiency	7	3	5
Ease of international trade	9	4	2
Better business operations exploiting IT	12	NIL	3
Managing people	5	8	2

Therefore, it is evident that a good number of managers find relation between environmental changes and the efficiency of information. Even they have agreed to mention its relation to environmental changes; they have no preference of using EIS as a system to manage this important resource. It is clear that the executives are depending on their subordinates to provide necessary information. Moreover, they are reluctant to work on computers. But they have no idea about competitiveness of EIS as an approach to manage information.

Conclusion

It is worthwhile to accept the realities of the important changes occurred with the business environment. Despite all the pressures coming from the changes occurred, there are ample of opportunities of creating competitive edges. Searching of the opportunities in advance and availing of the same, requires relevant information of the satiation. So, an effective approach has to be invented and implemented in such an information management. It has been proved to be an effective approach for availing of opportunity created by the environment of the business also for facing the threats of the same set of changes occurred. EIS has offered excellent approach to solving this problem of information management. Since, EIS has got all the necessary features to make available the right set of information before top management of the business enterprise.

The study has showed that the managers of the business enterprises have not been effective and efficient in

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information management. As because the study revealed that the business operations did not use computerized information processing and reporting to make decisions important for addressing the changes occurred in the business environment. It was also found that the scope of information used in business operations also limited to only communication and implementing routine duties and responsibilities. Although they thought that there is a relation between the environmental factor and information efficiency, but the business enterprises still far behind the effective information management to face the challenges of the business environment. So, the real situation of the business enterprise looks for an effective approach to managing information, and EIS could be one of the efficient approaches to manage information in this regard.

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