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## *Management Information System: Are you missing the Bus? (A Case Research)*

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*Abstract: In an ever more rising economy, consumerism and competitive environment, Marketers are looking to expand their portfolios. The Information technology has revolutionized the business environment and has changed economies, organizational, social and business structure.*

*The present case research paper puts forth a study on one of the major equipment and machinery manufacturing company.*

*This company is a leader in its product category and in the phase of diversification from trading to manufacturing. As this move of the company has a call for a paradigm shift and initiated many simultaneous process including establishing sound Management Information System. The majority of the Indian firms are in to the business with traditional approach. The employees working in such an environment has a resistance for new technological applications. This case represents a glocal competitive environment situation and describes a situation in which the company's management wants to implement some of the good practices and process but finding it equally difficult to implement. The study emphasizes MIS and its application in various aspects of business management including Marketing, Production, Human resources development, Research and development, new product development, strategic planning etc. This unbiased study is a bare observation about how the organization and people working in it evolves. The present study involves a series of events which are quite normal for any Indian company. When the problem comes across how the concerned stake holder of the company responds to the situation and how he tries to address the issues is worth observing.*

*Keywords: MIS, Technology, Trading, Organization, Diversification*

### I. BACKGROUND

In the recent years, the wide range of products, the increasing use of technology, automation, lean manufacturing, quality assurance, materials management techniques, economies of scale and superior supply chain management has given customers a real taste of consumerism.

The long-term success of a company depends upon the adequacy of its strategic plans. An organization's management team uses information systems to formulate strategic plans and make decisions for the organization's longevity and prosperity. The business uses information systems to evaluate information from all sources, including information from external references such as Reuters or Bloomberg, which provide information on the general economy. This analysis of and comparison to market trends helps organizations analyze the adequacy and quality of their strategic decisions

Information systems aid businesses in developing a larger number of value added-systems in the company. For example, a company can integrate information systems with the manufacturing cycle to ensure that the output it produces complies with the requirements of the various quality management standards. Adoption of information systems simplifies business processes and removes unnecessary activities. Information systems add controls to employee processes, ensuring that only users with the applicable rights can perform certain tasks. Further, information systems eliminate repetitive tasks and increase accuracy,

allowing employees to concentrate on more high-level functions. Information systems can also lead to better project planning and implementation through effective monitoring and comparison against established criteria.

This case study shows how environmental factor especially technology may be perceived as a threat by some of the employees in a given point in time. In this case study we keep our self as a bare observer and put realistic problem by asking the questions to the management students. The outcomes of the study will definitely be helpful for the management students to deal with such critical issues in their career. The formulation of strategies mostly depends upon the environmental scanning. The case study is developed in context to India. The name of the real organization has not been disclosed as per the request of the concerns.

## II. RATIONALE

- » Familiar and enjoyable learning methodology
- » Provides a degree of richness to understanding
- » Helps explore totally different dimension to understand industrial marketing in dynamic environment
- » Encourages critical thinking skills
- » Enhance effective decision making

## III. THE CASE

Mac Bevel Gears Limited was in the business of trading of various mechanical parts and equipments including gears and shafts.

The company entered into agency agreement with different leading domestic and foreign Manufacturers. Mac Bevel Gears Limited was doing quite well. It had a turnover of 100 Cores and employed 178 on roll and equal numbers of off roll employees. The company is a market leader with 74% market share in central India. Its exports contribute to the 16% of its overall revenue. It is operating in a market characterized by few competitors. The gears contribute towards 70 % of overall revenue. These products are technical in nature and have unique applications. It had enjoyed considerable market preference for its machineries. The company has demand and supply ratio of 1.35:1. Usually there have been more orders than what the company could supply.

To meet the growing demand the company diversified into manufacturing and established its manufacturing unit at Dewas in the early 80's. Initially the company hired a team of 19 technical personnel led by Mr. Biju who had a vast experience in the relevant field. Mr. Biju was a Mechanical engineer and had about 22 years of shop floor works experience in the similar industry at Anand (Gujarat). Mr. Biju was appointed as a Vice President (Operations). He started the erection and set up of manufacturing unit at Dewas for the company. This newly recruited team includes Mr. Altmash (Head, R&D) and Ms. Deepika Pradhan (Director, Quality Assurance). The marketing department is headed by Mr. Anil Billore. Mr. Anil noticed that as the company is under the process of vast diversification with increased business activities, needs integrated information system. This could not be build up since the company graduated from a small scale level. Mr. Anil has been working with the company since its inception and started his careers a pilot sales man at one of its distributors. Initially he tried to develop the information system but it was more based on the needs felt rather than planning. He communicated the need of Management Information System to the CEO of the company Dr. Preamsingh. Dr. Preamsingh is an Engineering graduate from USA and has an interest in automation and computerized processing. He was highly convinced about the idea of Mr. Anil Billore and immediately asked his Human resources department to put an advertisement in leading national newspaper inviting the application for the post of MIS manager. The company constituted a committee comprising of Mr. Biju, HR manager, Mr. Anil Billore (Marketing Head) and Mr. Jain (Manager Administration) for the selection of MIS manager. After receiving the information about recruitment process of MIS manager, Mr. Biju was not convinced by the idea of hiring a person for MIS.

After receiving the applications Mr. Biju reluctantly joined the selection committee and finally they recruited Mr.Y. Shridhar for the said post who had a post graduate degree in computer science and had an experience of about 15 years in a large MNC's MIS department. Shridhar was very happy on this appointment as he was offered very profitable emoluments. Mr. Biju later on came to know that the appointment of MIS manager is done on the suggestions of Mr. Anil Billore.

After his joining Mr. Shridhar had a meeting with the CEO to get the first hand information about expectations from him as an MIS manager. CEO Dr. Prem Singh has asked him to meet various heads of the department of the company to get the brief idea about their information needs. However, he accepted that the company up to some degree fails to keep pace with the technological up gradation in computerized processing of the information.

A meeting of all the heads of the departments was convened and chaired by CEO. In the meeting Shridhar had a discussion to understand their information need and the information that could be generated from different parts of the organization. Mr. Shridhar asked each head to facilitate a brief report identifying major and minor information needs of each department and issues concerning them. He circulated the over view of MIS and its benefits (Annexure-1) through the email to all concerns.

In the reports of the department, The Marketing Head emphasized that the company lacked an integrated planning and MIS. In absence of such system the company can't read the pulse of the market. In his opinion this system is highly required to foresee the opportunities and threats and to take the necessary steps. The marketing Head indicated that he needed MIS to provide sales support and product development according to the demand. The demonstration team also needs MIS which could be sent to customers to win business. The marketing manager also emphasized that he needed more professionally qualified sales team which can use the MIS in forecasting and increasing sales revenue.

The works manager Mr. Biju complained lack of resources. He emphasized that there is no requirement of MIS in the company and it can be developed based on the need. He was more concern about cost of production and corresponding quality. He stressed that Competitors have better equipments and machinery. He was strange about Mac Bevel Gears Limited did not considered diversification earlier. He suggested that the automation is the only answer to quality enhancement and production.

Mr. Altmash (Head, R&D) shown his discomfort over company's less focus on MIS. He stressed on hiring employees having experience and sound track in the field of information management who can provide them the information relevant to research and development in time. He suggested that we are dealing in technical products and technology is changing very fast and if we do not adapt and upgrade our products then we cannot meet the challenges of modern times. He indicated that if we emphasize on short-term research Projects, then we can easily increase production efficiency by at least 15 once the plant is operational.

Ms. Deepika Pradhan the Director of Quality assurance also indicated the need of efficient MIS to get the updates about quality standards and norms in the domain. She insisted that the information and technical data furnished by her department will also be significant for other departments.

The purchase and materials management department head said he badly needs a professionally managed sound MIS department. He opined that the production and purchase departments will be highly benefitted by sound MIS. Although Mr. Biju who will be responsible for the production is not convinced. In the absence of MIS the purchase department end up compromising on quality of material supplied.

Mr. Shridhar did not get any report from accounts and administration department. So he decided to meet Mr. Jain (Accounts and administration Head) in person.

During his conversation The Accounts and administration head Mr. Jain who is in his 60's indicated that he has been working in this company since he was 15 years. He said that he does not feel the need of MIS department in any way. The way in which he is working is all right. He further added that the founder of the company Mr. Kasturchand (Father of CEO) did a

charity by giving employment to him in this company because he belongs to the same village where Mr. Kasturchand used to live. He calls the promoters by the nick name of 'Bhaiya Ji'. People in the organization told that Mr. Jain has a say in virtually every affair of all the departments because he pretends to be very loyal and close to the promoters family. Mr. Shridhar noticed that the way of working in the accounts and administration is very conservative and the employees are also not professionally qualified.

Mr. Shridhar also had a word with major distributors from central India. The distributors told that they have been associated with the company right from its inception. Some distributors indicated that they started their business of distribution by the motivation and support of Mr. Kasturchand. One distributor Mr. Ramswaroop told that he handed over his business to his two sons who are professionally qualified. The young generation has a different approach of doing the business and they are well updated with the technological changes. They are well informed and want to explore more in order to improve revenues and turn over. They are insisting to have sound MIS in the company so that they can furnish and get the information needed in order to understand and cater customers in better way.

Mr. Shridhar prepared a report based on his interactions with Employees and Distributors and discussed with the CEO. CEO was highly astonished to know about the inert response from Mr. Biju and Mr. Jain.

Mr. Shridhar was on his toes to prepare an effective MIS architecture. Primarily he has to address the issue of resistance from accounts and works departments. He has a variety of questions in his mind and would like to have a brain storming session with his team to precipitate the situation. He wants to have a highly professional approach to address the problem. Looking towards the nature of the problem which seems to be related with the HR he approached HR manager. The HR manager suggests him to have an orientation program for all the managerial cadre employees on role and benefits of effective MIS. Mr. Shridhar has designed the framework of the program and fixed the schedule. The information about the orientation program was circulated among all the prospective partakers. Shidhar decided to invite Mr. Biju and Mr. Jain personally and describe about the orientation program. Fortunately both were having tea together in the plant office when he approached them. He had a conversation with both (Annexure-2).

#### *Questions for discussions:*

1. Discuss the nature and characteristics of the problem in this case.
2. Explain how MIS manager can formulate an effective strategy to cope up with the current business environment.
3. What measures should CEO take to safeguard the interests of the organization at large?
4. The feeling of production and administration heads reveals only a perceived insecurity or is there really a valid point in their contentions?

#### **References**

1. ASI (Annual Survey of Industries) Government of India, New Delhi, Various issues
2. Bernard, P.E and A.Matoo. Development, Trade and the WTO: A Handbook. World Bank. (Ed) (2003)
3. Bhagwati, J.N and T.N Srinivasan Foreign Trade Regimes and Economic Development: India. National Bureau of Economic Research (NBER), NY: Columbia University Press.1975
4. Booshardt and Vishwarao, "Economic Liberalization and Technology Transfer: The Indian Experience". 1999
5. H. Singer, N. Hatti, and R.Tandon (Eds) "Technological Diffusion in Third World" New Delhi, B.R publishing Corporation,2002
6. Dua, E., "Re-Examining Role of Exports for Capitalist Industrialization in Third World",1992
7. Case of Indian Machine tools. Economic and Political Weekly, 29, pp 95-100.
8. Edwards, S., "Real Exchange Rates in the Developing Countries: Concepts and Measurement,1999
9. National Bureau of Economic Research, (NBER) Working Papers 2950, pp.1-52.
10. Bapat, Harish, Soni Vishal and Khare Vinayak (2014) , "A Comparative Study of Service Quality of Selected Indian Banks (A Study in Indore region)",International Journal of Research in Commerce, IT and Management Vol 4(9)2014,pp 01-07

11. Joshi, V. and I.M.D little (1996) India's Economic Reforms: 1991-2001. Oxford Calendon Press
12. Kareem, P.A. (2000) Determinants of India s Machinery Exports, 1970-87. Indian Economic Journal, 49 (2), 38-48.
13. Developing Countries The Review of Economics and Statistics, MIT Press, vol. 70(2), 315-21.
14. Kumar, N and N. S. Siddhartha. (1994) Technology, Firm Size and Export Behavior in
15. Developing Countries: The Case of Indian Enterprises. The Journal of Development Studies, 31(2): 289-309.
16. Havaladar K., "Industrial Marketing":Tata McGraw-Hill Education, 2005
17. Kotler Philip, Kevin Keller L., "Marketing Management":Prentice Hall, 2012
18. Dholakiya Ruby Roy, Marketing Practices in Developing Economy: Cases from South Asia. Prentice Hall India,2012
19. Malhotra K. Naresh (2006), Marketing Research, Fifth Edition, Pearson Publication.
20. <http://www.mu.ac.in/mis.pdf> accessed on 27.1.15 2.30 PM
21. [http://en.wikipedia.org/wiki/Management\\_information\\_system](http://en.wikipedia.org/wiki/Management_information_system) accessed on 04.2.15 12.30PM
22. <http://ustudy.in/node/702> accessed on 02.02.15 4.00AM
23. <http://mbastudymaterial4u.blogspot.in/2012/04/what-is-role-of-management-information.html>accessed on 04.1.15 9.00 AM
24. <http://smallbusiness.chron.com/three-fundamental-roles-information-systems-business-23681.html> accessed on 04.1.15 10.00 AM

### **Annexure-1**

#### **Management Information System (MIS): An over view**

##### ***Role of MIS in Management:***

- » The role of the MIS in an organization can be compared to the role of heart in the body. The information is the blood and MIS is the heart. In the body the heart plays the role of supplying pure blood to all the elements of the body including the brain.
- » The MIS plays exactly the same role in the organization. The system ensures that an appropriate data is collected from the various sources, processed, and sent further to all the needy destinations. The system is expected to fulfill the information needs of an individual, a group of individuals, the management functionaries: the managers and the top management.
- » The MIS helps the clerical personnel in the transaction processing and answers their queries on the data pertaining to the transaction, the status of a particular record and references on a variety of documents.
- » The MIS helps the middle management in short term planning, target setting and controlling the business functions. It is supported by the use of the management tools of planning and control.
- » The MIS plays the role of information generation, communication, problem identification and helps in the process of decision making. The MIS, therefore, plays a vital role in the management, administration and operations of an organization.

##### ***Uses of MIS in Management:***

1. It deals with transaction processing such as answering the questions, status of a particular record and variety of documents.
2. It gives operational data for planning, scheduling and control.
3. It helps in decision making and to correct an out of control situation.
4. It helps middle management in short term planning, target setting and control the business functions.
5. It helps top management in goal setting, planning business planes and its implementations.
6. It helps in generating information, communicating of the generated information, problem identification and helps in the process of decision making.

##### ***Components***

The terms management information system (MIS), information system, enterprise resource planning (ERP), and information technology management are often confused. Information systems and MIS are broader categories that include ERP. Information technology management concerns the operation and organization of information technology resources independent of their purpose.

Management information systems produce fixed, regularly scheduled reports based on data extracted and summarized from the firm's underlying transaction processing systems to middle and operational level managers to identify and inform structured and semi-structured decision problems. The different components of MIS are used widely as follows:

Decision support systems (DSS) are computer program applications used by middle and higher management to compile information from a wide range of sources to support problem solving and decision making. A DSS is used mostly for semi-structured and unstructured decision problems.

Executive information systems (EIS) is a reporting tool that provides quick access to summarized reports coming from all company levels and departments such as accounting, human resources and operations.

Marketing Information Systems are Management Information Systems designed specifically for managing the marketing aspects of the business.

Office automation systems (OAS) support communication and productivity in the enterprise by automating workflow and eliminating bottlenecks. OAS may be implemented at any and all levels of management.

### ***Benefits of MIS***

The following are some of the benefits that can be attained using MISs.

- » Companies are able to identify their strengths and weaknesses due to the presence of revenue reports, employees' performance record etc. Identifying these aspects can help a company improve its business processes and operations.
- » Giving an overall picture of the company.
- » Acting as a communication and planning tool.
- » The availability of customer data and feedback can help the company to align its business processes according to the needs of its customers. The effective management of customer data can help the company to perform direct marketing and promotion activities.
- » MISs can help a company gain a competitive advantage. Competitive advantage is a firm's ability to do something better, faster, cheaper, or uniquely, when compared with rival firms in the market.

### ***MIS: Enterprise applications***

Enterprise systems—also known as enterprise resource planning (ERP) systems—provide integrated software modules and a unified database that personnel use to plan, manage, and control core business processes across multiple locations. Modules of ERP systems may include finance, accounting, marketing, human resources, production, inventory management, and distribution.

Supply chain management (SCM) systems enable more efficient management of the supply chain by integrating the links in a supply chain. This may include suppliers, manufacturers, wholesalers, retailers, and final customers.

Customer relationship management (CRM) systems help businesses manage relationships with potential and current customers and business partners across marketing, sales, and service.

Knowledge management system (KMS) helps organizations facilitate the collection, recording, organization, retrieval, and dissemination of knowledge. This may include documents, accounting records, unrecorded procedures, practices, and skills. Knowledge management (KM) as a system covers the process of knowledge creation and acquisition from internal processes and the external world. The collected knowledge is incorporated in organizational policies and procedures, and then disseminated to the stakeholders.

#### Annexure-2

Shridhar had a meeting with Biju and Mr. Jain in Plant office, which was adjacent to the administrative block and the conversation took place as follows:

**Shridhar:** Good morning to both of you sir.

**Jain:** Good morning. How do you do?

**Shridhar:** I am fine. Sir, I want to share information about the forthcoming orientation session on MIS with both of you sir.

**Biju:** I do not see any need for that

**Jain:** If you want to enjoy a cup of tea with us, you are welcome. But if you want to share such futile information, I am sorry.

**Biju:** We are working alright and management is going to waste the money in MIS. With this money, I could have three more engineers who could have done something meaningful. Well, it is their money if they want to waste it in this manner, what we can do.

At this Shridhar looked visibly upset and left the factory office after saying, "Sir, I will meet you later."

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He has authored various case studies and research papers on diversified topics. His case study 'Fresh Revolution' based on Reliance Fresh has received special mention at IIMC. Another case study developed by him is on Tata's Nano which was selected for presentation at Welingkar institute of Management, Mumbai it was among top four case studies selected from all over India. He has conducted several workshops and faculty development programs at various prestigious management Institutes.

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(IMS), DAVV, and Indore. Dr. Soni has 15 plus years of academic and corporate experience. He has worked with leading concerns such as EBot Technosoft, Shreya Life Sciences, Maharaja Ranjit Singh College of Professional Sciences, Pioneer Institute of Professional Studies, Sanghvi Institute of Management and Science & Patel Group of Institutions. Dr. Soni is a well-known coach & mentor for various organizations. Teaching, Coaching, Mentoring and Corporate Training are the interest areas for him. Dr. Soni has been interviewed by AAJ Tak & Zee TV for his case studies. Dr. Soni has conducted many National Seminars, Conferences, Faculty Development Programs, Executive Development Programs, Workshops, Entrepreneurship Development Programs and Management Development Programs. Dr. Soni is also on the advisory board of Society of Mathematical Development.