



Role of Marketing Information System in Software Industry: A Case Study of Wipro Limited

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ABSTRACT

A marketing information system (MIS) is intended to bring together disparate items of data into a coherent body of information. The MIS is more than raw data or information suitable for the purposes of decision making. An MIS also provides methods for interpreting the information the MIS provides. Around 57 % of the respondents are between 25 and 40 years of the age, 83.8% are male respondents, 80.8% of the respondents have bachelor degree and 13.1% have a master degree. More than 43 per cent have accounting as major and 26.3% have business administration as major. Moreover, 41.4% of the respondents have more than 15 years of experience. The hardware used in the system is available with high grade and affects the decision making process where all the industries are depending on computers on all transactions and processes. The new technology of marketing information system is available with high grade and affects the decision making process because the hardware and the software are the components of the new technology.

KEYWORDS

INTRODUCTION

The marketing information systems are intended to bring together all of the information in order to compile it as a coherent body of information. This information system will contain more than just the raw data and this information can be used for different roles which management has to fulfill on a regular basis. The marketing information system will also feature methods that can be used for interpreting the information provided by the system. It is true to say that a marketing system is a lot more than just a collection of raw information. The main components that make up the system are internal report systems, marketing intelligence system, market research system and marketing models. All of these components are designed to work together in order to allow operational decisions, control decisions and also strategic decisions. In order to be able to fully understand the correct role of the marketing information system it is important to examine the components and what it allows managers to do. In order to be able to appreciate how useful these information systems actually it is essential to be able to understand the way in which decisions are actually made and what problems can be supported by the information systems. It is only when they are fully understood that people will be able to fully appreciate how useful these systems actually are. There are number of components used within the information systems to support managers. These systems cannot actually be used to full capacity until people are able to understand what managers have to do and how they tend to go about doing it. There are really five main jobs that managers have to do and these systems can help with all aspects. The five main jobs the managers to perform are to plan, organise, co-ordinate, make decisions and also control what is happening. These jobs are really what a manager has to focus on as the main aspects of his or her job.

REVIEW OF LITERATURE

Ismail (2011) expressed that the use of the marketing information system for decision making saves time and prevents rework, as it provides information to all the marketing activities regarding planning, promotion, sales of goods and services for both customer satisfaction and organizational goals. Thus, the MIS "supports the marketing plan and decisions, helping the management of information".

Berhan, Paul and Jan (2012) viewed that it is impossible to consider marketing without an information system. In this context, they argue that many companies combine marketing policies and techniques with information technologies, enabling managers to offer distinctive services and products, create value for the clients and generate profits for the organization. Thus, the company's structure must be learning-process oriented, capable of obtaining relevant information from the data related to the decisions to be made and such decisions pertain to the strategies and actions which enable the defined goals to be met.

Gupta(2012) opined that the search for and creation of a competitive advantage can be maximized if the company uses the MIS effectively, increasing the possibility of profiting from the implemented innovations and from identifying other demands that are not met by its competitors, demands which the company would have conditions to explore. The information obtained about customers and the market trends prompted the group to opt for the production of their own products, and, consequently, their distribution by their own stores.

Deshpande (2013) opined that in general, an information system can be defined as a set of interconnected components which work in concert in order to collect, process, store and recover data and distribute information for the purpose of making it easy to plan, control, coordinate and analyze the decision-making process within organizations.

Gabriel (2013) opined that information refers to stream of data that have been processed to the form that it makes sense to its users. Succinctly put, information is organized data that has meaning. On the other hand, system is an assemblage of different but interrelated and interdependent parts that functions as a whole to achieve common interest; a set of elements joined together for a common objective. Judging from these views, it is arguable that every system comprises parts and are interrelated and interconnected; becomes one entity and consequently pursues common goal.

Josimeire Pessoa de Queiroz and Braulio Oliveira (2014) in their paper on Benefits of the marketing information system in the clothing retail business familiarized with the benefits

of the marketing information system in companies that operate in the retail business. A field research was done in a major clothing retailer, by means of a case study that consisted of interviews with two employees of the company, one from the top management and one from the marketing area, based on a semi-structured script, in addition to a documental analysis. The results indicate that information and its systematization possess great importance for the development of competitiveness, contributing to the development of the operations and to the promotion of new business opportunities, as provided by the pertinent literature.

METHODOLOGY

To understand the different roles managers play and how marketing information systems can support them, primary data from 600 employees has been collected by using Convenience Sampling Method from Wipro Limited, Bangalore.

RESULTS AND DISCUSSION

Age

Age is one of the important aspects of demographic characteristics. Age shows experience, understanding, endurance and decision making capacity. The age of the respondents has been elicited and the results are presented in the Table 1.

**Table 1
Age of the Respondents**

Age	Frequency	Percent
Less than 40 years	336	56.6
40 years and above	264	43.4
Total	600	100.0

The shows that around 57 % of the respondents are between the age group of 25 and 40 and 43 % are 40 years and older. The difference appears because the study population concentrates on the management positions in the industry.

Gender

Gender is one of the important variables of demographic characteristics. The gender of the respondents has been elicited and the details are presented in the Table 2.

**Table 2
Gender of the Respondents**

Gender	Frequency	Percent
Male	516	83.8
Female	84	16.2
Total	600	100.0

The table 2 shows that the ratio of the male respondents is 83.8% and the ratio of the female respondents is 16.2%. The ratio is distributes as sees due to the cultural force, and the fact that more men get managerial positions than women.

Educational Attainment

The wealth of knowledge acquired by an individual after studying particular subject matters or experiencing life lessons that provide an understanding of something. The educational status of the respondents has been elicited and the details are furnished in the Table 3.

**Table 3
Educational Attainment of the Respondents**

Education	Frequency	Percent
Diploma or less	36	6.1
Bachelor degree	480	80.8
Master degree	84	13.1
Total	600	100.0

The table shows that around 81% of the respondents have bachelor degree and 13.1% have master degree. The fact that the employees progress in the industry hold them of looking to get a better college degree. In addition, these figures send a positive sign that the employees will be able to deal with the new technology much easier.

Field of Specialization

In any industry different activities need different people with different specializations to suit the work. The field of specialization of the respondents has been elicited and the details are presented in the Table 4.

**Table 4
Field of Specialization of the Respondents**

Specialization	Frequency	Percent
Business Administration	156	26.3
Economics	66	10.1
Accounting	258	43.4
IT	76	14.1
Industry and Financial Sciences	16	4.1
Other (Math, Science)	28	2.0
Total	600	100.0

The table 4 shows that that more than 43 % have accounting as major and 26.3% have business administration as major. The good sign that the study shows that the information technology major has its share in the management positions in the industry, which will directly lead to more use of the new technology.

Categorisation of Employees

Every organization comprises various levels of employees for various purposes and activities. The categorization of employees is presented in the Table 5.

**Table 5
Position of the Respondents**

Job Title	Frequency	Percent
Executive Manager	90	15.2
Manager	126	21.2
Deputy	164	27.3
Marketing Manager	30	5.1
Department Head	72	12.1
Department Head Deputy	12	2.0
General manager assistant	18	3.0
Deputy assistant	66	10.1
Customer service	11	2.0
Other (Accountant, Cashier)	11	2.0
Total	600	100.0

The table shows that 21.2% of the respondents are branch managers, 27.3% are deputies and 5.1% are marketing managers. In addition, the table shows that 15.2% are executive managers. The other 31.2% is distributed between other department heads and the deputies and assistants.

Years of experience

Experience shows maturity and fruitful and successful work. Higher the experience higher will be knowledge and workaholic. The length of the service of the respondents has been presented in the Table 6

Table 6
Service of the Respondents

Experience	Frequency	Percent
Less than 10 years	150	25.3
10-15 years	199	33.3
15 years and above	251	41.4
Total	600	100.0

Table 6 shows that 41.4% of the respondents have more than 15 years of experience, 33.3% with 10 to 15 years of experience and 25.3% with less than 10 years of experience. The distribution is acceptable since most of the respondents have management positions in the industry.

Years of experience as a manager / deputy

The information on the service of the manager has been ascertained and the details are presented in the Table 7.

Table 7
Years of experience as a manager / deputy

Experience as a manager / deputy	Frequency	Percent
Less than 5 years	198	46.5
5-10 years	126	29.6
10 years and above	276	23.9
Total	600	100.0

Table 7 shows that 46.5% of the managers have an experience of less than 5 years, 29.6% with 5 to 10 years of experience, and 23.9% of the respondents with more than 10 years of experience in the management positions. These figures show that the industry is counting on fresh blood to lead the industries, at the same time there is still a big room for older and more experienced employees.

STATISTICAL ANALYSIS

Student t test has been computed and the results are presented below.

Field of The Availability of hardware used in the system

Table 8 shows the following results on the availability of hardware used in the system. The mean of the filed The Availability of hardware used in the system equals (88.2%), Test-value=29.5 and P-value=0.000 which is smaller than the level of significance at 0.05. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 6, which means that the hardware used in the system is available with high grade and affects the decision making process where all the industries are depending on computers on all transactions and processes. Moreover, the industries have top of the line hardware such as input and output units. In addition, the new hardware has the ability to store, access, and retrieve more data faster and more efficient. The industries use new technology to be able to contribute more to customers, and have better communication within the branch and with other branches. All the industries around the world use new technology,

which make it necessary for the Indian industries to use the same technology to perform better when dealing with customers' transactions, especially with the international industries.

Table 8
Means and Test values for "The Availability of hardware used in the system"

Sl.No.	Paragraph	Mean	Proportional mean	Test Value	P-value (sig)	Rank
1.	Current marketing information system your industry utilizes, is based primarily on the computer	9.41	94.1	35.1	0.000*	1
2.	The devices your industry use commensurate with the nature of work	8.91	89.1	25.7	0.000*	4
3.	Your industry uses sophisticated equipment with efficiency and high quality	8.49	84.9	17.5	0.000*	7
4.	The devices used have the capacity storage/ conservation efficiently	8.74	87.4	19.9	0.000*	5
5.	Your industry use equipments which is flexible and can be adjusted & maintained	8.54	85.4	18.1	0.000*	6
6.	Input Units(mouse, keyboard and) is sufficient, and help in the process entering data efficiently	9.01	90.1	25.3	0.000*	3
7.	Directing units (screen, printer,) sufficient, and help in the process directing	9.02	90.2	25.8	0.000*	2
8.	The efficiency of the devices used in the industry contribute to the quality marketing decision.	8.45	84.5	19.3	0.000*	8
9.	All paragraphs of the filed "The Availability of hardware used in the system "	8.82	88.2	29.5	0.000*	

* Significant at 1 % level

Field of the Availability of the Software Components

Table 9 shows the Field of The Availability of the Software Components. The mean of the filed The Availability of the Software Components equals (84.9%), Test-value = 23.4, and P-value=0.000 which is smaller than the level of significance at 0.01. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 6, which means that the Software Components is available with high grade and affects the decision making process where the software used by the industry minimizes the over use of papers between the industries 'departments due to the present of automated communication processes such as e-mail. In addition, the new software ease the retrieval of stores information, and with the presence of high secures systems the industries 'management is not afraid to store all kind of information on the system. The industries also depend on computers to execute the transactions because the new software improves the flexibility of the system and perform in a more efficient way.

The software changes more often than ever before, which lead to having a special department for the information technology in the industries to assist in getting the needed and more advanced software.

Table 9
Means and Test values for "The Availability of the Software Components"

Sl.No.	Paragraph	Mean	Proportional mean	Test Value	P-value (sig)	Rank
1.	Your industry uses programs which facilitate the communication process among different users at the same time.	8.70	87.0	18.3	0.000*	3
2.	There is protection system for marketing database to prevent it from non-authorized person to access the system	9.14	91.4	24.4	0.000*	1
3.	There is flexibility of exchanging marketing information among system's users in your industry.	8.31	83.1	13.7	0.000*	7
4.	The programs used by your industry have the ability of storage, summarizing, retrieval and modification the marketing information.	8.79	87.9	22.2	0.000*	2
5.	The software your industry uses, contributes in minimizing the over usage of papers among sections.	8.45	84.5	14.3	0.000*	4
6.	The software used by your industry facilitates emails utilization.	7.85	78.5	7.0	0.000*	8
7.	The software package your industry use is efficient and effective.	8.33	83.3	16.9	0.000*	6
8.	The abundance and efficiency of the software in the industry affect the quality of marketing decision.	8.33	83.3	16.3	0.000*	5
9.	All paragraphs of the filed "The Availability of the Software Components"	8.49	84.9	23.4	0.000*	

* Significant at 1 % level

Technological part of Marketing Information System

The mean of all "Marketing Information System Technology" equals (86.6%), Test-value =28.2, and P-value=0.000 which is smaller than the level of significance at 0.01. The sign of the test is positive, so the mean of all paragraphs of "Marketing Information System Technology " is significantly greater than the hypothesized value 6, which means that new Technology of Marketing information system is available with high grade and affects the decision making process

because the hardware and the software are the components of the new technology. Both the hardware and software rely on each other, because new software requires new and better hardware. Moreover, the new hardware gives more storage space and more user friendly output. The availability of the new technology especially in the communication part help in making the branches serve the industry's customer very fast even if they are from a different branch.

Table 10
Means and Test values for "Technological part of Marketing Information System"

Field	Mean	Proportional mean (%)	Test value	P-value (Sig.)
All paragraphs of Marketing Information System Technology	8.66	86.6	28.2	0.000*

The table 10 shows that marketing information system technology has highly significant role in the software industry.

CONCLUSION

Marketing information system is widely used for decision making, saves time and prevents rework, as it provides information to all marketing activities regarding planning, promotion, sales of goods and services for both customer satisfaction and organizational goals. Around 57 % of the respondents are between the age 25 and 40, the male respondents is 83.8%, 80.8% of the respondents has bachelor degree, and 13.1% have a master degree, 43.4% is for the accounting major, and the second highest ratio of 26.3% is for the business administration major, 41.4% of the respondents have more than 15 years of experience. The hardware used in the system is available with high grade and affects the decision making process where all the industries are depending on computers on all transactions and processes. The Software Components is available with high grade and affects the decision making process where the software used by the industry minimizes the over use of papers between the industries 'departments due to the present of automated communication processes such as e-mail. In addition, the new software ease the retrieval of stores information, and with the presence of high secures systems the industries 'management is not afraid to store all kind of information on the system. New Technology of Marketing information system is available with high grade and affects the decision making process because the hardware and the software are the components of the new technology. Marketing information system technology has highly significant role in the software industry.

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