

## Primary Characteristics for Marketing Information System (MkIS) for Small and Medium Enterprises (SMEs) in Punjab

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**Abstract:** Main emphasis of the study is to understand the six primary characteristics of the Marketing information system (MkIS) which are considered as a major tool to help companies provide a competitive edge in the era of globalization and have an impact on the growth of the manufacturing Small and Medium Enterprises (SMEs) of Punjab. With a proper MkIS in place, the complete organization can be tracked which can be used to analyse independent processes. This helps in establishing a broader perspective which helps to know which steps can be taken to facilitate improvement. MkIS is critical for planning and no organization can do planning without information. For planning, the first thing which is needed is the organizations capabilities, then the business environment and finally competitor analysis. In a proper MkIS, all these are present by default and are continuously updated. Thus MkIS is very important for planning and analysis. The study uses a survey analysis for 140 SMEs which include 124 small and 16 medium enterprises respectively for 30 cutting tools, 50 sports goods and 60 bicycle components of manufacturing sector of Punjab. Punjab has been ranked as one of the growing states of India. The ANOVA results highlight that there is a significant difference in case of three primary characteristics of MkIS between the three sectors viz. cutting tools, sports goods and bicycle components and no significant difference between the two types of the enterprises viz. small and medium regarding the primary characteristics of the MkIS and it also justifies that all of them are considered important by both. At the end, top three primary characteristics each of MkIS in three sectors viz. cutting tools, sports goods and bicycle components and two enterprises i.e., small and medium have been taken with highest means respectively for highlighting the scenario of MkIS in SMEs of Punjab which have a variety of challenges in front.

**Key words:** Marketing information system (MkIS), Small and Medium Enterprises SMEs, Primary Characteristics, Punjab.

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### INTRODUCTION

MkIS is intended to bring together disparate items of data into a coherent body of information. MkIS has traditionally been proposed to provide marketing managers a thorough process of intelligence gathering. MkIS also provides methods for interpreting the information it provides. Moreover, MkIS is more than a system of data collection or a set of information technologies. According to (Kotler, 2009) "A marketing information system consists of people, equipment and procedures to gather, sort, analyze, evaluate, and distribute needed, timely and accurate information to marketing decision makers". To attain a place in the competitive market, companies have to not only reduced the cost price of their product, but a consistent effort has to be placed on adopting new technologies and enhancing quality standards. Past experience shows that Indian firms took decades to be able to catch up with global productivity levels. Time has come to focus on technological strategies with a focus on MkIS. MkIS are mostly applied by large and dominant firms, but it is right time now for SMEs to focus on the MkIS and initiate steps to enhance information technology culture in SMEs of Punjab Manufacturing. To achieve higher standards of efficiency and performance, SMEs are trying their level best to introduce new innovative concepts in their system. The present study has attempted to understand the primary characteristics of the MkIS which have an impact on the growth of the manufacturing SMEs of Punjab in India.

#### *Literature of Review:*

Punjab is a progressive state of India with an average growth rate of 10 per cent. Punjab has been ranked as one of the growing states of India. Several studies have been done looking at different perspectives, issues, and requirements for MkIS. As per American Marketing Association, MkIS is "the systematic gathering, recording and analysing of data about problems relating to the marketing of goods and services". According to (Garg and Jain, 2008) results of a survey of small scale manufacturing units located in and around Jalandhar (Punjab), depicts that small scale industry is witnessing a very difficult time in global market after liberalization and

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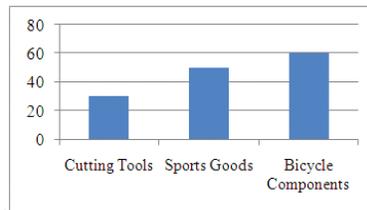
globalization of economy, as a result competition amongst small scale manufacturers is becoming stiff. As per (Bhagwat and Sharma, 2007) Primary characteristics of MkIS are considered as a major tool to help companies provide a competitive edge in the era of globalization. According to (Murray *et al.*, 2004) primary characteristic covers the basic tools for MkIS and highlighted as:

1. Windows 98/2000 & Windows XP as Operating system.(PC1)
2. E-Mails & Search Engines as Internet (PC2)
3. Word, Excel and PowerPoint as Applications. (PC3)
4. Timely information of marketing needs. (PC4)
5. Stores marketing information. (PC5)
6. Processed information maintained in the data-base. (PC6)

Many developing countries do not have a culture of sharing data and the absence of shared data can result in a lack of effective information systems due to the lack of reliable and consolidated marketing, customer, and economic data. This also usually results in low data quality and trusts in the data that is available and affect the information environment in an emerging economy. The MkIS focuses on the business culture of the SMEs and its scope on the economy. The development of SMEs will depend upon acquiring development methodologies that connect the technical talent and enable the SMEs to successfully manage the MkIS. As per (Jean *et al.*, 2006) the relationship between marketing and SMEs raises two kinds of questions: the first relates to the categories of SMEs studied, and it goes without saying that their responses will depend on their size (very small, small, and medium) and the second depends on the elements likely or not likely to bring out a marketing approach. Further, MkIS supports the decision-makers of SMEs to analyze information in time and also for its accurate use. (Choueke and Armstrong, 2008) concludes with the proposition that the development of a SMEs is a journey, which might never be completed, however, the decision to embark on the journey and the process leading to embarkation provide the organisation and its people with an increasingly effective compass through which the company is able to navigate itself through the hostile uncertainty of the business environment.

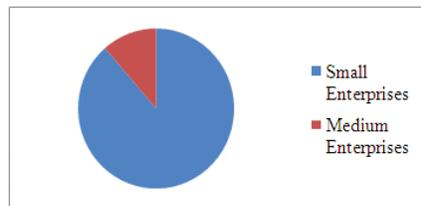
**Methodology:**

The present study has been based on a survey analysis conducted in the state of Punjab, one of the growing states of Indian economy. Data has been collected through a self-structured questionnaire from 140 manufacturing industries which include 124 small and 16 medium enterprises respectively of Punjab from the following districts: Patiala for cutting tools, Jalandhar for sports goods and Ludhiana for bicycle components. Reason for selecting these districts is due to the 82 per cent exports of total exports from these districts of Punjab and they have prominent range of product. Cutting tools from Patiala, sports goods from Jalandhar and bicycle components from Ludhiana comprises nearly 15 per cent of total exports from Punjab and provides 75 percent of the country’s requirement. These districts contribute to about 43 per cent of the total small units and about 34per cent medium units respectively in Punjab. The random samples were drawn from the population of enterprises in the Punjab state with 30 producing cutting tools, 50 producing sports goods and 60 producing bicycle components. Categories of firms within these sectors have been depicted in Figure 1.



**Fig. 1:** Categories of Industry.

Size-wise sample has 124 small enterprises and 16 medium enterprises as depicted in Figure 2.



**Fig. 2:** Type of Enterprises.

The survey was tested for reliability and overall reliability score (Cronbach Alpha) of the questionnaire has been 0.902. Face and content validity have been done. The questionnaire had been validated by the peers and has a validation score 3.75 on a scale of five. The present study has been undertaken on the basis of three sectors of the firm viz. cutting tools, sports goods and bicycle and on the types of enterprises viz. small and medium.

**Objectives:**

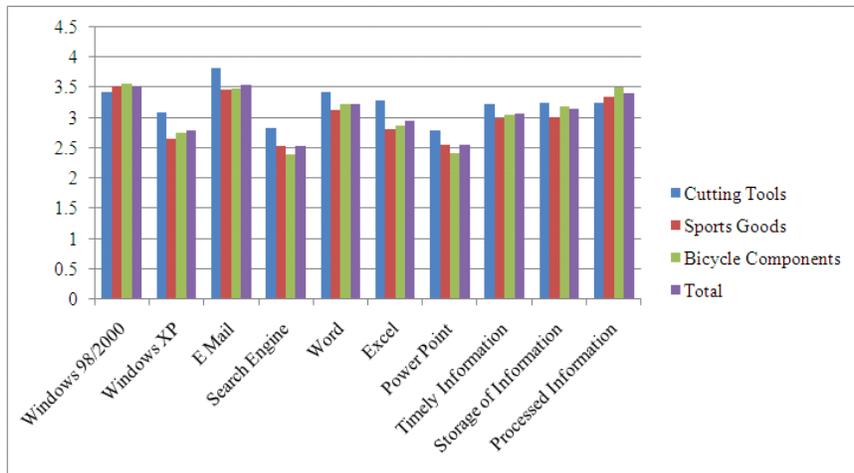
1. To identify the important primary characteristics of MkIS of the manufacturing SMEs.
2. To find the difference between three sectors viz. cutting tools, sports goods and bicycle components regarding the important primary characteristics of MkIS.
3. To find the difference between the small and medium enterprises regarding the important primary characteristics of MkIS..

**Findings and Results:**

As per Table 1, primary characteristics clearly indicates that cutting tools sector respondents scored a little higher on all segments than overall average. Bicycle Components sector scores relatively more than overall average on (PC6) processed information maintained in the database. Sports goods sector scores lower than average score on all primary characteristics. The same is depicted through Figure 3.

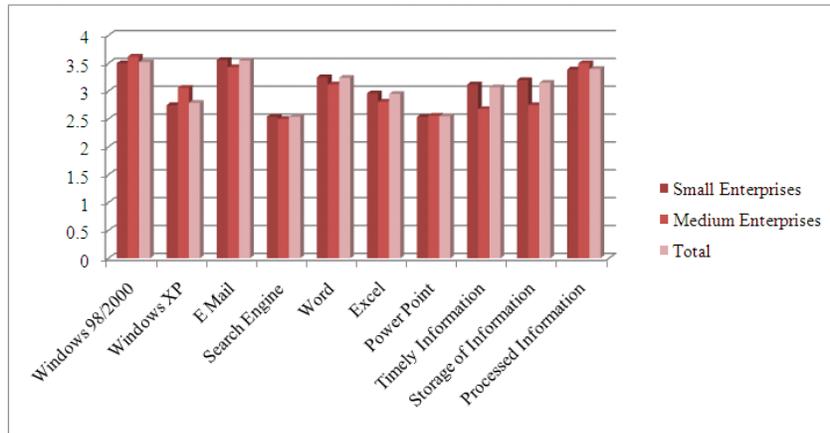
**Table 1:** Mean of Primary Characteristics of MkIS.

Nature of Firm		PC1		PC2		PC3			PC4	PC5	PC6
Cutting Tools	Mean	3.43	3.10	3.83	2.83	3.43	3.30	2.80	3.23	3.26	3.26
	N	30	30	30	30	30	30	30	30	30	30
Sports Goods	Mean	3.52	2.66	3.46	2.54	3.14	2.82	2.56	3.00	3.02	3.36
	N	50	50	50	50	50	50	50	50	50	50
Bicycle Components	Mean	3.56	2.75	3.48	2.40	3.23	2.88	2.41	3.05	3.20	3.51
	N	60	60	60	60	60	60	60	60	60	60
Small Enterprises	Mean	3.50	2.75	3.56	2.54	3.25	2.96	2.54	3.12	3.20	3.39
	N	124	124	124	124	124	124	124	124	124	124
Medium Enterprises	Mean	3.62	3.06	3.43	2.50	3.12	2.81	2.56	2.68	2.75	3.50
	N	16	16	16	16	16	16	16	16	16	16
Total	Mean	3.52	2.79	3.55	2.54	3.24	2.95	2.55	3.07	3.15	3.41
	N	140	140	140	140	140	140	140	140	140	140



**Fig. 3:** Primary Characteristics for cutting tools, sports goods and bicycle components sector.

(Brien, 1998) considered MkIS as a structured, interacting complex of persons, machines and procedures designed to generate an orderly flow of pertinent information collected from both intra and extra-firm sources for use as the bases for decision making. Thus, procedures and machines including operating systems and applications have a significant role which is captured in the present study through primary characteristics of MkIS. Scale-wise analysis has further strengthened that for both small scale as well as for medium scale firms respondent firms preferred windows 98/2000 to Windows XP, used e-mail more often and opted more for MS word. The pictorial presentation through Figure 4 clearly depicts the preferences.



**Fig. 4:** Primary Characteristics for small and medium enterprises.

**Table 2:** ANOVA for Primary Characteristics of MkIS in Sectors.

Primary Characteristics			Sum of Squares	df	Mean Square	F	Sig.
PC1	Windows 98/2000	Between Groups	.356	2	.178	.463	.630
		Within Groups	52.580	137	.384		
		Total	52.936	139			
	Windows XP	Between Groups	3.823	2	1.911	3.149	.046
		Within Groups	83.170	137	.607		
		Total	86.993	139			
PC2	E-Mail	Between Groups	3.080	2	1.540	3.665	.028
		Within Groups	57.570	137	.420		
		Total	60.650	139			
	Search Engines	Between Groups	3.756	2	1.878	4.085	.019
		Within Groups	62.987	137	.460		
		Total	66.743	139			
PC3	Word	Between Groups	1.623	2	.811	1.681	.190
		Within Groups	66.120	137	.483		
		Total	67.743	139			
	Excel	Between Groups	4.787	2	2.393	5.134	.007
		Within Groups	63.863	137	.466		
		Total	68.650	139			
	Power Point	Between Groups	2.947	2	1.473	3.169	.045
		Within Groups	63.703	137	.465		
		Total	66.650	139			
PC4	Between Groups	1.069	2	.535	.279	.757	
	Within Groups	262.217	137	1.914			
	Total	263.286	139				
PC5	Between Groups	1.403	2	.702	.516	.598	
	Within Groups	186.447	137	1.361			
	Total	187.850	139				
PC6	Between Groups	1.423	2	.711	.971	.381	
	Within Groups	100.370	137	.733			
	Total	101.793	139				

As per Table 2, the ANOVA results highlight that there is a significant difference between the three sectors of the firm viz. cutting tools, sports goods and bicycle components in case of the following three primary characteristics of MkIS:

- (a) Windows XP as Operating system. (PC1)
- (b) E-Mails & Search Engines as Internet. (PC2)
- (c) Excel and PowerPoint as Applications. (PC3)

**Table 3:** ANOVA for Primary Characteristics of MkIS in Firms.

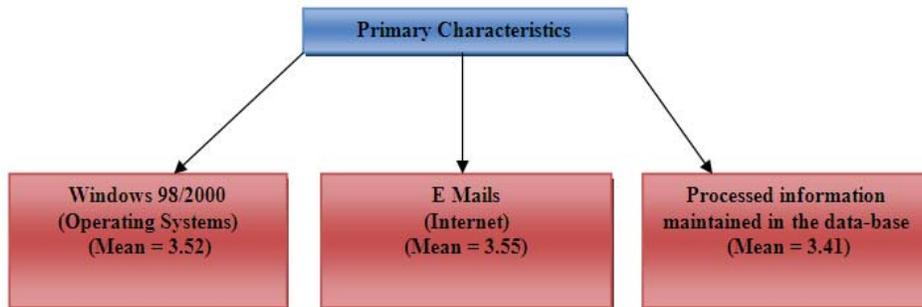
Primary Characteristics		Sum of Squares	df	Mean Square	F	Sig.	
PC1	MS Windows 98/2000	Between Groups	.19	1	.19	.50	.478
		Within Groups	52.74	138	.38		
		Total	52.93	139			
PC1	MS Windows XP	Between Groups	1.31	1	1.31	2.11	.148
		Within Groups	85.67	138	.62		
		Total	86.99	139			
PC2	E-Mail	Between Groups	.22	1	.22	.52	.471
		Within Groups	60.42	138	.43		
		Total	60.65	139			
PC2	Search Engines	Between Groups	.03	1	.03	.06	.794
		Within Groups	66.71	138	.48		
		Total	66.74	139			
PC3	MS Word	Between Groups	.25	1	.25	.51	.475
		Within Groups	67.49	138	.48		
		Total	67.74	139			
PC3	MS Excel	Between Groups	.34	1	.34	.69	.408
		Within Groups	68.30	138	.49		
		Total	68.65	139			
PC3	MS Power Point	Between Groups	.00	1	.00	.00	.939
		Within Groups	66.64	138	.48		
		Total	66.65	139			
PC4	Accesses to timely needs of marketing information by the firms (PC4)	Between Groups	2.66	1	2.66	1.41	.237
		Within Groups	260.62	138	1.88		
		Total	263.28	139			
PC5	Storage of marketing information by the firms (PC5)	Between Groups	2.89	1	2.89	2.15	.144
		Within Groups	184.96	138	1.34		
		Total	187.85	139			
PC6	Processed Information maintained in the database (PC6)	Between Groups	.15	1	.15	.21	.646
		Within Groups	101.63	138	.73		
		Total	101.79	139			

On the basis of ANOVA results through Table 3, it can be inferred that there is no significant difference between small and medium enterprises regarding the primary characteristics of MkIS.

**Conclusions and Recommendations:**

As per the Figure 5, top three primary characteristics each of MkIS in three sectors viz. cutting tools, sports goods and bicycle components and two enterprises i.e., small and medium have been taken with highest means respectively for highlighting the scenario of MkIS in SMEs of Punjab.

According to (Knuckles, 1987) and (Fleisher *et al.*, 2008), primary characteristics of MkIS range from providing data to decision support system for sophisticated analysis of data. It not easy for the managers to develop a MkIS overnight which combines managerial and technical cultures of a firm, which generally takes very long period to get maturity for the sustainable information in an organization. The results of the present study highlight that MkIS and developments in SMEs of Punjab are still at initial stage. It can be concluded that the consequent opening up of many SMEs, the enterprises have a variety of challenges in front. MkIS has made the SMEs sector today to rise up to the occasion by devising and formulating a number of marketing strategies. Efforts have to be made by this sector if it wants to survive in the present day world of competition. Further, though activities like management training programs, maintain of database, improvement in functional evidence etc. have to be provided by SMEs to make the success of MkIS.



**Fig. 5:** Top three primary characteristics of MkIS each in three sectors and two enterprises.

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