



College of Business and Economics, School of Commerce
Department of Marketing Management
Graduate Studies Program

**THE EFFECT OF MARKETING INFORMATION SYSTEM ON
MARKETING DECISIONS: EVIDENCE FROM SOAP AND
DETERGENT INDUSTRIES IN ADDIS ABABA**

A thesis submitted to addis ababa university, school of commerce, graduate studies for
the partial fulfillment of the requirements for the degree of master of marketing
management

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DECLARATION

I, the undersigned, declare that this research paper entitled, “The Effect of Marketing Information System on Marketing Decisions: Evidence from Soap and Detergent Industries in Addis Ababa” is the outcome of my own effort and study. All sources of the materials used for this study have been duly acknowledged. Further, this study is also not submitted for any degree in this university or any other university. It is offered for the partial fulfillment of degree in MBA.

Declared by:

Name: _____

Signature: _____

Date: _____

LETTER OF CERTIFICATION

This is to certify that Mrs Tenaye Abera has carried out her research paper on the topic entitled “The Effect of Marketing Information System on Marketing Decisions: Evidence from Soap and Detergent Industries in Addis Ababa” and submitted to Addis Ababa University College of Business and Economics, Department of Marketing Management in Partial Fulfillment of the Requirements for Masters Degree in Marketing Management in accordance with the Regulations of the University and it Meets Accepted Standards with respect to Quality and Originality.

Approved by the Board of Examiners:

Advisor	Signature	Date
Internal Examiner	Signature	Date
External Examiner	Signature	Date

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TABLE OF CONTENT

DECLARATION	i
LETTER OF CERTIFICATION	ii
ACKNOWLEDGEMENT	iii
LIST OF FIGURES	vii
LIST OF TABLES	viii
ACRONYMS	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION	1
1.1. Background of the Study	1
1.2. Statement of the Problem.....	2
1.3. Research Question.....	3
1.4. Research Objectives	3
1.5. Variables	4
1.6. Significance of the Study.....	4
1.7. Scope/Delimitation of the Study	4
1.8. Limitations of the Study	4
1.9. Definition of Terms	5
1.10. Organization of the Study	5
CHAPTER TWO: LITRETURE REVIEW	6
2.1. Introduction.....	6
2.2. Theoretical Review	6
2.2.1. Systems Theory in Marketing	6
2.2.2. Management Information System (MIS).....	7
2.2.3. Marketing Information System Definition.....	7
2.2.4. Marketing information system significance.....	8
2.2.5. Elements of MKIS.....	8
2.2.6. Decision-Making.....	13
2.2.7. Marketing Decision Making	15
2.2.8. Developing MKISs.....	19
2.2.9. Empirical Review	19
2.3. Conceptual frame work	21
2.4. Research Hypothesis	21

CHAPTER THREE: RESEARCH METHODOLOGY	23
3.1 Description of the Study Area.....	23
3.2 Research Approach	23
3.3 Research Design.....	24
3.4 Target Population	24
3.5 Sample size determination	25
3.6 Sampling techniques.....	26
3.7 Sources and Types of Data	26
3.8 Data Collection procedures.....	26
3.9 Ethical Considerations	26
3.10 Data Analysis	27
3.11 Validity and reliability.....	27
3.12 Correlation	27
CHAPTER FOUR: RESULT AND DISCUSSION	29
4.1. Background Information on Target Companies.....	29
4.2. Background Information of Respondents	30
4.2.1. Gender	30
4.2.2. Age Group	31
4.2.3. Educational Attainment	31
4.2.4. Field of Specialization.....	32
4.2.5. Job Title.....	32
4.2.6. Years of Experience	33
4.2.7. Years of Experience as a Manager / Deputy.....	33
4.3. Test of Normality	34
4.4. Validity of Questionnaire	34
4.4.1. Internal Validity	34
4.4.2. `Structure Validity of the Questionnaire.....	34
4.5. Reliability of the Research.....	35
4.5.1. Cronbach's Coefficient Alpha	35
4.6. Descriptive Analysis of Components of Marketing Information System	36
4.6.2. Marketing Intelligence Descriptive Analysis.....	37
4.6.3. Marketing Research Data Analysis	37
4.6.4. Marketing Decision Support System (MDSS) Data Analysis	38
4.7. Correlation Analysis.....	38

4.7.1. The Corelation between Marketing Record and Marketing Decision Process	39
7.4.2. Corelation between Marketing Recsearch Marketing Decision Process	39
4.7.3. Corelation between Marketing DSS Marketing Decision Process	40
4.7.4. Corelation between Marketing DSS and Marketing Intelligence.....	40
4.8. Multiple Regression	40
4.8.1. Requirements for a Regression Analysis	40
4.8.2. Multicollinearity test	41
4.8.3. Regression Model.....	41
4.8.4. One-way ANOVA	42
4.8.5. Regression Coefficients	43
4.9. Hypothesis Testing	44
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	45
5.1. Summary	45
5.2. Conclusions	46
5.3. Recommendation	47
RERERENCES	48
APPENDIX I: LIST OF SDI IN ADDIS ABABA	57
APPENDIX II: QUESTIONNAIRE.....	65
APPENDIX III: STATISTICAL ANALYSIS.....	71

LIST OF FIGURES

Figure 1: MKIS model	9
Figure 2: MKIS framework	10
Figure 3: Planning of enterprises' marketing activity.....	16
Figure 4: Marketing mix structure	17
Figure 5: Conceptual frame work of the study	21

LIST OF TABLES

Table 1: Description of Companies in the Target Group	29
Table 2: Companies ownership and employment condition	30
Table 3: Gender	31
Table 4: Age Group.....	31
Table 5: Educational status.....	32
Table 6: Field of Specialization	32
Table 7: Job Title	33
Table 8: Years of Experience	33
Table 9: Years of Experience as Manager.....	34
Table 10: Test of Normality	34
Table 11: Correlation coefficient of each item and the whole of questionnaire.....	35
Table 12: Cronbach's Alpha for each factor and the entire factors	36
Table 13: Marketing records descriptive statistics.....	37
Table 14: Marketing intelligence descriptive statistics	37
Table 15: MR descriptive statistics	37
Table 16: Marketing DSS descriptive statistics	38
Table 17: Correlation coefficient between independent variables against dependent variable (i.e., decision making)	39
Table 18: Multicollinearity test.....	41
Table 19: Model summary.....	42
Table 20: ANOVA Table	42
Table 21: Model coefficients	43
Table 22: Summary of Hypothesis Testing.....	46

ACRONYMS

DM:	Decision Making
DSS:	Decision Support System
IR:	Information System
IT:	Information Technology
MD:	Marketing Decision
MDSS:	Marketing Decision Support System
MI:	Marketing Intelligence
MIS:	Management Information System
MKIS:	Marketing Information System
MR:	Marketing Research
SDI:	Soap and Detergent Industries

ABSTRACT

Marketing Information System (MKIS) intends to bring together and analyze marketing data to arrive at a useful decision making. In this study, an assessment was made on the Effect of MKIS on Marketing Decisions in the Soap and Detergent Industries (SDI) of Addis Ababa. To this end, large and medium scale industries were surveyed. with an 80 % completed response of questionnaires. And, data from ninety-six repondents of the questionnaire were analyzed statistically. In this regard, data normality, data reliability and validity were checked. Also, pearson's correlation and regression analysis were used to check the relationship between market decision support system, market records, market research and market intelligence to marketing decision-making in order to test the hypotheses statements. Consequently, the findings from this study revealed that there was a nearly good use of MKIS being applied for decision-making in the SDI in Addis Ababa. However, during the research it was learnt that the marketing data being used for decision making was not systematically organized in terms of timeliness and completeness in order to make effective marketing decisions. Moreover, there was an observable lack of staff, resources and procedures dedicated for strict implementation of marketing information, although MKIS components were utilized in some way for DM.

Keywords: Marketing information, Decision Making, Addis Ababa, Soap and Detergent

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Decision making((DM) lays a vital foundation for the realization of objectives, plans and policies in to tangible actions (DeLone & McLean, 1992). A reliable Information System (IS) is vital to obtain appropriate data for the DM process in marketing. The more relevant and correct the information is, the better input it becomes for DM (Salvador & Ikeda, 2014). Among the many decisions determined by marketing managers of manufacturing companies some are; new competitor initiative, what customer segment to serve, with what product or services, at what prices, through which channels, and with what type and amount of promotion.

Marketers have been expoloring the potential of computers for the purpose of DM. For this purpose, statistical methods, marketing models, optimization and simulation procedures are usually used (Bruggen & Wierenga, 2010; Wierenga & Bruggen, 1995).

Kotler, (1999) defines Marketing Information System MKIS as a reliable system of equipment, , procedures, and people to collect, sort, analyse, evaluate, and distribute accurate and timely information to management. MKIS is also defined as An organized, interacting network of procedures, machines and persons put in place to yield consistent and relevant information collected from different for the purpose of sound DMDM (James & O'Brien, 1998).

Ethiopian industries do not have IS that satisfactorily support marketing DM process. This has an undesirable effect on ensuring quality services (Berhan & Kitaw, 2012). Moreover, as the local producers contest for market share and sales volume there is also a growing competition from regional and international supplies. Therefore, to stay in business and keep growing, the local businesses need to collect data, do analysis and make appropriate and timely marketing decisions.

To the best of the author's knowledge, only three studies were conducted so far in the area of MKIS in Ethiopia. Furthermore, these studies were limited to general assessment of different industrial sectors together. For example, Getu (2010) studied assessment of the status of MKIS in manufacturing companies. This study considered all industry categories and as a result did not give adequate information on particular industries. Similarly Berhan et al.,

(2012) studied the part MKIS play in price change DM in Ethiopian industries. This study was conducted with primary focus on those decision related to price change alone. Furthermore, Berhan & Kitaw, (2012) studied the part MKIS play in the service quality in Ethiopian industries. This last study was done to assess the impact of MKIS on service quality. Based on this assessment, there is no previous study of MKIS with particular focus on the SDISDI in Addis Ababa.

Therefore, the intention of this work is to assess the Effect of MKIS on Marketing Decision of the SDI in Addis Ababa.

1.2. Statement of the Problem

Industrial development is usually faced with financial, technical and managerial challenges. Kumar, (2004) states that the external setting of a business is characterised by among others, increased competition, rapidly changing technologies and higher pace of globalization of business. Therefore, to be effective in business operation, business organizations should collect regularly pertinent marketing information from political/legal, economic, social/cultural and technological environment (Ślusarczyk, 2020).

The industries in Addis Ababa were reported to rely more on the IR for DM while poorly performing on using MI (from customers, distributors, competitors, and suppliers) and MR as a source of marketing information (Getu, 2010). The SDI, which is very essential in human day to day life, have shown growth both in urban and rural areas of Ethiopia. The growth of these industries have intensified an already existing high competition for bigger market share among the industries in this category. Under this condition, the new entrants, existing medium and small scale industries, and the major players face problems related to marketing of their products, although there is difference in the scale of the challenge.

In this regard, Namakumari & Ramaswamy, (2002) pointed out the significance of effective handling of marketing information. Those companies that maintain well organized MKIS could get competitive advantage over their competitors. However, as Adeoti et al., (2016); Kumar, (2004) described, in many business organizations information is not managed as it should be and many companies do not manage it as they manage other resources such as finance.

Consequently, there is a trend to assess the application and impact of MKIS in different organization including industries and financial institutions (Rosário, 2021). Some examples

include, on bottling company in Nigeria (Adeoti et al., 2016), Royal Jordanian Air Lines in Jordan (Ismail, 2011a), financial institution in Nigeria (Patric et al., 2017) and Gaza Strip (Bahloul, 2011), tour and travel company in Iraq-Baghdad (Al-Janabi & Mhaibes, 2019), ukrainian companies (Illiashenko et al., 2019), on Ethiopian Air Lines (Kassa, 2010), and citrus fruit pricing in Lattakia, Syria (Sulaiman et al., 2015).

Accordingly, given the high competition in the SDI in Addis Ababa, companies in this sector are faced with a future with even higher competition from local and international players. In the midst of this, the information these industries get should be accurate, current, complete, reliable, timely and relevant to help sound marketing decisions and to stay in business successfully. However, the status of the SDI in Ethiopia in general and Addis Ababa in particular is not clearly known in terms of its implementation of MKIS for DM. Internationally the application of MKIS in business organizations has been well documented in different works. However, there is an observable level of research work gap in Ethiopia in this regard.

Therefore, this study proposes to assess the Effect of MKIS on the DM process of SDI in Addis Ababa. To the best of the author's knowledge, currently there is no research that has been conducted to assess the Effect of MKIS on Marketing Decision in the SDI in Addis Ababa. It was on this note that this research was proposed to be conducted.

1.3. Research Question

The research questions are:

- To what extent does MKIS has effect on marketing DM?
- To what extent does IRs (Database) has effect on marketing DM?
- To what extent does MI has effect on marketing DM?
- To what extent does MR has effect on marketing DM?
- To what extent does DSS has effect on marketing DM?

1.4. Research Objectives

1.4.1. General Objective

The general objective of this study is to assess the impact of MKIS on marketing decision, a case study on SDI in Addis Ababa.

1.4.2. Specific Objectives of the Study

The specific objectives of the study are:

- To examine the effect of internal records (IR) on marketing DM.
- To investigate the effect of marketing intelligence (MI) on marketing DM.
- To determine the effect of marketing research (MR) on marketing DM
- To determine the effect of marketing decision support system (DSS) on marketing DM

1.5. Variables

Independent Variable: MKIS elements; IRs (Data Base), MI, MR and Marketing DSS.

Dependent Variable: The level of marketing DM that utilizes the independent variables

1.6. Significance of the Study

Some of the benefits for institutions and persons from this study include:

1. The study potentially can inspire, and stimulate, those businesses without MKIS to have the intention of commencing an MKIS in their respective companies.
2. The study can be helpful in improving an existing MKIS system so that it can achieve a sound marketing DM process based on IS.
3. Moreover, this study shall be one among many resources on MKIS advancing the benefits of it to all concerned including students and managers.

1.7. Scope/Delimitation of the Study

This research was limited to the investigation of the effect of MKIS on DM. Hence no endeavor shall be exerted to examine the management information as a whole. Importantly, the researcher shall limit the study to the SDI in Addis Ababa.

1.8. Limitations of the Study

Some of the limitations of this study were insufficient literature in the study area, unwillingness of some respondents to fill questionnaire, respondents fear to give information due to an assumed confidentiality of information and data, unwillingness to cooperate etc. Moreover, respondents' may respond correctly and otherwise depending on their educational background, their experience, knowledge and position.

1.9. Definition of Terms

Some of the important terms are listed hereunder with their definition.

MKIS: A set of methods and procedures organized to yield, analyse, circulate and store marketing decision information consistently (Evans & Berman, 2005).

IRs: Is the generation, recording, storage and retrieval of data that all organizations produce as part of the general process of conducting their business (Lancaster & Reynolds, 1999).

MI: The systematic gathering and analysis of information about the developments in the market place and competitors (P. Kotler & Armstrong. G., 2004).

MR: The methodical and objective search and exploration of marketing information for the purpose of identification and solving of marketing challenges (Saravanavel, 2009)

DM: The art of arriving at a rational and specific decision and conclusion among other decision alternatives (Plunkett. W. & Attner. R., 1989).

DSS: It is a software-based systems designed to assist managers in DM by analyzing relevant information from within and without of the company under study.

1.10. Organization of the Study

The research work is divided into five chapters and each chapter shall contain as indicated below:

Chapter one: background information, statement of problem, research question, purpose of the study, operational definition of the terms, limitation of the study and organization of the study.

Chapter two: consists of literature review on definition and elements of MKIS and DM

Chapter three: research methodology of the study, selection of data collection of primary and secondary data, sampling size and data analysis techniques

Chapter four: carries presentation and analysis of the data and test of hypothesis

Chapter five: summary, conclusion and recommendations.

CHAPTER TWO: LITRETURE REVIEW

2.1. Introduction

Robert, (2003) argues that MKIS systems are designed to be comprehensive and flexible in nature and to integrate with each other functionally. They are important to the organization's capacity in order to form competitive advantage. Also according to H. Kotler & Armstrong, (2008), a good MKIS balances the information users would like to have against what they really need and what is feasible to offer.

Today's world of business is characterized by the wave of information technology. Seeking information about your environment and competitors is vital for business survival. Marketing information and marketing decision can be regarded as two sides of one coin as no valid marketing decision can be achieved without a relevant, accurate and adequate marketing information from multiple sources. Factors that affect Marketing decisions include internal and external environmental variables, uncertainty of the marketing environment. Some of the most important marketing information include assessment of the nature and trend of the markets, prices, competitors, and other marketing information.

2.2. Theoretical Review

2.2.1. Systems Theory in Marketing

A system is a structure which implements an ongoing process. The structure may be formed by many diverse parts, but the parts work together toward a common objective. The word system connotes order, a plan, a method, or arrangement. As presented by Bellenger & Greenberg, (1978), advantages of a system approach are:

- (a) to provide a framework for the manager to organise his thoughts about a process;
- (b) helping the manager to see the essential elements in a particular situation and the relationship between them; and
- (c) providing a structure for analysis, planning and control of a given set of activities.

Piercy & Evans, (2015) in essence describe that, the systems approach is thought to provide a better, more comprehensive way of understanding the complexity of the situations managers

face. In fact, one of the greatest practical contributions of the systems approach is in the field of management information, to which attention is now turned.

2.2.2. Management Information System (MIS)

Information is described by various authors as a knowledge derived from a set of facts placed in a context. Hair et al., (2003) and R. Kumar, (2004), regard it as facts obtained from data structures and that can attach narrative meaning to the data structure. Furthermore, P. Kotler, (1999); Lankaster & Reynolds, (1999) and Tuner, (1991) considered information as a necessary resource that needs to be carefully managed just like any other resource like finance, production and human resources and companies with better information system have a competitive advantage because it adds value to DM, and which, when analyzed, enhances competitive advantage.

Higgins, (1976) defined MIS as a system which offers managers in the service and industrial organisations with the information they need for the purpose of decision making, planning and controlling under their sphere of responsibility. And, Piercy, (1980) argues that MKIS is part of the MIS which deals with marketing strategy and operations.

2.2.3. Marketing Information System Definition

Li, (1995) recommends companies to implement MKIS in order to compete adequately. It helps companies to make rational decision appropriately and accurately.

A number of works define MKIS differently but with similar objective. That is based on its use for DM and marketing strategy (Rosário, 2021). For example, Harmon, (2003b) defined MKIS as a computerized system that is designed to provide an organized flow of information to enable and support the marketing activities of an organization. As MKIS use both staff and resource for proper functioning, it makes readily available the necessatu data before the need arises for that particular data for decision making purpose. Consequently, businesses tend to employ professionals to properly gather and analyze the necessary information in a way that help decision makers pass sound decisions for the betterment and growth of their company.

In this context, Boone & Kurtz, (2007) also defined MKIS as a planned computer- based system designed to provide managers with continuous flow of information relevant to their specific decisions and areas of responsibility.

2.2.4. Marketing information system significance

Rosário, (2021) argues that the dominant benefit from MKIS implementation includes acquisition of knowledge, agility, and flexibility.

Also according to McCarthy & Perreault, (1993), MKIS emphasizes on set of procedures and methods during data gathering in order to extract critical information such as: changing need of customers, market trend and sizes, competitors position and government policies of concern. These information are vital in measuring, identifying , analyzing and forecasting various marketing conditions. MKIS constitutes marketing managers, information users-, internal and external partnersa.

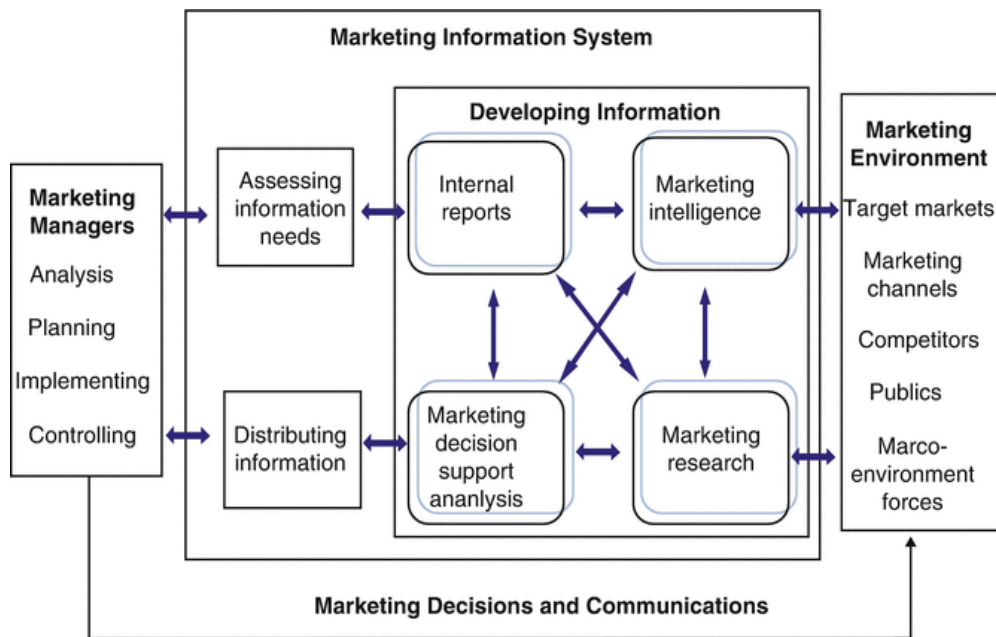
In this regard, Armstrong & Kotler, (2007) presents MKIS as competent tool for offering present, past, and forecasted information in connection with external intelligence and internal operations. Jobber et al., (2006) argues that it assists the planning, regulation, and operational function by supplying information to decision makers timely and accurately. Importantly MKIS design is regarded as vital because its effectiveness largely determines the the effectiveness of the DM.

According to (Malhotra, 2007), businesses employ MR for two motives:

- (1) to explain issues related to market share, market potential, market characteristics , , sales analysis, business trends, and forecasting and
- (2) to address marketing difficulties using researches on products, segmentation, promotion , pricing, , and distribution.

2.2.5. Elements of MKIS

P. Kotler & Armstrong. G., (2004) states that MKIS must have the following elements: a) IRs, which provides the platform for observing and analysis of company's performance; b) MI, for monitoring marketing happenings and variables that impact the businesses; c) MR, which is aimed at the designing, gathering, analysis interpretation and reporting of relevant findings from data for marketing DM; d) marketing DSS involves a synchronized set of techniques and tools, hardware and software to support in the analysis and interpretation of the information. The recommended model is denoted by Figure 1.



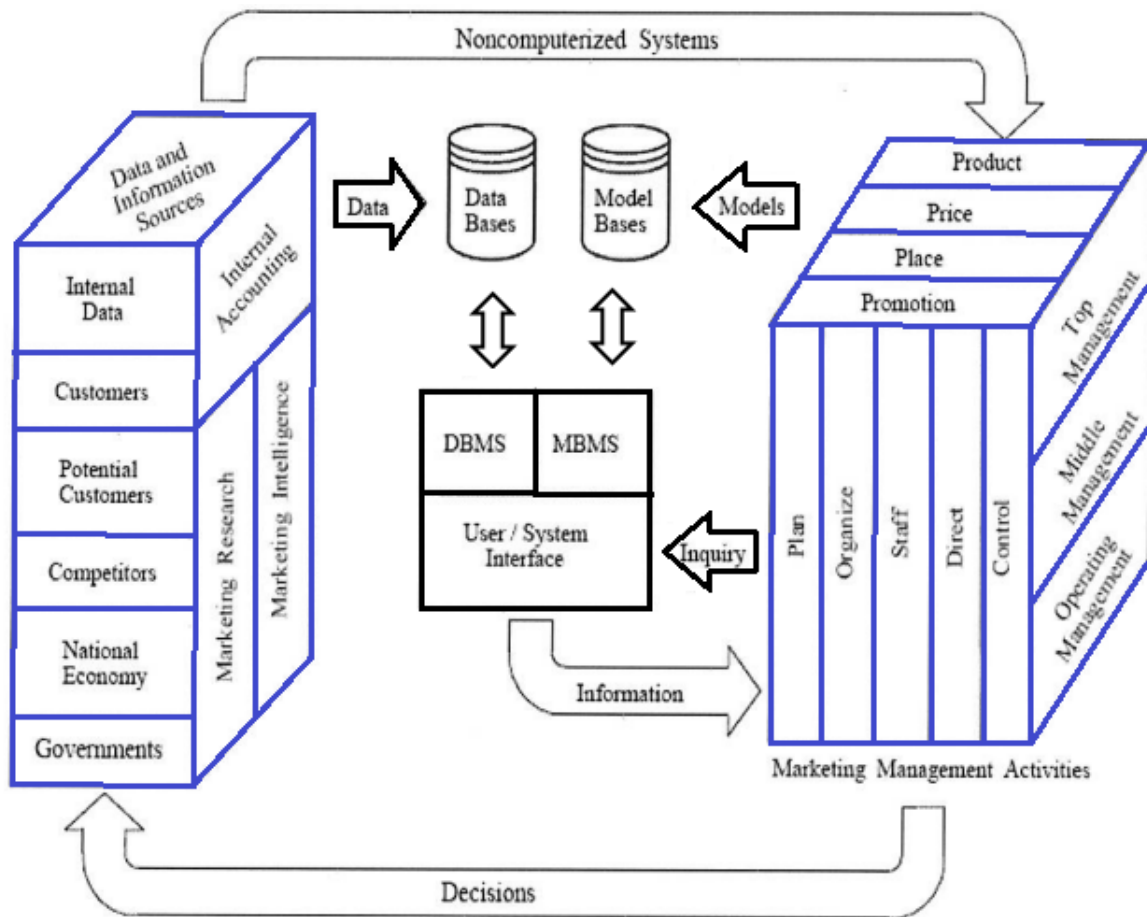
Source: (P. Kotler & Armstrong. G., 2004)

Figure 1: MKIS model

2.2.5.1. MKIS Internal records

Polynskaya, (2014) presents IRs (Data Bases) as the system of collecting, sequencing and storage of information that consists of the complex of technologies, formalized methods of sequencing and processing and personnel responsible for collecting and entering data. A great number of business systems used in a company have daily-changed databases, which contain large volumes of valued data without which the company is not able to operate efficiently.

H. Kotler & Armstrong, (2008) explains that various companies organize broad internal data base and market information acquired from sources existing in the company system. According to the authors, marketing managers can utilize and apply the information in the data base to determine marketing opportunities and challenges, plan strategies, and assess performance. Pride & Ferrel, (2006) argues that internal data bases are mostly readily available than information obtained from external sources.



Source: (Li, 1995)

Figure 2: MKIS framework

According to Figure 2, that the company collect, store and distribute marketing information for decision makers. The company collect data from internal data sources, customers, potential customers, competitors, national economy and governments. It uses different sources of marketing information like internal accounting (IRs), MI and MR and store them in a data base. The company utilize data base to store marketing management information. Then the company process, classifies, analyse and organize marketing information. Finally, the company produce information from data. Through this information, marketing managers can make decision on pricing, product, promotion and placing. This system also supports marketing management functions - planning, organizing, staffing, directing and controlling.

2.2.5.2. Marketing Intelligence systems

P. Kotler, (1976) MI system is the way in which company executives are kept current and informed about changing conditions.

Furthermore, Pride & Ferrel, (2006) explain MI systems as that offer the data required for tactical and strategic decision for companies. There is a significant tendency of companies to collect and store data from diverse sources and create an accepted view on company scale and to definedaily as activities and arrive at sound marketing decisions. Therefore, according to FAO. Org (2010), an MI system is a collection of data sources and procedures utilized by marketing managers to examine information from the business and economic environment that they can apply in DM process.

In this context, Ahmad & Atiyah, (2019) the company amends its marketing programs and plans, and also underlining the importance of this information as competition increases.

Thietart & Vivas, (1981) suggest a number of approaches to improve the management of intelligence gathering of the sales force: (a) train and motivate salesmen to identify strategic information, as opposed to tactical and operational information; (b) adapt management style to individual's characteristics, since the different groups identified respond to different inducements for faster communication; (c) do not rely on senior-blase individuals in the case of increasing uncertainty; (d) stress trust between superior and subordinates for participativeconfident and follower-suspicious individuals; (e) stress participation for senior-blase individuals; (f) stress the importance of information for follower-suspicious individuals, (g) rely on participative-confident individuals as much as possible; (h) train individuals to distinguish between threats and opportunities.

2.2.5.3. Marketing Research

Malhotra, (2007) MR is a active search for information to address a alleged marketing problem. MR is the objective and systematic identification, gathering, analysis, spreading, and application of information and solution of challenges and opportunities in marketing.

According to (Getu, 2010), the Marketing Research Process constitutes the following three stages:

Stage I: Defining and Clarifying the Marketing Problem: Developing a clear formulation of the nature and scope of a research problem may be referred to as exploratory research. Whereas, conclusive research is conducted through the main research design and is aimed at measurement of the variables identified from the exploratory exercises. It provides the information, specified on the data list, which management requires.

Stage 2: Determining the Sources of Information:

The range of data sources can be categorised under the headings of secondary and primary. However, the need to adopt a critical perspective in using secondary sources requires attention to such factors as: (a) impartiality that is, whether there is likely to be any slant or bias, if, for example, the provider or compiler of the data is trying to make a case for or against something; (b) validity - that is, whether the figures measure what we want to know; (c) reliability - that is, whether the figures are representative of the group they purport to describe; and (d) homogeneity - that is, the internal consistency of a set of figures (P. Kotler, 1971).

Stage 3: Determining Techniques for Collecting Data: This stage of the research is concerned with such matters as: (a) the techniques of observation, interview and experimentation; (b) questionnaire design; and (c) sample design.

2.2.5.4. Decision Support System

Salvendy & Karwowski, (1994) describe that during the marketing decision-making process, marketing strategy is determined based on factors such as sales forecasts, market potential and share, customer service and sales order processing, pricing, advertising and market research. Although, traditionally this decision-making was based on intuition, human judgment and experience in addition to sales data, recently a shift is observed in its process. Due to technological advancement in mathematical modeling and database management, enhanced decision-making capability is obtained also because of availability of decision support systems such as computer-based information systems.

James & O'Brien, (1998) explain DSS as a combined set of computer tools offering a decision maker to interface directly with computer to recover information useful in decision making. Also Power, (2002) describe DSS as a system that is comfortably operated by non-expert computer users for the purpose of planning and DM. This DM applicability allows managers to model problems using mathematical equations and to check the outcomes of various options for getting the best possible decision (Bernard, 1985). Therefore, the term DSS refers to a set of systems, which upkeep the process of DM. DSS also allow the decision maker to recover data and check alternative options during the problem solving process (Ezine, 2010). The interpretations of DSS is based on following assumptions about the role of the computer in effective decision-making (James & O'Brien, 1998; Power, 2002). The DSS

can provide analytical models for forecasting, simulation, and optimization. DSS tools include simple spreadsheets such as statistical analysis packages such as SPSS and SAS, Excel, data mining applications, on-line analytical processing (OLAP) tools, and neural networks.

2.2.6. Decision-Making

Decision-making is a conscious human process for the selection and application of particular activities from available range of options. To decide means to arrive at a resolution or conclusion. Shull, Delbecq and Cummings, (1970) defined DM as the “conscious human process, involving both social and individual phenomenon relying on value and factual premises, ending with a selection of one activity among many alternatives to create a desired state of affairs.

Simon, (1960) argues that it should also represents a condition or action about what must or must not be done. DM is therefore regarded as the selecting of action from options to realize a solve specific problem or specific objective(Donald, 1963). Varshney, (1997b) argues that the art of DM offers a range of methods, approaches, and techniques important for making sound decision.

2.2.6.1. Types of decision

According to James & O’Brien, (1998), there are different types of decisions. The four fundamental criteria, which define the nature of decision are (i) the qualitative factors; (ii) future conditions; (iii) scope of decision impact on items and entities (iv) whether a decision is routine or rare and repetitive;

Decisions are usually identified as structured, semi-structured and unstructured.

Unstructured Decisions: As explained by James, (1998), these decisions consider conditions where it is not desirable or possible to specify most of procedures needed for DM. Most decision processes are unstructured because in real world there are too many unknowns, changing events and a possible interaction of events. In this case, managers may not in advance know the relevant parameters and their relationship, and information required. consequently, IS can be of no help to the manager under this type of situation. For unstructured decisions sales, cost system, and production R&D planning etc., techniques can be used.

Semi Structured Decisions: These decisions arise under a condition where parameters of importance are mostly known and their interaction effect are assumed or are approximately known. In this regard, the MIS can be helpful to the DM process in terms of the providing information. For semi-structured decisions, e.g., scheduling, production, cash management, new product planning, overall budget, etc., techniques can be used.

Structured Decisions: James & O'Brien, (1998) argues that these decisions occur in situations where there is an arranged DM procedures specified in advance. Also both the important parameters and their interaction are known. Any decision process that can be defined in a procedure and issued to any organization is an example of structured process. For example account receivable inventory control, short-term budgeting, determination of the economic order quantity and the safety stock and stock are structure decision system. The structured decisions are well suited for automation and computerization. Therefore, the objectives of an MIS is to ensure that all the structured decisions are computer generated and the managers need not spend much time in making structured decisions.

2.2.6.2. Classification of Decisions

Programmed Decisions: Gordon, (1974) explains that these are decisions that can be pre-specified by decision procedures or a set of rules or. They can be managed by a computer program because the conditions for making a decision are clearly specified and only encoding of values are requirements. In addition to a computer program, other options of programmed decision include: decision tables, decision rulebooks, and regulation. These methods denote a closed decision model since all consequences and outcomes must be known in advance.

Non-programmed Decisions: Also Gordon, (1974) describes that these decisions are applied for unique, unstructured, and inadequately-defined conditions of a non-recurring nature. They are not routine-type decisions and sometimes involve risks when a number factors from outside and inside of the company should be considered. This decision type relies on a common problem solving processes particularly intuition, judgement and creativity. As a result, non-programmed decisions require a competent manager. Therefore, decisions in open decision procedures belong to non-programmed category.

Strategic Decision: On the other hand, March, (1988) explains that these decisions are made currently while they are expected to have effect in the future. They considered to affect objectives and organizational structure of a company.

Organizational Decisions: Also March, (1988) argues that this type of decision represents a formal decision and it is official decision of a company. And, it is considered to reflect the company's programs and policies. Consequently, this type of decision can be delegated to other subordinates or colleagues in the absence of the manager.

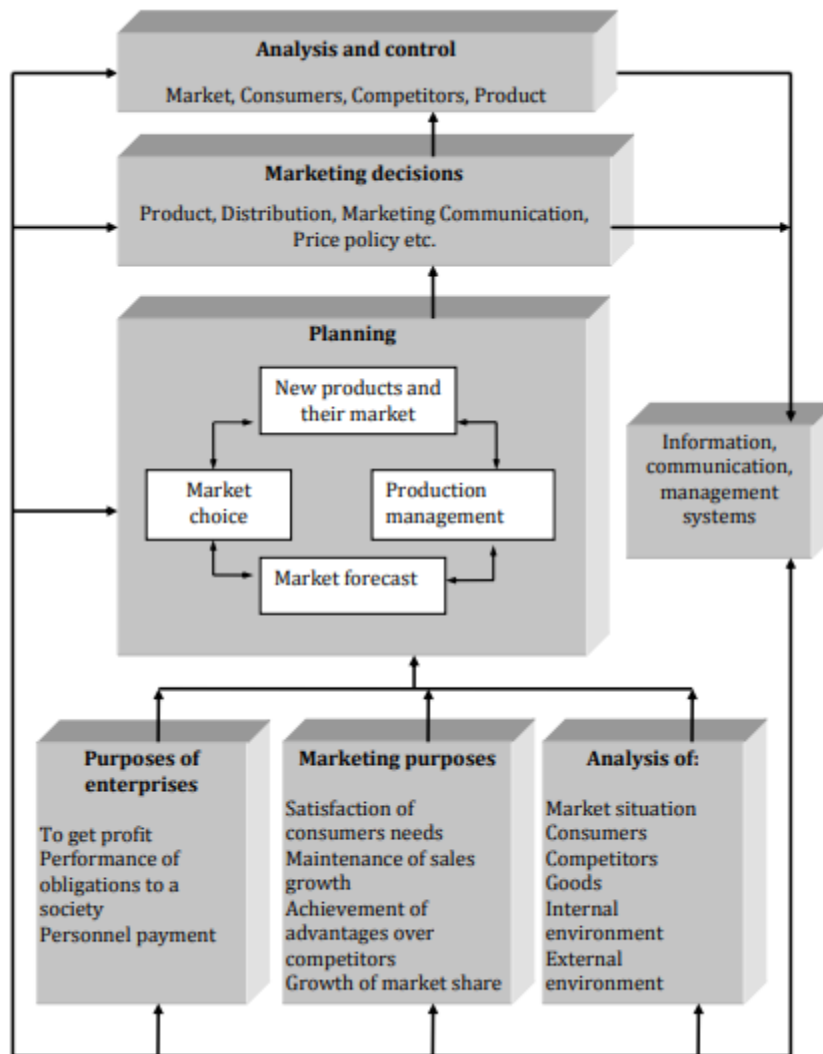
Tactical Decision: Furthermore Prasad, (2020) presents that this type of decision are routine decisions and regarded tactical in nature. Because they are repetitively made, decisions does not require lengthy time and only few alternatives are considered. Consequently, this type of decisions are passed by first and middle line managers and the level of uncertainty or risk are minimal. Tactical decisions compliment and support organizational strategy. Consequently, tactical decision by nature allows to be delegated to other lower levels persons in the organization. It has to be noted here that, what might be tactical decision for one company may be strategic decision for another.

2.2.7. Marketing Decision Making

Marketing Decision making can be classified into three: strategic, operations control and management control (FAO, 1997).

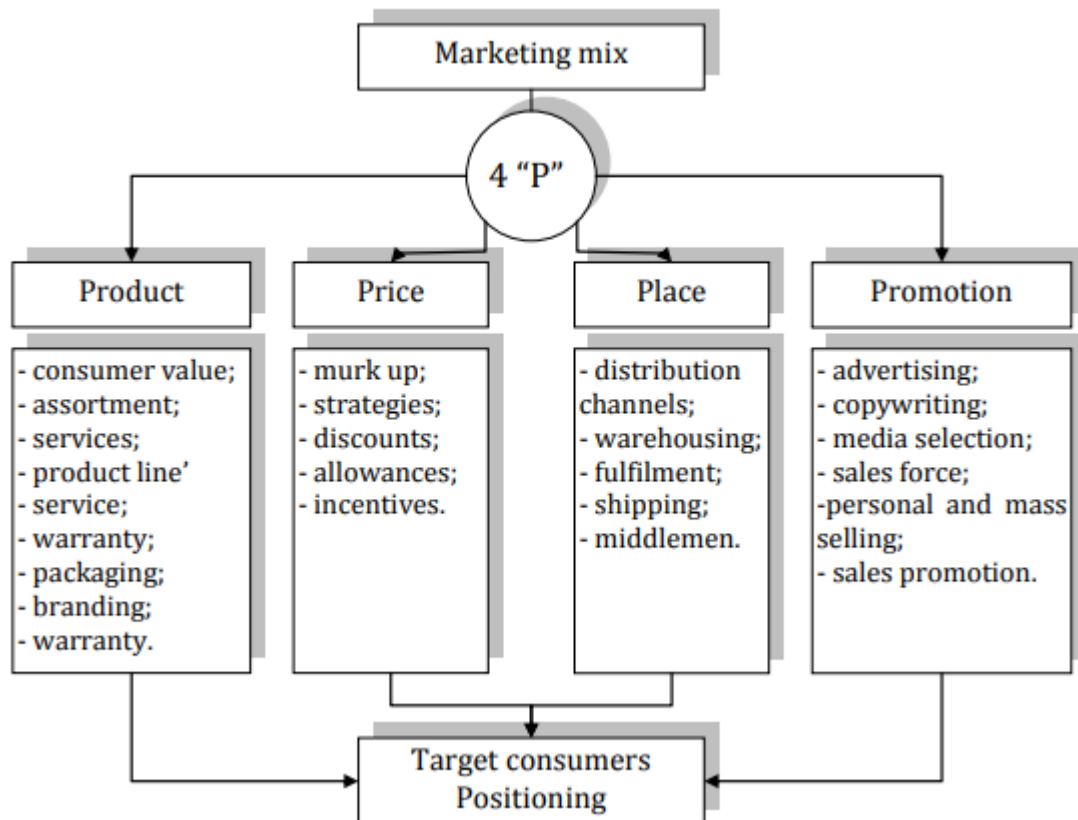
- **Strategic Marketing Decisions**

Strategic decision making: This deals with decisions related to the resources, objectives, and policies of the company. This process usually constitutes high-level managers (FAO, 1997). Hence, Walker & Mullins, (2014) marketing strategy intends to effectively assign and direct marketing resources and undertakings to fulfill the firm's objectives. First and foremost, marketing strategy determines the target market of a given product. Followed by, a well-considered approach for competitive advantage using the 4 Ps of place, promotion, price and product (Figure 3 and Figure 4).



Source: (Zoia et al., 2016)

Figure 3: Planning of enterprises' marketing activity



Source: (Zoia et al., 2016)

Figure 4: Marketing mix structure

According to Walker & Mullins, (2014), Planning and executing a marketing strategy requires undertaking of various interrelated decisions about doing what, when and how. The approach follows two ways in which one is for decisions to be determined for various market scenarios during designing of strategy, while the other relies on frameworks and analytical tools to make intelligent decisions when needed. Marketing strategy development starts with analysis of the Four "Cs": company, competitors, customers and cost which is helpful in understanding the market environment (Walker & Mullins, 2014).

Moreover, the authors argue that during designing, a successful marketing strategy critically considers: (1) the environmental context including economic, social, and technology trends; (2) the company's internal capabilities, resources, and strategies; (3)) the needs and wants of customers and (4 the relative weaknesses and strengths of competitors and its trend.

There are a number of strategic marketing decisions often undertaken by companies. It includes their policies on products, pricing, distribution, and promotion. More explanation on these terms is presented by (Walker & Mullins, 2014):

Product Policies: It defines the type, and quality of the products to be offered to the target markets also considering competitiveness, and penetration of new markets.

Pricing Policies: Its strategy can be based on low-cost defender, prospector or differentiation approaches. The success of low prices strategy should be judged based on its performance. However, in the differentiation approach a relatively higher cost is required due to improved quality or service.. Similarly, a prospector business requires higher prices due to the benefits and costs of a new product and market development.

Distribution Policies: In this regard, it is argued that prospector businesses should display a forward vertical integration greater than that of defender businesses. Because, the prospector's emphasis on new product and market development takes superior market intelligence and frequent reeducation of distribution channel teams.

Promotion Policies: Extensive marketing promotion work has significant importance for the success of both differentiated and prospector defender strategies. The practice of that communication, however, may vary under the two strategies. As prospectors must continually work to stimulate trial, create awareness, and build primary demand for unfamiliar and new products, and high sales and advertising promotion expenditures.

- **Operational Control Decisions:**

Operational control decisions emphasize on the nature of responses for daily changes in the business environment. It includes decisions related to who carries out a given task, setting criteria for an activity and its resource utilization, evaluation of outputs (Krishnamacharyulu & Ramakrishnan, 2011). Therefore it is deals with specific tasks forwarded by strategic decision makers (FAO, 1997)

- **Management Control Decisions:**

(Krishnamacharyulu & Ramakrishnan, 2011) explains management control decisions as tactical decision and focuses on the effective and efficient utilization of resources and the management of operational units performance. An example is the decision to raise advertising budget in order to improve sales.

2.2.8. Developing MKISs

For MKIS purpose managerial functions include organizing, planning, staffing, controlling and directing.

Planning: Tuner, (1991) argues that marketing managers use the service of MKIS to plan marketing activities. Each step on the planning process requires a lot of information regarding the external and internal environment in which the plans have to operate.

Organizing: Also Ashill & Jobber, (2001) argues that organization structure and information systems are closely related to each other. If the organization structure becomes the body of an organization, IS is its nervous system. The organization structure should be designed in such a way that it also allows flow and exchange of information in organization.

Staffing: Well designed information systems can gather information on various critical success factors for each managerial position and monitor the performance on regular basis. The advancement in multimedia technologies can help in automation of training and development.

Dissemination of information plays a vital role in directing the efforts of people in the enterprise. The facility of e-mail and use of the intranet has transformed the way formal communication takes place in business enterprises. Seamless flow of information across various departments with the help of information systems can also help in reducing the communication gaps that are many-a-time the main cause of employee dissatisfaction (Ashill & Jobber, 2001).

Controlling: A. Kumar & Meenakshi, (2006) state that the information systems play an important role in the controlling process. These systems not only help in measuring the performance of operations but also help in identifying deviations ostems.

Directingf performance from plans. The comparison between planned and actual performance is then analysed with the help of information systems to identify reasons for deviations (Barker, 1994).

2.2.9. Empirical Review

Here, several previous studies related to the issue of this study are summarized below. The study of Al-Bashabsheh, (2015) aimed to identify the effect of the quality of administrative information in raising the level of job performance in Jordanian Social Security Institution. It

also aims to identify the reality of the quality of MIS in this institution, and the level of job performance. The study concluded that there is an important impact of the quality of information systems in raising the level of job performance. The study by Queiroz & Oliveira, (2014) expressed the benefits of MKIS in the clothing retail business. A field research was conducted by means of a case study involving interviews of top management and marketing section,. The results indicated that information systems potential contribution in the development and promotion of new business opportunities. The study of Berhan et al., (2012) stated the impossibility of effective marketing a system that collect and analyze information. It is in this context that companies integrate marketing techniques and policies with IT, allowing managers to provide distinctive products and services, create value for the clients and generate profits for the organization. Thus, an organization's structure needs to be designed in order to create a learning-process through relevant information acquisition and decision making that are in line with the strategies and programs which enable the defined goals of the organization to be met.

Ismail, (2011b) and Al Abdaly et al., (2012) studied the relationship between the major components of MKIS, and DM in Jordanian shareholding medicines production companies. The study found statistically significant relationship between all of the components of making information system and marketing decision-making. The components considered were IRs, MR, and MI.

Also a study by Thair & Tahir, (2020) focused on measuring the effect of MKIS on DM. The findings that were obtained from the empirical study confirm positive relationships among the top management that is adopted by a number of MKIS elements and the success of an organizational DM.

Similarly, Shaker, (2011) studied aiming at emphasizing the importance and significance of applying MKIS on DM, by illustrating the need for efficient and quick DM in terms of time efficiency and originality of work. The empirical study outcome has shown positive relationships between the level of adopting and utilizing "DSS & MI" and the success of an organization wise DM, and offer the organisation with the ability to solve problems and become.

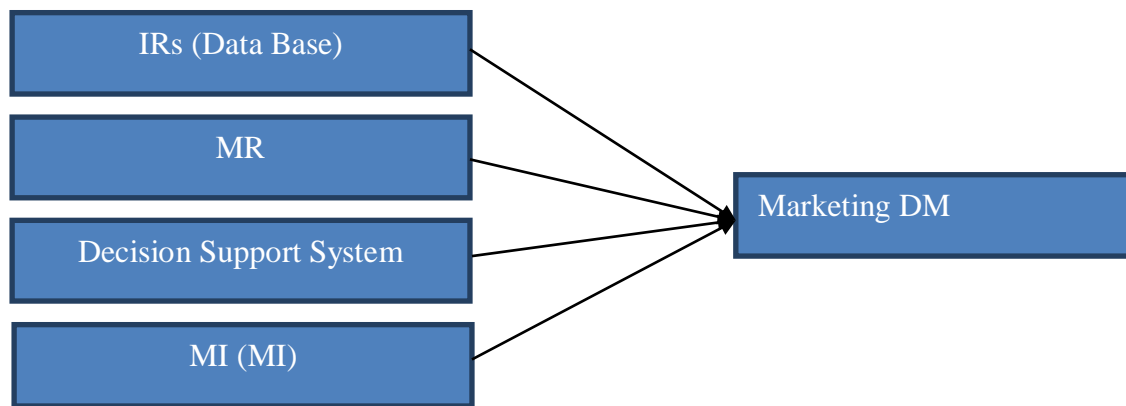
Likewise, G. S. Saini & Sharma, (2019) studied MKIS and its effect on DM. IRs System, MR, MI and DSS were considered as the four subsystems of MKIS. Consequently, all factors except DSS had significant effect on DM. However, even DSS was positively related to DM.

2.3. Conceptual frame work

The conceptual frame work is the foundation that the entire research is based on and a good model should help in identifying and labeling the underlying variables in the circumstances that are related to the research problem (Sekaran, 2005).

Among several MKIS models in the literature, this study uses the one constructed By Al-Momani & Al Assaf, (2020).

Accordingly, MKIS has four components (a) the internal reporting system; (b) the MR (c) the MI and (d) DSS (Thair & Tahir, 2020).



Source: (Al-Momani & Al Assaf, 2020)

Figure 5: Conceptual frame work of the study

2.4. Research Hypothesis

The following hypotheses are developed for this study: The use of internal records was reported in many works for the purpose of decision making in many organizations. Consequently, results from different studies showed confirmed the strong connection between the two. For example, a strong connection between market record and decision making was reported by a work conducted on the pharmaceutical industries in Jordan (Mohammadsaid S., 2012). Similarly, Bahloul,(2011) found a strong relationship between internal records and DM. Accordingly the first hypothesis is:

H1: There is significant relationship between the internal record (IRs) and the right DM.

Vera, Dragan and Davidovic, (2011) reported that there was not a significant use of market research for decision making based on a study conducted on businesses in Serbia. Moreover, Tarka, (2018) based on a study on marketing research states that intuition was predominantly used for decision making although managers declare during survey about the high importance of marketing research for effective decision making. Also, Thair and Tahir, (2020) reported weak relationship between market research and decision making. Moreover, Anucha, (2018) stated that there was strong relationship between market research and the right decision making.. Accordingly the second hypothesis is:

H2: There is significant relationship between MR and the right DM

With regard to market intelligence, Lackman, Saban and Lanasa, (2000) reported that there was clear and strong connection between marketing intelligence and decision making. However, Markovitch, Steckel and Yeung, (2005) reported that marketing intelligence was not critically considered for high-risk, strategic decision making in highly successful pharmaceutical companies unlike low performing companies. Jamil, (2013) studied sixteen companies and it found out that only two companies had intelligence procedures for the purpose of strategic decision making purpose with MI having strong impact on the DM process. Also, another study (Wood, 2001) showed that marketing intelligence collection from resources in the internet was low in most SMEs and it had little impact on decision making. However, positive relationship between marketing intelligence and decision-making was observed in other studies (Al-Shaikh, 2010). Accordingly the third hypothesis is:

H3: There is significant relationship between MI and the right DM.

Market decision support systems play an important role in the systematization of a decision making process based on gathered information. From various studies conducted previously, market DSS was reported to have useful impact on decision making process. For example, Macedo *et al.*, (2013) reported good impact of DSS for decision making. Similar, analysis was observed in Mohammadsaid S., (2012) and G. Saini & Sharma, (2019). Accordingly the fourth hypothesis is:

H4: There is significant relationship between DSS and the right DM.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter presents the methodology of the study to answer the research questions. It includes research approach, sampling design, research population, data collection, data sources, and data analysis.

3.1 Description of the Study Area

The SDI is very essential in people's day to day life. The SDI includes companies that are producing soap and detergents.

Major products of SDI include soaps, laundry detergents, dishwashing detergents, household-cleaning products, hair cleaning products, and toothpaste. In Ethiopia, soaps account for 20 % of the overall market, while laundry detergents cover 40 % of the market, and dishwashing detergent hold 15 %. Mostly soaps are made available in bar form 250 gram being the most common, although liquid soap is available in the market, Soaps are expected to result in antibacterial, moisturizing, deodorizing benefits in addition to cleaning laundry detergent is offered to the market in liquid and powder forms. These detergents may have other additional qualities such as bleaching, color brightening and softening of fabrics in addition to primarily cleaning function. Moreover, the dishwashing detergents are offered in the form of liquid, gel, powder, and tablet forms (Abebe, 2017).

Among the companies that are major players in this industry are: Repi Soap and Detergent Company, Star Soap and Detergent Company, Taza Soap and Detergent Company and Bekas Chemicals plc.

3.2 Research Approach

The research approach is where the researcher used quantitative approach. Quantitative research design is used in situations where there are predetermined instrument based performance data, questions, attitude data, and observational data, (Cochran, 1963). The objective of quantitative research is to employ and develop mathematical models, hypothesis and theories pertaining to mutual phenomena, (Kothari, 2004). And this research used predetermined instrument based questions where closed ended questioners were distributed and analyzed.

3.3 Research Design

A research design is a conceptual structure within which research is conducted. It is a survey intending to gather data from a population with the aim of determining the existing condition of population in view of one or more variables (Mugenda & Mugenda, 1999).

In this study, the researcher used explanatory type of design to see the relationship or cause and effect between the independent variables and marketing DM. In addition, because explanatory research design is concerned with learning of why (i.e. how one variable produces changes in another (Yin, 2009). So that the design was proposed to be explanatory type.

Consequently, this study assesses MKIS and its effect on DM in the soap and detergent industries in Addis Ababa.

3.4 Target Population

In Addis Ababa, there are about 78 registered SDI (Appendix I) as drawn from a list in Ministry of Industry. The large majority (83%) are micro and small companies mostly established with the help of the Woreda's Micro and Small Enterprise offices. These companies employ upto 5 and 6-30 persons respectively for micro and small companies (FDRE, 2011). The remaining private limited companies account 17% (i.e., 13) of the overall number of SDI in Addis Ababa.

In this study, for the MKIS study, only companies of large and medium scale are considered appropriate. Because the micro and small companies do not normally establish departments and nor run their business with strategies. And, their inclusion into the study is expected to undermine the research analysis and outcome. For example, a study in Figi investigated the challenges of using MKIS by small and medium enterprises (SMEs). This work result indicated that there were big challenges and SMEs being unable to implement MKIS (Singh et al., 2013). This is usually due to the fact that SMEs lack the necessary resources required for MKIS implementation (Kim, 2006). The required resources include cost, expertise, IT infrastructure and training (Al-allak, 2010). SMEs challenge in relation to MKIS implementation was also reported in India (Priyanath, 2006).

Therefore, this is focused on those companies with large and medium scale category. According to Regulation No. 373/2016 and Proclamation No. 954/2016, large and medium companies belong to employment of 31-100 and greater than 100 respectively. Accordingly,

17% of the the companies belong to large and medium scale category. Therefore, for this study, the total population size was considered to be 13 companies.

3.5 Sample size determination

Two stage sample determination was undertaken by using Non probability purposive and probability simple random sampling techniques to select the relevant industries and respondents from the sampled industries. Sample size of the industries were determined using Slovin’s formula (equation 1) from the total population value of thirteen. As a result, the sample size of industries that were considered in this study were twelve as shown in the equation below.

It is to be noted that although, there are about 78 registered SDI in Addis Ababa (Appendix I) as drawn from a list in Ministry of Industry, the vast majority (83%) are micro and small companies mostly established with the help of the Woreda’s Micro and Small Enterprise offices. These companies employ upto 5 and 6-30 persons respectively for micro and small companies (FDRE, 2011). The remaining private limited companies account 17% (i.e., 13) of the overall number of SDI in Addis Ababa. As the micro and small companies are regarded as unfit for MKIS study (Al-allak, 2010; Kim, 2006; Singh et al., 2013), the study population is regarded to be thirteen as a result.

$$n = \frac{N}{1+N(e)^2} \dots\dots\dots (1)$$

Where:

N = is Total population

n = sample size

e = confidence interval also known as the margin of error = 0.05

$$n = \frac{13}{1+13(0.05*0.05)} = 12$$

One industry among the total of 13 was excluded from the population by using simple random sampling technique. In the second stage sample size determination on the respondents, 10 marketing department staffs from each sample manufacturing firm (marketing managers, sales workers and marketing employees responsible for market data

collection) were selected by using purposive sampling technique. . Therefore, the total study population was be $12 \times 10 = 120$ respondents,.

3.6 Sampling techniques

Sampling techniques can be classified into two types:

- *Probability or representative sampling*
- *Non-probability or judgmental sampling.*

In probability sampling, sampling units are selected by chance. It is most commonly associated with survey-based research. On the other hand under non-probability sampling the developers of the inquiry inentionally select the specific units of the universe for instituting a sample based on the fraction selected from a larger category will be representative of the whole (Kothari, 2004). Therefore, in this study both probability and non-probability sampling method were proposed. Particularly, simple random sampling and purposive were used to select study sample industries among Soap and Detergent Industries that are listed on list from Ministry of Industry and marketing department employees from the selected industries respectively. .

3.7 Sources and Types of Data

The researcher used both secondary and primary data sources for the study. The primary data was collected from Questionnaire survey method and the secondary data was collected through Journals, Articles, books and online sights which are relevant to the study in order to clarify basic concepts related to the study.

3.8 Data Collection procedures

A research instrument is a device for collecting relevant data or measuring the variables which are used for answering research question and/or testing study hypothesis (Dixon-Ogbechi, 2002). Pre- designed questionnaire was used to collect the required primary data from the study population.

3.9 Ethical Considerations

To comply with ethical considerations in conducting research all respondents were asked by the researcher for their consent to participate in the research and their information will

remain confidential. Additionally, the researcher clearly communicates the purpose of the study and confirmed that there is no interest conflict between the researcher and the respondents and their company.

3.10 Data Analysis

Data gathered through questionnaires were analyzed by using Statistical Package for Social Sciences (SPSS) for the purpose of analyzing variables and testing hypotheses of the study. Descriptive statistics (frequencies, percentages, mean, and standard deviations) were used to describe the demographic characteristics of the respondents and the variables. Correlation coefficient and regression analyses were used to indicate the extent and the degree of the relation between variables and impact between the MKIS and DM as well as the direction and the power of their relation. The analyzed data is presented by using tables followed by discussions. These approaches were also observed in other previous works (Alhadid et al., 2015; Shkeer & Awang, 2019; Wijaksana & Pradana, 2018).

3.11 Validity and reliability

In order to identify vague statements, and any other inappropriate format of this study, a pilot study was conducted and any sign of ambiguity was corrected before the main study was conducted.

Validity is the ability of the approach to measure the variables. While reliability refers to the possibility of obtaining the same results during re-evaluation under similar circumstances. Cronbach's Alpha was used to determine the degree of reliability of an approach. The lower limit for Cronbach's alpha was considered to be 0.70 (Al Abdaly et al., 2012; Ali, 2015; Shkeer & Awang, 2019)

3.12 Correlation

Correlation quantifies the extent to which two quantitative variables, X and Y, "go together." The result of a correlation test is referred to as Correlation coefficient (r). Correlation coefficient ranges from +1 to -1, with +1 being a total positive correlation and vice versa (Coakes, 2005). Thus, a Correlation coefficient of two variables that is closer to +1 indicates a strong positive correlation. Conversely, a Correlation coefficient close to -1 indicates a strong negative correlation, between variables. A Correlation coefficient that is closer to 0 shows weak or no relationship. P-value is a measure of significance level. A 5% level of

significance was used in this study. Such approach was also observed in other works (Kassa, 2010; Patric et al., 2017)

CHAPTER FOUR: RESULT AND DISCUSSION

4.1. Background Information on Target Companies

This section covers the basic description of companies considered in this study. The companies under study in this work are located in Addis Ababa and all of them are engaged in the soap and detergent sector.

Table 1 list SDI that were surveyed. As a result, the questionnaire was distributed to twelve of the listed industries. A total of 120 questionnaires were distributed, and 96 (i.e., 80%) questionnaires were retrieved and completed. Therefore, it can be considered that acceptable level of questionnaires were retrieved.

Table 1: Description of Companies in the Target Group

Sr. No.	Name of companies surveyed	Questionnaires			
		Distributed	Retrieved	Completed	
1	Repi Soap and Detergent Factory	10	9	9	90%
2	Star Soap and Detergent Industries PLC	10	9	8	80%
3	Bekas Chemicals PLC	10	10	8	80%
4	Ethio-Asia Industries Sh. Co.	10	8	8	80%
5	Taza PLC	10	9	9	90%
6	Mix Chemicals PLC	10	9	8	80%
7	Akay Consultancy And Industry PLC	10	8	7	70%
8	Palm Ethiopia PLC	10	8	8	80%
9	Tekron Detergent and Chemical PLC	10	9	8	80%
10	Gulele Soap Factory Share Company	10	8	7	70%
11	Zak Ethiopia Manufacturing And Trading PLC	10	9	8	80%
12	Beyeda Sustainable Manufacturing PLC	10	9	8	80%
Overall		120	105	96	80%

Table 2 provides ownership and employment information of the target companies. In this regard, all of the surveyed organization are privately owned. Moreover, most companies employed above thirty-one persons. Therefore, it can be said that the companies surveyed in this study are of large and medium scale according to Regulation No. 373/2016 and Proclamation No. 954/2016, which states that large and medium companies belong to employment of 31-100 and greater than 100 respectively.

Table 2: Companies ownership and employment condition

No.	Description	Item	Frequency	Percentage (%)
1	Ownership type	Private	12	100%
		Government	0	0%
2	Number of employees	31 to 100	8	66.7%
		Above 100	4	33.3%

4.2. Background Information of Respondents

This section provides basic background information of respondents such as gender, age, educational status, and years of service.

4.2.1. Gender

Regarding the ratio of male and female respondents, the study found that 47.9% and 52.1% were male and female respectively. This ratio imbalance (Table 3) may be due to preference of employment of females for marketing sections. However Getu, (2010) reported on average a 52.8% and 47.2% male and female gender ratio in all types of manufacturing industries in Addis Ababa. This shows that, although the proportion of female employees is slightly higher in SDI, other industrial categories use slightly higher ratio of male employees. Generally, the respondents ratio of sex can be regarded as proportional.

Table 3: Gender

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Sex	Female	50	52.1%
2		Male	46	47.9%
Total			96	100%

4.2.2. Age Group

Concerning the age of respondents, the large majority (78.1%) are less than forty and respondents above the age of 40 account 21.9% (Table 4). This finding is somewhat similar to a previous study conducted by (Getu, 2010) on all categories of manufacturing industries in Addis Ababa. In this study, 80.5% of the respondents were less than the age of 40. This shows that the sector is highly dominated by the youth.

Table 4: Age Group

Sr. No.	Description	Item	Frequency	Percentage (%)
2	Age	Less than 25	13	13.5%
		Less than 40	62	64.6%
		Less than 55	18	18.8%
		Above 55	3	3.1%
Total			96	100%

4.2.3. Educational Attainment

The educational status of the respondents indicates that (Table 5) bachelor degree is the highest with 84.4% followed by masters degree with 15.6%. Similar trends was observed with bachelor degree as the highest proportion and high-school-complete as the lowest proportion in similar surveys by other researchers in Ethiopian SDI (Andargachew Y., 2016).

Table 5: Educational status

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Educational status	High school complete	0	0%
		Diploma	0	0%
		Degree	81	84.4%
		Masters	15	15.6%
		PhD	0	0.0%
Total			96	100%

4.2.4. Field of Specialization

Table 6 clarifies the respondents' field of specialization. In this context, most of the respondents (i.e., 27.1%) are specialized in other fields followed by management 25% and marketing management 24%. Therefore, it can be seen that most of the respondents are from a relevant field of specialization.

Table 6: Field of Specialization

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Specialization	Marketing management	23	24.0%
2		Business administration	17	17.7%
3		Management	24	25.0%
4		Economics	6	6.3%
5		Others specify	26	27.1%
Total			96	100%

4.2.5. Job Title

As listed in Table 7, the large majority (i.e., 56.3 %) of the respondents' job title are from sales officers, followed by marketing managers 20.8% . The remaining is shared among other job titles.

Table 7: Job Title

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Job Titles	Marketing manager	11	11.5%
2		Sales Manger	6	6.5%
3		Marketing/sales officer	73	76.0%
4		Others specify	6	6.5%
Total			96	100%

4.2.6. Years of Experience

The fact that the vast majority (i.e., 30.2%) of the respondents (Table 8) had five to ten years experience indicates that the sector is utilizing the young generation predominantly for running industries. Moreover, only 24.0% of the respondents have more than 15 years of experience. More or less, the same result was obtained in another study on the same industrial sector (Andargachew Y., 2016).

Table 8: Years of Experience

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Experience Years	Less than 5	25	26.0%
2		5 to 10 years	29	30.2%
3		10 to 20 years	19	19.8%
4		15 to 20years	17	17.7%
5		20 years and more	6	6.3%
Total			96	100%

4.2.7. Years of Experience as a Manager / Deputy

Regarding years of experience at managerial positions, 81.2% of the respondents had experience of less than 5 years, followed by 9.4% with 10 to 15 years of experience (Table 9).

Table 9: Years of Experience as Manager

Sr. No.	Description	Item	Frequency	Percentage (%)
1	Experience Years	Less than 5	78	81.2%
2		5 to 10 years	4	4.2%
3		10 to 15 years	9	9.4%
4		15 years and more	5	5.2%
Total			96	100%

4.3. Test of Normality

The normality of the data was assessed using Kolmogorov-Smirnov test of normality as shown in Table 10. Accordingly, the p-value being less than 0.05 for all items indicates that the distribution of all listed items is normally distributed. Therefore, parametric tests can be applied for the statistical analysis of the data.

Table 10: Test of Normality

No	Item	Kolmogorov-Smirnov	
		Statistic	P-value
1	Marketing records	0.097	0.025
2	Marketing intelligence	.111	0.006
3	Marketing research	.125	0.001
4	Marketing decision support system (MDSS)	.119	0.002
5	Marketing decisions	.140	0.000

4.4. Validity of Questionnaire

This section will deal with internal validity and structure validity of the data.

4.4.1. Internal Validity

Regarding the internal validity, Table 11 shows the correlation coefficients between each item in one factor (i.e., marketing record) and the whole items. Based on the outcome of p-values less than 0.05, the correlation coefficients of this factor are regarded significant at $\alpha = 0.05$. Therefore, the items in this factor are considered consistent and valid to be used for the intended purpose. Other previous works also used similar approach (Bahloul, 2011).

4.4.2. Structure Validity of the Questionnaire

Concerning the structure validity, the validity of the questionnaire structure was tested by examining the validity of each factor and the validity of the whole factors. For this purpose,

the correlation coefficient between one factor and all the factors were measured based on same level of liker scale.

Following the structure validity analysis, Table 11 shows the correlation coefficients between each factor and the whole factors. Based on the outcome of p-values of less than 0.05, the correlation coefficients of this factor are regarded significant at $\alpha = 0.05$. Therefore, concerning structural validity, the factors in this questionnaire are considered consistent and valid to be used for the intended purpose.

Table 11: Correlation coefficient of each item and the whole of questionnaire

Sr. No.	Item	Person Correlation Coefficient	P-Value (Sig.)
1	Marketing records	0.913	.000
2	Marketing intelligence	0.964	.000
3	Marketing research	0.963	.000
4	Marketing decision support system (MDSS)	0.962	.000
5	Marketing decisions		.000

4.5. Reliability of the Research

The reliability of a data represents the degree of consistency during a repeated measurements of an attribute, the higher its reliability (Polit & Hunger, 1985).

4.5.1. Cronbach's Coefficient Alpha

Cronbach's Coefficient Alpha approach is applied to size the reliability of the questionnaire considering the mean of the whole factor and each factor of the questionnaire. The higher values of Cronbach's coefficient alpha value of between 0.0 and + 1.0 implies an increased. Values less than 0.60 are considered unacceptable, while a data with Cronbach alpha coefficient value greater than 0.7 is regarded as reliable (Ali, 2015; Pallant, 2001).

As shown in Table 12, the values of Cronbach's Alpha were between 0.952 to 0.982. This implies a high reliability of each of the items and the entire questionnaire. Similar approach

was also observed in other previous studies (Ali, 2015; Patric et al., 2017; G. S. Saini & Sharma, 2019).

Table 12: Cronbach’s Alpha for each factor and the entire factors

Sr. No.	Item	Cronbach’s Alpha
1	Marketing records	0.952
2	Marketing intelligence	0.982
3	Marketing research	0.981
4	Marketing decision support system (MDSS)	0.979
5	Marketing decisions	0.974

4.6. Descriptive Analysis of Components of Marketing Information System

This section deals with the analysis of components of MKIS which are independent variables of the study (marketing records, marketing research, marketing intelligence and marketing decision support system) from the target companies using descriptive statistics.

4.6.1 Marketing Records

Concerning the first factor which is the marketing record, and as shown in Table 13, the mean value of the marketing record is 3.9. This indicates that the factor is above average on five point scale. It indicates a moderate degree of approval, which means that the respondents moderately agree on the availability of comprehensive internal marketing database, its accuracy, its effectiveness for DM, its timeliness and its usefulness. This indicates that the SDI in Addis Ababa in general are performing fairly in marketing information recording for marketing DM purposes. Marketing record was similarly analysed in other previous works (Alhadid et al., 2015; Kassa, 2010).

The standard deviation value of 0.68 indicates that the level of agreement in the answer and that that there was no as such big difference in the status of the SDI in Addis Ababa with respect to their marketing information recording for DM purpose.

Table 13: Marketing records descriptive statistics

Item	Mean	Std. Deviation	N
Market Records	3.8573	.68206	96

4.6.2. Marketing Intelligence Descriptive Analysis

In relation to the second factor which is the MI, and as shown in Table 14, the mean value is equal to 3.8 and it is above average on five point scale. This indicates that the SDI in Addis Ababa in general are performing well in MI for marketing DM purposes. Furthermore, the standard deviation value of 0.76 indicates that there is no as such big difference in the status of the SDI in Addis Ababa with respect to their MI performance for DM purpose.

Table 14: Marketing intelligence descriptive statistics

Item	Mean	Std. Deviation	N
Market Intelligence	3.80	.76	96

4.6.3. Marketing Research Data Analysis

In relation to the third factor which is the MR, the mean value (Table 15) is equal to 3.5 and the factor is above average on five point scale. This indicates that the SDI in Addis Ababa in general are performing well in MR for marketing DM purposes. Furthermore, the standard deviation value of 0.79 indicates that there is no as such big difference in the status of the SDI in Addis Ababa with respect to their MR performance for DM purpose.

Table 15: MR descriptive statistics

Item	Mean	Std. Deviation	N
Market Research	3.49	.79	96

4.6.4. Marketing Decision Support System (MDSS) Data Analysis

Regarding the fourth factor which is the marketing DSS, and as shown in Table 16, the mean value of the marketing DSS data, a value of 3.7 indicates that the factor is above average on five point scale. This indicates that the SDI in Addis Ababa in general are performing well in marketing DSS for marketing DM purposes.

Furthermore, the standard deviation value of 0.8 indicates that there is no as such big difference in the status of the SDI in Addis Ababa with respect to their marketing DSS performance for DM purpose.

Table 16: Marketing DSS descriptive statistics

Item	Mean	Std. Deviation	N
Market Decision Support System	3.74	.81	96

4.7. Correlation Analysis

Correlation is a statistical method used to depict relationships between random variables through analysing potential links and inferring the degree of connectivity. A correlation coefficient has a value ranging from -1 to 1. Values that are closer to the absolute value of 1 indicate that there is a significant link between the variables being correlated while values closer to 0 shows that there is little or no linear association (al-Ketbi & Conrad, 2013). Accordingly, a correlation analysis between every one of the independent variables against the dependent variable is shown in Table 17.

Table 17: Correlation coefficient between independent variables against dependent variable (i.e., decision making)

Item	Pearson Correlation Coefficient	P-Value (Sig.)
Marketing records	0.869	0.000
Marketing Research	0.905	0.000
Marketing decision support system	0.893	0.000
Marketing Intelligence	0.885	0.000

4.7.1. The Corelation between Marketing Record and Marketing Decision Process

There is a significant positive relationship at the level $\alpha \leq 0.05$ between marketing records and the DM Process.

As indicated in Table 17, the Pearson correlation coefficient between marketing record and marketing decision process equals 0.869 with a p-value of 0.000. The p-value (Sig.) of below 0.05 indicates that the correlation coefficient is statistically significant at $\alpha = 0.05$. Moreover, from the pearson correlation coefficient ($r = 0.869 > 0.5$), it is clear that there is a significant positive relationship between independent variable (marketing record) and dependent variable (marketing DM).

which means that " there exists a significant positive relationship between marketing record and marketing decision process. Similar approach was followed by other previous researchers to identify relationship between MKIS and marketing DM (Patric et al., 2017; G. S. Saini & Sharma, 2019).

7.4.2.Corelation between Marketing Recsearch Marketing Decision Process

There is a significant positive relationship at the level $\alpha \leq 0.05$ between MR and the DM Process.

As shown in Table 17, the correlation coefficient between MR and marketing decision process equals 0.905 with a p-value of 0.000. The p-value (Sig.) of below 0.05 indicates that

the correlation coefficient is statistically significant at $\alpha = 0.05$. Moreover, it can be reported that there exists a significant positive relationship between MR and marketing decision process.

4.7.3. Corelation between Marketing DSS Marketing Decision Process

There is a significant positive relationship at the level $\alpha \leq 0.05$ between Marketing DSS and the DM Process.

As shown in Table 17, the correlation coefficient between marketing DSS and marketing decision process equals 0.893 with a p-value of 0.000. The p-value (Sig.) of below 0.05 indicates that the correlation coefficient is statistically significant at $\alpha = 0.05$. Moreover, it can be reported that there exists a significant positive relationship between marketing DSS and marketing decision process.

4.7.4. Corelation between Marketing DSS and Marketing Intelligence

There is a significant positive relationship at the level $\alpha \leq 0.05$ between MI and the DM Process.

As shown in Table 17, the correlation coefficient between MI and marketing decision process equals 0.885 with a p-value of 0.000. The p-value (Sig.) of below 0.05 implies that the correlation coefficient is statistically significant at $\alpha = 0.05$. Moreover, it can be reported that there exists a significant positive relationship between MI and marketing decision

4.8. Multiple Regression

Regression analysis is a statistical modeling. It helps the understanding of the relationship between a dependent variable and one or more independent variables. Usually an estimation is made to the dependent variable when of the values of the independent variables is varied, while the remaining independent variables are kept constant (David, 2005).

4.8.1. Requirements for a Regression Analysis

The two most important conditions to be fulfilled before conducting regression analysis are the adequacy of the sample size and non –existence of correlation among the independent variables. The size of the sample has a direct effect on the statistical power of the significance testing in multiple regressions, which refers to the probability of detecting statistically significant R-square or a regression coefficient at a specified significance level (Ho, 2006). Ho (2006) also suggested the sample size (the number of cases) to be at least 20 times more

than the number of independent variables, as a rule of thumb, in order to get the desired level of statistical power. Given this rule of thumb, the number of cases used for this study (96 respondents) is well over the required criteria

4.8.2. Multicollinearity test

The correlation among the independent variables was checked using a test of multicollinearity. It occurs when an independent variable is a linear function of another independent variables. This means, one independent variable can be described by another independent variable. In this regard, Variance Inflation Factor (VIF) and tolerance were used

To assess if multicollinearity requirement was not met, the tolerance and VIF were evaluated as can be seen from Table 18. No multicollinearity was confirmed by the VIF values which had values from 3.873 to 7.516. These values are under 10 and it suggests that the acceptance of no multicollinearity is rational (Tabachnick & Fidell, 2007). This implies that the data is suitable for conducting multiple regression analysis. However, DSS did not meet VIF value requirement for validity in regression analysis. Therefore, DSS was omitted from the regression analysis.

Table 18: Multicollinearity test

Model	Collinearity Statistics	
	Tolerance	VIF
Market Records	.258	3.873
Market Intelligence	.133	7.516
Market Research	.151	6.628
Decision Support System	.094	10.634

4.8.3. Regression Model

As shown in Table 19, the regression model, from a 0.867 value of adjusted R square, confirms that 86.7% of the variation in marketing decision process is described by the independent variables., a p-value of 0.000 (p - value < 0.05) from the ANOVA in Table 20 shows that the model is significant and that the variation explained by the model is not by chance.

Table 19: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.933 ^a	.871	.867	.31753

a. Predictors: (Constant), MarketResearch, MarketRecords, MarketIntelligence

Table 20: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	62.637	3	20.879	207.079	.000 ^b
	Residual	9.276	92	.101		
	Total	71.913	95			
a. Dependent Variable: Marketing DecisionProcess						
b. Predictors: (Constant), MarketResearch, MarketRecords, MarketIntelligence						

4.8.4. One-way ANOVA

The one-way analysis of variance (ANOVA) is commonly applied to analyze the condition of significant differences, if any, between the means of two or more independent groups (Cooper & Schindler, 2008).

To measure the statistical significance of the end outcome it is crucial to look in the ANOVA table above. This examines the general significance of the model.

A p-value of 0.000 ($p - \text{value} < 0.05$) from the ANOVA in Table 20 shows that the model is significant and that the variation explained by the model is not by chance.

4.8.5. Regression Coefficients

The beta values of the standardized coefficients in **Table 21** are helpful for analysing the significance of set hypothesis. Accordingly the p-values of IR, MI and MR being 0.000, 0.026 and 0.000 shows that they are all significant. Moreover, the standardized coefficients are 0.310, 0.232 and 0.435 respectively for IR, MI and MR. Hence, the model equation for marketing decision process can be represented as:

$$Y = 0.310 \text{ market records} + 0.232 \text{ market intelligence} + 0.435 \text{ market research} - 0.462$$

$$Y = 0.310 X_1 + 0.232 X_2 + 0.435 X_3 - 0.462$$

Table 21: Model coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.462	.190		-2.430	.017		
Market Records	.395	.094	.310	4.207	.000	.258	3.873
Market Intelligence	.264	.117	.232	2.260	.026	.133	7.516
Market Research	.479	.106	.435	4.513	.000	.151	6.628
a. Dependent Variable: Marketing DecisionProcess							

The regression coefficients (beta coefficients) between the MKIS and Marketing decision have positive values. Hence there were positive relation between the MKIS and Marketing Decision

Specifically ,Marketing research is the strongest predictor of soap and detergent companies marketing decision process.because it has highest Beta coefficient result of ($\beta =0.435$ $p<0.05$) The Beta Coefficient result of 0.435 signifies that for a 1-unit change in the independent

variable (marketing research,) the dependent variable marketing decision will change by 0.0435 units. Internal record is the second predictor of soap and detergent industries in Addis Ababa at ($\beta=0.310$; $P<.05$) The Beta Coefficient result of 0.310 signifies that for a 1-unit change in the independent variable (Internal record), the dependent variable (Marketing Decision) will change by 0.310 units.

Following to Internal record Market Intelligence at ($\beta=.0210$; $p<.05$) is the next predictor of marketing decision of SDI in Addis Ababa. Therefore, the result of this study indicates that MKIS has a significant positive effect on Marketing decision of SDI of Addis Ababa.

4.9. Hypothesis Testing

Table:22 Summary of Hypothesis Testing

S/No.	Hypothesis	Beta Value	Sig.	Direction of Relationship	Result
1	H1: There is a significance relationship between Internal record and Marketing Decisions	0.0310	0.000	+	Accepted
2	H2: There is a significance relationship between Marketing Research and Marketing Decisions.	0.479	0.000	+	Accepted
3	H3: There is a significance relationship between	0.232	0.026	+	Accepted
4	H4: There is a significance relationship between Decision Support System and Marketing Decisions.	-	-		Rejected

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

This paper examined the effect of MKIS for DM in the SDI in Addis Ababa. The study focused on large and medium industries due to their appropriateness for the study and due to lack of capacity in the micro and small companies to meet the knowledge, staff and resource requirements for MKIS implementation

To this end ,related literatures were reviewed, regarding the methodology, explanatory research design was employed. Moreover, 120 five-point Likert scale questionnaires were distributed to Marketing employees of large and medium Soap and detergent industries in Addis Ababa., The quantitative data was analysed using SPSS and it is checked for reliability using Cronbachalfa, descriptive, correlation, and regression analysis were used to explore the relationship among variables. The data analysis found out the following key findings.

. The major findings of the study are:

- On average 80% of the questionnaire were retrieved and completed.
- Sampled companies (100%) were privately owned.
- 30.8% of the surveyed companies were large, the remaining being medium scale.
- The pearson correlation of greater than 0.75 and significance of 0.05 indicates validity of the data.
- The cronbach's value of greater than 0.6 shows the high reliability of each of the items and the entire questionnaire.
- The mean values of 3.86, 3.81, 3.49, and 3.74 for marketing records, MI, MR, and marketing DSS respectively shows that all of the factors obtained a value above average on five point scale. This indicates that most of the companies slightly agree to the presence of MKIS in their system, although it does not show strong and organized implementation of the system.
- correlation analysis indicated (i.e., $r > 0.75$) that there is relation between DM and marketing records ($r > 0.87$), MR ($r > 0.91$), MI ($r > 0.88$) and marketing DSS($r > 0.89$).

The data was checked for multicollinearity before regression analysis. Based on the collinearity statistics tests VIF value of less than 10 was obtained except one variable Decision Support System which is excluded from the regression analysis and lack of multicollinearity among the rest of the factors in the study. Consequently, the regression analysis with a 0.867 value of adjusted R square, confirms that 86.7% of the variation in marketing decision process is explained by the independent variables. Moreover, the standardized coefficients of 0.310, 0.232 and 0.435 respectively for market records, market intelligence and market research shows that market research has more impact on the dependent variable than the others.

5.2. Conclusions

- The overall objective of the study were to examine the effect of MKIS on Marketing decision process with soap and detergent industries in Addis Ababa. In this study, the mean scores range between 3.75 and 4.0. . This implies that the respondents have a good agreement on the aforementioned variables (i.e .Marketing Information System) draw an effect on the Marketing Decision of Large and medium soap and detergent Industries in Addis Ababa.
- Additionally, all the variables have scored low standard deviation that implies that the data are clustered closely around the mean. The correlation result indicates that all the independent variables were positively and strongly correlated with the dependent variable
- Moreover, the regression analysis result indicated that Market Research had more effect on the dependent variable than Marketing Record or Marketing Intelligence. Generally, it can be concluded that the marketing information system in soap and detergent industries in Addis Ababa has a slightly positive effect on the marketing decision making process.
- Therefore, application and usage of MKIS by using internal record, market research and market intelligent is vital for right marketing decisions.

5.3. Recommendation

Based on the findings of this work, the following recommendations can be suggested:

- Although slightly good agreement was obtained in relation to the effect of MKIS on decision making in the Soap and Detergent Industries, the level of its effect is not well recognized and more work still remains.

Therefore, SDI need to have organized unit dedicated for MKIS which will be supported with the necessary resource such as computers and softwares, competent staff and well-outlined procedures that provides reliable, accurate and timely information to maximize benefits from the implementation of MKIS for a successful marketing decision making. which will help them to achieve their business goals, such as entering new markets, getting more market share and competitive advantage over competitors.

-
- The approach in this study can also be replicated to other industrial and/or service sectors to assess MKIS effect on the marketing decision making process.
- Future studies on the local industrial or service sector can consider multivariate analysis such as factor analysis to assess and analyze MKIS.
- There is the need to create more awareness in business entities on the potential benefits of marketing information system for the purpose of effective decision making. Which in turn can bring growth, increased market share and competitive advantage for businesses.

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APPENDIX

APPENDIX I: LIST OF SDI IN ADDIS ABABA

NO.	BUSINESS NAME	BUSINESS NAME
1	ሚክስ ኬሚካልስ ኃ/የተ/የግ/ማ	MIX CHEMICALS PLC
2	ታዛ ኃላፊነቱ የተወሰነ የግል ማህበር	TAZA PLC
3	ቴክሮን ዲተርጅንት እና ኬሚካል ኃላፊነቱ የተወሰነ የግል ማህበር	TEKRON DETERGENT AND CHEMECAL P L C
4	ኢትዮ ኢዝያን ኢንዱስትሪ አክሲዮን ማህበር	ETHIO ASIAN INDUSTRIS SHARE COMPANY
5	የስታር የሳሙናና የዲተርጅንት ኢንዱስትሪዎች ኃ/የተ/የግ/ማህበር	STAR SOAP DETERGENT INDUSTRIES P L C
6	ዘክ ኢትዮጵያ ማምረቻና ንግድ ኃ/የተ/የግ/ማህበር	ZAK ETHIOPIA MANUFACTURING AND TRADING PLC
7	ሬጲ ሳሙናና ዲተርጅንት ኃ/የተ/የግ ማህበር	BEKAS CHEMICALS PLC
8	ረጲ ሳሙናና ዲተርጅንት ኃ/የተ/የግ ማህበር	REPI SOAP AND DETERGENT PLC
9	አካይ ኮንሰልታንሲ ኤንድ ኢንዱስትሪ ኃላፊነቱ የተወሰነ የግል ማህበር	AKAY CONSULTANCY AND INDUSTRY PLC
10	ጉለሌ ሣሙናና ፋብሪካ አክሲዮን ማህበር	GULELE SOAP FACTORY SHARE COMPANY
11	የጀሞ ደረቅ እና ፈሳሽ ሳሙና ማምረቻ ኃላፊነቱ የተወሰነ የግል ማህበር	YEJEMO DRY AND LIQUID SOAP MANUFACTURING PLC
12	ፓልም ኢትዮጵያ ኃ/የተ/የግ/ማህበር	PALM ETHIOPIA PVY LTD CO
13	በዩዳ ሰስተነብል ማንፋክቸሪንግ ኃላፊነቱ የተወሰነ የግል ማህበር	BEYEDA SUSTAINABLE MANUFACTURING PLC
14	ነጋ እና ሳሙኤል ዲተርጅንት እና የእሳት አልኮል ማምረቻ ህብረት ሽርክና ማህበር	NEGA AND SAMUEL DETERGENT AND FIRE ALCHOHOL MANUFA

NO.	BUSINESS NAME	BUSINESS NAME
15	ናትናኤል እና አዜብ ሳሙና ዲተርጀንት ማምረቻና መሸጫ ህብረት ሽርክና ማህበር	NATNAEL AND AZEB SOP AND DETRGENTE PRODACTE AND
16	አለም እና ብርሃነ የንፅህና እቃዎች ምርቶች መፈብረክ ህብረት ሽርክ	ALEM AND BRHANE MANUFACTURE OF CLEANSING DOO
17	ሄለን እና ተስፋሁን የንፅህና እና የኮስሞቲክስ ዕቃዎች መፈብረክ ስራ ህብረት ሽ	HELEN AND TESFAHUN CLEAN AND COSMOTICS MANFACTURIN
18	ሄኖክ ቢኒያም እና ዳደሾቻቸው የፈሳሽ ሳሙና ማምረቻ ህብረት ሽርክና ማህበር	HENOKBINIYAM AND FRIENDS MANUFACTURING SOAP AND D
19	ላቀና በዛወርቅ የፈሳሽ ሳሙና ማምረት ስራ ህብረት ሽርክና ማህበር	LAKE AND BEZAWORK LIQUIDE DETERGENT PRODUCTION PA
20	መሀመድ ባንቺአምላክ እና ዳደሾቻቸው የሳሙና ውጤት ማምረቻ ህብረት ሽርክና ማህበ	MEHAMMED BANCHIAMLAK AND FRIENDS DETERGENT PROD/MA
21	መሀቡባ አብድልረዛቅ ሰሚራ ሳሙናና ዲተርጀንት ማምረት ህብረት ሽርክና ማህበር	MEHEBUBA ABDELREZAK SEMIRA SOAP AND DITEREJENT MAN
22	መሳይ ዘውዲቱ እና ዳደሾቻ የኮስሞቲክስ ዲተርጀንት ማምረቻ ህብረት ሽርክና ማህበ	MESAY ZEWDITU AND FRIENDS COSMOTICS AND DETERGENT
23	መስታወት አብነት እና ዳደሾቻቸው ፈሳሽ ሳሙና ማምረት ህብረት ሽርክና ማህበር	MESTAWET ABNET FRIENDS LIQUID SOAP PARTNER SHIP MEKIDES AND ELIAS
24	መቅደስ እና ኤልያስ የንፅህና ማስጠበቂያ ግብአቶች ማምረቻ ህብረት ሽርክና ማህበ	SANITARY INPUT MANUFACTURING PAR
25	መአዛ አስናቀ መሰረት እና ዳደሾቻቸው	MEAZA ASNAKE MESERET

NO.	BUSINESS NAME	BUSINESS NAME
	የፅዳት እቃዎች ማምረቻ ህብረት ሽርክና ማ	AND FREANDS CLEANING MATERIAL
26	ሙሉ : ሰለሞን እና ዳደሾቻቸው የሳሙና ማምረት ህብረት ሽርክና ማህበር	MULU, SOLOMON AND FRIENDS SOAP PRODUCTION PARTNERS
27	ሙሉጌታ እና ዳደሾቹ ሳሙናና ሌሎች የፅዳት ውህዶች መፈብረክና በጅምላ	MULUGETA AND FRIENDS SOAP AND OTHER CLEANERS PRODUCING AND WHOLE
28	ማከፋፈል የህብረት ሽርክና ማህበር ማህሌት ዜማ እና ዳደሾቻቸው ኬሚካል	SALLER P/S MAHELET ZEMA AND FRIEND CHEMICAL
29	ዉጤቶች ማምረት ህብረት ሽርክና ማህበር ሜሮን እና ዮርዳኖስ ፈሳሽ ሳሙናና	PRODUCTS P/S MERON AND YORDANOS SOP
30	ዲተርጀንት ማምረቻና መሽጫ ህብረት ሽርክና ማህ	AND DITERJENT MANUFACTURING A
31	ምስጉን እና አፀደ የነጽህና የኮስሞቲክስ እቃዎች እና ግብአቶችን መፈብረክ ህብረት	MESGUN AND ATSEDE YENETSEHENA ENA
32	እቃዎች እና ግብአቶችን መፈብረክ ህብረት ሽርክና ማህበር	YECOSMOTICS EQAW ENA GEBEATOCH MEFEBREK
33	ሰላማዊት እና ዳደሾቿ አጠቃላይ የጽዳት እቃዎች ማምረት ህብረት ሽርክና ማህበር	SHARE COMPANY SELAMWIT AND FRIENDS
34	ሰሚራ ዘቢባ እና ዳደሾቻቸው የሳሙናና ዲተርጀንት ምርት ህብረት ሽርክና ማህበር	GENERAL SANITARY PRODUCTION P SEMIRA ZEBIBA AND THEIR
35	ሰብላ አላዛር እና ዳደሾቻቸው የፅዳት እቃዎች አምራች ህብረት ሽርክና ማህበር	FREINDS SOUP AND DETER/PAR SEBLE ALAZAR AND
36	ሲሳይነው ደሳለኝ እና ዘሪሁን ሳሙና እና ዲተርጀንት ማምረት ህብረት ሽርክና ማ	FRIENDS CLEANING MATERIALS PRODUC SISAYNEW DESALEGNE AND
37		ZERIHUN SOAP AND

NO. BUSINESS NAME

BUSINESS NAME

		DETERJENT
35	ሳምሶን አንድአምላክ እና ሹሙት የሳሙና ምርቶች የህብረት ሽርክና ማህበር	SAMSON ANDAMELAK AND SHUMET SOAP PRI/PA/SH
36	ስህን አበበች እና ዳደኞቻቸው የንፅህና መጠበቂያ ምርቶች መፈብ ህብረት ሽርክና	SIHEN ABEBECH AND FRIENDS MANUFACTOR OF DITERGENT
37	ሽኩር ጀሚላ እና ዳደኞቻቸው የዲተርጀንት ስራ ህብረት ሽርክና ማህበር	SHIKUR JEMILA AND FRIENDS DETERGENT PARTNERSHIP
38	ቤተል እስራኤል እና ዳደኞቻቸው የፈሳሽ ሳሙና ማምረቻ ህብረት ሽርክና ማህበር	BETEL ESRAEL AND FRIENDS LIQUID SOOP MANUFA PARET
39	ተመስገን እና ቢኒያም የንጽህና መጠበቂያ ማምረቻ ህብረት ሽርክና ማህበር	TEMESGEN AND BINYAM CLEANING MATERIYALS MANUFACTUR
40	ተስፋዪ ዮዲትና ዳደኝቻቸው የዲተርጀንት ማምረት ህብረት ሽርክና ማህበር	TESFAYE YODIT AND FRIENDS DITERGENT PRODUCTION PARTNERSHIP
41	ቻላቸው እና አለምዘርፍ ፈሳሽ ሳሙና ማምረት ህብረት ሽርክና ማህበር	CHALACHEWU AND ALEMZERF MANUFACTURING OF CLEANIG O
42	ናሆም እና አበባ ፈሳሽ ሳሙና ማምረት ህብረት ሽርክና ማህበር	NAHOM AND ABEBA DETERJENT PROD UNI/PAR/SHIP
43	አህመድ እና ከሪማ የኮስሞቲክስ እቃዎች ሽቶ... መፈብረክ ህብረት ሽርክና ማህበር	AHMED AND KERIMA COSMOTIC MATERIAL PERFUMEM/L BEAT
44	አለምዘዉድ ዮናስ እና ዳደኞቻቸው የንጽህና መጠበቂያ አምራች ህብረት ሽርክና ማህ	ALEMZEWED YONAS AND FRIENDS MANUFACTURE OF SANITAR
45	አልማዝ ሃና እና ዳደኞቻቸው የንፅህና	ALMAZ HANA AND FRIENDS

NO.	BUSINESS NAME	BUSINESS NAME
	መገልገያ እና የኮስሞቲክስ ውጤቶች ማምረቻ ህብረት ሽርክና ማህበር	SANITERY AND COSMOTIC MANUFACTURING PARTNERSHIP
	አስረስ ዮርዳኖስ እና ዳደቻቸው የፈሳሽ	ASRESE YORDANOS AND FRIENDS SOAP AND
46	ሻሙና ዲተርጀንት አምራች የህብረት ሽርክ	DETRJENTS PRO
	አስቴር እና መቅደላዊት ጎደጎቻቸው የፈሳሽ	ASTER AND MEKDELAWIT DETERGENT PRODUCTION
47	ሳሙና ህብረት ሽርክና ማህበር	P/SHIP
	አሸተ ሙሉቀን እና ዳደቻቸው የሳሙና	ASHETE MULUKEN AND THEIR FRIENDS
48	እና ዴቴረጀንት ህ ሽ ማ	MANUFACTURING OF SOAP A ABEBA YOSEPH AND
	አበባ ዮሴፍ እና ቅደቻቸው የፈሳሽ ሳሙና	FRIENDS DETERGENT SOAP PARTNERSH
49	ህብረት ሽርክና ማህበር	ABDU ETENESH AND FRIENDS SOAP
	አብዱ እቴጌ እና ዳደቻቸው ሳሙና	MANUFACTURING PARTEE ABDULEMENANE TEGENE
50	ማምረት ህብረት ሽርክና ማህበር	AND FISHA LIQUID
	አብዱልሙናን ተገኝ እና ፍሰሃ የሳሙና እና	DETERGENT M/P
51	ዲተርጀንት ማምረት ህብረት ሽርክና ማ	ABDREZAK KEDIJA AND
	አብድራዛቅ ከድጃ እና ዳደቻቸው የንፅህና	FRINDES MANUFACTURE OF CLEANSI
52	እቃዎች መፈብረክ ህብረት ሽርክና ማህ	ANETNHE MEKEDELAWET
	አንተነህ፤ መቅደላዊት እና ዳደቻቸው	AND FRI/MANF/O
	የንጽህና ኮስሞቲክስ እቃዎችና ግብአቶች	CLE/COSM/P/S
53	ሀ	AKLILU GEZAHEGN AND
	አክሊሉ ፤ገዛኸኝና ዳደቻቸው የንጽህና	FRIENDS MANUFACTURING
	መጠበቂያ እቃዎች ማምረቻ ህብረት	OF CLEAN
54	ሽርክና	ADANE BINYAM AND
55	አዳነ ቢንያም እና ዳደቻቸው ሳሙና እና	

NO.	BUSINESS NAME	BUSINESS NAME
	ፈሳሽ ሳሙና ማምረት ህሽማ	FRIENDS SOAP AND LIQUID DETERGENT
56	ኢጂኤስ የፈሳሽ ሳሙና ማምረቻና መሸጫ ህብረት ሽርክና ማህበር	EGS DETERGENT SOAP MANUFACTURING AND SALES PARTNER SHIP
57	ኤፍሬም እና ብርሃኔ የፈሳሽ ሳሙና ማምረቻ ህብረት ሽርክና ማህበር	EPHREM AND BRIHANE MANUFACTURE OF DETERGENTS PARTN
58	እስራኤል ማህደር እና ጓደኞቻቸው ፈሳሽ ሳሙና ማምረቻ ህብረት ሽርክና ማህበር	ISRAEL MAHDER AND FRIENDS LEQUED SOAP MA
59	እታገኝ ብርሀኑና ግርማቸው የፈሳሽ ሳሙና ማምረቻና ማከፋፋያ ንግድ ህብረት ሽርክ	ETAGENE BIRHANU AND GERMACHEW LIQUIDDETERGENT MAWN
60	እየሩሳሌም አይኖም እና ናሁሰናይ የፈሳሽ ሳሙና ማምረቻ እና መሸጫ ህብረት ሽርክ	EYERUSALEM AYENOM AND NAHUSENAYE LIQUIDE DETERGENT
61	እድሜነው ፍቃዱና ጋደኞቻቸው የንፅህናና ኮስሞቲክስ እቃዎች ግብአት መፈብረክ ህብ	ENMENEW FIKADU AND FIR COSOMOTICS FIEA OTHERS MANU
62	ዘዉዲቱ አለምፀሀይ ብዙአየሁ እና የፈሳሽ ሳሙና ማምረት ህብረት ሽርክና ማህበር	ZEWIDTU ALEMHAYE AND BIZUHAYEHU LIQUID MANUFACTURING
63	ዝናሽ ደምሰው እና ጓደኞቻቸው ፈሳሽ ሳሙና ማምረት ህብረት ሽርክና ማህበር	ZINASH DEMSEW AND FRIENDS MANUFACTURING OF SOAP PS
64	ዮም የውብዳር እና ጓደኞቻቸው ሳሙና እና ዲተርጀንት ማምረት ህብረት ሽርክና ማህበር	YOM YEWBDAR AND FRIENDS SOAP AND DETERGENT MANUFAC
65	ዮናታን፤ፍስሀ እና ጓደኞቻቸው የንፅህና እቃዎች ሳሙና፤ዲተርጀንት፤በመዳኒትነት	YONATAN, FISHA AND FRIENDS CLEANING SOAP, DETERGEN

NO.	BUSINESS NAME	BUSINESS NAME
66	ደሳለኝ እና ውብርስት የሳሙና ማምረት ህብረት ሽርክና ማህበር	DESALEGN AND WUBEREST SOAP PRODUCTION PARTNER SHIP
67	ዲቦራ ሰላም እና ዳደኞቻቸው የንፅና ማምረቻና አቅራቢ ህብረት ሽርክና ማህበር	DIBORA SELAM AND FRIENDS CLEANING MANUFACTURING PA
68	ዳንኤል፣ሜላት እና ዳደኞቻቸው ኬሚካል ውጤቶች ማምረት ህብረት ሽርክና ማህበር	DANIAL MELAT AND FRIENDS PRODUCTION OF CHEMICAL PR
69	ዳዊት ሀብቴ እና ዳደኞቻቸው የኮስሞቲክስ ምርቶች ማምረት ህብረት ሽርክና ማህበር	DAWIT HABTE AND FRIENDS COSMETICS MANUFACTURING P
70	ጌቱ ፣አስራኤል እና ዳደኞቻቸው ሳሙና ማምረት ህብረት ሽርክና ማህበር	GETU ESIREAL AND FRIENDS MANUFACTURING OF SOAPS
71	ጌታበለው እና አላዛር ዲተርጀንት ማምረቻ ህብረት ሽርክና ማህበር	GETABELEW AND ALAZAR DETERJENT MANUFACTURING PARTN
72	ጌታቸው ነጠረ እና ዳደኞቻቸው የሳሙና ማምረት ስራ ህብረት ሽርክና ማህበር	GETACHE NETERE AND FRIENDS SOAP PRODUCTION P/SHIP
73	ጌትዬ ሀና እና ዳደኞቻቸው የሣሙና ውጤቶች ማምረቻ ህብረት ሽርክና ማህበር	GETIYE HANA AND FIRENDS SOAP PRODUCTS MANUFACTRING
74	ግርማ አብዱ እና ዳደኞቻቸው የንፅና መጠበቂያና ኮስሞቲክስ እቃዎች ማምረት እና መሸጥ ህብረት ሽርክና ማህበር	GIRMA ABDU AND FRIENDS CLIINING COSMOTICS MATERIALS MANUFACTURING AND SALE PARTNERSHIP
75	ፀሀይነሽ ከድር እና ዳደኞቻቸው ፈሳሽ ሳሙና ማምረት ህ ሽ ማ	TSHAYNESH KEDIR AND FRIENDES SOAP MANUFACTURING PA

NO. BUSINESS NAME

BUSINESS NAME

- 76 ፀጋ እና ፍፁም የፈሳሽ ሳሙና ማምረቻ እና መሸጫ ሀብረት ሽርክና ማህበር
- 77 ፋንታሁነን ቅድስት እና ጓደኞቻቸው የፈሳሽ ደረቅ ሳሙና ማምረት
- 78 ፍፁም እና ታምራት የፅዳት እቃዎች አምራች ሀብረት ሽርክና ማህበር

- TSEGA AND FITSUM
DETERGENT
- MUNUFACTURING AND SAL
FANTAHUNEGN KIDIST AND
FRIENDS MANUFACTURE OF
SOAP
- FISUM AND TAMERAT
CLEANING MATERAL
MANUFACTURING P

APPENDIX II: QUESTIONNAIRE

I. General information about the members of the study sample

Please put out the sign (√) in front of the correct answer

1: Age Group

- Less than 25 years 25- less than 40 years 40- less than 55 years
 55 years & above

2: Gender

- Male Female

3: Educational Attainment

- High School Diploma Bachelor degree Master degree
 PhD

4: Field of Specialization

- Marketing Management Business Adm. Management
 Economics Other Specify_____

5: Job Title

- Marketing Manager Sales Manager Marketing Officer

Other Specify_____

6: Years of experience

- Less than 5 years 5-10 years 10-15 above 15 year
 20 years and more

7: Years of experience as a manager / deputy

- Less than 5 years 5-10 years 10-15 years
 15 years and more

II. General Information about the company in the study population

1: Number Of employees

- Less than 10 employees 10-30 employees 30-100 employees
 Above 100

2. Owner ship of the company

- Privatel Government

In the following section please tick one among the following options:

- 1=Strongly Disagree, 2= Disagree 3= Neutral 4=Agree 5= Strongly Agree

III. General Marketing Information about the company

1. Marketing Records

#	Title	1	2	3	4	5
1	Your company has multiple and comprehensive internal marketing database.					
2	Marketing department in this company keeps the information in the internal database.					
3	The IRs of the company provide important information for marketing DM					
4	The marketing information in the company IRs is considered accurate enough					
5	The marketing information in the company's IRs fit for the intended purpose.					
7	The company maintains all the information received from the Intelligence and Market Research in the IRs.					
8	This company is constantly updating IRs.					
9	This company depends on the IRs to identify problems.					
10	Internal marketing database is less expensive than other information Sources					
11	The computerized records and internal reports of the company affect the decision-making process.					

2. Marketing Intelligence

#	Title	1	2	3	4	5
1	The MI techniques keeps the company informed about the ongoing marketing of emerging circumstances.					
2	The company uses the MI on a regular basis in gathering information about competitors.					
3	The company relies on the media to get information.					
4	The company customers offer useful information about the market and competitors.					
5	The company relies on internal sources of information (managers, consultants, sales representatives, delegates of purchase).					
6	MI in the company is considered of vital resources to understand the nature of the market requirements.					
7	MI in the company provide sufficient and useful information about the customers.					
8	MI in the company help in obtaining the necessary information services.					
9	MI for the company help in the process of tracking and evaluating the performance of competitors catalog constantly.					
10	MI in the company helps in early warning of threats and opportunities.					
11	MI effectiveness in the company is positively reflected on the marketing performance of the staff of the institution.					
12	The resulting information of the MI at the company contribute to the decision-making process.					

3. Marketing Research

#	Title	1	2	3	4	5
1	The company periodically and regularly work in the field of MR.					
2	The company's management perform continuous improvement on the research plan.					
3	The company relies on primary data (interviews, research, monitoring) to gather information.					
4	The secondary data (IRs, research institutions, government research) is the major source in gathering information.					
5	MR is relevant to marketing situations facing the company					
6	MR in the company helps in the detection, collection, tracking of problems and provides adequate solutions to them.					
7	MR in the company help in assessing the current market accurately.					
8	MR in the company helps in understanding consumer behavior.					
9	MR effectiveness is reflected positively on the performance of the company's marketing decision.					
10	MR in the company reduces the risk of uncertainty.					
11	MR in the company contribute to explore new marketing opportunities.					
12	MR in the company provides information needed for DM in a timely manner.					
13	The MR findings, recommendations, and proposals contribute to the decision-making process.					

4. Marketing Decision Support System

#	Title	1	2	3	4	5
1	Your company uses computer programs which facilitates clear and understandable information flow among decision makers					
2	Computer programs provide useful information used to achieve marketing objectives efficiently.					
3	Computer programs are able to predict the change that may occur to the variables in the company's marketing strategy					
4	Computer programs describe the consequences of a change in marketing variables.					
5	Computer programs can analyze and identify the marketing problems.					
6	Computer programs reduce effort, time, and cost of marketing decisions as comared to those without it.					
7	Computer programs measure the effectiveness of marketing activities.					
8	Computer programs determine the major customers influencing the company's sales.					
11	Computer programs can identify the marketing strengths and weaknesses in the company					
13	The company relies on the analysis of information arising from the computerized decision- support programs in the decision-making process.					

5. Marketing Decisions

#	Title	1	2	3	4	5
1	Marketing information system helps for purpose of marketing mix decision marketing of the company					
2	The company uses marketing information system for the purpose of marketing strategy development					
3	The company uses marketing information system for the purpose of market monitoring					
4	The company uses marketing information system for marketing strategy implementation and control					
5	The company uses marketing information system to solving marketing problems					

APPENDIX III: STATISTICAL ANALYSIS

- **Correlation**

Descriptive Statistics			
	Mean	Std. Deviation	N
MarketRecords	3.8573	.68206	96
MarketDecisionProcess	3.7417	.87005	96

Descriptive Statistics			
	Mean	Std. Deviation	N
MarketIntelligence	3.8073	.76423	96
MarketDecisionProcess	3.7417	.87005	96

Correlations^b			
		MarketIntelligence	MarketDecisionProcesses
MarketIntelligence	Pearson Correlation	1	.895**
	Sig. (2-tailed)		.000
MarketDecisionProcess	Pearson Correlation	.895**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=96

Descriptive Statistics			
	Mean	Std. Deviation	N
MarketResearch	3.4893	.78950	96
MarketDecisionProcess	3.7417	.87005	96

Correlations^b			
		MarketResearch	MarketDecisionProcesses
MarketResearch	Pearson Correlation	1	.905**
	Sig. (2-tailed)		.000
MarketDecisionProcess	Pearson Correlation	.905**	1
	Sig. (2-tailed)	.000	
** . Correlation is significant at the 0.01 level (2-tailed).			
b. Listwise N=96			

Descriptive Statistics			
	Mean	Std. Deviation	N
MarketDecisionSupportSystem	3.7396	.81337	96

MarketDecisionProcesses	3.7417	.87005	96
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Correlations ^b			
		MarketDecisionSupportSystem	MarketDecisionProcesses
MarketDecisionSupportSystem	Pearson Correlation	1	.893**
	Sig. (2-tailed)		.000
MarketDecisionProcesses	Pearson Correlation	.893**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			
b. Listwise N=96			

- **Reliability**

Case Processing Summary			
		N	%
Cases	Valid	96	100.0
	Excluded ^a	0	.0
	Total	96	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on	N of Items

	Standardized Items	
.952	.955	2

Inter-Item Correlation Matrix		
	MarketRecords	Overall_Mean
MarketRecords	1.000	.913
Overall_Mean	.913	1.000

Case Processing Summary			
		N	%
Cases	Valid	96	100.0
	Excluded ^a	0	.0
	Total	96	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.982	.982	2

Inter-Item Correlation Matrix		
	MarketIntelligence	Overall_Mean
MarketIntelligence	1.000	.964
Overall_Mean	.964	1.000

Case Processing Summary			
		N	%
Cases	Valid	96	100.0
	Excluded ^a	0	.0
	Total	96	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.981	.981	2

Inter-Item Correlation Matrix		
	MarketResearch	Overall_Mean
MarketResearch	1.000	.963
Overall_Mean	.963	1.000

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.979	.981	2

Inter-Item Correlation Matrix		
	MarketDecisionSupportSystem	Overall_Mean
MarketDecisionSupportSystem	1.000	.962
Overall_Mean	.962	1.000

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.974	.980	2

Inter-Item Correlation Matrix		
	MarketDecisionProcesses	Overall_Mean
MarketDecisionProcesses	1.000	.960
Overall_Mean	.960	1.000

- **Regression**

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	MarketResearch, MarketRecords, MarketIntelligence ^b		Enter

a. Dependent Variable:

MarketDecisionProcess

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.933 ^a	.871	.867	.31753

a. Predictors: (Constant), MarketResearch, MarketRecords, MarketIntelligence

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.637	3	20.879	207.079	.000 ^b
	Residual	9.276	92	.101		
	Total	71.913	95			

a. Dependent Variable: MarketDecisionProcess

b. Predictors: (Constant), MarketResearch, MarketRecords, MarketIntelligence

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.462	.190		-2.430	.017		
	MarketRecords	.395	.094	.310	4.207	.000	.258	3.873
	MarketIntelligence	.264	.117	.232	2.260	.026	.133	7.516
	MarketResearch	.479	.106	.435	4.513	.000	.151	6.628

a. Dependent Variable: MarketDecisionProcess

Coefficients^a

Model		Standardized Coefficients	Correlations			Collinearity Statistics	
		Beta	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)						
	MarketRecords	.307	.869	.402	.156	.258	3.877
	MarketIntelligence	.150	.895	.133	.048	.101	9.941
	MarketResearch	.353	.905	.314	.117	.110	9.057
	MarketDecisionSupport System	.171	.893	.146	.052	.094	10.634

b. Dependent Variable: MarketDecisionProcess

Collinearity Diagnostics ^a							
M o d e l	Dimensio n	Eigenval ue	Condi on Index	Variance Proportions			
				(Const ant)	Market Record s	Marketl ntellige nce	Market Resear ch
1	1	3.962	1.000	.00	.00	.00	.00
	2	.028	11.821	.71	.00	.02	.05
	3	.006	25.666	.27	.91	.02	.27
	4	.003	34.202	.02	.09	.97	.68
a. Dependent Variable: MarketDecisionProcess							