



# Employing marketing information systems for the success of small and medium enterprises: A field study of some Tourism and Travel companies in Baghdad

Akram Salim Hasan Al-Janabi  
Department of Business Administration  
University of Dijlah, Baghdad, Iraq

Hussam Ali Mhaibes  
Department of Financial and Banking Science  
College of Economics and Administration  
University of Baghdad, Baghdad, Iraq  
E-mail: [hussam7777.ha@gmail.com](mailto:hussam7777.ha@gmail.com)

## Abstract

The aim of the study was to examine the nature of the relationship and the impact between the dimensions of the strategy of marketing information systems and the dimensions of small and medium enterprises. The study also aimed to identify the reality of their implementation. This research employed a field method survey by examining the views of selected managers and owners of tourism and travel companies on the movement of tourism and traveling of Iraqi citizens globally. A questionnaire was used to collect and classify data in accordance with a 5 point Likert scale; this is in addition to personal and functional information on the population of study. The sample included employees, managers and entrepreneurs with different levels of education from six tourism and travel companies in Baghdad. The data and results were analyzed using SPSS. Following the analyses conducted, different conclusions were drawn. The most important conclusion was that, there is a prominent role for the marketing information systems in projects to support the ongoing operations and decisions taken in small and medium enterprises. This study reveals the importance of adopting a database and digital projects for the purpose of developing solid performance and outputs and communicating with customer ethically.

**Keywords:** Strategy of marketing information Systems, small & medium enterprises, Iraq.

## Introduction

The main driving force in the economies of developed and developing countries are the small and medium enterprises. They constitute large and growing proportions of GNP and private use. They support large enterprises and are traditional sources of economic growth characterized by adaptation to challenges, freedom of innovation, high dynamic mobility and constant renewal.

Notably, these pilot projects face many problems and obstacles which are natural such as marketing problems and the lack of information necessary for the process of development, meeting the needs of the customers and adaptation to environmental factors. Therefore, for the purpose of solving marketing problems and supporting their decision-making and related procedures, the marketing information systems and the included computer technologies and wide information networks are at the forefront of the tools and mechanisms supporting these projects.

In accordance with the intensifying local and global competition which cast a dark shadow on the small and medium enterprises, the marketing information systems are of great importance. In market research and its openness to the spacious and interconnected market space locally,



regionally and internationally, this makes the systems and their components indispensable tools to meet the challenges and variables and to overcome the traditional patterns.

The need to keep pace with, organize and follow up through the preparation and creation of a sophisticated and modern information system are necessitated by the complexity and constant change of marketing activity. A continuous drive and the vital information flow are provided for marketing decision makers while the pilot projects the comprehensive informational information in the acquisition, storage, retrieval, tabulation and information synthesis processes in order for marketing to continue their adaptation and creativity to ensure full success.

## **Literature Review**

### **Marketing Information Systems**

Goñi (2008) reported an empirical study on the marketing information systems and strategy levels. The aim of this study was to develop a model of marketing information systems that conforms to the strategic levels in practice with the roles of managers at all levels in these processes. The study investigated all the CEOs from 50 from large and medium companies in Mexico City in their various department of communication, laboratory, cosmetic and textile industries. In addition to personal interviews, the questionnaire was used to collect information. The study concluded that the use of marketing information systems provided marketing data, sales forecasts and information to different strategic levels related to market trends domestically and internationally.

In other word, Hakhua and Goyala (2013) investigated the success of marketing information system model for SMEs of Punjab using the validation of survey based results and a case study analysis. The aim of this study was to verify and audit the marketing information system for SMEs in Punjab after achieving success in large companies. At different levels in 6 companies, the sample covered 140 workers. In the analysis of data and information in timely manner and the importance of decision-making and support, the study explained the impact of the marketing information system in order to achieve competitive advantage.

### **The Small and Medium Enterprises**

Zheng (1999) studied the human resource management and enterprise performance in small and medium enterprise in China. To review the human resources management applications in SMEs in China was the objective of this applied study and to find the relationship between HR management and the performance of this type of project. The study showed that these projects in China are well applied to human resource management practices in terms of selection, recruitment, and training, and development, payment of wages, care, performance appraisal and involvement of problem-solving and decision-making personnel. While the data was collected through interviews, the sample consisted of 74 small and medium-sized projects from different Chinese regions. The results showed that there is a clear relationship between these practices and the performance of these projects; also, the majority of these projects use human resources management practices or applications. Chinese travelers tend to select the perceived safety and convenience of packaged tours from China and the presumed expertise of the travel agents with whom they conduct business based on marketing by SMEs. However, it is often the case that tourists are disillusioned with their ultimate travel experiences as many fall victims to unscrupulous operators, travel agents and guides in China, and other stakeholders who exploit them through unethical marketing information systems (Keeve & Nicolaidis, 2019).

Furthermore, Perumalla (2000) studied the profiles and HRM practices of small and medium-scale businesses in Atlanta and school of public policy in Georgia. The aim of the study was to



identify and illustrate the images of small and medium enterprises in Atlanta, USA and to apply practices and make comparisons with the images of their applications in the administrative thought. With the use of interview systems in data collection, a population of 16 small and medium projects was conducted in Atlanta, USA. The results showed that there is simplicity of applications in these projects and the widespread use of oral promises by employers for new employees, and that the majority of owners or managers of those projects have a first university degree (Venter et.al ., 2015). Any stakeholder theory begins with the supposition that values employed in marketing are unavoidably and explicitly a part of good business conduct. Thus a business that behaves ethically is differentiated from others by the public at large and is able to gain a strategic competitive advantage in the marketplace by not only communicating its values to its stakeholders but also by its actual behaviour (Singh & Nicolaidis, 2014; Nicolaidis, 2018b).

Moreover, Allen and Collins (2013) investigated the human resource management, employee exchange relationships, and performance in small businesses. The aim of the study was to identify the rate at which employees contribute to the success of small projects and what human resources management applications needed to enhance the success and performance of these projects. Using 111 sample projects in United States, the study was carried out in collaboration with Cornell University and Gevity. The results showed that the excellent use of human resource management practices leads to a high level of performance output. This indicates positivity on the high commitment of employees, cooperation and confidence which in turn leads to increasing productivity and reducing turnover.

In another vein, Calder (2012) studied the recruitment and selection in small and medium sized enterprises in graduate management of the University of Otago. The aim of the study was to highlight the differences between the theoretical aspects of human resource management and the practical aspects of small and medium enterprises. When polarizing and selecting the abilities to reflect on the objectives, these projects have similar goals and expectation especially in keeping them different in practice. By choosing and hiring properly, they started to achieve competitive advantage unlike the other companies that are floundering in their choices of inefficient human resources. A sample of 10 small and medium companies was selected and the sample consisted of managers and employees. SPSS method was used to carry out the analysis. The study found that the effective management of human resources that contribute to the achievement of high performance is one of the most important challenges facing small and medium enterprises.

### **Literature Review Conclusion**

Therefore, considering the previous studies on marketing information systems as the independent variable, Goni (2008) concluded that the use of marketing information systems is related to market trends to provide data and information to strategic levels in the organization. Additionally, Hakhwa and Goyala (2013) explained the impact of the marketing information system in analyzing and presenting data and information in a timely manner and its importance in decision making and support. Unethical business practices have the likelihood of totally undermining the tourism development work of a destination country. This is why SMEs need to develop strategies to manage ethics within the tourism marketing drive (Nicolaidis, 2019).

Regarding the "SME success" as a variable, the majority of these projects use human resource management practices and applications (Zheng, 1999). Also, Perumalla (2000) showed the prevalence of verbal promises by employers to new employees and the simplicity of applications in these projects. Thus, excellent use of human resources management practices leads to a high level of performance output and positively reflects the high commitment of employees,



cooperation and trust, increased productivity and reduced turnover (Allen & Collins, 2013). Nicolaidis (2018a) has stated that greater market penetration is vital for example a hotel, as the depth of sales of a product or service in a particular market enhances the bottom-line and invariably affects sustainability. Certain hotels consider ethics to be a restraint on their profitability and marketing is fallacious in part. Such operations consider increased revenues and ethics to be contrarywise. In reality however, espousing ethical practices may in the short term decrease profits, but in the long-run a hotel's profitability will increase due to the notion that once a hotel has a positive ethical practice reputation it gains a strategic competitive advantage.

Similarly, Calder (2012) found that, the effective management of human resources that contribute to the achievement of high performance is one of the most important challenges facing SMEs. Additionally, the current research methodology has been designed by the researchers with the help of this study in order to learn about the statistical methods used in it, and to benefit from them in enriching the cognitive and theoretical aspects of the study.

## **Theoretical Development**

### **Marketing Information Systems**

Laudon and Laudon (2016) reported that information system is interconnected in a unified format to store, retrieve, collect, process and deliver information for the development of operations in the organization and to support decision makers. Similarly, marketing information systems are methods and procedures for collecting, storing, organizing and indexing information for use in marketing decision making. Jobber (2007) defined an administrative information system designed to support marketing decision making as a system by which marketing information is collected, stored, analyzed and provided to managers according to their information needs on a regular basis.

In other word, Proctor (2005) reported that marketing information systems are a systematic tool for gathering marketing information while providing constant information to the beneficiary and decision-makers in the organization on time. The actions are taken by those who are concerned in developing and accessing the marketing information in order to support the decision-making process and use it to accurately identify customers and the market (Armstrong & Kotler, 2015). In addition to ensuring continuous organization and flow of marketing managers for the purpose of creating effective marketing plans, the analysis of customers, competitors, environmental variables, strengths, weaknesses, trends and expectations are the parameters used for marketing decisions (Hollensen, 2010). Marketing information systems are the integration of the need of managers and what is economically feasible for them to make decisions in relation to the challenges faced and to invest opportunities that are supported by these systems (Kotler & Keller, 2009).

The increase in the importance of marketing information systems are due to some factors such as: the growth of large markets due to the wide production and distribution, the increasing importance of economic indicators that contribute to the success of marketing management and the intensification of competition, especially the marketing side. According to McDaniel, Carl, and Roger Gates (2005), the most prominent environmental developments that have led to the formation of advanced marketing information systems includes the spread of systems theory and the overriding of traditional patterns in marketing research, the spread of advanced communication technologies and information networks, especially the internet with the acquisition of international transient dimension which have been identified.



Having concern with the future for sustainability is one of the most prominent characteristics of marketing information systems. It is an application of the principle of systems in the field of information for the purpose of decision making, data collection, operation and storage supported by quantitative analysis methods. Also, marketing information systems revealed that it is the possibility of these systems to provide a smooth flow of integration and a lower cost for the preparation of detailed periodic reports to monitor the performance of markets and sales efforts and other areas of marketing (Francois, 2006). The following are marketing information in addition to the preservation of internal and external data and information related to distortion and loss (Kotni, 2011):

1. Achieving a comprehensive and timely view of the work of the organization and the possibility of correction and rapid adjustment
2. Making the organization more informed about vital marketing information.
3. Providing information for the purpose of quickly handling customer complaints and problems and building excellent relationships with them.
4. Enabling the marketing managers with the information necessary to deal with customer complaints and inquiries and responding to their needs on time, while supporting follow-up of marketing activities.
5. Supporting marketing decisions with high quality information to take advantage of market opportunities and addressing the marketing threats.

According to Al-Bakri (2002), the dimensions of marketing information systems are internal records, marketing research, marketing planning, and marketing control (Sifolo & Lebesse, 2014). In contrast, Mcleod Jr. et al., (2001) listed them as marketing intelligence, marketing research, and internal data processing. In other word, they are internal records, marketing intelligence, and marketing research (Kotler et al., 2009; Salvador & Ikeda, 2014). The following three dimensions can be adopted by the researchers as they are the most important:

1. Internal records system
2. Marketing Research System
3. The marketing intelligence system

As large organizations build a large internal database to be a digital repository for customers and the market, the internal records system is the data extracted from the internal environment of the organization. Thus, according to Salvador and Ikeda (2014), the richest source of information for business has become internal records system.

Regarding the marketing intelligence system, data is collected from the external environment for the purpose of sustaining the organization's continued presence with customers, competitors and other variables that influence marketing activities (Mcleod Jr. et al., 2001). The marketing intelligence system plays a strategic role in reducing uncertainties and threats to the organization. The supporting organizations provide facilities and environmental factors, technical, economic, legislative and other related to the tasks and marketing operations during the investigation of information about customers and their tendencies, processors and competitors.

According to Lancaster and Reynolds(2005), the marketing research system provides the supporting information. This system is used to design procedures for the collection and analysis of data used in strategic marketing planning. According to Kotler et al. (2009), six stages are included in this: identification, formulation and testing of hypotheses, development of a research plan for data collection, data analysis and conversion of information, results and reporting. The fact that the department lacks marketing research and obtains appropriate information in this regards about competitors, suppliers, technology, export markets has made marketing one of the



problems that the management of these projects to develop solutions to overcome them in addition to invasion of products to foreign markets for SME success (Connelly & Rosen, 2005).

In the economies of developed and developing countries, small and medium-sized enterprises are a major driving force by creating and doubling new job opportunities, reducing unemployment, developing GDP and activating the role and dynamics of the private sector.

For the local and national economy, these projects are a traditional source of growth. Based on the volume of sales or capital or the size of the project, there is wide variation in the definition and classification of this type of project but there is wide agreement on the basis of the number of employees while it is managed with less than 50 workers of the owner. Glancey et al. (1998) defined Marketing Research System as a set of individual or family-based activities aimed at profit and job creation through the production of goods or services in accordance with local workers and local raw materials which also required community, administrative, financial and technical support. The projects combine ownership, management and responsibility and success in the owner-manager, and produce goods and services in order to meet different needs (Li Dan & Dalagic, 2004).

According to ILO, they are defined as small-scale units that produce and distribute goods and services and are often composed of independent, self-employed producers. While some hire workers, most of which operate on fixed and very small capital or without fixed capital and use low-irregular incomes to create precarious opportunities, others depend on work from within the family (Ayyagar & Beck, 2003). According to the World Bank, the concept of microenterprises entails employing of workers fewer than 10 workers and employing between 10-50 microenterprises and between 50 and 100 workers as medium enterprises. The United Nations Industrial Development Organization (UNIDO) defined the concept of microenterprises as having 15 to 19 workers and an average project of 20-99 workers. In this definition, the World Bank adopted the number of employees for less than 50 workers in developing countries and fewer than 500 workers in developed countries.

The importance of these SME projects came from high innovation and creating the employment response through rapid breeding initiatives set in place for pioneering as it will play a crucial role in the modern and innovative system economy. This will be the most attractive and broader contribution to the development of economic development and therefore play a role and strategic tasks in the economy contemporary (Neagu, 2016). These projects are increasingly important and are encouraged by government policies throughout the world due to their significant contribution to entrepreneurship, job creation, development drive, redistribution of wealth, reduction of concentration and market monopoly (Pesantez & Gallegos, 2018).

Moreover, there is continuous contribution of solving complex socio-economic problems of the most important phenomenon of unemployment afflicting the majority of countries in the world with varying ratios of large projects and vital roles (Wtterwulghe, 1998). The innovation trends and continuous improvement of work generated by these projects must be emphasized as the entrepreneurs are characterized by their great capacities to take risks and produce innovative products. Therefore, it is a solid foundation and a vital base of the development process as it has a positive returns on the economies of developing countries especially when there is increase in the volume of investment and sales and job creation.

In the modern Western economy, these activities are of great importance as they are numerous in number and spread to all economic sectors. According to the economic sector, their dominance varies which is an important source of employment and power for them. Also, it is essential for



industries and large businesses and it is a source of generating national output and economic wealth. It is an important source of competition and self-initiative.

According to Hatten (2015), creativity and support for creators and entrepreneurs are essential for cultural diversification in the economy. Notably, these projects are characterized by simplicity, freedom of movement and the possibility of obtaining tax exemptions (Robbins, 2001). However, the project's connection with the landlord and restrictions on financial resources are one of the main disadvantages. The most prominent of the problems faced by these projects are the problem of financing, the problem of marketing and the administrative problem, as the manager makes the central decision. Another problem is that the owner is unprofessional, there is a technical problem and the technologies and expertise are expensive and often difficult to fathom.

The problem of skilled workers, and the problem of lack of information are also critical. The management of financial resources and the management of materials such as excessive investment and operating expenses and excessive storage and mismanagement of credit and lack of liquidity are the main reasons for the failure of these projects. These are in addition to the reasons related to marketing as poor choice of the location of sale and neglect of environmental changes and negligence of competitors, poor financial management, lack of experience, inappropriate location, lack of information and inefficient management and lack of planning.

As it is highlighted by Robbins (2001), the dimensions and criteria for the success of small and medium-sized enterprises must be addressed:

1. Environmental adaptation: The ability of enterprises to adapt to environmental variables and meet customers' needs.
2. Objective achievement: As the percentage of achievement of these goals is an important measure of progress and success in efficient and effective performance, successful projects seek to achieve their planned goals.
3. Cost reduction: This is a key indicator of improving project efficiency where quality is maintained, through increased production, process delivery, responsiveness, and optimal use of resources.
4. Creativity: Hellriegel et al. (1988) defined creativity as the adoption and generation of new processes, products, services and procedures. It involves building creativity, approach, processes and thought in project-wide ideas and products with dynamism, renewal and evolution.

## **Methodology**

The lack of interest by the projects surveyed by the strategy of marketing information systems, their components and techniques, and their reflection on the levels of employment in the success of small and medium enterprises are the issues in this study. The following questions were asked when considering the problem:

1. What is the relationship between the dimensions of marketing information systems and the success of small and medium enterprises?
2. What are the impacts of the techniques and tools of the organization of marketing information on the success levels of small and medium enterprises?

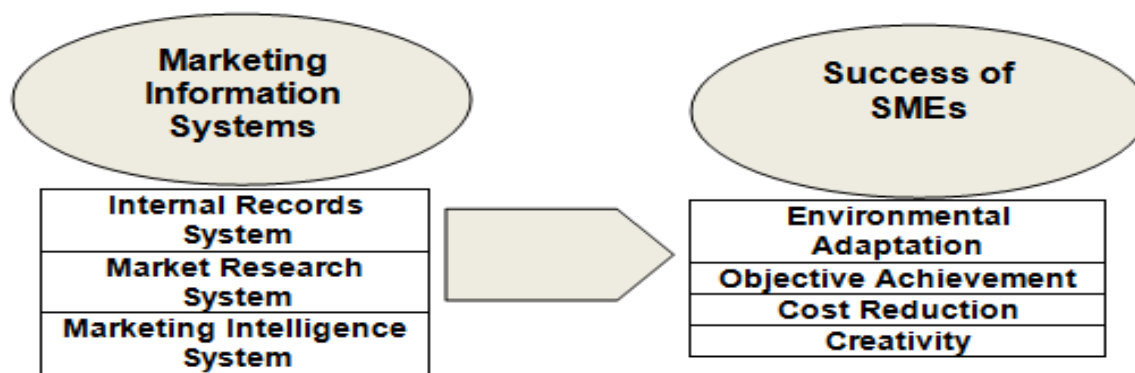
The main objective of this study was to evaluate the nature of the relationship and the impact between the variables and dimensions of the strategy of marketing information systems and the dimensions of small and medium enterprises. It also aimed to identify the reality of applications

of marketing information systems in the areas of activities, tasks and performance of small and medium enterprises in order to get some sets of data for the conclusion.

The importance of this study is derived from the importance of the variables of study for marketing information systems and small and medium enterprises. The ability to work and succeed encourages them to solve their problems and avoid the possibilities of failure.

The study explored an exploratory approach by examining the opinions of a sample of selected managers and owners of tourism and travel companies in Baghdad in order to identify their attitudes and opinions using a 5 point Likert scale. Also, a descriptive analytical methodology was used to analyze the data so as to find the statistical means and interpret them to reach the final results.

Figure 1 below represents the descriptive analysis of the research.



**Figure 1.** The descriptive analysis of the research

### Data Collection Procedure

A questionnaire was the main tool this study focused on for data collection, while a five-point Likert scale was used as a measure in order to provide good space for the sample to be expressed without bias, or to avoid errors and confusion in determining the accuracy of the responses. The second part was dedicated to the demographic survey of the population of the study. The most important part comprised the main research variables.

### The Population of the Study

The small and medium tourism enterprises represent the targeted community of the brands in Baghdad. The sample of the research consisted of six companies specialized in tourism and travel in Baghdad. Directly from the six companies, the gender distribution for male and female were 24 and 6 respectively. The age category of 36 to 40 years accounted for 53%, the category of 41 to 45 years accounted for 13%, the category of 46 to 50 years accounted for 7%, and finally the category of 51 years and above accounted for 10%. In terms of qualification, the doctorate degree was one person, 5 persons have master's degree, and 16 persons have bachelor degree while only 8 persons have preparatory certificate.

The research used a special questionnaire that used a five-dimensional Likert scale within the weights of 1 to 5 meaning: fully agree, agree, neutral, disagree, and strongly agree respectively, to define the variables of the research theoretically and define their main areas as well as strengthening the questionnaire with numerous field interviews. Similarly, the study focused on





questionnaire as a method of collecting information and data. The research was conducted in tourism companies in Baghdad during the period of 1/12/2018 to 15/1/2019.

## Results

### Descriptive Analysis of the Population

There are 30 owners and managers of tourism companies in Baghdad from small and medium enterprises. The population of the managers in gender split is 80% males and 20% females from the data obtained from thirty samples of the owners of six tourism and travel companies and their management in Baghdad (from the first table).

On the age issue, the second table presents those under the age of 35 which accounts for 17%, those aged 36-40 are 53%, those aged 41-45 years are 13%, and those aged 46-50 (7%), and those over the age of 51 (10%). From the third Table for academic qualification, it was found that those with a preparatory certificate or below had 27%, with a bachelor's degree (53%), a master's degree of 17%, and a doctoral degree of 3%.

### Descriptive Statistics

In this section, this study will address the quantitative aspect of the description and analysis of the studied variables and relationships between them. Then, the tests of level of significance between the variables are reported.

**Descriptive Statistics of Independent Variable:** *As in table (1) Descriptive analysis for Marketing information systems dimensions* 1. Marketing Information Systems: the questionnaire classified this dimension (marketing information systems) into three measurements which are: internal records system, market research system, marketing intelligence system. They are used to illustrate the statistical analysis of the data collected from the research sample. The mean of the independent variable was 3.21, which is slightly higher than the slightly arithmetic mean, with a standard deviation of 0.97. The sample agreement on this answer confirms the difference of 0.30 and the relative importance was 0.70.

Therefore, due to the potential of the sample, it is moderately agreeable to the importance of marketing information systems. The first dimension (internal records systems) obtained a mean of 0.98, which is slightly less than the mean arithmetic mean approximately. The total rate of the dimension of the standard deviation is 1.01 and a difference coefficient of 0.34 which is the right 66% of the relative importance.

This indicates that there is an approved database and computer technologies and digital communications (modern) that help to support the management of projects research sample in their work through the observation recorded by the researchers. Then system of paper records and those computerized relies on these projects but with multiple levels of modernity which in this regard makes the answer close to the observation of researchers.

**Marketing Intelligence Systems:** As mentioned in the theoretical framework, this dimension is specialized in the process of information intelligence about competitors and all matters related to the external environment with the request of the project. The weighted mean is 3.36 with a good standard deviation of 0.86 which reduced the ratio of coefficient of variance to 0.26. The result shows that there is an increase in the relative importance to 74%; thus, it equally shows relative importance of the other dimensions in this independent variable which indicates that these projects are interested in the process of collecting and organizing information and conducting field surveys on competitors in stock markets, processors and related external environmental factors.



**The Market Research System:** This last dimension is related to the problem of the study which hinders the activities of the company. The weighted mean is recorded to be 3.31 with a standard deviation of 1.04 which is a reflection from the coefficient of variance with the value 0.31 which made the relative importance close to 70%. This value indicates that the projects in question are analyzed with developed plans to cope with external changes, especially with regard to the marketing processes necessary to support marketing decisions.

**Table 1.** Descriptive analysis for dimensions of Marketing Information Systems

Paragraphs	mean	S.D	C.V	Relative Importance
The project has an advanced database that stores and organizes information and data and provides it to the decision maker	3.13	0.94	0.30	0.70
The project is based on advanced computer technologies	3.27	0.98	0.30	0.70
Project units and departments are connected to a modern digital communications network	2.53	1.11	0.44	0.56
Total to dimensions of internal record systems	2.98	1.01	0.34	0.66
The project is concerned with collecting and organizing information about customers, interests and trends	3.57	0.90	0.25	0.75
A broad and continuous information survey is conducted on the main competitors	3.33	0.88	0.27	0.73
The project collects and organizes information on markets and processors and on environmental, technical, economic and legislative factors	3.17	0.79	0.25	0.75
Total to dimensions of marketing intelligence systems	3.36	0.86	0.26	0.74
Diagnose and identify the dilemmas and problems facing the marketing process	3.00	0.05	0.35	0.65
The project is an annual plan to keep abreast of internal and external environmental variables to develop its performance and achieve its objectives	3.30	0.02	0.31	0.69
Data and information related to the marketing process, its functions and planning are subject to the deep analysis necessary to support the decision making process	3.63	1.03	0.28	0.72
Total to dimensions of marketing information systems	3.31	0.04	0.31	0.69
Total to the variable	3.21	0.97	0.30	0.70

### Descriptive Analysis of the Small and Medium Enterprises Successes

From the statistics shown in Table 2, it is clear that the weighted mean of this dimension was 3.48 which are higher than the arithmetic mean. This shows that the interest in the selected population has a standard deviation of 1.03 and coefficient of variance of 0.29 which shows the level of agreement in the answer which is reflected in the relative importance of 0.71.

There are four divisions under this variable: the first one is the environmental adjustment which has a mathematical mean of 3.60 with a standard deviation of 0.91 with a difference of 0.25 and a relative significance of 0.75. To meet the needs of their customers at a high level, the sample has the ability to keep pace with the market variables by considering the environmental requirement and its challenges in a simple manner.



The second dimension which deals with achieving the objectives is recorded to be significant. The sample agreement on this dimension was reflected in a weighted mean of 3.53 with a standard deviation of 1.16 with a difference of 0.33, which reflected the relative importance of 0.76.

Therefore, there is awareness that the project is efficiently and effectively achieved. Notably, cost reduction which is the third dimension has 3.43 with a standard deviation of 1.05 and a coefficient of 0.30 and a relative significance of 0.70. This is a good result that maintains the quality of goods and a service provided by the supplier and reflects the sample agreement on rational use of resources.

Paragraphs	mean	S.D	C.V	Relative of Variance
Our ability to keep abreast with market variables and its requirements is high	4.13	0.82	0.20	0.80
We meet the needs and tendencies of our customers at a high standard	3.37	0.85	0.25	0.75
Our project adapts to the requirements, constraints and challenges of the environment in a flexible manner	3.30	1.06	0.32	0.68
Total to dimensions of environmental adaptation	3.60	0.91	0.25	0.75
Our project achieves its goals efficiently	3.47	1.17	0.34	0.66
Our performance indicators are usually high	3.40	1.30	0.38	0.62
We enjoy the satisfaction of our customers admirably	3.73	1.01	0.27	0.73
Total for achieving goals	3.53	1.16	0.33	0.67
The project uses resources rationally	3.50	1.38	0.40	0.60
We have high indicators for selling and commodity trading	3.23	0.90	0.28	0.72
We always maintain the quality of our goods and services	3.57	0.86	0.24	0.76
Total of cost reduction	3.43	1.05	0.30	0.70
We are continuously developing project operations	3.57	0.73	0.20	0.80
There is a continuous renewal and wide diversification of our goods and services	3.47	0.82	0.24	0.76
Our daily performance usually attests to remarkable mobility and close relationships with customers and processors	3.30	1.06	0.32	0.68
Total for the dimension of creativity	3.37	0.99	0.29	0.71
Total to the Variable	3.48	1.03	0.29	0.71

The last dimension is the creativity. This dimension does not affirm the importance of the previous results, with a weighted mean of 3.37 with a standard deviation of 0.99 with a difference of 0.29 and a relative importance of 0.71. In contrary, the result shows that there is sample agreement on the importance of continuous improvement on the projects and activities and continuous improvements and diversification of goods provided to customers. This has made them to focus on building close relationships with key stakeholders

### Analysis of Correlation

The value of correlation between the independent variable (marketing information systems) and the dependent variable (SME success) is 0.57\*\*. The positive correlation shows that there is positive relationship and correlation with a mean value of 0.013, which is less than 0.05. This means that the calculated t value is greater than the scale. Table 3 .

The degree of correlation between the internal records system as a dimension of the independent variable and the success of small and medium enterprises (SME) was 0.487\*. As the value is less than 0.5, it shows that there is a significant and positive correlation but it needs more attention because it is included in the minimum weakest level of the link.



In the case of the market intelligence system and its correlation with the dependent variable i.e. the success of small and medium-sized enterprises, the value is less than the value of the correlation 0.5 as stated in the previous correlation of past variables which needs more attention from the studied projects.

**Table 3.** Correlation Analysis for the two Research variables and its dimensions

Correlations				
Spearman's rho	Internal Records system	Marketing Intelligence System	Market Research System	Marketing Information system
Environmental Adaptation	.522*	.641**	.519*	.58**
	.035	.031	.045	.042
	30	30	30	30
Objective Achievement	.475*	.622*	.479**	.517**
	.025	.009	.047	.030
	30	30	30	30
Cost Reduction	.575**	.493*	.672*	.563*
	.023	.016	.031	.001
	30	30	30	30
Creativity	.621**	.646*	.726**	.643**
	.002	.014	.030	.023
	30	30	30	30
SMEs Success	.487*	.427*	.503*	.572**
	.031	.022	.004	.013
	30	30	30	30

Finally, the correlation between the market research system and SME success was 0.503\* which is considered to be a strong correlation. However, there is positive reflection in the success of SMEs whenever the market research and development system was considered. The table below shows the results of the connection between the dimension of the independent variables and the respondents. All the results revealed a positive correlation between the strong and the weak.

### Test of Hypothesis

This section examines the hypothesis of the study on the effect of the independent variable (marketing information systems) and their degree of impact on the variable (SME success). The study conducted the regression analysis of the three dimensions of the independent variable (internal records system, market research system, marketing intelligence system) and the dimension of dependent variable (environmental adjustment). The F-value is 0.586 and the value of Significance of 0.003 is less than 0.05. The result shows that the calculated F is greater than the scale which indicates the effect of the three dimensions of the variable. The value of t reached 3.278 and the value of mean is 0.004. The value indicates significance in the effect since it is less than 0.05. The value of R squared for the three main dimensions of the independent variable in the first dimension of the variable (environmental adjustment) reached 0.463. This shows that 46% of the changes in the response variable are explained by the three dimensions of the independent variable mentioned, while 54% is for other factors not included in the Model.

The regression analysis of the dimensions of the three independent variables (internal records system, market research system and marketing intelligence system) with the second dimension of the dependent variable (achievement of objectives) shows that the value of F is 0.362 and the value of Significance at 0.001 is less than 0.05. This shows that there is three-dimensional effect from the variable. The value of t was 1.668 while the level of morale is 0.001. Since the value is less than 0.05, it indicates that the effect is significant. The value of R squared for the three



dimensions of the independent variable in the second dimension of the variable (achievement of objectives) is 0.43. The result shows that 43% of the changes in the response variable is explained by the three dimensions of the independent variable mentioned, while the value of 47% is for other factors not included in the model.

Furthermore, the regression analysis of the dimensions of the three independent variables (internal records system, market research system and marketing intelligence system) in the third dimension of the variable (cost reduction) shows that the value of F is 1.426 and the value of sign 0.030 is less than 0.05. The result indicates that there is effect of three dimensions on the response variable. The value of t was 5.230 and the level of morale is 0.001 and since it is less than 0.05, it indicates that the effect is significant. The value of R squared for the three main dimensions of the independent variable in the third dimension of the variable (cost reduction) was 0.513. The result shows that 51% of the changes in the respondent variable is explained by the three dimensions of the independent variable while others are not included in the model.

Similarly, the regression analysis of the dimensions of the three independent variables (internal records system, market research system and marketing intelligence system) in the fourth dimension of the dependent variable (creativity) shows that the value of F is 0.986 and the value of sign 0.021 is less than 0.05. The result shows that the effect of the three dimensions on the dependent variable. The t-value is 4.172 with the moral value of 0.000. The effect is therefore significant as it is less than 0.05.

For the three main dimensions of the independent variable in the fourth dimension of the variable (creativity), the value of R square is 0.362. This shows that 36% of the changes in the variable are an explanatory variance due to the three dimensions of the independent variable mentioned while the value of 64% is for other factors not included in the model. Lastly, all the results of the analysis of the effect of the three dimensions of the independent variable (marketing information systems) in the four dimensions of the variable (success of small and medium enterprises) indicate that there is a significant impact in the relationships. Therefore, the second hypothesis of the study is accepted which states that, "There is a significant impact of marketing information systems in their dimensions on the success of small and medium size enterprises".

## **Conclusion**

In accordance with the outcomes of this study, it can be concluded that there is a prominent role for the marketing information systems to support the ongoing operations and activities in the projects and their vital decisions. For the purpose of developing performance and output and communication with customers, these projects rely on a database and computer technologies and digital communications. In the market and its environmental variables and processors, there is also a keen interest in the process of collecting and organizing information and carrying out ongoing field surveys of competitors. These projects are interested in developing plans that keep pace with the changes related to marketing operations in order to solve problems and overcome obstacles in support marketing decisions.

By keeping pace with market variables and external environmental factors, there is also high interest by projects to follow up the needs of customers. Additionally, in order to maintain the quality of goods and services provided to customers, the management of these products recognizes and agrees on the importance of using resources rationally. While providing commodity diversification that satisfies customer expectations, there is also sufficient interest from project departments to continuously develop and improve ongoing activities and processes for the purpose of building close relationships with them and key stakeholders.



## References

- Al-Bakri, T. Y. (2002). *Marketing Management*. Baghdad, Al-Dar Aljamie'yah for printing and publishing.
- Allen, M. R., Ericksen, J. & Collins, C. J. (2013). Human resource management, employee exchange relationships, and performance in small businesses. *Human Resource Management*, 52(2), 153-173.
- Armstrong, G., Kotler, P., Harker, M. & Brennan, R. (2015). *Marketing: an introduction*. 3rd ed. Pearson Education.
- Ayyagari, M., Demirgüç-Kunt, A. & Beck, T. (2003). *Small and medium enterprises across the globe: a new database*. The World Bank.
- Calder, A. (2012). Recruitment and Selection in Small and Medium Sized Enterprises, *Otago Management Graduate Review*, 10.
- Cartwright, R. (2002). *Creating the entrepreneurial organization*. Capstone.
- Connelly, P. & Rosen, S. (2005). Will small and medium enterprises provide HIV/AIDS services to employees? An analysis of market demand. *South African Journal of Economics*, 73, 613-626.
- Glancey, K. (1998). Determinants of growth and profitability in small entrepreneurial firms. *International Journal of Entrepreneurial Behavior & Research*, 4(1), 18-27.
- Goñi, N. M. (2008). *Marketing information systems and strategy levels: an empirical study*. Doctor in Management, Universidad Nacional Autónoma de México.
- Hakhua, R., Kiranb, R. & Goyala, D. P. (2013). Success of marketing information system model for SME'S of Punjab: Validation of survey based results and case study analysis. *Proced Soc. and Behav. Sci.*, 103, 870-879.
- Hatten, T. S. (2015). *Small business management: Entrepreneurship and beyond*. Cengage Learning.
- Hellriegel, D. & Slocum, J. (1988). *Management (5th edn)*. Addison Wesley, Reading, MA.
- Henri, Jean-François. (2006). Management control systems and strategy: A resource-based perspective. *Accounting, organizations and society*, 31(6), 529-558.
- Hollensen, S. (2010). *Marketing management: A relationship approach*. 3<sup>rd</sup> Edition, Pearson Education.
- Keeve, K. & Nicolaidis, A. (2019). Travel and the Chinese outbound tourism market: Governance and Ethical considerations. *African Journal of Hospitality, Tourism and Leisure*, 8(3)
- Kotler, P. & Keller, K. L. (2009). *Dirección de marketing*. Pearson educación.



- Kotler, P., Bowen, J. T. & Makens, J. C. (2009). *Marketing for hospitality and tourism*. Prentice Hall.
- Kotni, V. V. D. P. & Prasad, D. (2011). A Study on Internal Mechanism of Marketing Information Systems. *IJCST*, 2(3).
- Kurtz, D. L. & Boone, L. E. (2008). *Contemporary business*. Cengage Learning: USA
- Lancaster, G. & Reynolds, P. (2005). *Management of marketing*. New York: Routledge.
- Laudon, K. C. & Laudon, J. P. (2016). *Management information system*. Pearson Education India.
- Li, E. Y., Mcleod Jr, R. & Rogers, J. C. (2001). Marketing information systems in Fortune 500 companies: a longitudinal analysis of 1980, 1990, and 2000. *Information & Management*, 38(5), 307-322.
- Li, L., Li, D. & Dalgic, T. (2004). Internationalization process of small and medium-sized enterprises: Toward a hybrid model of experiential learning and planning. *MIR: Management International Review*, 93-116.
- McDaniel, C. & Gates, R. (2005). *Marketing research*. Wiley:10<sup>th</sup> Edition.
- Neagu, C. (2016). The importance and role of small and medium-sized businesses. *Theoretical and Applied Economics*, 23(3), 331-338.
- Nicolaides, A. (2018a). Ethical Hospitality Marketing, Brand-Boosting and Business Sustainability. *African Journal of Hospitality, Tourism and Leisure*, 7(1).
- Nicolaides, A. (2018b). Corporate Social Responsibility as an Ethical Imperative. *Athens Journal of Law*, 4(4), 285-300.
- Perumalla, V. S. (2000). Profiles and HRM Practices of Small and Medium-scale Businesses in Atlanta. School of Public Policy: Georgia.
- Proctor, T. (2005). *Essentials of marketing research*. Pearson Education. Canada; 4 edition (July 26, 2005).
- Robbins, S. P. (2001). *Organisational behaviour: global and Southern African perspectives*. Pearson: South Africa.
- Salvador, A. B. & Ikeda, A. A. (2014). Big Data Usage in the Marketing Information System. *Journal of Data Analysis and Information Processing*, 2(3), 77.
- Sifolo, P. P. S. & Lebese, S. (2014). South Africa's marketing strategies towards major African regional economic players: the case of the 2010 FIFA World Cup—was it truly an African event?. *Strategies*, 1(3).
- Singh, C. & Nicolaides, A. (2014). A Conceptual Framework for a Sustainable and CSR driven Enterprise. *African Journal of Hospitality, Tourism and Leisure*, 3(2).



Tobar-Pesántez, L. & Solano-Gallegos, S. (2018). THE IMPORTANCE OF SMALL AND MEDIUM ENTERPRISES IN THE CITY OF CUENCA-ECUADOR AND THEIR CONTRIBUTION TO THE CREATION OF EMPLOYMENT. *Academy of Accounting & Financial Studies Journal*, 22(2).

Venter, D., Mashaole, M. & Johnson, E. H. (2015). Enhancing visitor awareness and experience to the South African Armour Museum through eMarketing and new media. *African Journal of Hospitality, Tourism and Leisure*, 4(1), 1-15.

Wtterwulghe, R. & Janssen, F. (1998). *La P.M.E., une entreprise humaine*. Brussels: De Boeck Université.

Zheng, C. S. (1999). Human Resource Management and Enterprise Performance in Small and Medium Enterprise in China. Research paper Peking University: The China Center for Economic Research, Working paper No. E1999002, January.