

**THE IMPACT OF E-MARKETING ON THE MARKETING
INFORMATION SYSTEM: AN EXPLORATORY STUDY OF THE
OPINIONS OF A SAMPLE OF COMMERCIAL COMPANIES
OPERATING IN DOHUK GOVERNORATE**

Dr. Aree Mohammed Ali

Technical college of administration/Duhok polytechnic university

Contact Email: aree.ali@dpu.edu.krd

DOI: 10.46609/IJSSER.2021.v06i10.018 URL: <https://doi.org/10.46609/IJSSER.2021.v06i10.018>

ABSTRACT

In presenting this research paper, the researcher tried to shed light on how technology and communications affect the work of companies by shedding light on two modern concepts in the world of business and the orientation of international companies to work according to them, which are electronic marketing and marketing information system and a statement of the relationship between them and the extent to which they are followed by companies. Working in the Kurdistan Region of Iraq. Referring to the theoretical writings on the subject, the study assumed the existence of a correlation and effect between the dimensions of the study variables, and the questionnaire was distributed to a sample of companies operating in the province of Dohuk, and statistical methods were used to measure the hypotheses of frequencies, standard deviation, and the use of the correlation coefficient The simple statistical program using SPSS V. 22 and then measuring the role of the independent variable (electronic marketing) on the dependent variable (marketing information system) and showing the impact relationships between them. The means and applications of e-marketing is the English language and a set of other conclusions, in the light of which a recommendation was made Most notably, public companies in the field of electronic marketing should resort to participating in training courses and qualifying specialized staff in the field of information technology in order to contribute to increasing effectiveness and efficiency.

Research Methodology

1: the research problem

E-marketing is one of the modern trends through which the organization can be successful in its marketing activities and achieve its goals efficiently and effectively. Marketing specialists stress the need for marketing information systems to be available because of the appropriate information and strategies they provide that are compatible with the rapid progress in the field of business and technological development to confront marketing crises. The work of companies operating in Dohuk suffers from a lack of orientation to the use of information technology and electronic marketing. Formulate the research problem in the form of answering the following questions:

- a- Is there a discrepancy in the availability of marketing information systems requirements in the surveyed organizations?
- b- Does the surveyed sample have a clear vision of the concept of e-marketing and follow up on its latest developments?
- c- What is the nature of the relationship between e-marketing and marketing information systems?

2: importance of research

The importance of academic research is embodied in its handling of a topic that is considered the most important and contemporary to the reality of organizations at the present time, especially with regard to the theoretical framing of e-marketing and marketing information systems, which is one of the important foundations that this modest research tries to contribute to enriching it to form a conceptual framework that helps decision makers in the surveyed organizations, and is reflected The importance of the field research in providing a theoretical and field framework and employing the information emanating from marketing information systems in its management, as well as providing scientific bases for the surveyed organizations that can benefit from them in determining the role of e-marketing in marketing information systems.

3: Research objectives

In light of defining the research problem and its importance, the aim of the research is mainly to determine the role of e-marketing in marketing information systems and to indicate the contents and limits of this role at the level of the surveyed organizations, in addition to achieving the following objectives:

- a- Understand the nature of the relationship between e-marketing and marketing information systems.

b- Identifying the availability of the components of the marketing information system in the surveyed organizations.

4: Research hypotheses

a- There is a discrepancy in the availability of marketing information systems and its components in the surveyed organizations.

b- There is a significant correlation between e-marketing variables and marketing information systems at the overall level.

c- There is a significant effect of the e-marketing dimension on the marketing information systems dimension.

5: Methods of data collection

In order to obtain the data and information necessary to support the objectives of the research, the researcher relied, in the theoretical aspect, on many sources represented by books, magazines, Arab and foreign studies, and the Internet.

Introduction

Various current studies have revealed the growing role of the Internet and its use by many customers, as well as the importance it has in the marketing operations of organizations, and the use of the Internet is increasing faster than other means of communication. Individual e-marketing is of great promotional importance, as the more the administration manages to address the buyer (consumer, customer) in a more personal and individual way, the better it will be able to attract and attract him to the organization, and the virtual environment of e-marketing depends mainly on Internet technologies. E-marketing process does not focus only on the operations of selling products to the consumer, but also focuses on managing the relations between the organization, on the one hand, the consumer, and the elements of the internal environment and the external environment. In order to make e-marketing more effective, the current era is witnessing a revolution in information systems in its widest forms and forms, as its sources have diversified and their importance varied, and the management of organizations has been placed in a position where they cannot dispense with information for the purpose of making sound decisions in a competitive atmosphere represented in offering levels of service. All at different prices and different pictures. Accordingly, the marketing information system helps in organizing information, automating operations and facilitating the decision-making process, and the modern trend of organizations towards facilitating the provision of products to their current and prospective customers. The other and the market (the external environment) and this marketing

information is used by the facility efficiently and effectively. To reduce any delay in the flow of information.

E-marketing concept

Today, information and communication technologies are an increasingly important factor in supporting and achieving business goals (Host'ovecký et al., 2015,247). Companies such as Google, Yahoo, and MSN took to a new level and segmented the Internet advertising market, thereby offering small and medium businesses local advertising services. Return on investment has increased, while expenses have decreased significantly. This type of marketing has become the basis for modern capitalism, which enables anyone who has an idea, product or service to reach the largest possible audience. The use of the term "E-marketing" usually means the use of direct response marketing strategies that are constantly used in direct mail, radio, and in TV commercials, only here they relate to the business space of the Internet(Al-Ababneh,2020,4626).

Electronic Marketing (as a new marketing phenomenon and philosophy) to grow in a very dramatic and dynamic way. Small business enterprises have an important role in the world economy, and they are well-known as one of the crucial factors in the development of economy. In the other hand, in the era of globalization and technology, the way of communicating among people has changed. These changes also appeared in the way of conducting business among the nations (Mehrdad et.al,2012,384).

Electronic Marketing can be defined as a concept that describes a process of buying and selling or exchanging products, services, and information via the internet (hilm et.al,2021,146).

Also (E-Marketing) can be viewed as a new philosophy and a modern business practice involved with the marketing of goods, services, information and ideas via the Internet and other electronic means. Reviewing the relevant literature it is noticed that definitions of (E-Marketing) vary according to each author's point of view, background and specialization (*El-Gohary,2010,2016*).

New digital tools and innovations have changed the way we do business. Businesses can benefit from ICT in many areas, such as marketing, networking, and market engagement. However, the use of modern technologies to communicate with customers in the agricultural industry is relatively less than in other sectors. Over time, marketing has evolved in response to advances in global culture, technology, and entrepreneurship, continually adapting its practices to the trends of each era, and each adaptation has been built on past developments (Janšto et.al.,2019,32).

The intensive process of introducing innovative technologies into the real economy in the current environment causes the transformation of relevant markets at national and global levels. The innovations of today highlight the digital technologies that they are widely used in various types

of economic activities and act as drivers of intensive development. The proposed technologies are gaining in popularity in the marketing field because they can be used to optimize key processes.

According to Hoge (1993), E- marketing is the transfer of goods or services from seller to buyer that involves one or more electronic methods or media. E-Marketing began with the use of telegraphs in the nineteenth century. With the advent and mass acceptance of the telephone, radio, television, and then cable, electronic media have become the dominant marketing force. The use of electronic data and applications for planning and executing the conception, distribution and pricing of ideas, goods and services to create exchanges that satisfy individual and organizational goals” (Strauss and Frost, 2001: 454).

From the author’s point of view implementing (E-Marketing) by business enterprise can change both the shape and nature of business all over the world. The increase usage of the Internet and other electronic marketing tools (i.e.: Intranets, Extranets and mobile phones) in electronic transactions might create not only a lot of opportunists for business enterprises but also can eliminate a lot of its threats and this will effect on the usage of marketing information system (*EL-Gohary, 2010, 2016*).

Therefore, E-Marketing is the employment of social networks for marketing purposes in companies, as it becomes a means of communication between the company and customers, and determining the needs and behaviors of each individual client, through which the relationship with the customer is strengthened (**Obeidat et. al., 2021, 198**).

The importance of E-marketing emerges from the Internet as an effective way to define the market to be targeted, in addition to giving help to study the requirements of the marketing sector (Reynolds, et al., 2004; saffar & obeidat, 2020). Besides, it helps to provide products that can meet customers' needs, through the design quality, and, then, fulfill these design specifications through the quality of conformity (Shrouf et al, 2020; 56).

The strategic importance of e-marketing has increased after the spread of commercial uses of the Internet, and e-marketing has struck new horizons in the world of marketing. And e-marketing is the management of interaction between the organization and the consumer in the space of the virtual environment in order to achieve the common benefit. E-marketing also works to achieve coordination and integration with the rest of the various functions of the organization (such as the production function, the finance function, the purchasing function, the storage function, the research and development function and other functions (Abu Fara, 2004, 135-136). Through the Internet, great interest and influence on the movement of exchange in international marketing, and thus reflected on the various facilities of economic, social and cultural life among the

countries of the world. The traditional marketing centers no longer arouse the interest of the buyer despite the wide variety of products offered, and the intensive promotional campaigns that add real pleasure to the marketing process. For the consumer to shop or in severe crowding and overcrowding to reach the marketing sites as well as the boring repetition of purchases (Al Bakri, 2016, 263-264).

Where (Abu Qahf and others, 2006, 427) defines the process of using the Internet and digital technology to achieve the marketing objectives of organizations and to support the modern marketing concept, and thus Internet marketers can publish information about their products and companies more easily and freely compared to traditional marketing. Suwaidan and Haddad, 2003, 373) referred to it as a general term applied to the use of computers and communication technology to market goods and services and the use of information technology to effectively link the functions provided by sellers and buyers.

(Abboud, 2000: 25-21) stresses that the importance of e-marketing can be summarized in: Serving consumers by providing a detailed information base on products and alternative options that allow the customer to see, select and remain a permanent customer. Keep business information in constant readiness. Announcing the readiness of materials in a timely manner. Opening up to global markets, it is certainly the cheapest and least risky way of communicating with planned new global markets. Allowing feedback with consumers.

There are many advantages that e-marketing provides to both consumers and organizations, and the advantages obtained by the consumer can be summarized (Abu Kahf and others. 2006, 131-134): it gives a new picture of integrated marketing as it provides marketers with answers to issues related to responsibility and return on investment, And the consistency of the message with the needs of consumers, it allows marketers to carry out tests and survey research to improve the quality of service and information that consumers need. Building a brand equity: This feature is more suitable for small organizations that can compete with large organizations on the Internet because consumers know it Only through the quality of the marketing services they provide on the network. Individual to individual relationship: interaction with consumers individually as if it were a dialogue between an individual and an individual, which helps to build relationships with them in a personal way for long periods. It is characterized by high effectiveness, because it makes consumers fully alert and focused all the time, as it is a very distinguished selling position and rarely occurs in reality. Obtaining feedback information to develop products, and provides an essential opportunity for responses to changes that occur in markets and technologies in a way that achieves the integration of consumers' needs with technological developments.

Fifth: E-Marketing Obstacles

1- It is necessary to find and secure a successful and developed Internet model for business management. Organizations are racing towards securing websites in the hope that they will increase their revenues and profits.

2- The lack of a sure way to ensure the confidentiality of data and information, the extreme difficulty in not providing a secure method for its transfer in general and remittances and any form of electronic currency towards it weakens the confidence of companies in dealing with the Internet. (Al-Tai, 2005, 195).

3- The language dilemma, especially since most of the resources and information on the Internet are in English, as well as the high costs of subscription sometimes, and the spread is limited, and the use of computers in various areas of life. (Kandilji and others, 2005, 466).

4- Harmony with the environment: It is represented in the ability to interact with different operating systems and environments, and their compatibility with international standards in communications, in addition to the compatibility of the solutions used and their ability to integrate with existing systems in business institutions, as is the case for example in accounting, warehouse and financial systems, which are systems It was established in a time prior to the use of the Internet (Al-Bakry, 2006, 271-273).

5- The challenge of cultural differences between societies: there are many things that are taken for granted in Western societies and cannot be applied in Eastern countries (Abuqaf, 2006, 433-435).

6- The challenge of foreign laws related to commercial activities: In the field of advertising, for example, there are some countries that do not allow the use of their national flag in advertising, such as Spain, and there are other countries that do not allow comparative advertising and others that do not allow advertising for certain products (Al-Ta'i, 2005, 196).

7- Losing the pleasure of marketing, which many people consider the opportunity to promote and break the deadlock in their daily routine (Al-Agha, 2005, 11).

Marketing information system concept

Marketing information system (MIS) is defined as a set of procedures and methods for the regular planning, collection, analysis and presentation of information for use in making marketing decisions (Lamb et al., 2011,672). Many companies store electronic marketing data in databases and data warehouses. These data warehouses enable merchants to obtain valuable,

appropriate and customized information at any time. Marketing specialists can receive database information on websites and email on multiple devices (Strauss et al., 2013,981).

Solutions to marketing and MIS problems that are available in the literature, e.g. (Tvrdíková, 2016,489) defines them as very complex and systemic, but practically unusable for small and medium-sized enterprises. A survey of the organizational structures of SMEs enterprises found that marketing is often delegated by only one employee. It is organizationally located at the sales department or CEO department and usually has many other functions. (Harrel ,2008,586) sees a possible solution for the nomination of a multi-profession team that will provide motivation and evaluation of the results of gathering external and internal information for MIS by all agricultural company employees, solving problems related to authorizing access to information stored in benchmarking the performance of the agricultural company with its main competitors and proposing measures to update the strategy (Janšto et.al.,2019,32).

The world is witnessing a great technical and scientific revolution in the field of communications and information, as the application of science, knowledge and technology in each organization has become an important goal for it, and through which organizations seek to obtain enormous knowledge by various means, but to obtain this goal requires the provision of a large amount of data and information that It enables management to take good decisions for the success of the organization, the most important of which is marketing information. Therefore, it has become necessary to have information systems in any organization to provide departments with the data and information necessary to rationalize their decisions. Marketing information systems means assessing the manager's information needs, developing information for those who need it, and distributing it in a temporary framework for the marketing manager. By analyzing this, marketing managers can identify important opportunities and problems.

The marketing information system is defined as that system that consists of people, devices and procedures and is used to collect, classify, analyze, and distribute needed, accurate, and timely information to marketing decision makers (Kotler & Keller, 2016, 73). The marketing information system is an organized set of procedures, routine means of controlling information, and preparing reports designed to provide information required for making marketing decisions. (Hashem, 2006, 62). marketing information system is also defined as a plan that is characterized by development, awareness and continuity, which aims to facilitate The flow of information along with the flow of goods and services (Al-Ajarma and Al-Taie, 15, 2002).

And we can identify some of the benefits that can be achieved from using the marketing information system: (Al Bakri, 2016, 283-282): Making the organization more aware of information and over time, so that it becomes more capable and developed in its performance.

Management can invest the concept of marketing more effectively and through the proper application of marketing information systems. Large organizations with a decentralized form of organization are able to collect information from their scattered places for the purpose of unifying it and formulating it in the direction of making it more understandable and acceptable. Marketing management can notice the development of the general trend in the market or the external environment faster and better. With the presence of the marketing information system, the facility can use the information collected through its multiple functional effectiveness more efficiently. That is, through the functions of selling, buying, storing, and promoting. And imposing better control towards the marketing plans by receiving the amplified warning signals of the marketing information system in order to avoid the occurrence of the problem and quickly.

Reasons for the need for a marketing information system

1- Competition pressures: These pressures require the organization to have the ability to compete and the ability to produce and market advanced products much more quickly than what was happening before.

2- Excessive increase in consumers' expectations: in terms of their ability to satisfy their needs, and the consequent risk of improper decision-making as a result of lack or inaccuracy of the information on which the decision was based, and its impact on the organization's success and continuity (Saeed, 2003, 24).

3- The emergence of large markets: large-scale production and large-scale distribution have contributed to the emergence of large markets and the need for the presence of a large number of intermediaries between producers and final consumers, who may turn into a barrier to the flow of data related to the needs and desires of consumers, which can guide when making decisions. The widening gap between producers and final consumers has led to the enhancement of the importance of the marketing information system in bridging this gap. (Al-Ajarmah and Al-Tai, 2002, 18).

4- Information revolution: Every organization has more than one source of information, but the problem is how to use this information, and how to manage it, and with the development of automated accounts and other data operating equipment, management has become a quick and inexpensive way to run and analyze huge amounts of marketing data and provide Information necessary to make effective decisions. (Idris and Morsi, 2005, 158).

Fourth: Sub-systems of the marketing information system

The components of the marketing information system mean "the sub-systems that compose it, based on the concept of systems theory, which requires the possibility of dividing one system into a number of integrated sub-systems" (Al-Ajarmah and Al-Tai, 2002, 43).

1- Reporting system (internal records):

Opinions differed about the nomenclature of this system, but they refer to a common meaning represented in the data that was extracted from the internal environment of the organization. Kotler, 2004, 123) referred to it as an internal reporting system or an internal accounting system. The internal reporting system collects the information taken from the reports. These reports and records contain a set of important information for the marketing manager, such as the monthly and weekly sales volume, or the sales volume distributed according to The geographical areas of the market, or according to different transactions and products, as well as information on the size of the commodity stock, and reports on performance that help in improving the planning process for marketing activity (Al-Sayyid, 2000, 39-38). (Abu Fara, 2004, 68) refers to the most important Internal records in organizations, which are represented by: marketing management records, financial accounting management records, production management records, human resources management records.

2- Marketing intelligence

"A set of sources and procedures that assist the marketing manager in obtaining information related to the development and change that occurs in the external environment of the marketing activity" and (Kotler, 2010,102) indicates that while the internal reports focus on the results from the information, the marketing intelligence system focuses on events in the environment.

3- Marketing Research System:

(Kotler, 2010, 103) asserts that it is: "An organized design for collecting, analyzing and reporting information and results related to the marketing situation facing the organization." It is the process of data collection and analysis for the purposes of identifying and solving problems related to marketing services and marketing opportunities, and it is a planned and organized activity on the basis of A scientific approach that ensures efficient dealing with these problems and opportunities (Ibrahim et al., 2011, 30).

4- Marketing decision support system

It is defined as "a computer system that makes it easy for marketing managers to obtain information and use it in the decision-making process" (William, 2013,. And the monopoly of the information needed to make the marketing decision." The marketing decision support system

came as a result of the expansion and growth in the number of organizations to help marketing managers make their decisions more accurate. At the present time, it has become more dependent on these systems, as a result of the widespread use of computers in various marketing activities, and the multiplicity and diversity of variables, problems and crises faced by managers, which make it difficult for the human mind to conduct accurate and rapid analysis of the many relationships that occur between these variables and the ratio of their mutual impact (Al Bakri, 2002 ,78-77).

Fifth: Elements of the marketing information system:

A- Inputs: It means the data obtained from inside and outside the organization, with the aim of accessing the information necessary for the decision-making process in the organization. In determining these inputs, a good raw material results in a good commodity. These data are obtained from two sources:

1- Internal sources: They are data that reflect the reality of the internal environment of the organization in which the marketing information system operates. These data are obtained from other information sub-systems, as these data are originally outputs of other sub-information systems in the organization, such as the financial information system, production and operations information system, and human resources information system, within the framework of the integration relationship between the sub-systems. It includes sales volume, consumer services, manufacturing, engineering, research and development, human resources, and sales and marketing.

2- External sources: they are the sources that are located in the external environment stationed in the organization, which reflects the nature of the parties with which the organization interacts as an open system and these parties are consumers, processors, organizations, governmental organizations, financial institutions, unions, annual reports, commercial institutions, research reports In particular, the database system, competitors, economic, social, cultural, religious, legal and market factors.

B: Processing: To ensure obtaining the required outputs, it is necessary to scientifically and accurately carry out the processing operations that the system accomplishes, and the processing operations mean the activities and events that the system accomplishes with the aim of transforming inputs (data) into outputs (information). These activities and events are represented in the marketing information system as follows: (Abdel-Fattah, 2003, 236).

1- Data collection: It means collecting data from its internal and external sources, as objectivity must be adopted in the collection and to avoid randomness and improvisation.

2- Indexing: It includes two operations: classification, which means defining the vocabulary of data and dividing it into groups (categories) so that the vocabulary with common properties is located in one group in a way that can be distinguished from other groups, and order, which means encoding the data vocabulary that has been classified by giving certain symbols. An abbreviation that indicates and distinguishes it from others for its arrangement and coordination in certain formations, and encoding is done using numbers, letters, colors, or a combination of all of them.

3- Preparing reports: the data is transformed into information and this information is presented in the form of reports that take many different forms (tables, charts, maps, pictures, equations) that suit the needs of the beneficiaries. These reports may be periodic and routine (daily, weekly, monthly).

4- Storage: The need to store copies of reports that contain information in files called the "information base" taking into account the emergence of needs for this information at later times, as the reports are not destroyed by just using them for one time, but rather stored until later retrieval.

5- Update: the contents of the files do not keep the information stored in the database system fixed and stable over time, but are subject to change constantly according to the changes in the activities.

6- Information retrieval: Based on the justifications for storing information, this information is used later when the needs are renewed by the beneficiaries by retrieving it according to certain methods. It includes the activities and events used by the system in order to transform inputs into outputs. These activities and events are In each of the data collection, filtering and sifting, and then indexing and preparing reports on the information that is reached after the collection, sifting and indexing operations, and then storing it and working on updating it periodically.

C: outputs

It means the information obtained after processing the data, which is used to reach decisions on the four elements of the marketing mix. The outputs are represented by information only, the information means the data that has been processed so that it has a certain significance, that is, there is between its contents in a way that can, with deriving a certain meaning, help the decision maker to clarify matters when facing the situation "the subject of the decision" and assessing this situation. In other words, the information These are the data items that have been picked up.

D: Feedback

It is the element through which the outputs are measured according to specific criteria, and is based on a comparison between the marketing information that is actually provided by the system and the targeted information planned to be provided in order to identify deviations between them and diagnose and correct their causes. The standard for measuring the effectiveness of an information system. It plays a major role in identifying the results of decisions that are taken based on information extracted from the marketing information system, and is useful in obtaining new data on the basis of which the data entered into the system is updated and may be in the form of marketing reports that are useful in the process of controlling various marketing activities. If the available information contributes to the success of this task, it is considered conforming to the standard. Otherwise, the system inputs and processing operations are reconsidered.

Statistical Analysis and Hypothesis Test:

First : E-Marketing

Table (1) The respondents' answers about the e-marketing variable

Standard deviation	mean	Scale										variables
		Strongly disagree		disagree		neutral		agree		Strongly agree		
		(1)		(2)		(3)		(4)		(5)		
		%	fi	%	fi	%	fi	%	fi	%	fi	
1.105	3.87	7.7	3	5.1	2	5.1	2	56.4	22	25.6	10	X1
0.852	3.90			7.7	3	17.9	7	51.3	20	23.1	9	X2
1.208	3.59	5.1	2	17.9	7	15.4	6	35.9	14	25.6	10	X3
0.877	4.38			5.1	2	10.3	4	25.6	10	59.0	23	X4
1.360	3.31	10.3	4	25.6	10	10.3	4	30.8	12	23.1	9	X5
1.000	4.00			12.8	5	10.3	4	41.0	16	35.9	14	X6
1.128	3.79	2.6	1	15.4	6	12.8	5	38.5	15	30.8	12	X7
0.922	4.31	2.6	1	5.1	2			43.6	17	48.7	19	X8
0.707	4.36			2.6	1	5.1	2	46.2	18	46.2	18	X9
0877	3.62	2.6	1	2.6	1	41.0	16	38.5	15	15.4	6	X10

1.012	3.77	2.6	1	707	3	25.6	10	38.5	15	25.6	10	X11
1.234	3.05	12.8	5	20.5	8	28.2	11	25.6	10	12.8	5	X12
0.929	3.92	2.6	1	5.1	2	15.4	6	51.3	20	25.6	10	X13
1.186	3.26	5.1	2	28.2	11	17.9	7	33.3	13	15.4	6	X14
1.163	3.74	5.1	2	12.8	5	12.8	5	41.0	16	28.2	11	X15
1.095	3.90	5.1	2	5.1	2	17.9	7	38.5	15	33.3	13	X16
1.328	3.64	10.3	4	12.8	5	10.3	4	35.9	14	30.8	12	X17

It appears from Table (1) that:

- The percentage of agreement reached (82%) and by (32) of the sample members, they agreed that the company is following up on the latest developments in electronic marketing tools in order to be more prepared to serve consumers, while the percentage of disagreement on the statement reached (12.8%). With an arithmetic mean of (3.87) and a standard deviation of (1.105). This answers the first research question (Does the sample have a clear perception of the concept of electronic marketing).
- The percentage of agreement that the company is characterized by its dealings in the diversity of services it provides in the field of electronic marketing by the surveyed sample (74.4%) and by (29) of the sample members, while the percentage of disagreement reached (7.7%) and by (3) individuals The percentage of neutrality was (17.9%) for (7) individuals, with a mean of (3.90) and a standard deviation of (0.852).
- The percentage of agreement among the surveyed sample that marketing brochures are sent to consumers through the Internet was (61.5%) and by (24) members of the sample, while the percentage of disagreement was (23%) with (9) individuals and the percentage of neutrality and lack of agreement The answer was (15.4%) by (6) individuals, the arithmetic mean was (3.59) and the standard deviation was (1.208).
- The percentage of agreement among the researched sample that the company has an easy-to-access website known to all consumers was (84.6%) and by (33) of the sample members, and the arithmetic mean was (4.38) and the standard deviation was (0.877).
- The percentage of agreement reached (53.9%) and by (21) of the sample members who believe that the company sends the prices of products to consumer accounts through their e-mail, while

the percentage of disagreement reached (35.9%) and by (14) individuals, and mean average (3.31) with standard deviation (1.360).

- The percentage of agreement among the surveyed sample that the company can provide information about its products on the Internet was (76.9%) and by (30) individuals, while the percentage of disagreement was (12.8%) and by (5) individuals, and the percentage of neutrality was (10.3 %) by (4) individuals, the mean was (4.00) and the standard deviation was (1,000).

- The percentage of agreement reached (69.3%) and by (27) members of the sample that the company responds to the consumer quickly when he submits any inquiry through the Internet, while the percentage of disagreement reached (18%) and by (7) individuals, and reached The percentage of neutrality (12.8%) by (5) individuals, and the arithmetic mean was (3.79) and the standard deviation was (1.128).

- The percentage of agreement reached (92.3%) and by (36) individuals agreed that the company is characterized by the speed of completion of the services it provides to consumers, while the percentage of disagreement reached (7.7%) and by (3) individuals, with an arithmetic mean (4.31) and the standard deviation (0.922).

- The percentage of agreement that the company deals with the accuracy of the work and not committing mistakes by the researched sample amounted to (92.4%) and by (36) individuals from the sample members, while the percentage of disagreement reached (2.6%) by (1) individual, and the arithmetic mean was (4.36) and standard deviation (0.707).

- The percentage of agreement that marketing through the Internet performs the services required in the correct manner by the surveyed sample amounted to (53.9%) and by (21) of the sample members, while the percentage of disagreement reached (5.2%) and by (2) individuals from sample, mean was (3.62) and the standard deviation was (0.877).

- The percentage of agreement reached (64.1%) and by (25) individuals from the sample that the company updates the information available on its website, while the percentage of disagreement was (10.3%) and by (4) individuals, and the arithmetic mean was (3.77) and standard deviation (1.012).

- The percentage of agreement reached (38.4%) and by (15) individuals from the sample and they agreed that the company's use of electronic marketing means affects the efficiency of providing the service, while the percentage of disagreement reached (33.3%) and by (13) individuals, while the percentage of disagreement reached (33.3%) by (13) individuals, while the percentage of disagreement reached (33.3%) by (13) individuals. Neutrality (28.2%) and a rate of (11) individuals, the arithmetic mean was (3.05) and the standard deviation was (1.234).

- The percentage of agreement that the company resorts to using modern methods in promoting on its website by the sample surveyed is (76.9%) and by (30) individuals, while the percentage of disagreement was (7.7%) and by (3) individuals, and the arithmetic mean was (3.92) and standard deviation (0.929).
- The results showed that the percentage of agreement that e-marketing services are available during holidays and holidays by the surveyed sample (48.7%) and by (19) individuals, while the percentage of disagreement was (33.3%) and by (13) The percentage of neutrality was (17.9%), the mean was (3.26) and the standard deviation was (1.186).
- The percentage of agreement reached (69.3%) and by (27) individuals from the sample, and they agreed that the company provides security during its dealings via the Internet, and the percentage of disagreement reached (17.9%) and by (7) individuals, and the percentage of neutrality reached (12.8%) and by (5) individuals, the mean was (3.74) and the standard deviation was (1.163).
- The percentage of agreement reached (71.8%) and by (28) individuals from the sample, and they agreed that the company's services are characterized by a great diversity to suit the different needs of consumers, while the percentage of disagreement reached (10.2%) by (4) individuals, and the percentage of neutrality reached (17.9%) and by (7) individuals, and the arithmetic mean was (3.90) and the standard deviation was (1.095).
- The percentage of agreement reached (66.7%) and by (26) individuals agreed that the company's management invests in electronic marketing in its quest to gain consumer satisfaction, while the percentage of disagreement reached (23.1%) and by (9) individuals, and the percentage of neutrality reached (10.3%) and by (4) individuals, and the arithmetic mean was (3.64) and the standard deviation was (1.328).

Second: Marketing Information System:

Table (2) The respondents' answers about the Marketing Information System variable

Standard deviation	Mean	Scale										Variables
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree		
		(1)		(2)		(3)		(4)		(5)		
		%	fi	%	fi	%	fi	%	fi	%	fi	

1.144	3.82	7.7	3	2.6	1	20.5	8	38.5	15	30.8	12	Y1
0.999	3.72	2.6	1	10.3	4	20.5	8	46.2	18	20.5	8	Y2
0.695	3.79			2.6	1	28.2	11	56.4	22	12.8	5	Y3
0.873	4.03	2.6	1	2.6	1	12.8	5	53.8	21	28.2	11	Y4
0.912	3.90			10.3	4	15.4	6	48.7	19	25.6	10	Y5
1.050	3.72	2.6	1	10.3	4	25.6	10	35.9	14	25.6	10	Y6
1.246	3.64	10.3	4	7.7	3	15.4	6	41.0	16	25.6	10	Y7
0.970	3.82	5.1	2	5.1	2	10.3	4	61.5	24	17.9	7	Y8
1.186	3.41	7.7	3	17.9	7	15.4	16	43.6	17	15.4	6	Y9
0.833	3.79			7.7	3	23.1	9	51.3	20	17.9	7	Y10
0.857	3.95	2.6	1	2.6	1	15.4	6	56.4	22	23.1	9	Y11

It appears from the following table (2):

1. The percentage of agreement among the researched sample that electronic marketing works to increase the quality and accuracy of marketing information was (69.3%) and by (27) individuals, while the percentage of disagreement reached (10.3%) and by (4) individuals, while the percentage of disagreement reached (10.3%) and by (4) individuals, while it was The percentage of neutrality (20.5%) by (8) individuals, and the arithmetic mean was (3.82) and the standard deviation was (1.144).

2. The percentage of agreement reached (66.7%) and by (26) individuals from the sample, and they agreed that the use of electronic marketing applications leads to support the validity of marketing information, while the percentage of disagreement reached (12.9%) and by (5) individuals, and the percentage of disagreement reached (12.9%) Neutrality (20.5%) by (8) individuals, and the arithmetic mean was (3.72) and the standard deviation was (0.999).

3. The percentage of agreement reached (69.2%) and by (27) of the sample members who agreed that the use of electronic marketing applications confirms the effectiveness in providing marketing information, while the percentage of disagreement reached (2.6%) by (1) individual and reached The percentage of neutrality was (28.2%) with a rate of (11) individuals, and the arithmetic mean was (3.79) and the standard deviation was (0.695).

4. The percentage of agreement among the researched sample that e-marketing is based on linking the company's marketing information with each other was (82%) and by (32) individuals, while the percentage of disagreement reached (5.2%) and by (2) individuals, and the percentage of neutrality reached (12.8%) for (5) individuals, and the mean was (4.03) and the standard deviation was (0.873).

5. The percentage of agreement reached (74.3%) and by (29) of the sample members, and they agreed that companies have internal and external records system for information as input to the system, while the percentage of disagreement reached (10.3%) and by (4) individuals, and it reached The percentage of neutrality (15.4%) by (6) individuals, and the arithmetic mean was (3.90) and the standard deviation was (0.912).

6. The percentage of agreement among the sample surveyed that they rely heavily on marketing information was (61.5%) and by (24) individuals from the sample members, while the percentage of disagreement reached (12.9%) and by (5) individuals, and the percentage of neutrality reached (25.6%) for (10) individuals, and the mean was (3.72) and the standard deviation was (1.050).

7. The percentage of agreement reached (66.6%) and by (26) individuals from the sample and they agreed that the company has an effective marketing information system, while the percentage of disagreement reached (18%) and by (7) individuals, and the percentage of neutrality reached 15.4 % by (6) individuals, while the arithmetic mean was (3.64) and the standard deviation was (1.246).

8. The percentage of agreement reached (79.4%) by (31) of the sample members and they agreed that their company has an integrated security system service for information security, while the percentage of disagreement reached (10.2%) by (4) individuals, and the percentage of neutrality reached (10.3%) and by (4) individuals, and the arithmetic mean was (3.82) and the standard deviation was (0.970).

9. The percentage of agreement among the researched sample that the company asks consumers on the Internet and stores their information in the marketing information system was (59%) and by (23) individuals from the sample, while the percentage of disagreement reached (25.6%) by (10) individuals, As for the percentage of neutrality, it was (15.4%) with (16) individuals, and the arithmetic mean was (3.41) and the standard deviation was (1.186).

10. The percentage of agreement reached (69.2%) and by (27) individuals from the sample members agreed on electronic marketing that helps to increase the type and style of the outputs of the marketing information system, while the percentage of disagreement reached (7.7%) and

by (3) individuals, in While the percentage of neutrality was (23.1%) and by (9) individuals, while the arithmetic mean was (3.79) and the standard deviation was (0.833).

11. The percentage of agreement among the researched sample that the treatment processes in the system are characterized by modernity was (79.5%) and by (31) of the sample members, while the percentage of disagreement was (5.2%) and by (2) individuals, and the percentage of neutrality was (15.4%) with (6) individuals, while the arithmetic mean was (3.95) and the standard deviation was (0.857).

Analysis of the correlations between the variables of the study

With the aim of verifying the working mechanism of the hypothetical study model and testing its hypotheses as stated in its methodology, and to complete the description and diagnosis of the study factors, this section will analyze and discuss the results of the correlation test results between the study variables, thus it includes the following:

First: E-marketing correlation analysis and marketing information system:

Table (3) shows the values of the correlation coefficient between e-marketing and the marketing information system and its dimensions. By analyzing these values, it becomes clear that:

Table (3) correlation between variables

E marketing	
0.767**	Marketing information system

Level of significant : (0.05)

There is a positive significant correlation between e-marketing (the overall indicator) and the marketing information system (the total indicator), where the value of the correlation coefficient between them was (0.767**), which is significant at the level (0.01). This indicates the verification of the second hypothesis (there is a significant correlation between e-marketing variables and marketing information systems at the macro level).

To complement the presentation and analysis of the results of testing the hypotheses of the study, this axis seeks to present and analyze the results of testing the hypotheses of influence and through analyzing the influence relationships of the e-marketing variable in the marketing information system. The effect is as follows:

1- Analyzing the relationships of the impact of e-marketing and the marketing information system at the macro level:

The results of Table (3) refer to the results of the regression analysis between the e-marketing variable (the overall indicator) and the marketing information system variable (the total indicator), as it appears from the table data that:

A- The value of Beta between the two variables was (0.746), which is significant in terms of the calculated (T) value of (7.276), which is greater than its tabular value of (8.3) at a degree of freedom (38), which indicates that e-marketing (total indicator) significantly affects and system Marketing information (the overall indicator).

B - The value of the coefficient of determination (R²) is (0.589), and it refers to electronic marketing and explains its percentage (21%) of the changes that occurred in the marketing information system, while the rest of the percentage is explained by other factors, and this value is considered significant in terms of (F) calculated and amounting to (52.63). It is greater than its tabular value of (4.11) at two degrees of freedom (1, 37).

Based on the foregoing, it is clear that there is a significant influence relationship between e-marketing (the overall indicator) and the marketing information system (the total indicator), which means that any change in the levels of e-marketing leads to a change in the levels of the marketing information system. Thus, the validity of the first main hypothesis, which states that there is a significant impact of electronic marketing on the marketing information system, is validated.

Table (4) The regression between variables

Level of significance	Marketing information system (macro)					Depend variable	
	T		F		R ²	Beta	β ₀
	Table d	calculate d	Table d	calculate d			
0.000	8.3	7.278	4.11	52.963	.589	.746	E-marketing (macro)

0.05 P≤, D.F (F)=(1 ,37)D.F(T) =(38)N=39

Conclusions

1. E-marketing is one of the recent developments in the field of information technology, and companies operating in the Kurdistan region of Iraq have started to use this technology in completing their commercial transactions, similar to the countries and companies used.
2. Organizations vary in the levels of adoption of e-marketing elements, and this is what was shown by the results of the statistical analysis.
3. The use of e-marketing leads to an increase in the accuracy of marketing information and a reduction in the percentage of errors and delays in completing transactions through the website on the World Wide Web.
4. Speed in providing marketing information to the company through the use of e-marketing applications.
5. The use of e-mail and mobile phone in the completion of electronic transactions of the surveyed companies.
6. By extrapolating the opinions of the surveyed companies, it was found that e-marketing is one of the best means of entering international markets for public companies in Dohuk.
7. It turns out that the obstacle for public companies in Dohuk to enter and use the means and applications of electronic marketing is the English language.
8. For public companies within the limits of the selected sample, they do not constantly update their programs, but rather use outdated programs.
9. Fear of public companies in Dohuk from entering and completing electronic information, due to security and privacy problems and the absence of laws prohibiting this.
10. E-marketing gives consumers the opportunity to make comparisons to the prices of products before buying in a better and faster way, as consumers do not spend much effort and time and compare what was happening when wandering through the shops to compare prices.
11. E-marketing helps consumers who do not have enough time for marketing, such as working women or businessmen, to access the products they want faster and easier compared to traditional means.
12. The presence of information about consumers and in the marketing information system leads to an increase, accuracy and orientation towards satisfying the needs and desires of consumers.
13. The marketing information system can increase the ability to respond to the organization's dynamic environment. The system also allows for more efficient handling, organization and

storage of data. An effective marketing information system helps in developing and improving service work directly as part of the product itself, or indirectly by increasing Responding to consumer needs.

Suggestions

- 1- The need for public companies in Dohuk to use modern technology in completing transactions, especially the marketing information system.
- 2- Public companies in the field of electronic marketing should resort to participating in training courses and qualifying specialized staff in the field of information technology in order to contribute to increasing the effectiveness and efficiency of information.
- 3- Companies resort to using modern programs and advanced technologies in the field of e-marketing, the use of security networks and protection from piracy.
- 4- Using other electronic means besides the mobile phone and e-mail, such as business intelligence.
- 5- The necessity of adopting websites in promoting products and presenting them to consumers, and relying on e-marketing.
- 6- Attempting to add other languages to the companies' electronic pages during their establishment in the World Wide Web, because the results indicate that the English language is the obstacle for many companies dealing with them.
- 7- Linking the company's other information systems with the company's main marketing information system in order to exchange information.
- 8- Linking the company's marketing information system with banks operating inside and outside the region, making accounts and communicating with these banks to complete transactions electronically via communication networks and websites.
- 9- Benefiting from the experiences of international companies in the field of electronic marketing and marketing information system, which have proven their role in the accuracy and validity of information and in increasing the market share in the target market.
- 10- Relying clearly on electronic payment cards and credit cards to take advantage of their advantages and increase the accuracy and effectiveness of business.

References

- 1- Abu Fara, Youssef Ahmed, E-Marketing and the Elements of Marketing Mix via the Internet, Al-Warraq Publishing and Distribution Corporation, Amman, Jordan, 2004.
- 2- Abu Qahaf, Abdel Salam, Nabila Abbas and Alaa Al-Gharabawi, 2006, Marketing, Modern University Office, Alexandria, Egypt.
- 3- Idris, Thabet and Al-Mursi, Gamal, (2005), Contemporary Marketing, Alexandria University House.
- 4- Ismail Muhammad, El-Sayed (2000), Fundamentals of Marketing Research, University House for Publishing and Distribution, Mosul.
- 5- Al-Agha and Wafiq Helmy, E-Marketing and Beneficiaries' Desires, a paper presented to the Fourth Scientific Conference, College of Administrative and Financial Sciences, Philadelphia University, Amman, Jordan, 2005.
- 6- Al-Bakri, Thamer, Marketing (Contemporary Foundations and Concepts), Al-Yazuri Press, Amman - Jordan, 2006.
- 7- Al-Bakri, Thamer Yasser, (2002) Marketing Department, University House for Printing and Publishing, Mosul
- 8- Al-Tai, Muhammad Hussain Al-Faraj, Introduction to Management Information Systems, Dar Wael, Amman - Jordan, 2005.
- 9- Al-Tai, Youssef Hajim Sultan, and Al-Abadi, Hashem Fawzi Dabbas, 2009, E-Marketing, Edition 1, Al-Warraq Publishing and Distribution, Amman - Jordan.
- 10- Abdel-Fattah, Mohamed Saeed (2003), Marketing Department, University House for Printing and Publishing, Alexandria.
- 11- Al-Ajarmah, Tayseer, Al-Tai, Muhammad Abd (2002), Marketing Information System, 1st Edition, Dar Al-Hamid for Publishing and Distribution, Amman.
- 12- Kandilji, Amer Ibrahim, Al Janabi, Aladdin Abdel Qader, (2005), Management Information Systems and Information Technology, Al Masirah House for Publishing and Distribution, Amman, Jordan.
- 13- Najm, AbboudNajm, 2004. Strategic electronic management, functions and problems, Dar Al-Marikh Publishing, Riyadh, Saudi Arabia.
- 14- Nizam Suwaidan, and Shafiq Haddad, (2003), Marketing Contemporary Concepts, Dar Al-Hamid for Publishing and Distribution, Amman, Jordan.

- 15- Hashem, Tariq, (2006), The Role of Marketing Information Systems in Improving the Marketing Performance of Jordanian Public Shareholding Companies, PhD thesis, Amman Arab University for Graduate Studies, Jordan.
- 16- Kotler ,Philip, Armstrong, Cary (2014).“Principles of Marketing”, 24th Ed. Prentice-Hall. New Jersey.
- 17- Kotler ,Philip, (2004).“Marketing Management”, 18th Ed, Prentice –Hall, International. Inc New Jersey.
- 18- Kotler, Philip, (2007), Marketing Management Analysis ,planing , Implementation ,and control, prentice Hall of India , New delhi.
- 19- Kotler, Philip, (2010). “Marketing Management”, Prentice-Hall International, Inc. New Jersey.
- 20- William Pride, Ferrell. (2013).“Marketing Concepts and Strategies”, 14th Ed, Houghton Mifflin Company. Boston, New York.
- 21- Janšto, E., Polakovič, P., Hennyeyová, K. and Slováková, I. (2019) “Analysis of the Current Support of E-marketing Activities in Selected Enterprises of the Wine Sector in Slovakia”, *AGRIS on-line Papers in Economics and Informatics*, Vol. 11, No. 4, pp. 31-37. ISSN 1804-1930. DOI 10.7160/aol.2019.110403.
- 22- Hostovecký, M., Mišút, M. and Pribilová, K. (2015) „Web based testing in science education“, *Springer International Publishing*, Vol. 313, pp. 247-254. ISBN 978-3-319-06772-8. DOI 10.1007/978-3-319-06773-5_33.
- 23- Mehrdad,salehi, Hanieh Mirzaei , Mohammadreza Aghaei , Milad Abyari ;Dissimilarity of E-marketing VS traditional marketing ,(2012), *International Journal of Academic Research in Business and Social Sciences*, January 2012, Vol. 2, No. 1 ISSN: 2222-6990.
- 24- Hoge, S, Cecil C. (1993). The Electronic Marketing Manual ABA Journal, 22, 175-185.
- 25- Hilmi ,ArijaFachriyan, Irham, Irham, Lestari ,Rahayu ,Waluyati,(2021),EFFECT OF E-MARKETING MIX BASED ON E-MARKETPLACE ON MARKETING PERFORMANCE OF FOOD MSMES I, *Russian Journal of Agricultural and Socio-Economic Sciences* .
- 26- El-Gohary ,Hatem,2010,E-Marketing - A literature Review from a Small Businesses perspective, *International Journal of Business and Social Science Vol. 1 No. 1*.

- 27- STRAUSS, J. & FROST, R. (2001), *E-Marketing*, NJ, USA, Prentice Hall.
- 28- Al-Ababneh ,Hassan Ali ,E-Marketing Strategy and its Development Trends,2020, *The Mattingley Publishing Co., Inc., Volume 83. ISSN: 0193-4120.*
- 29- Obeidat. Abdallah Mishael, Enasahmad al-shannag, Reema mousaalmarneh, Hanadiabdulelah alali, Abdullah yusefshawaqfeh,E-MARKETING AND ITS IMPACT ON THE COMPETITIVE ADVANTAGE,(2021), elementary Education Online, Year; Vol 20 (Issue 5): pp. 196-207,http://ilkogretim-online.org.
- 30- Reynolds, J. ; Mark, G. & Anodal, F. (2004), "The Complete E-Commerce Book : Design, Build & Maintain aSuccessful Web-based Business", 2nd ed., Irwin McGraw-Hill, New York, USA .
- 31- Saffar, N., &Obeidat, A. (2020). The effect of total quality management practices on employee performance:The moderating role of knowledge sharing. *Management Science Letters*, 10(1), 77-90.
- 32- Shrouf, H., Al-Qudah, S., Khawaldeh, K., Obeidat, A., &Rawashdeh, A. (2020). A study on relationship between human resources and strategic performance: The mediating role of productivity. *Management Science Letters*, 10(13), 3189-3196.
- 33- Lamb, W. Ch, Hair, F. J. and Mcdaniel, C. (2011) „Essentials of Marketing“, Cengage Learning, ISBN 9780538478342.
- 34- Strauss, J. and Frost, R. (2013) „E-marketing“, Pearson Education Limited. ISBN 978-1-29200041-1.
- 35- Tvrdíková, M. (2016) „Increasing the Business Potencial of Companies by Ensuring Continuity of the Development of their Information Systems by Current Information Technologies“, *Journal of Business Economics and Management*, Vol. 17, No. 3, pp. 475-489. ISSN 1611-1699. DOI 10.3846/16111699.2013.839475.
- 36- Harrel, G. and Amstrong, G. (2008) „Marketing: connecting with customers“, Chicago Education Press,. ISBN 09-798-3040-0.