The Effect of Marketing Information System on Sales Growth and Market Share
"*An applied study on Tourism companies in Mansoura City from point of view of their employees*"

submitted by

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ABSTRACT

This study aims to investigate the effect of marketing information system on sales growth and market share based on an applied study on tourism companies in Mansoura City from the point of view of their employees. The study adopted the philosophy of positivism, the deductive approach, and the method of quantitative analysis as the research methodology

The instrument utilized for data collection was a questionnaire, the researcher communicated with the employees of each company face to face to boost the response rate of the questionnaire. Subsequently, the researcher directed the questionnaire to 141 employees, only 122 of them were collected with a response of rate 86%, finally 113 questionnaires were

statistically valid and free of missing data, while the other 9 were invalid. The questionnaires were collected from employees of tourism companies in Mansoura City. in addition, SPSS version 26 was utilized to test research hypotheses.

The findings revealed that there is a significant positive relationship between marketing information system and sales growth and market share, also results revealed that there is a significant positive effect of marketing information system on sales growth and market share, and study results revealed that there are significant statistical differences between employees of tourism companies' respondents in terms of "company establishment, educational attainment, and years of experience" toward marketing information system and marketing performance.

Keywords: Marketing Information System, Internal record system, Marketing intelligence system, Marketing research system, Marketing decision support system, Marketing performance.

الملخص:

تهدف هذه الدراسة إلى التعرف على تأير نظم المعلومات التسويقية على نمو المبيعات والحصة السوقية من خلال دراسة تطبيقية على شركات السياحة بمدينة المنصورة من وجهة نظر العاملين بها. اعتمدت الدراسة على الفلسفة الوضعية، والمنهج الاستنباطي، ومنهج التحليل الكمي كمنهجية للبحث. والأداة المستخدمة لجمع البيانات هي الاستبيان، وقد قام الباحث بالتواصل مع موظفي كل شركة وجهاً لوجه لزيادة نسبة الاستجابة للاستبيان. وبعد ذلك وجه الباحث الاستبيان إلى ١٤١ موظفاً، تم جمع ١٢٢ منهم فقط بنسبة استجابة ٨٦٪، وأخيرا كانت ١١٣ استبانة صحيحة إحصائياً وخالية من البيانات الناقصة، بينما كانت الـ ٩ الأخرى غير صالحة. تم جمع الاستبيانات من الموظفين بشركات السياحة بمدينة المنصورة. بالإضافة إلى ذلك تم استخدام برنامج SPSS الإصدار ٢٦ لاختبار فروض البحث.

وأظهرت النتائج أن هناك علاقة إيجابية ذات دلالة إحصائية بين نظم المعلومات التسويقية و نمو المبيعات والحصة السوقية، كما كشفت النتائج أن هناك تأثير إيجابي كبير لنظم المعلومات التسويقية على نمو المبيعات والحصة السوقية، وأظهرت نتائج الدراسة أن هناك فروق ذات دلالة إحصائية بين استجابات الموظفين في شركات السياحة من حيث خصائصهم الديمغرافية " عدد سنوات عمل الشركة، عدد الموظفين، المؤهل الدراسي، وعدد سنوات الخبرة" تجاه نظم المعلومات التسويقية والأداء التسويقي.

الكلمات المفتاحية: نظم المعلومات التسويقية، نظام السجلات الداخلية، نظام الاستخبارات التسويقية، نظام البحوث التسويقية، نظام دعم القرار التسويقي، نمو المبيعات، الحصة السوقية، الأداء التسويقي.

1) Introduction:

Business today is a challenge because of the many dynamics involved. Marketers, who have the sole responsibility of ensuring the business makes profits and achieve the overall organizations objectives needs to be dynamic in how they organize their marketing strategies in a competitive way, which is relevant to today's market, taking into consideration all the current trends in today's marketing environment (Thuita & Njeru, 2021).

Given the immense benefits of marketing information systems, companies around the world have sought to apply such systems with a view to improving their competitive and operational performance. As observed earlier, this has resulted in a slew of studies seeking to determine the causality between marketing information systems and organizational performance (Etim, Inyang, & James, 2023). Whatever the kind of establishment, market and customer information is vital if organizational objectives are to be accomplished and customer needs and wants fulfilled. Having an effective Marketing Information Systems is one way in which an organization can acquire the information if they are to succeed in formulating marketing policies (Thuita & Njeru, 2021).

The marketing information systems has played main role in formulating the competitive marketing strategies of the economic institutions, taking in consideration the strategies information about the competed companies, for capturing their strength points and avoiding the weakness points (Adam, 2020).

Marketing performance is the result of marketing activities to achieve company

goals. It is measured through sales volume, customer growth,

market share growth, customer's purchase intention, consumer decision to buy, customer perceived satisfaction, customer repeat purchase, customer loyalty, company profits, and investment capital gains. Furthermore, the measurements in this study refer to the indicators developed and with simplification and adjustment to the existing condition. The indicators are the attainment of sales target, customer growth, customer's purchase interest, customer satisfaction, and customer loyalty (Taufik, 2023).

Marketing performance measurement has become more challenging due to growing global competition, more complex modern marketing and an increasingly dynamic business environment (Gao, 2010). It is evident that the pressure to justify marketing spending and the demand for marketing accountability have been rising (Schwartz, Kim, & Patterson, 2014). Driven by the increasing demands for greater accountability in the marketing function, companies have invested considerable resources in improving their marketing performance measurement practices (Rust, Ambler, Carpenter, & Kumar, 2004). for example, introducing marketing dashboards (Pauwels, et al., 2009). Or balanced scorecards (Kaplan & Norton, 1996).

The research concentrates on the effect of the marketing information system on sales growth and market share and investigate the relationship between them. Applied on employees of Tourism companies in Mansoura city. The researcher believes this sector is vital at the national and economic levels. Moreover, the research study MKIS and how could affect on sales growth and market share in existing high competition

in the market.

2) Operational Definitions

2.1)   Marketing Information System : Defined "as a continuing and interacting structure of people, equipment, and procedures designed to

gather, sort, analyze, evaluate and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, execution, and control" (Armstrong & Kotler, 2003).

2.2)   Marketing performance: Defined "as a form of achievement measures that can be obtained from an overall activity of the company, especially in the field of marketing within a company or organization. in addition, marketing performance can also be seen as a finished concept used by the company in measuring the extent to which achievements and target markets have been achieved by the products produced by the company" (Morgan N. A., 2012).

2.3)   Sales Growth: the amount by which Net Sales has increased or decreased relative to the immediately preceding Reporting Period, expressed as a positive or negative percentage (depending on whether Net Sales increased or decreased) of the Net Sales for such preceding Reporting Period (law Insider, 2022).

2.4)   Market Share: is the percentage of the total revenue or sales in a market that a company's business makes up (Bendle, Pfeifer, & Reibstein, 2010).

3) Exploratory Research

In this section, the researcher discusses the literature that investigated research variables (Marketing Information System, and Marketing Performance) to explore the academic gap. The researcher also discusses the results of the pilot study to assess the practical problem in the field of application as follows:

3.1) Literature Review

The Relationship Between Marketing Information System and Sales Growth and Market Share

Marketing information systems have been playing a main role in formulating the competitive marketing strategies of the economic institutions, taking into consideration the strategies' information about the competing companies, for capturing their strength points and avoiding their weakness points (Adam, 2020).

Marketing performance measurement has become more challenging due to growing global competition, more complex modern marketing, and an increasingly dynamic business environment (Pierce & Gao, 2013).

A growing body of empirical studies has sought to investigate how marketing information system influenced marketing performance and clarify the relationship between MKIS and marketing performance. For example, the study (Taha, 2018)

found that effective sub-systems of marketing information system reflect positively on marketing performance, and (Jamali, 2014) concluded that the use of marketing information system improved the marketing performance of pharmaceutical companies in Egypt, and found there is a significant positive relationship between the extent of the use of information technology and marketing performance.

Accordingly, (Theodosiou & Beheshti, 2021) stated that marketing information system play an essential duty in increasing the efficiency of financial performance and these are profitability, cash flow, and growth in sales, and agreed with (Adeoti, Olawale, & Abolarinwa, 2017) found that marketing information system effects on sales volume and product performance.

 (Hashim, 2006), found a high level of use of the sub-systems of marketing information systems in the three sectors, except for the industrial sector

 concerning its use of the marketing intelligence system and the marketing research system, as it was found that their use is of a medium degree. It was also found that the banking sector is the most used for sub-systems of marketing information systems, followed by the insurance sector, services, and finally industry. It was also found that the internal registration system is the most widely used in the three sectors (insurance, services, and industry). While the marketing research system is the most widely used in the banking sector, followed by the marketing intelligence system. This result confirms the increase in the awareness of the Jordanian public shareholding companies of the importance of marketing information systems in the organization and its impact on the various aspects related to its marketing

performance. The high level of banks' use of marketing information system sub-systems can also be explained by the sensitivity and accuracy of work in the banking sector, and the reflection of this on the sector's attempt to use systems and means through which it is possible to improve the marketing performance of banks and face the intensity of external competition. Moreover, the study also concluded that there is a statistically significant relationship between the availability of marketing information systems and the marketing performance of Jordanian public shareholding companies, for each of the four sectors. It was also found that the level of strength of this relationship between the availability of marketing information systems and the dimensions of marketing performance ranged from high to low. It was also found that the most important dimension of marketing performance affected by the availability of marketing information systems is the volume of sales in the insurance, services, and industry sectors. While the market share dimension was the most influential dimension of marketing performance with the availability of marketing information systems in the banking sector.

This result is consistent with the study of (Li, Mcleod, & Rogers, 1993), which proved the role of marketing information systems in achieving a

competitive advantage in companies, which confirms the importance of marketing information systems in improving marketing performance in Jordanian public shareholding companies, (Adeoti, Olawale, & Abolarinwa, 2017) declared that company with effective and efficient marketing information system will tend to develop competitive products and increase sales and better performance.

According to (Indrasari, Hapsari, & Sukesi, 2019) marketing information system is also a factor that affects customer loyalty, and agreed with (Hidayatullah, Patalo, Firadianjah, & Waris, 2019) describes the positive influence and significant relationship with customer loyalty. And (Hendrata, Yasa, & Indiani, 2021) have differences in the results of previous studies (Indrasari, Hapsari, & Sukesi, 2019), (Hidayatullah, Patalo, Firadianjah, & Waris, 2019), shows that the marketing information system has a positive and insignificant effect on customer loyalty. It can be interpreted that the better the value of the marketing information system, the more it will affect the level of loyalty, but not significantly.

 (Sallami, 2021), that concluded that there is a significant impact of the marketing information system in developing the relationship with its customers by achieving their satisfaction and gaining their loyalty. (Ismail, 2011), There are significant relationships between internal records, marketing intelligence, MDSS and decision making in the Royal Jordanian Airlines (RJA), and (Theodosiou & Beheshti, 2021), It was found that the marketing information system has a positive effect on the performance of SMEs in Malaysia, and (Adeoti, Olawale, & Abolarinwa, 2017), The study revealed that marketing information system has significant effect on sales volume and that marketing information system has significant impact on product performance.

(Alshura, 2018), revealed that there are statistically significant relationships between trust in green bran, awareness of green brand, green perceived value, and Jordan's consumer intention to use these products, while image of green brand was not

having. (Ali, 2021), concluded that the application of entrepreneurial marketing in travel agencies has a significant and positive impact on their marketing performance, and (Hassanein, 2019), The results of this study revealed a positive correlation between the competitive priorities and the marketing performance, as well as the significant impact of competitive approaches on marketing performance, and (Hashim, 2006), concluded that there is a statistically significant relationship between the availability of the marketing information system and the design of marketing strategies in a scientific way in the Jordanian public shareholding companies for each of the four sectors under study.

Based on the above, the main hypotheses can be developed as follows:

H01: There is a significant positive relationship between marketing information system and sales growth and market Share.

H02: There is a significant positive effect of marketing information system on sales growth and market share

The effects of demographic characteristics and of respondents and their perceptions of the research variables

This section presents the respondents of demographic characteristics of the empirical research sample and there are several studies show the effects of demographic variables or characteristics on marketing information system such as the study of (Alhadid, Al-Zu'bi, & Barakat, 2015), and (Bahloul, 2011).

(Alhadid, Al-Zu'bi, & Barakat, 2015), showed Traits such as age, gender, educational level, and Experience Years were investigated to see if there were a significant relationship between them and the perception of marketing information system. Using one-way ANOVA between marketing information system and employee's personal traits,

the results showed that there were only two significant relationships existed between age, educational Level of respondents and their perceptions of marketing information system. But there is no a significant relationship between gender, Experience Years of respondents and their perceptions of marketing information system.

(Bahloul, 2011), consists of two sections about demographic characteristics, section one involves information about the study population and section two involves information about the study sample.

The results showed that 86.6% of the respondents agree that the technology is available in the MkIS in the bank and that its availability affects the decision-making process, 77.6% of the respondents agree that the internal records are available in the banks, and they affect the decision-making process, 80.1% of the respondents agree that marketing intelligence is available in the banks, and contributes to the decision-making process, 78.2% of the respondents agree that marketing research is available and affects the decision-making process in the bank and 78.1% of the respondents agree that the banks rely on MDSS and it has effects on the decision-making process.

Based on the above, the hypotheses can be developed as follow:

H03: There are significant differences between employees of tourism

companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables.

3.2) Academic Gap

The findings of the previous studies show that organizations around the world are depending more on new technology in processing their operations. MkIS is used widely in all kinds of businesses and has a great effect on organizational performance, marketing performance, decision-making, achieving competitive advantage, and even more on product performance.

The previous studies conducted on different sectors and even different industries such as the studies of (Thuita & Njeru, 2021), (Ismail, 2011), (Bahloul, 2011), (Adeoti, Olawale, & Abolarinwa, 2017), (Alshura, 2018), (Theodosiou & Beheshti, 2021), (Fitriana, Kurniawan, Barlianto, & Putra, 2022). The researcher sees that previous studies had more conducted on the industrial sector and deal with tangible products. The studies about the MkIS applied to the tourism sector have not been done enough, so the researcher observed that the study of MKIS in the tourism sector will be interesting and to figure out how these companies can improve sales and market share by using a genies system known as MKIS. Where this study concentrates on the use of each component of the MkIS and how could affect sales growth and

market share, it shows the level of importance of each component concerning the MkIS. Moreover, the two variables of this study have been done in the study of (Theodosiou & Beheshti, 2021), (Taha, 2018), (Alshura, 2018)¬, BUT this study differs from others by apply on different sector "Tourism Sector" in Mansoura city from point of view their employees.

In addition, the study reveals the use of the MkIS on tourism companies in Mansoura City and clarifies the sources of information that these companies rely on to improve their sales and market share and the indicators that these companies use to measure marketing performance.

3.3) Exploratory Study & Practical Problem

To identify the research problem, the researcher conducted an exploratory study by conducting randomly interviews with employees of some tourism companies in Mansoura city.

The exploratory study has been conducted from February 18th to April 2nd, 2022, and the

structure of the study aimed to identify the extent to which the use of four component systems of marketing information systems effectively and how could affect sales growth and market share.

The researcher directed some close-ended questions to randomly selected 18 employees from 11 tourisms companies. while interviewees were required to

choose one of three alternatives: Yes, I am not sure, and No. Questions were as follows:

- Does the company use a marketing database to identify problems?

- Does the company rely on external sources to collect information?

(External sources such as client meetings, dealers/distributors, customers, business associates, market research projects, suppliers, online services, periodicals and government publications).

- Does the company use SWOT analysis, market survey, five forces analysis, and focus group analysis?

- Does the company analyze the information results from the marketing database for decision-making?

The exploratory study revealed the following:

• Only 67% of tourism companies have used an internal record system to identify marketing problems.

• 33% of them lack the advantage of a marketing intelligence system to be competitive in the marketplace.

• 43% of them are not aware of using a marketing research system.

• 27% of them are not taking advantage of the computerized decision system to

increase marketing efficiency.

Based on the previous discussion, the researcher concludes that:

1. Most companies lack awareness of using marketing information systems effectively.

2. Most employees lack knowledge of using marketing research system due to educational attainment.

3. The employees take advantage of computerized decision system due to their work environment.

4) Research Problem & Questions

Based on the Exploratory Research, the current research investigates How Marketing Information System could affect Sales growth and Market share in Tourism Companies in Mansoura City?

Based on the previous general question, current research is trying to answer the following questions:

Q1. Is there a significant positive relationship between Marketing information system and Sales Growth and Market Share?

Q2. Is there a significant positive effect of Marketing information system on Sales Growth and Market Share?

Q3. Are there significant differences between tourism companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables?

5) Research objectives

This study attempts to Present an overview of the components of MKIS as well as Decision Making and to explore the proper effect of marketing information systems; what managers do and what information they need for improving sales growth and market share and determining whether information systems will be valuable tools and how they should be designed. This study is cause and effect in nature and seeks to answer the following research question:

RO1. To identify the nature of relationship between the MKIS and Sales Growth and Market Share.

RO2. To measure the effect of MKIS on Sales Growth and Market Share.

RO3. To determine the nature of differences between tourism companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables.

6) Research hypotheses

The research develops three main hypotheses based on previous studies above to

answer the research questions. The hypotheses are developed as follows:

H01: There is a significant positive relationship between marketing information system and Sales Growth and Market Share.

a. There is a significant positive relationship between marketing information system and Sales Growth.

b. There is a significant positive relationship between marketing information system and Market Share.

H02: There is a significant positive effect of marketing information system on Sales Growth and Market Share.

, and this hypothesis is divided into sub-hypotheses:

a. There is a significant positive effect of marketing information system on Sales Growth.

b. There is a significant positive effect of marketing information system on Market Share.

H03: There are significant differences between employees of tourism companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables.

Based on the foregoing, the researcher reviewed the study variables and the

relationships between them. The proposed conceptual framework for the study can
be explained as follows:

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                          ┌──────────── H1 ────────────┐
                          │                            │
                          ▼                            ▼
┌─────────────────────────────┐        ┌─────────────────────────────┐
│   Independent Variable:      │        │   Dependent Variable:        │
│   Marketing Information       │── H2 ──▶│   Marketing Performance      │
│         System                │        │                             │
└─────────────────────────────┘        └─────────────────────────────┘

┌─────────────────────────────┐
│  Internal Record System       │                    ┌──────────────────┐
│                               │       H2.a          │   Sales Growth   │
│  Marketing Intelligence  System│                    └──────────────────┘
│                               │
│  Marketing Research System    │       H2.b          ┌──────────────────┐
│                               │                    │   Market Share   │
│  Marketing decision Support   │                    └──────────────────┘
│  System (MDSS)                │
└─────────────────────────────┘

     H3                                                    H3

            ┌─────────────────────────────────────────┐
            │        Demographic characteristics        │
            │  (company establishment, number of        │
            │  employees, employee's qualification,     │
            │  and years of experience)                 │
            └─────────────────────────────────────────┘
```
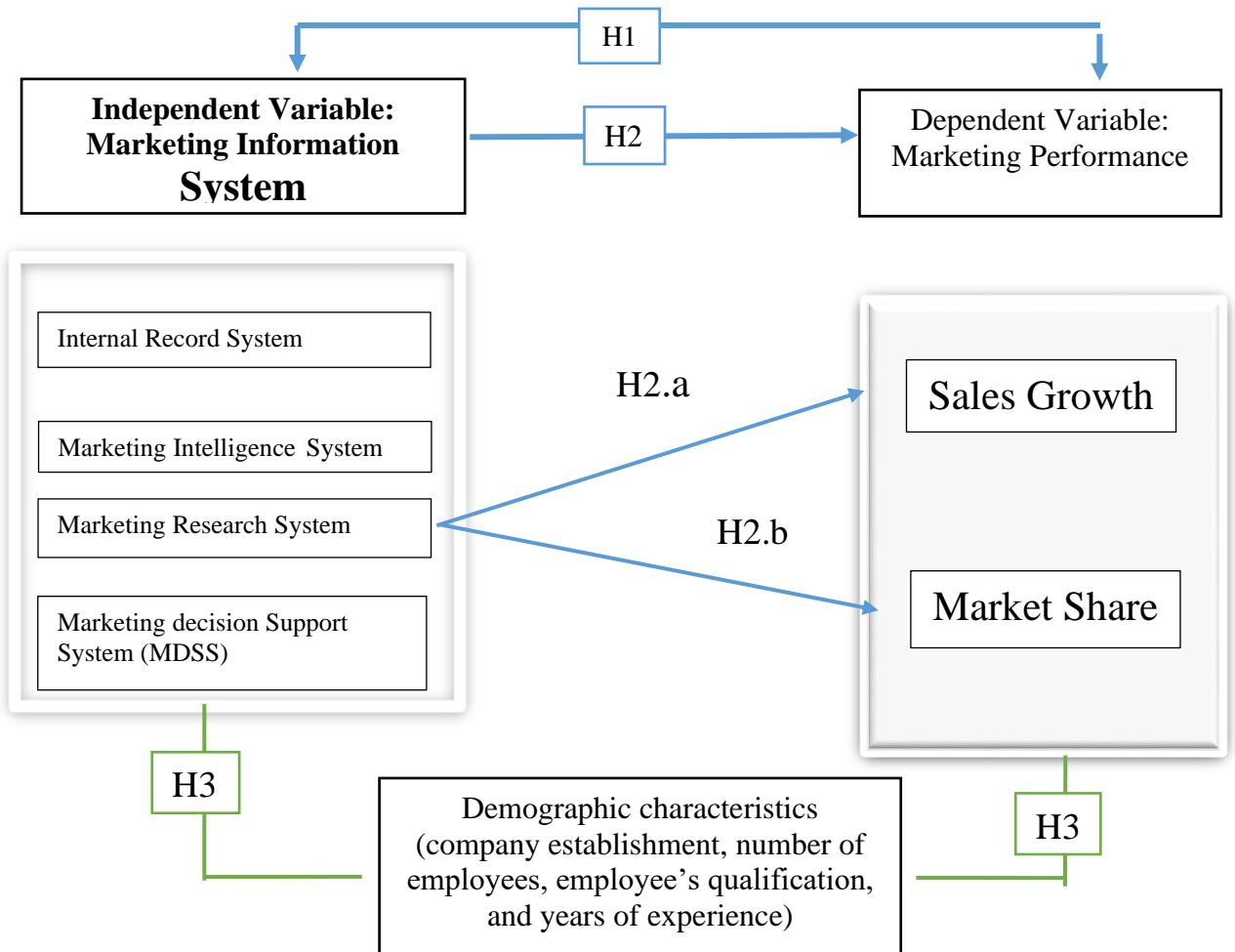
Figure 1. 1 Conceptual framework for the Relationships between research variables

Source: Prepared by the researcher according to the literature review

7) Research Significant

The development of science

1. In light of the marketing studies reviewed in the Arab Library that dealt with marketing information systems in the tourism sector, the researcher sees that there is still a need for more studies in general.

2. The scarcity of Arabic studies that linked marketing information systems and sales growth, and market share, especially in the tourism sector.

3. To the best of the researcher's knowledge, the current study is one of the first attempts to provide a literature review of marketing information system in the tourism sector in Egypt and its affect sales growth and market share.

4. The study is expected to make recommendations to tourism companies on the effect of marketing information system in doing their business in the area on sales growth and market share.

5. Studying the nature of the relationship between the components of marketing information system as a source of internal and external information and its impact on sales growth and market share.

Development of the application field

1. The importance of the study for companies and how to use marketing information systems to improve sales and market share.

2. The current study presents a suggested framework when applied to raise the level of efficiency and effectiveness of the marketing performance of tourism companies.

3. Employing and exploiting internal and external information through the marketing information system in improving an efficient and effective marketing

performance applied on tourism companies in Mansoura City to gain a competitive advantage and deal with markets efficiently.

8) Research Methodology

The research methodology used in this study ensured the appropriateness of its structure in

providing answers to research questions and testing research hypotheses. This study adopted a

research philosophy called post-positivism philosophy that embodies post-positivism thinking,

challenges the old-style perspective of the ultimate truth of knowledge and assumes that theoretical models can be developed to clarify cause-and-effect relationships. This philosophy requires the implementation of a deductive approach that requires the construction of hypotheses based on the appropriate theoretical framework that explains the relationships between marketing information system and marketing performance. A quantitative method is used to reach the research findings.

A research design is a strategy for answering your research question using empirical data, so the researcher used Descriptive and correlational to design the study.

For this study, the type of data required to obtain are Secondary data and Primary data and a questionnaire survey was selected as the data collection

 method considering the primary data. After determining the research method and data collection techniques, the time horizons of

the collected data are considered and the time horizon of this study adopted a cross-sectional study.

A questionnaire survey was utilized as a data collection tool. To select the items that represented the questionnaire questions. The study adopted the previous literature on the subject (Bahloul, 2011), (Al-Ghuwairi, 2022), (Al-Sbaq, 2018), (Kanaan, 2015).

A questionnaire design in this study adopted Closed-ended (multiple-choice/rating scale) questions, as respondents are instructed to select only one answer from a set of choices. Once again, a questionnaire was designed to be understood by all attendants, which is the main reason it was translated from English to the Arabic language. The questions or paragraphs are straightforward to avoid complexity and redundancy. The questionnaire is categorized into three main sections. Firstly, section one addresses marketing information system issues as an independent variable of the study. This section consists of 46 questions "closed-ended" using a five-point Likert scale, which is classified into four main parts and these parts represent dimensions of MKIS. The first part, namely the internal records system was measured via 10 items. The second part consists of 12 items that cover the second dimension, namely "marketing intelligence system". The third part consists of 13 items that cover the third dimension, namely the "marketing research system". The fourth part consists of 11 items that cover the fourth dimension, namely the "marketing decision support system". Secondly, section two addresses marketing performance issues as the dependent variable of the study. This section consists of 9 questions "closed-ended" using a five-point Likert scale, which is classified into five main parts and these parts represent dimensions of marketing performance. The

first part, consists of 4 items that cover the first dimension, namely "Sales growth". The second part consists 5 items that cover the third dimension, namely "market share". Finally, section three addresses obtaining general information about tourism companies and this section consists of 4 questions "multiple choice" about company establishment, number of employees, employee's qualification, and finally years of experience. the researcher considered (company establishment, number of employees, employee's qualification, and years of experience) as control variables. The first is the company establishment which is calculated as the range of operation years. The second is the number of employees which is measured by the company's employees number. The third is educational attainments. Finally, the fourth is years of experience of employees working at the company.

The targeted study population is the employees working in tourism companies operating in Mansoura City. The list related to the number of tourism companies showed that 32 companies are operating in Mansoura city. This list was obtained from the records of the Egyptian Travel Agents Association which includes the details about these companies such as location, phone numbers, and email, and the researcher relied on Google Maps to gather more information about these companies. Eventually (Kothari, 2004) recommended that before selecting a sample, a sampling unit should be determined by researchers which can be referred to as a person, city, village, product, or 'a thing' that is being researched. The sampling unit in the current study is the employees of tourism companies in Mansoura City.

For this study, the sampling frame is the number of tourism companies in Mansoura city. The list related to the number of tourism companies showed that 47 companies are operating in Mansoura city.

Therefore, according to (Saunders, Lewis, & Thornhill, 2009) considering a margin error equals 5% which is the percentage used in social research,

a confidence level of 95%, %, and the size of the society ranges between 150 and 200, this requires a sample size between 108 and 132.

Then, a pilot test was conducted with 30 employees of tourism companies. The results showed that correlation coefficients between each paragraph in one construct and the whole construct were above 0.70, reflecting high internal consistency.

As stated before, the researcher has a complete sample frame of tourism companies operating in Mansoura City which is obtained from the records of the Egyptian Travel Agents Association. This research adopted the random sampling technique to gather data from the targeted population.

Significantly, this research involved considerable procedures as follows. Questionnaires targeted the employees of tourism companies in Mansoura City. The researcher communicated with the employees of each company face to face to boost the response rate of the questionnaire. The researcher directed the questionnaire to 141 employees, only 122 of them were collected with a response of rate 86%, finally 113 questionnaires were statistically valid and free of missing data, while the other 9 were invalid.

9) Data analysis, results, and interpretation

9.1) Sample Description

A systematic sampling method has been adopted such that each entity has an equal chance of being involved in the sample. This section summarizes the sample's characteristics concerning company establishment, number of employees, employee's qualification, and years of experience. These characteristics are listed in Table (4.1).

According to Table (4.1), descriptive sample analysis was conducted on four demographic characteristics, these are company establishment and the number of

employees, employee's qualification, and years of experience. Firstly, company establishment resulted in 16.8% (19) of tourism

companies aged less than 5 years, 34.5% (39) of tourism companies aged from 5 to less than 10 years, and 48.7% (55) of tourism companies aged 10 years and more.

Secondly, in terms of number of employees, the highest proportion was from 1 to less than 50 employees with a percentage of 85% (96), followed by 15% (17) of tourism companies which have a workforce ranging from 50 to less than 100 employees, while the tourism companies which have workforce 100 employees or more was 0.0% (0).

Thirdly, according to the employee's qualification of the employees of tourism companies, 24.8% (28) of employees were less than undergraduate, 60.2% (68) of employees were collegiate, and 15% (17) of employees were postgraduate.

Lastly, years of experience in tourism companies employees, 24.8% (28) of employees had an experience less than 5 year, 33.6% (38) of employees had an experience from 5 to less than 10 years, 22.1% (25) of employees had an experience from 10 to less than 15 years, 19.5% (22) of employees had an experience more than 15 year.

Table (1) Sample Description (N = 113)

Characteristics	Frequency	Percentage	Cumulative%
Company Establishment			
Less than 5 years	19	16.8%	16.8%
5-less than 10 years	39	34.5%	51.3%
10 years and more	55	48.7%	100.0%
Total	**113**	**100%**	
Number of Employees			

Characteristics	Frequency	Percentage	Cumulative%
1-less than 50 employees	96	85.0%	85.0%
50-less than 100 employees	17	15.0%	100.0%
100 employees or more	0	0.0%	
Total	**113**	**100%**	
Employee's Qualification			
less than undergraduate	28	24.8%	24.8%
collegiate	68	60.2%	85.0%
Postgraduate	17	15.0%	100.0%
Total	**113**	**100%**	
Years of Experience			
Less than 5 years	28	24.8%	24.8%
5-less than 10 years	38	33.6%	58.4%
10-less than 15 years	25	22.1%	80.5%
15 years and more	22	19.5%	100.0%
Total	**113**	**100%**	

Source: Prepared by the researcher according to statistical analysis.

9.2) Descriptive Statistics

Descriptive statistics were provided demonstrating the values of skewness and kurtosis of each item in order to determine the normality of the examined data. Normality reflects the degree to which the data from the survey is distributed by normal distribution (Hair, Black, Babin, Anderson, & Tatham, 2010). The descriptive statistics for the study variables are shown in Table (4.2). This table includes the mean, standard deviation, skewness, and Kurtosis values for the items used to evaluate each variable.

Table (2) Descriptive Statistics for Each Item

Item code	Mean	St. Deviation	Skew-ness	Kurtosis
Marketing Information System				
Item code				
Internal Record System				
IRS_1	4.21	0.674	-0.638	0.761
IRS_2	3.87	0.792	-0.213	-0.503
IRS_3	3.91	0.950	-0.711	-0.014
IRS_4	4.39	0.590	-0.654	0.987
IRS_5	4.42	0.678	-1.117	1.431
IRS_6	3.92	0.775	-0.460	0.017
IRS_7	3.67	1.047	-0.351	-0.855
IRS_8	4.14	0.885	-0.912	0.216
IRS_9	4.15	0.750	-0.400	-0.705
IRS_10	4.07	0.745	-0.130	-1.178
All Items	**4.08**	**0.520**		
Marketing Intelligence System				
MIS_1	4.12	0.660	-0.449	0.112
MIS_2	4.30	0.655	-0.616	0.276
MIS_3	3.77	0.961	-0.646	0.080
MIS_4	4.47	0.655	-1.076	0.884
MIS_5	4.12	0.708	-0.335	-0.421
MIS_6	3.93	0.735	-0.314	-0.112
MIS_7	4.46	0.568	-0.472	-0.759
MIS_8	4.04	0.760	-0.199	-0.887
MIS_9	4.38	0.618	-0.489	-0.622
MIS_10	4.30	0.641	-0.386	-0.679
All Items	**4.20**	**0.418**		
Marketing Research System				
MRS_1	3.46	0.954	-0.292	-0.421
MRS_2	3.46	1.018	-0.355	-0.316
MRS_3	3.86	0.871	-0.232	-0.776
MRS_4	3.84	0.829	-0.170	-0.671
MRS_5	3.61	0.837	-0.015	-0.583
MRS_6	3.92	0.716	-0.192	-0.285
MRS_7	3.60	0.807	0.128	-0.549
MRS_8	4.00	0.829	-0.495	-0.330

MRS_9	3.68	0.815	-0.052	-0.540
MRS_10	3.61	0.805	0.072	-0.533
MRS_11	3.93	0.837	-0.160	-0.964
MRS_12	3.91	0.796	-0.162	-0.712
All Items	**3.74**	**0.637**		
MDSS_1	4.33	0527	0.136	-0.851
MDSS_2	3.56	0.885	-0.283	-0.251
MDSS_3	3.62	0.898	-0.319	-0.260
MDSS_4	3.96	0.812	-0.546	-0.030
MDSS_5	4.53	0.535	-0.517	-0.997
MDSS_6	4.10	0.711	-0.459	0.072
MDSS_7	4.20	0.643	-0.623	1.222
MDSS_8	3.93	0.759	-0.394	-0.055
MDSS_9	4.12	0.614	-0.311	0.623
MDSS_10	4.28	0.817	-1.116	1.110
MDSS_11	3.69	0.989	-0.654	0.324
All Items	**4.03**	**0.490**		
Independent Variable	**4.01**	**0.423**		
Marketing Performance				
Growth in Sales				
GIS_1	4.539	0.583	-0.845	-0.258
GIS_2	4.371	0.600	-0.623	0.860
GIS_3	4.247	0.807	-1.001	0.685
GIS_4	4.150	0.908	-1.032	0.425
All Items	**4.327**	**0.538**		
Market Share				
MKS_1	3.98	0.896	-0.798	0.442
MKS_2	4.24	0.701	-0.861	1.192
MKS_3	4.23	0.723	-0.830	0.832
MKS_4	4.35	0.706	-1.092	1.547
MKS_5	4.54	0.626	-1.517	3.175
All Items	**4.27**	**0.583**		
Dependent Variable	**4.25**	**0.518**		

Source: Prepared by the researcher according to statistical analysis.

The researcher conducted descriptive analysis on each item of questionnaire constructs, and table (2) clarifies as follows:

- The mean of all items of the internal record system dimension reached 4.08 and its standard deviation was 0.520, the mean of all items of the marketing intelligence system dimension reached 4.20 and its standard deviation was 0.418, the mean of all items of the marketing research system dimension reached 3.744 and its standard deviation was 0.637, the mean of all items of the marketing decision support system reached 4.03 and its standard deviation was 0.490, and finally the mean of independent variable " Marketing Information System" reached 4.01 and its standard deviation was 0.423, That is, the responses of the study sample ranged from "Agree to Strongly Agree" Which means that marketing information system ranked above average.

- The mean of all items of the profitability dimension reached 4.15 and its standard deviation was 0.610, the mean of all items of the growth in sales dimension reached 4.32 and its standard deviation was 0.583, the mean of all items of the market share dimension reached 4.27 and its standard deviation was 0.583, and finally the mean of dependent variable "Marketing Performance" reached 4.25 and its standard deviation was 0.518, That is, the responses of the study sample ranged from "Agree to Strongly Agree" Which means that marketing performance ranked above average.

- Normal data distribution can be accomplished when the absolute skewness values range from -2.49 to 2.33, and the values of kurtosis range from -1.92 to 7.41 (Blanca, Arnau, López-Montiel, Bono, & Bendayan, 2013).

Accordingly, based on Table (4.2), these two standards are fulfilled and the data are normally distributed.

9.3) Testing the relationship between marketing information system and sales growth and market share.

According to the table (3), it is clear that there is a significant positive relationship between marketing information system and sales growth (R = 0.656, P < 0.01) which is a moderate positive relationship. Additionally, there is a significant positive relationship between marketing information system and market share (R = 0.609, P < 0.01) which is a moderate positive relationship. Therefore, the H1 which represent the relationship between marketing information system and sales growth and market share were totally accepted.

Table (3) correlation coefficient matrix between marketing information system and sales growth and market share.

Correlations				
		Marketing information system	**Sales Growth**	**Market share**
Marketing information system	Pearson Correlation	1	.656**	.609**
	Sig. (2-tailed)		.000	.000
	N	113	113	113
Sales Growth	Pearson Correlation	.656**	1	.683**
	Sig. (2-tailed)	.000		.000
	N	113	113	113
Market share	Pearson Correlation	.609**	.683**	1
	Sig. (2-tailed)	.000	.000	

Correlations			
	Marketing information system	Sales Growth	Market share
N	113	113	113
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Prepared by the researcher according to statistical analysis.

9.4) Testing the effect of marketing information system on sales growth and market share.

According to Table (4), the results of the regression model demonstrated that there is a significant positive effect of marketing information system on sales growth for the employees of the tourism companies in Mansoura City, where ($R^2 = 0.430$, $P < 0.01$) which means the internal record system explains 43% of the variance in sales growth as the dependent variable. Additionally, there is a significant positive effect of marketing information system on market share for the employees of the tourism companies in Mansoura City, where ($R^2 = 0.371$, $P < 0.01$) which means marketing intelligence system explains 37.1% of the variance in market share as the dependent variable. Therefore, H2 which represent the effect of marketing information system on sales growth and market share were totally accepted.

Table (4) Linear regression of the effect of marketing information system on sales growth and market share.

Hypothesis	Model		Standardized Coefficients Beta	R square R2	Sig.	Hypothesis results
H2	H2.a	Sales Growth ———— Marketing Information System	0.656	0.430	0.000	Accepted
	H2.b	Market Share ———— Marketing Information System	0.609	0.371	0.000	Accepted

Source: Prepared by the researcher according to statistical analysis.

9.5) The differences between the research demographic characteristics toward the research variable.

This part reveals to test the differences between demographic characteristics in terms of "company establishment, number of employees, employee's qualification, years of experience") toward the research variable "marketing information system and marketing performance", and the researcher used Kruskal Wallis H to test the third main hypothesis and then used Mann Whitney U to identify which group that sig. refer to.

9.5.1) Kruskal Wallis H test

The researcher utilized Kruskal Wallis H test for identifying the differences among demographic characteristics toward research variables.

Table (5) Kruskal Wallis H test results for differences between the employees of tourism companies' respondents toward research variables.

Variables	Groups	N	Mean Rank	Kruskal Wallis H	df	Asymp. sig
Company Establishment						
Marketing Information System	Less than 5 years	19	32.26			
	5 – less than 10	39	51.79			
	More than 10 years	55	69.24	19.486	2	0.000
Marketing Performance	Less than 5 years	19	31.50			
	5 – less than 10	39	51.99			
	More than 10 years	55	69.36	20.276	2	0.000
Number of Employees						
Marketing Information System	1 - less than 50 employees	96	56.43			
	50 – less than 100 employees	17	60.21	0.192	1	0.662
	More than 100 employees	0	0			
Marketing Performance	1 - less than 50 employees	96	55.76			
	50 – less than 100 employees	17	64.00	0.914	1	0.339
	More than 100 employees	0	0			
Employee's Qualification						
	Less than	28	42.54			

Variables	Groups	N	Mean Rank	Kruskal Wallis H	df	Asymp. sig
Marketing Information System	undergraduate			13.135	2	0.001
	Collegiate	68	57.46			
	Post-graduate	17	79.00			
Marketing Performance	Less than undergraduate	28	38.11	18.757	2	0.000
	Colligate	68	58.74			
	Post-graduate	17	81.15			
Years of Experience						
Marketing Information System	Less than 5 years	28	29.46	32.226	3	0.000
	5 – less than 10 years	38	59.29			
	10 – less than 15 years	25	63.80			
	15 years and more	22	80.36			
Marketing Performance	Less than 5 years	28	27.52	34.939	3	0.000
	5 – less than 10 years	38	58.70			
	10 – less than 15 years	25	69.58			
	15 years and more	22	77.30			

Source: Prepared by the researcher according to statistical analysis.

Table (5), results in that there were significant statistical differences between the employees of tourism companies' respondents in terms of "company establishment, employee's qualification, and years of experience" toward marketing information system and marketing performance that represent "sales growth and market share". But there were insignificant statistical differences between the employees of tourism companies' respondents in terms of number of employees toward marketing information system and marketing performance that represent "sales growth and

market share", so the hypothesis was partially accepted.

9.5.2) Mann Whitney U test:

Table (6) Mann Whitney U test results of groups of company establishment, employee's qualification, and years of experience

Variables	Groups	N	Mean Rank	Mann Whitney U	Z	Sig.
Company Establishment						
Marketing Information System	Less than 5 years	19	19.16	174.000	- 4.312	0.000
	More than 10 years	55	43.84			
Marketing Performance	Less than 5 years	19	19.53	181.000	- 4.228	0.000
	More than 10 years	55	43.71			
Employee's Qualification						
Marketing Information System	Less than undergraduate	28	17.95	96.500	- 3.313	0.001
	Post-graduate	17	31.32			
Marketing Performance	Less than undergraduate	28	16.96	69.000	- 3.959	0.000
	Post-graduate	17	32.94			
Years of Experience						
Marketing Information System	Less than 5 years	28	23.11	241.000	- 3.776	0.000
	5 – less than 10 years	38	41.16			
Marketing Performance	Less than 5 years	28	22.77	231.500	- 3.901	0.000
	5 – less than 10 years	38	41.41			

Source: Prepared by the researcher according to statistical analysis.

According to the table (6), the company establishment results in Sig = 0.000, at α = 0.01 in the variables "marketing information system and marketing performance" refers to the groups "less than 5 years and more than 10 years", and the (Sig.) results in the table (6) consist with the results in the table (5). According to employee's qualification Sig. = 0.001, at α = 0.01 in the variable "marketing information system" refers to the groups "Less than undergraduate and Post-graduate", and the Sig. = 0.000, at α = 0.01 in the variable "marketing performance" refers to the groups "Less than undergraduate and Post-graduate", and the (Sig.) results in the table (6) consist with the results in the table (5). According to the years of experience Sig = 0.000, at α = 0.01 in the both variables "marketing information system and marketing performance" refers to the groups "less than 5 years and 5 – less than 10 years", and the Sig. results in the table (6) consist with the results in the table (5). Therefore, H3 can be partially accepted because there are significant statistical differences in only three demographic characteristics" company establishment, educational attainments, and years of experience" toward research variables, but in terms of number of employees, there is insignificant statistical differences toward research variables.

10) Findings and recommendations

10.1) Research Question Revisited

Table (7) shows the overall view of Research Questions, Objectives, Hypotheses, and Results of Testing hypotheses as follows:

Table (7) Research Questions, Objectives, Hypothesizes, and Results

No.	Research Questions	Research Objectives	Research Hypotheses	Hypothesis Testing Results
1	**Q1.** Is there a significant positive relationship between the dimensions of Marketing information system and sales growth and market share?	**RO1.** To identify the nature of relationship between the dimensions of MKIS and sales growth and market share.	**H1**: There is a significant positive relationship between the dimensions of marketing information system and sales growth and market share.	**Accepted**
2	**Q2.** Is there a significant positive effect of the Marketing information system on sales growth and market share?	**RO2.** To measure the effect of MKIS on sales growth and market share.	**H2**: There is a significant positive effect of marketing information system on sales growth and market share.	**Accepted**
3	**Q3.** Are there significant differences between tourism companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables?	**RO3.** To determine the nature of differences between tourism companies' perceptions in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables.	**H3**: There are significant differences between employees of tourism companies' respondents in terms of demographic characteristics (company establishment, employee's qualification, years of experience) toward the research variables.	**Partially Accepted**

Source: Prepared by the researcher according to literature review and statistical analysis.

10.2) Discussion

H1: There is a significant positive relationship between marketing information system and Sales Growth and Market Share.

The results of the study demonstrated that there is a significant positive relationship between the marketing information system and sales growth and market share. A marketing information system represents a structure, and interaction of people, machines, and procedures designed for a flow of pertinent information collected from intra and extra-firm and analyze, evaluate for use by marketing decision-makers to improve their marketing planning, execution, and control. Whereas the internal information can be adopted to evaluate the cash flow performance, growth in sales, and even more the customers' performance. The external information presented and projected by external intelligence contributes to enhancing market share and increasing profitability. Firms use marketing information system effectively and take advantage of the four components "internal record system, marketing intelligence system, marketing research system, and

marketing decision support system" to motivate firms to improve marketing performance of the product or service.

Similarly, in line with (Jamali, 2014), based on information technology, the use of marketing information system improved the marketing performance of pharmaceutical companies in Egypt and found there is a significant positive relationship between the extent of the use of information technology and marketing performance.

Moreover, the results of this study agreed with (Taha, 2018) who concluded that there are strong correlations between all components of the marketing information

system and the marketing performance of the employees. In addition, (Ismaeel, 2015) confirmed that there is a significant positive relationship between internal records, marketing intelligence, marketing research, and marketing information supporting systems, and both total market share and share of the served market. Marketing information system plays an essential duty in increasing the efficiency of the financial performance of the business in highly competitive markets by providing the needed information for the different administrative levels (Theodosiou & Beheshti, 2021). In addition, this study showed that the marketing research system had the strongest correlation with the marketing performance.

H2: There is a significant positive effect of marketing information system on Sales Growth and Market Share.

The results showed that there is a significant positive effect of marketing information system on sales growth and market share. This is consistent with other studies that indicate a significant positive effect on marketing performance. (Taha, 2018), found that effective marketing research and marketing intelligence also reflect positively on the marketing performance of the employees. (Sallami, 2021), concluded that there is a significant

impact of the marketing information system in developing the relationship with its customers by achieving their satisfaction and gaining their loyalty. The marketing information system is a management information system designed to support marketing decision-making, Marketing information system plays an essential duty in increasing the efficiency of financial performance to the business in highly competitive markets through providing the needed information for the different administrative levels (Theodosiou & Beheshti, 2021). A company with an effective and efficient marketing information system will develop competitive products that meet existing and potential buyers "expectations in the market than an organization

that does not have well organized and good marketing information system (Adeoti, Olawale, & Abolarinwa, 2017).

Likewise, the factors influencing the Marketing Information System (MKIS) such as CRM, Customer Satisfaction, and Sales Effectiveness are closely related to the marketing information system (MKIS), so it can be concluded that these factors can support the selling value to prospective buyers or customers (Rosalinda & Ali, 2023).

Moreover, Managers of marketing depend on internal reports connected to customer orders, sales, price levels, cost, services offered, etc. (Kotler & Keller, 2012), so The managers can identify problems and analyze customer performance by reviewing the internal record system. Marketing intelligence (MI) systems increasingly provide the data that drives both strategic and tactical decisions for enterprises (Fao., 2010), so managers can take advantage of intelligence system to improve market share and be competitive in the market. Marketing research is a proactive search for information to solve a perceived marketing problem (Malhotra, 2007). A marketing decision support system (MDSS) is an integrated set of computer tools allowing a decision-maker to interact directly with a computer to retrieve information useful in making semi-structured and

 unstructured decisions (Power, 2002). In general, companies that use marketing information system efficiently and effectively should be able to improve marketing performance to Pa high level.

H3: There are significant differences between employees of tourism companies' respondents in terms of demographic characteristics (company establishment, number of employees, employee's qualification, years of experience) toward the research variables.

The results confirmed that the majority of sample characteristics of tourism companies were significant regarding company establishment, employee's qualification, and years of experience. According to the company establishment, the results showed that the groups of both "less than 5 years, and more than 10 years" were significant statistical differences toward marketing information system and marketing performance, and the group "5 – less than 10 years" were insignificant statistical differences. And according to employee's qualification, the results showed that the groups of both "less than undergraduate, and post-graduate" were significant differences toward marketing information system and marketing performance, and the group "collegiate" were insignificant differences. And according to years of experience, the results showed that the groups of both "less than 5 years, and more than 15 years" were significant differences toward marketing information system and marketing performance, and the groups "5-less than 10 years, and 10-less than 15 years" were insignificant differences.

However, the results confirmed that there were insignificant differences in terms of the number of employees toward the marketing information system and marketing performance. The main reason that explains there were insignificant differences in terms of the number of employees toward the research variable is that the tourism companies in Mansoura City, 85% of tourism companies employees respondents agreed that there are tourism

companies with less than 50 employees and that is a large percentage compared to others groups, while 15% of respondents agreed that there are tourism companies with 50 – less than 100 employees, and companies that more than 100 employees are 0% respondents in Mansoura City.

10.2) Conclusion

This research investigated the effect of marketing information system on sales growth and market share. An applied study on tourism companies in Mansoura City from the point of view of their employees.

The results of the statistical analysis showed that:

1) The first main hypothesis which represents the relationship between marketing information system and sales growth and market share was totally accepted.
2) The second main hypothesis which represents the effect of marketing information system on sales growth and market share was totally accepted.
3) The third main hypothesis which represents the differences between the research demographic characteristics toward the research variable was partially accepted because there are significant statistical differences in only three demographic characteristics" company establishment, educational attainments, and years of experience" toward research variables, but in terms of number of employees, there is insignificant statistical differences toward research variables.

10.٣) Theoretical Implications

The current study adds to the corpus of knowledge found in the literature on marketing information system, and sales growth and market share. Additionally, the study attempted to fill a knowledge gap by the role of

marketing information system dimensions in improving marketing performance. *Firstly*, the research contributes to the understanding of the components of marketing information system and investigated its effect on sales growth and market share.

Secondly, the research contributes to understanding the relationship between marketing information system, and sales growth and market share. The study concluded that Firms use marketing information system effectively and take advantage of the four components "internal record system, marketing intelligence system, marketing research system, and marketing decision support system" to motivate firms to improve marketing performance of the product or service.

. This is what was concluded in this study that there was a significant positive relationship between marketing information system, and sales growth and market share.

Thirdly, the current research provides a more in-depth review of marketing performance and clarified all the indicators can be used to measure the marketing activities and performance.

Finally, the research examines the effect of marketing information system on sales growth and market share. The study concluded that the marketing information system helps the tourism companies to increase market share in the market place and maximize sales.

Due to the importance of the MkIS, the future research can be carried on:

1. The relationship between marketing information system and risk management.

2. Role of marketing information system in supply chain management.

3. The effect of marketing information system on customer engagement in the telecommunication mobile phone sector.

4. The effect of marketing information system on new product development.

5. Development of a marketing information system in the online marketplace.

10.4) Practical Implications

By reviewing earlier investigations found a shortage of studies addressing the relationship between marketing information system, and sales growth and market share. The current study was developed to investigate this relationship in tourism companies. The study concentrated on this subject to learn more about how marketing information system could affect on sales growth and market share. According to literature review, these links have not previously been examined in as much detail, and the application sector also needs more research.

The implications of the findings are that tourism companies can significantly improve sales growth and market share by applying marketing information system components such as internal records system, marketing intelligence system, marketing research system, and marketing decision support system. Concerning the internal record system, tourism companies in Mansoura City should explore their internal database, customer performance, purchase and sales reports, and the accuracy of internal information to gain insight into how best to maximize sales by improving service quality and open new markets, and better positioning in the marketplace to increase market share. To harness the potential of marketing

intelligence system to improve marketing performance, tourism companies should monitor competitors' activities, and seek information from their partners, industry reports, and customers' feedback to understand how best to improve and maximize market share, which allow companies to implement better strategy of market positioning and market focus, maximize sales, and even more attracting new customers. Marketing research system such as consumer behavior research, market evaluation research, and service development research should be carried out periodically to identify effective and efficient innovative ways to deliver the company's services to customers capable of satisfying their needs and requirements. On the other hand, the implementation of the marketing research system in effective and efficient ways allows tourism companies to produce services with high quality, helps companies to stand on new opportunities such as entering a new market, and the diversity in services. Finally, a marketing decision support system such as GE Mckinsey matrix analysis, identify problems and decision-making process by using computerized programs should be carried out to identify the marketing strengths and weakness of the company, help tourism companies seize opportunities and avoid threats, analyze the information from computerized decision support programs in the decision-making process, and identify marketing problems. So, all of these procedures are efficient in reducing "effort, time, and cost", and improve the efficiency of marketing performance.

Based on the results of the current research, researcher summarized the practical recommendations in Table (7) as follows:

Table (7) Recommendations and Implementation Mechanism

Practical Recommendations	Implementation mechanism	
The company has to build a comprehensive marketing database, rather than filesystem.	Who?	Marketing & Sales Department cooperate with IT developer expert.
	How?	• Create a web form on your company website where customers can enter their information and complete the signup process. • Use automated lead capture software to track customer interactions and capture contact details. • Collect data from existing sales or customer records to create a more detailed database. • Utilize social media to target potential customers and gather their contact information. • Implement a customer loyalty program where customers are rewarded for sharing their details with you.
	Software.	1) Zendesk. 2) Salesforce. 3) Monday CRM. 4) Zoho CRM. 5) HubSpot CRM.
	Cost.	It has a comparatively higher cost than a filesystem (kapilsparshi, 2023).
The company has to rely on other sources of information than internal sources for the marketing intelligence	Who?	Marketing & Sales Department.
	How?	On the same scale as internal sources, also rely on external sources to gathering data from client meetings,

Practical Recommendations		Implementation mechanism
system.		dealers/distributors, customers, business associates, market research projects, suppliers, online services, periodicals and government publications.
	Where?	Outside the company "External Stakeholders"
	Cost.	External sources higher cost than internal sources in "time and effort", but the internal sources were compared on the same scale of important as external sources (Lackman, Saban, & Lanasa, 2020).
The company has to track competitors' moves using a marketing intelligence system.	Who?	Marketing & Sales Department.
	How?	By use AI "artificial intelligence" website to track the competitors, such as "watchingcompetitor.com website"
	Cost.	The AI is lower cost than traditional ways (Thormundsson, 2023).
	Important.	in 2022, the global total corporate investment in artificial intelligence (AI) reached almost 92 billion U.S. dollars (Thormundsson, 2023).
The company should work on a marketing research system effectively.	Who?	Research & Planning Department.
	How?	By increase the located budget in the research and planning development.
	Cost?	It cost time, effort, and finances to complete, so it makes sense to spend these resources only if you're going to get a positive return (Cint, 2022).
The company has to rely on	Who?	Marketing & Sales Department.

Practical Recommendations		Implementation mechanism
marketing decision support system for decision-making.	How?	By analyzing internal and external information using computerized analysis programs, ERP dashboard, SWOT Analysis, and McKinsey's GE Matrix Analysis.
	Cost.	It can help companies to save money by preventing failures and put them towards a better cause (Amalia & Alita, 2023)

Source: Prepared by the researcher depending on the research conclusion and previous studies.

10.5) Research Limitations

This research has some limitations which researcher list it as follows:

People: Results are limited to employees of tourism companies in Mansoura City.

Place: Results are limited to tourism companies in Mansoura City.

Time: Results are limited to the cross-sectional period in when questionnaire was shared to employees of tourism companies in Mansoura City during the period from May 2023 to August 2023

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Appendix (1)

The Measurement Items of the study & the demographic characteristics

Internal Record System
1. Your company has multiple internal marketing databases.
2. Your company has a comprehensive internal marketing database.
3. The internal records of the company provide important information on the performance of customers.
4. The internal records of the company provide important information on sales.
5. The internal records of the company provide important information on purchases.
6. The marketing information in the company's internal records is considered accurate enough
7. The company maintains all the information received from (the Intelligence and Market Research) in the internal records.
8. The company is constantly updating internal records.
9. The company depends on internal records to identify problems.
10. The computerized internal reports of the company affect the marketing performance.
Marketing Research System
11. The company benefits from marketing intelligence techniques in knowledge and keeping abreast of the ongoing marketing of emerging circumstances.
12. The company uses marketing intelligence regularly in gathering information about competitors.
13. The company's customers offer useful information about the market.
14. The company relies on internal sources of information (managers, consultants, sales representatives, delegates of purchase).
15. Marketing intelligence in the company is considered a vital resource to understand the nature of the market requirements.
16. Marketing intelligence in the company Provides sufficient and useful information about the customers.
17. Marketing intelligence in the company helps in obtaining the necessary information services.
18. Marketing intelligence in the company helps in early warning of (threats and opportunities).
19. Marketing intelligence effectiveness in the company is positively reflected in the marketing performance of the staff of the institution.
20. The resulting information on the marketing intelligence at the company contributes to improving marketing performance.

Marketing Research System
21. The budget allocated to the marketing research department in the company is sufficient to perform the work efficiently.
22. The company periodically and regularly works in the field of marketing research.
23. The company management performs continuous improvement on the research plan.
24. The company relies on primary to prepare its marketing research.
25. The company uses published secondary data in preparing its marketing research.
26. The company's marketing research contributes to solving problems and providing adequate solutions.
27. Marketing research in the company helps in assessing the current market accurately.
28. Marketing research in the company helps in understanding consumer behavior.
29. Marketing research in the company helps to improve sales.
30. Marketing research in the company helps to improve profitability.
31. Marketing research in the company contributes to standing on new opportunities.
32. The marketing research recommendations contribute to improving marketing performance.
Marketing Decision Support System
33. Computer programs used by the company provide useful information used to achieve marketing objectives efficiently.
34. Computer programs used by the company can predict the changes that may occur to the marketing performance of the company.
35. Computer programs used by the company describe the consequences of a change in marketing variables.
36. Computer programs used by the company can identify marketing problems.
37. The computer programs used by the company are efficient in reducing (effort, time, and cost).
38. Computer programs used by the company measure the effectiveness of marketing activities.
39. Computer programs used by the company determine the size of the customer influencing the company sales.
40. Computer programs used by the company help to seize (opportunities and avoid threats).
41. Computer programs used by the company can identify the marketing strengths and weaknesses of the company.
42. The training courses held by the company to use computer programs improve the efficiency of marketing performance.
43. The company relies on analyzing information resulting from computerized decision-support programs in the decision-making process.

Sales Growth
44. The quality of service the company provides contributes to an increase in sales volume.
45. The company achieves an annual increase in sales volume in the market.
46. The company is keen to open new markets to increase sales volume.
47. The company contributes to the diversification of its services to increase the volume of sales.
Market Share
48. The company has a good market share.
49. There is a marked rise in the company's annual sales rate.
50. There is an increase in the number of potential customers.
51. There is an increase in the number of current customers that the company deals with.
52. The company focuses on tourism services that provide opportunities for growth in market share.

44. **Company Establishment**

☐Less than 5 years   ☐5−less than 10 years   ☐10 years and more

45. **Number of Employees**

☐1−less than 50 employees   ☐50−less than 100 employees   ☐100 employees or more

46. **Employee's Qualification**

☐ less than undergraduate   ☐ collegiate   ☐ Postgraduate

47. **Years of Experience**