



## ASSESSMENT OF APPLYING MANAGEMENT INFORMATION SYSTEMS IN SIRTE OIL AND GAS PRODUCTION COMPANY

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### ABSTRACT

This study aims to know the extent of applying management information systems production and processing of oil and gas companies in Sirte and society. The sample consisted study of 50 staff management from the financial affairs of the company, employees. The questionnaire instrument was used to collect the data.

The finding revealed that 94% of the respondents confirmed their conviction of the importance of management information systems in the company. The respondents also confirmed that information obtained from the reality of applying management information systems in the company lacks accurate statistics.

## 1. Introduction

As a result of technological developments and globalisation, information systems have become a wide position of importance in all fields, especially in administrative areas. The emergence of the global economy and the shift in the industrialised economies and the transformations that accompanied the business management projects, and the emergence of the term digital partnership all made information systems management essential in the business daily contemporary (Alzain 2018). The information system is a major supplier of the organisation's resources and a source of important sources of success and is also considered a factor that increases the efficiency and effectiveness of the various administrative activities. Management information systems are especially important in organisations, which helps organisations carry out their functions successfully and in high efficiency (Assan et al. 2018). the importance of the information is to recognise the real practised role; modern scientific view sees information as motivations for movement in the administrative organisation. So, there is no doubt developing and building good information systems has a direct relationship to the growth and development of work in the organisation. The main reason for this is that organisations' need to produce information has become an integral part of the management fabric and an essential resource that they rely on to support the administrative process (Barceló and Cooper 2018).

Thus, management information systems in organisations are a key factor in modern management. As a result of the expansion of organisations activity and dependency on information systems to conduct their work, it cannot be the director of any administrative activity in a successful organisation without information from inside and outside the organisation environment (Barceló and Cooper 2018). since the application and practice of information systems efficiently require the availability of important components in the organisation and its workers, this study came to deal with one of the most important systems supporting the administrative process, which is the management information systems, which provide information on which the administrative work depends completely (Bawaneh 2018). This study's progress problem revolves around the reality of the application of management information systems proper form and reliability in the performance of tasks in the company of production and manufacture of oil and gas Brega in Sirte. The study intends to reach to identify attributes and features of management information systems applied to achieve the organisation's goals (Bin Ismail 2018)

## 2. Literature Review

### 2.1 The Management information system

is a set of interconnected components and standard procedures that work together to collect, operate, store, distribute, publish and retrieve the information needed by the organisation to support decision-making, cooperation, analysis, visualisation and control within the organisation (Hertin and Al-Sanjary 2018). The objective of management information systems helps in linking the many goals that exist in the organisation and directing them all towards achieving the overall general goals. It also helps link the many subsystems together into an integrated entity that coordinates data flows and provides correct and appropriate information to those who request it (Gupta, Raychaudhuri and Halder 2018). Further, it facilitates decision-making processes of all types and levels by providing selected and appropriate information in the

correct form and timing to assist in determining the course of performance and action. Providing the appropriate elements of information for follow-up, control and performance measurement includes the following (Haak-Saheem and Festing 2018):

1. The information on current operations and practices matches the plans, policies and standards specified before.
2. It measures the information that shows the effectiveness and efficiency of each major activity by the extent of its contribution to the achievement of the general objectives of the organisation.
3. It links data on the contributions of individuals in the exercise of tasks and responsibilities through the achievement of goals.
4. It identifies information on ongoing activities in terms of the current implementation rates and future expectations.
5. It ensures the timeliness and accuracy of the information -
6. It prevents duplication of data and procedures and the exclusion of non - essential ones.

From the preceding, it is clear that the main goal of the information system that may exist in any organisation is to provide all users and beneficiaries of it with the necessary information that they need in their lives to develop their perceptions and knowledge, refine their reasonable practice, and provide them with directions and experiences that contribute to achieving the goals they seek (Han et al. 2018).

## *2.2 Factors Affecting the Development of Information Systems:*

### *1- The emergence of the information revolution:*

We live in an era of information explosion, and this revolution is expressed by the continuous growth in information technology and communication networks and the transformation of the world into a small village where information flows through the Internet, transcending geographical boundaries and place restrictions, and one of the results of these transformations was the emerging knowledge economy and knowledge society where Pick the keys to the power of the raw material to the information, and the machine to knowledge (Zaidin, Diah and Yee 2018).

### *2. Technological Internet and networks:*

The Internet is the biggest advance in technology since the invention of the printing machine 500 years ago, which led to the emergence of new business models such as electronic commerce or business of the electronic as well as the emergence of the concept of digital companies, where the Internet has contributed to improving the quality of service and reduce the cost of performance, which prompted companies to rethink how they managed their realisation (Zhang et al. 2018).

### *3. The emergence of business models:*

technology produced information models were not previously known at the activity and structures of every model of the previously dominant traditional business models. The work is now being restructured, and sometimes being dismantled is usually reconfigured and re-engineered. The Internet and digital networks represent the most important technological means to create and develop new business models. These business models are a major factor in developing management information systems (Abdullah et al. 2019).

### *4. The acceleration of quantitative changes qualitatively and in the business environment:*

we live in a changing world in all its aspects and manifestations and accelerating change in this world to the extent that the borders fade interval of time and place, and fade between what is old and what is new, this variability appears clearly in the changing technological, economic and social infrastructure in the world (Ahmad et al. 2019), in light of these changes in e n the essence of competition and competitive advantage lies in the value of the necessary information that is produced vital information system Matt management in the world of competition and development, and e n the value of information no longer enough alone as you need a combination of elements and Mack Nat to produce other value-added is knowledge, knowledge is necessary, and the presence of information systems and died in business organisations is an expression of awareness of this necessity (Abdullah Shafiu 2019).

### *5. Globalisation:*

illustrated the phenomenon of globalisation in later economic through the emergence of global companies and the growing influence of multinationals and increased integration befallen in economies of the developed world , and if we take the phenomenon of global companies will find it heading to the world as one market and working in the light of cosmic strategies include manufacturing , marketing, finance, and these companies use global information systems through the Internet to manage and direct the distribution of their products and services , so it can be said that the biggest manifestations of globalisation in such organisations is the use of global information systems that international companies use to manage their operations all over the world , what you need wit organisations money is to deal with the realities of the market and the rules of competition and participation in the game business, but after armament information systems and technological communications (Albassam 2019).

### 2.3 Challenges Facing Information Systems

- I. Lack of human resources: One of the problems facing information systems is the lack of human resources necessary to implement the objectives and standards of the information systems in the company (Aldiab et al. 2019).
- II. The lack of communication: the absence of information from managers on how to cooperate with the competent team to design information systems is one of the biggest problems facing different companies and institutions.
- III. Sharing and communication between specialised information and system users: Users find it difficult to transfer information to the lack of state technology. The information system must be transported in technology to be a clearer picture of the professional IT.
- IV. Lack of learning and culture: one of the largest problems faced by companies is the lack of learning lead some staff and culture, may reflect negatively on their performance and the results of their work, and thus will affect to realise the return on the company level Z efficiency E productions, it may be a lack of learning caused by the surrounding environment or the nature of thinking for the employee and other factors affecting.
- V. Adapt to variables: the system can adapt to the changes that occur in the organisation or on some of the system's characteristics.
- VI. Easy to use: is the system and its outputs capable use is easy and complicated for users.
- VII. Lack of specialised consultants for designing information systems and their requirements for different software.

Where he proved a lot of international experience and reality, companies and institutions that these things are the most important causes of the problems of information systems, design of the wrong system will inevitably lead the Z organisation's failure to develop its work and e productions and achieve its objectives, and thus failing in the business arena or marketing The information can be provided efficiently. Speed and sufficient accuracy make them useful and perhaps sometimes not can be obtained Z information or is obtained. You n way r game execution cannot be understood or used for tasks performed (Aneja 2019). It Is any information system at the beginning of the mandate of a failed organisation if its design is not compatible came up with the goal and the work and how to design and build the organisation as a whole, and whatever systems stand - alone well - known and successful for some organisations, but it is a failure if used in the same organisation's goals and different nature, what is important is an appropriate system design to actual needs And the nature of the composition and structure of the organisation concerned, as mentioned (Elghaish and Abrishami 2020).

It is the most important specifications of the success of the design of any system of what its suitability to needs and use of consumers and ultimate beneficiaries, for example, if the screen is used to retrieve designed data incomplete manner or complex to use or to identify to required amounts of data is a failed screen, and linked to this paragraph with the data, the higher the data provided by the system is correct, comprehensive and accurate design whenever the system is successful. The opposite is true (Galabova and Daskalova 2020).

### 3. Methodology

This exploratory study was carried out according to the descriptive and analytical approach(Saeed, Bekhet and Dhar 2017); (Saeed, and Bekhet 2018). . The researcher seeks to collect data and information efficiently, organise and analyse them to reach and interpret results, and draw appropriate instructions and conclusions. The study consists of a population of the company in Sirte to produce the jump and gas-Brega. By selecting the financial company, 50 questionnaire forms have been distributed to study management, community, personnel, and financial management. Forty-five (45) questionnaires were compiled, which amounted to losses of the five (5) forms of the total questionnaires distributed to respondents. The study aimed to collect scientific material from books, periodicals, interviews, scientific records, statistics, official reports available and the relevant subject of the study, and formation under the theoretical appropriate. The aim was to compile data preliminary about the study. The compiled data can be used for many of the tools. Thus, the most important form of questionnaire as a tool the key is to compile data. Care has been taken to protect against personal information during the data collection process to help answer the inquiries to clarify any ambiguity while filling in the questionnaire forms. Then it will address this aspect also analysis of the data collected through the form questionnaire using the statistical program packages (SPSS).

### 4. Findings

In this aspect of the study, the distribution of 50 form questionnaires on the study population, including all staff and financial management by the organisation under study. This was done to determine the number depending on the structure of the organisation under study. The director of administration and finance is touched. Most of the questionnaires mobilised through personal interviews were all the respondents' views. With members of the study (respondents), the number of questionnaires recovered has reached 45 or 90%. After references, they turned out to be valid and prepared for statistical analysis. The following is a description of the characteristics of the members of the study population contained within the first section. This segment represents the distribution of questionnaires of the study, specifically on specialisation, academic qualification, experience, courses, and training.

Table 1: Respondent's position

Position	Frequency	%
Director of Management	1	2%
Head of the Department	9	20%
Unit head	1	2%
Office head	1	2%
Employee	33	74%
Total	45	100%

Table 2 indicates 26% of respondents holding managerial executive positions and ratios of 74% staff, which enhances the reliability of the data and information collected. As shown in table 3, 96% of respondents occupy positions of qualifications (higher installed university), which is higher, and 4% of respondents occupy general qualifications (secondary level) in proportion. 96% is considered a high percentage and may be sufficient to give positive indications on the research questions.

Table 2: Respondent's qualification

Specialisation	Frequency	%
Academic	39	87 %
University degree	4	9 %
Secondary	2	4 %
Less than secondary	-	-
Total	45	100%

As shown in table 3, 78% of respondents said to have worked with the company ranging from 5 years to more. This indicates sufficient experience, which gives a good impression on the respondents' ability to show their opinions.

Table 3: Respondents Experience

Experience	Frequency	%
Less than 5 years	10	22%
From 5 years to less than 10 years	20	44%
From 10 years to less than 15 years	6	13%
From 15 years to less than 20 years	6	13%
From 20 years and over	3	8%
Total	45	100%

As noted from table 4, 94% of respondents said to have specialised in accounting, which is high in proportion and has given positive indications as to the specialisation of the importance of the goals of the research service.

Table 4: Respondents scientific specialisation

Specialisation	Frequency	%
E. Management	1	2%
Accounting	42	94%
Economy	1	2%
without specialization	1	2%
Total	45	100%

As shown from the descriptive statistics (table 5), it has been noted that only 33% of the respondents said to have received training courses in information technology, a key issue in management information systems research. In contrast, 67% of the respondent have not received training courses. An average ratio has not given positive indications as to the specialisation of the importance of the goals of the research service. It can be seen from the table that 78% of the views of respondents were Yes concerning the special department for management information systems and 22% of the respondent's views were No. This indicates that part of personnel management does not know about the department technology for the company's management information systems, which in turn indicates the administration's failure in the process of integrating its employees with management information systems.

In terms of obtaining information, 94% of the respondents' answers were Yes, which is high, while 6% of their answers were No, which is very low in proportion. This high ratio indicates perhaps e - free information from details and accuracy. Further, as shown in table 5, 94% of the respondent's views were Yes, for the company's importance of management information systems, a high proportion. This ratio is a good sign of the company. It would show the possibility of staff cooperation if the administration sought seriously Activating the role of management information systems. As shown in

table 5, 71% of the respondents' views were proportional, Yes, and 29% of the respondents' views were No for modern devices and management information systems used to the traditional method of the company. The ratio of 71 % is somewhat high; they are still using traditional means. Further, the descriptive statistics show that 45% of respondents' answers were Yes for budget allocations by the company, and 55 % of the respondents' views were No, which is high in proportion in terms of budget allocation. This is an indication of the lack of interest in the company from the financing side. This shows the reason why employees do not develop and remain in the traditional position. Table 5 also shows that 73% of respondents answered Yes to using the Internet to develop techniques, which is a high proportion, and 27% of respondents answered No. This is perhaps an indication of a lack of related jobs management information systems. As shown in the table, 87% of respondents answered Yes for information networks, which is high in proportion, whereas 13% said No. The high index indicates the majority of employees use the network. In terms of threat to their job, respondents were asked about information system technology, and 55% of respondent's answers were Yes, whereas 45% of respondent's answers were No, in terms of proportion. A ratio close somewhat indicates a lack of risk on the jobs.

In terms of the adoption of modern technology, 89% of respondent's answers were Yes, which is high in terms of proportion, and only 11% of respondent's answers were No. This indicates that this percentage provides knowledge of the effect of information technology and its effectiveness on company performance. As shown in the table, 60% of respondents answers of their views of coordination in exchange technology were Yes in terms of proportion, and 40% of respondent's answers were No. This indicates that perhaps deficiencies in the company's senior policies. As shown in the table, 89% of respondents answered Yes, for increasing communication, and 11% of respondents answered No, offering solid support on the effectiveness of the company's information systems. It can be seen from the table that 64 % of respondent's answers were Yes, and 36 % of respondent's answers were No, for information applications to provide financial management. This indicates that there are some deficiencies in the adequacy of informatics applications. The table shows that 78% of the respondent's views were Yes, and 22% of respondent's answers were No, for the nature of work in the financial department. This is a clear indication that the company uses devices that fit the nature of the work. Furthermore, as shown from the table, 55% of the respondents' answers were No, and 45% were Yes for using the computer. This is a clear indicator of the lack of the company's eagerness to update the hardware. As can be seen from the table, 71% of respondent's answers were Yes, whereas 29% of their answers were No, which is a relatively average ratio in terms of varying safety devices.

Table 5: Descriptive statistics

Statements	Frequency	%
Have you taken training courses in information systems?		
Yes	27	33%
No	18	67%
Total	45	100%
Does the company have a special department for management information systems technology?		
Yes	35	78%
No	10	22%
Total	45	100%
Is the information obtained in the form of general statistics?		
Yes	42	94%
No	3	6%
Total	45	100%
Are management information systems important to the company?		
Yes	42	94%
No	3	6%
Total	45	100%
Are modern devices and management information systems used in addition to the traditional methods of the company?		
Yes	32	71%
No	13	29%
Total	45	100%
Is there a budget allocated in the field of management information systems?		
Yes	20	45%
No	25	55%
Total	45	100%
Do you use the Internet to develop techniques for financial management functions?		
Yes	33	73%
No	12	27%
Total	45	100%

Is there an information network that provides business needs in the company?		
Yes	39	87%
No	6	13%
Total	45	100%
Is Information Systems Technology a Threat to Your Job?		
Yes	25	55%
No	20	45%
Total	45	100%
Does the adoption of modern technology for management information systems positively affect the company's performance?		
Yes	40	89%
No	5	11%
Total	45	100%
Is there coordination in exchanging information between the different units in the company?		
Yes	27	60%
No	18	40%
Total	45	100%
Did the use of management information systems to increase communication between the? g j p company employees		
Yes	40	89%
No	5	11%
Total	45	100%
Do you think that information applications are sufficient to provide the financial management staff with an information about the company?		
Yes	29	64%
No	16	36%
Total	45	100%
Are the devices currently used commensurate with the nature of work in the financial department?		
Yes	35	78%
No	8	22%
Total	45	100%
Are the computers in use today modern?		
Yes	20	45%
No	25	55%
Total	45	100%
Are devices currently used on a large degree of the security of information systems company?		
Yes	32	71%
No	13	29%
Total	45	100%

## 5. Conclusion

A rate of 94% of the respondents confirmed their conviction of the importance of management information systems in the company. That accounted for (94 %) of respondents who confirmed that information obtained from the reality of the application of management information systems in the company is a general lack of statistics for details and accuracy. Deficiencies in preparing training programs for employees related to the concept of the information management system and its importance. Even though there is the conviction of staff of the importance of management information systems but (71%) of them are still using traditional methods followed by the company. Lack of coordination between the various units of the company and failure to update the devices used. The organisation under study should be interested in preparing training programs for modern management information systems. The need for the organisation under study to allocate funds in the company's general budget for the development and modernisation of the company's management information systems. The need for the organisation under study to pay attention to clarifying its policies by focusing on coordination between the company's various units concerning management information systems. The company should be interested in updating and developing the devices used by it.

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