

The Relationship between the Management Information System and the Administrative Empowerment (A field study on the Jordanian banking sector)

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Abstract

The study aim to identify the impact of the management information system (MIS) on the administrative empowerment. It turns out that there is an impact of this system with all its components comprising the administrative empowerment which are (authority authorization, work teams, training, effective communication, and workers' motivation). The study was conducted on the Jordanian banking sector and the sample consisted of (425) workers in the banks. The study recommended that there is a need to attend to the management information system, push the powers to lower levels, and support workers to take decisions and encourage them to share their experiences.

Keywords: the Management Information System, administrative empowerment

Introduction

Empowerment occupies a great importance in the contemporary organizations which operate in an unstable environment that is characterized by a high degree of complexity, which means difficulty in achieving goals, which led that business organizations and the Jordanian banks in particular possess high flexibility to cope with these developments. Flexibility is considered the most important and obvious feature of empowerment and the acceleration in the environmental changes imposed on the banks of Jordan to possess an information system that is able to environmental monitoring, processing massive data and providing information that encourages banks morally and materially towards achieving changes and making the changes necessary for the success of the process of empowerment.

Research Problem

Change is a characteristic of the environment in which business organizations currently operate. Because of the opening up of markets towards each other and the increase of the intensity of competition in the market in which the Jordanian banks operate, the managements of such organizations operate in all seriousness to prove their ability to survive through the development of the capabilities and potential of its human resources in particular and their organizational resources in general. This cannot be achieved without the adoption of modern management techniques. Among these methods is the empowerment of workers. Information is an essential pillar in the process of empowerment since the acquisition, dissemination and use of information lead to achieving good performance because of cohesion and unity of vision, which is achieved through empowerment; therefore , the information system has a key role in the process of empowerment and based on the above, we can shape the problem dimensions through the following questions:

1. What is the availability of the elements of empowerment in the Jordanian banks?
2. Is there a relationship and an impact of the information system on the elements of empowerment?

The Research Importance

The importance of the research can be identified in the following points:

- 1 .the importance of the variables that are processed; the search examines two variables whose importance is not neglected in light of the highly competitive business environment .
2. The importance of the field of study (Jordanian banks) and its prominent role in the Jordanian economy .
3. Empowerment is considered a modern method of administrative organization , methods of work , the performance of tasks , decision-making , and the mechanism of the stimulation of workers .

Research Objectives

1. Defining the concept of administrative empowerment and its elements, as well as the management information system .
2. Analyzing and realizing the nature and strength of correlation between MIS and empowerment.
3. Seeking to achieve coherence between the theoretical reality and the applied one through theoretical principles and foundations as well as the use of developed standards for researchers .
4. getting access to the results of the reality of the Jordanian banking business and working on providing recommendations that serve this sector .

Research Hypothesis

The main hypothesis states that:

There is no statistically significant effect between the Management Information System (MIS) and the administrative empowerment in the Jordanian banks.

Here are the five sub- hypotheses that emerged from the main hypothesis:

1. There is no statistically significant effect between the Management Information System and authorization .
2. There is no statistically significant effect between the Management Information System and work teams.
3. There is no statistically significant effect between the Management Information System and training.
4. There is no statistically significant effect between the Management Information System and the effective communication.
5. There is no statistically significant effect between the Management Information System and motivation.

The community and the research sample

The research population consisted of the workers in the Jordanian banks. (500) employees working in the Jordanian banking system were targeted randomly; the number of the distributed questionnaires was not less than 25 for each bank; therefore, the number of the questionnaires distributed were (525) , and (438) questionnaires were retrieved; of which (425) were appropriate for analysis.

Search Tools

1. The theoretical framework: This framework has been completed based on a range of sources represented by books and research , which covered the research variables.
2. Field Framework: Data were collected from banks through adopting a questionnaire that had been prepared to take advantage of the previous studies.

I have been using a Likert scale. Each option was given a weight and the answers were given grades ranging between strongly agree (1-2-3-4-5) and strongly disagree with a mean of (3) .

3. Statistical departments: The research depended on the arithmetic mean and standard deviations of diagnosing the research variables , as well as the T-test` to measure the estimates of the observation regarding the availability of independent and dependent variables and the accuracy of the estimation.

Previous Studies

(Psoinos & smithson2002)

The study aimed to analyze the administrative empowerment among workers in the industrial companies in Britain through the influence of (decentralization in decision-making, information systems, the work environment and work teams); the study included a random sample of 500 employees working in the companies. It was found that following decentralization in decision-making and giving the wide powers for employees to act in solving the problems of work has led to employees' empowerment either intentionally or unintentionally.

(Janssen, 2004)

The study aimed to look at the conflict between the employees and supervisors, and its impact on the relationship between the administrative empowerment and the organizational loyalty. The researcher supposed that the conflict between supervisors and employees represented an impediment to the relationship between empowerment and organizational loyalty; the study included a random sample of (206) teachers of whom (91) work in High School in the Netherlands. It turns out that the conflict between the administrative levels hinders the application of the administrative empowerment among workers and negatively affects the organizational loyalty.

(Krishna, 2007)

The study aimed to identify the relationship between psychological empowerment and organizational commitment; it is a prospective study of a sample of 235 of workers in many software factories in India. It turns out that there is a positive relationship that is significant between the psychological empowerment and the standard commitment. The study suggested the need to pay attention to building a philosophy in employees' empowerment which is considered a criterion for the success of the organization.

(chang & liu, 2008)

The study sought to identify the impact of psychological empowerment, the organizational empowerment and the creative behaviour on the productivity of the job. The study was conducted on (576) nurses working in the public hospitals in Taiwan; the researchers found that the productivity of the job is affected by the dimensions of the job and the self-efficacy with the dimensions of the psychological empowerment; it is also affected by the creativity of workers .

(Faulkner & laschinger, 2008)

The study aimed to test the relationship between the psychological empowerment and the structural empowerment and their impact on the knowledge of nurses working in the hospitals for the factor of respect. The study included a random sample of (500) legal nurses working in the Canadian hospitals and it concluded that the psychological and structural factors of empowerment had a statistically significant impact on the feeling of self esteem by the respondents. Also, nurses who are empowered tend to feel respected in a large extent in the workplace.

(Joo & shim, 2010)

The study aimed to identify the impact of the psychological empowerment on achieving the organizational commitment as well as identify the intermediary role of the culture of organizational learning on that relationship; it is an exploratory study that included 249 employees working in the public sector for a number of Korean companies. It was evident that there is a great role for employees' empowerment to achieve organizational commitment; the study recommended the need to increase the level of interest in the field of empowerment. (Weietal, 2010)

The study sought to identify the impact of the psychological and organizational empowerment as well as the reciprocal leadership on the innovative behavior of employees; the study was conducted on (101) team works in one multinational telecom companies in China. It was found that there is a positive impact of the empowerment on the innovative behavior of employees, and there is a negative impact of the reciprocal leadership on the innovative behavior which turns into a positive impact in the case of the high level of empowerment.

Theoretical Framework**The Management Information System**

Information is the motor nerve of the systems and organizations of various kinds, so the Management Information System stems its importance from the information that represents a vital resource through which the organizations seek to survive, achieve goals and own a competitive advantage. The system has a pivotal role in linking the various parts of the organization with each other and achieving communication between workers. The role and importance of the management information system increased in the contemporary organizations because of the increasing size and complexity of organizations and the globalization with its challenges as well as the so-called digital organization.

the benefits mentioned by researchers in this regard are varied, most notably of which is that the MIS has an important role in enhancing competitiveness, helps achieve a balance between scarcity and abundance, provides new job opportunities and abolishes old ones, helps the economy by costs, and contributes to improving the decision-making process. Therefore, the importance of information is represented by two trends: the first supports responding to the pressures decided by the organizations in the external environment on the organization and the second is that the information systems are essential component of an organization that works to ensure the stability and balance of the organization.

The management system according to (Brien,2002,141,'O) consists of four components. The first is inputs, which include assembling components and parts together and preparing them to enter the system to address them; the second is operations, which include the necessary actions to transform inputs into outputs, where activities work on analyzing and processing data into information for its users (Zimmer, 2000,340); the third is the outputs which are the final result of the treatment process and it is called the information which can take the form of letters, reports or fees (Laudon & Laudon, 1999,8); and the fourth is feedback, which reflects the performance of the system which come back as inputs to the system in order to maximize the multiple value of the Information (Fulweiler, 2001,390) . (Laudon, 2008,15) has pointed out that the information system is a set of interrelated elements (physical, human, and software) that work to collect, process, store, retrieve and distribute information to support decision-making, help managers gain and create new knowledge, solve problems and create new products and methods.

The business information systems share a number of characteristics. The first is that it is consisted of several subsystems which are supported by a certain functional activity; the second is that the applications of the information systems are integrated in the activities to form a coherent and independent functional system and finally the fact that the sub Information Systems interact with each other to form an information system that is comprehensive and integrated. (Turban & Wetherbe, 2002,279).

Empowerment

In the English literature, there are many efforts regarding defining this term, where it was considered as giving greater responsibility and authority to individuals at the lower levels through training, confidence, support, initiative to solve problems directly without reference to the center and the use of the individuals' expertise to improve the performance of the organization (murrell, 2000.38). Empowerment means giving employees the responsibility for the improvements and the authority to make changes to be accomplished (Stevenson, 2005,399). (Daft, 2001,501) defined it as giving workers the power, freedom and information for decision-making and participation in taking them; it means giving workers the powers, responsibilities and freedom to perform the job in their own way, without direct intervention from the administration with providing all the resources and the appropriate working environment for rehabilitating them professionally and behaviorally to perform the job with an absolute trust in them. (Haghighi etal, 2011,587) defined it as giving power and the authority of decision-making to the lower part of the organizational hierarchy and giving workers the ability to influence the regulatory output (ozaralli, 2008,337). In consistent with what has previously been mentioned, we can say that empowerment is simply the participation of workers in decision-making and giving them more freedom in work, acting and self-censorship with supporting their abilities and skills by providing adequate resources and a favorable climate and rehabilitating them technically and behaviorally. Those following the literature of the strategic management and the science of organization find that there are two bases for the concept of empowerment, its dimensions and indicators. The first is the structural - social perspective of empowerment and that the essence of this perspective depends on the idea of participation by strength between the leader and the followers by increasing the entrances of access to opportunities, information, resources and support; it focuses on the need of providing policies, processes, practices, and administrative structures that promote the practice of high integration through the participation of workers in power, knowledge, information, and rewards (spreitzer, 2007,4). The second is the cognitive perspective of empowerment, which focuses on the level of the empowerment awareness of the employees instead of being management practices for the authorization of power to the lower levels; it was expressed by strengthening the real motives of workers, which are clearly shown in four cognitive patterns that reflect the orientation of the individual towards his role in the job, the meaning of work, efficiency, self-design of the job and a sense of influence.

Most of the researchers indicate the presence of two methods of empowerment. The first is the participation approach, which relies on the involvement of employees in the executive departments through making and taking decisions. Participation has an important role in building confidence among the employees in the senior management levels and the first supervisory lines. Participation comes through two methods: the first is the level of entrusting which indicates to giving workers the necessary authority to make decisions related to the fast requirements of direct job. The second is the level of service, which indicates the extent of the employees' need to take the necessary decisions to meet the service to customers (Rafiq & Ahmed, 1998, 81); the second method relies on the job enrichment, the content of the motivating job is increased by adding various types of tasks, providing greater freedom of action, and giving the individual greater responsibilities.

Elements of Empowerment

There are many elements that reflect the content of empowerment. The most prominent of these elements which are considered common denominators between researchers and which will be adopted in this research, are:

1. Authorization. It means that powers are authorized to the lower administrative levels, where workers have the ability to influence decisions either strategic or those related to their job performance. It has levels, where it may be limited only to providing suggestions and the senior management is not obliged to execute them or it may be extended to stages of decision-making and implementation.
2. Work teams. It means a group of individuals that work together in order to achieve specific and shared goals (Little & ferris, 2002,23). Developing work teams in the organization depends on providing a strong leader that is capable to provide directions, encouragement, and support for the team members to overcome any difficulties that may encounter them at work (Quinn & spreitzer, 1997,40). It has to be skillful and it must seek to achieve a common goal, and enjoy a sense of collective responsibility and it must have the authority to make executive decisions.
3. Training. Employees must be provided with a continuous and regular training to be granted with new skills. The organization must provide an ambitious system to develop staff so as they are able to provide necessary knowledge and skills (Lin, 1998,228).the empowered organizations provide training programs for their employees regarding decision-making skills, conflict management, problem solving and communication skills and working with teams (Dimitiriades, 2005,81).
4. Effective communication. It means the effective communication between the relevant authorities through passing information between the various parties toward unifying vision. (Quinn & spreitzer, 1997,39) indicated that displaying sensitive information to employees about the market share, growth opportunities, and competitors' strategies are key steps in the right direction in the journey of empowerment. To become empowered, organizations should provide more information to more people in more levels and through more tools and means(Line, 1998,228).
5. Motivation/ stimulation. Empowerment by itself is considered an incentive for workers, but it is not given free. It includes participation in benefits and risks as well as accountability for the results and holding responsibility. The empowerment program requires a different returns system that depends on those based on performance. When returns are linked with performance, it leads to increasing the motivation of workers towards achieving the goals and objectives of the organization by linking their gains with the success of the organization.

Practical Framework

- Description of the sample. Table (1) indicates that males make up the highest percentage rate by (64.94%), and the proportion of married couples had reached (72.47%) of the sample. we find that the extended age group (30-40 years) represented (42.11%), while (7.52%) of the sample are those over fifty, which refers to the importance of the young who are usually known for their ambition and love of learning in this sector. however, those holding the bachelor degree represent 72% of the sample , which indicates their ability to learn and cope up with others. Regarding experience, more than 74% of the sample exceeded 5 years of banking experience.

Table 1: Distribution of Sample According to the Demographic Factors (N = 425)

number	%	class	factor
276	64,94	male	sex
149	35,06	female	
96	22,59	Single	Marital status
308	72,47	Married	
21	4,94	other	
103	24,23	less than 30 years	age
179	42,11	30-40 years	
111	26,11	41-50 years	
32	7,52	More than 50 years	
55	12,94	Diploma	Scientific qualification
306	72	Bachelor	
64	15,05	Higher studies	
109	25,64	less than 5 years	Length of service in the bank
182	42,82	5 - less than 10	
108	25,41	10 - less than 15	
26	6,11	15 and more	

- Empowerment

1. Authorization

Table (2) shows that the total arithmetic mean for the level of the impact of the information system on the authorization element was (3.52), which is higher than the standard level (3). The item “supporting staff to make decisions independently“ was ranked first by (3.60). The calculated values of (T) was significant at the level of significance (0,05 = α). Based on the above, depending on the decision rule, the null hypothesis, which states that there is no statistically significant effect between the information system and the authorization of Jordanian banks, was rejected and the alternative hypothesis which states that there is a statistically significant effect between the information system and authorization was accepted.

Table 2: The Arithmetic Mean, Deviation and (T) Test Values for the Employees’ Estimation of the Information System Role in the Authorization Component

No.	item	arithmetic mean	deviation from the arithmetic mean	order	T test	(T) level of significance
the information system of the bank contributes in		3,53	0,01	3	9,78	0,00
1	supporting administration authorization to the authorities to do the work					
2	strengthening the management confidence in the ability of employees to perform tasks	3,38	0,14	4	5,88	0,00
3	reducing the administration interference in the delegated powers	3,58	0,06	2	10,17	0,00
4	supporting staff to make decisions independently	3,60	0,08	1	10,95	0,00
Total arithmetic mean		3,52				

2. Work Teams

The data listed in Table (3) indicate that the total arithmetic mean of the level of the impact of the item that states “the information system contribution in supporting the formation of work teams” has ranked first by the arithmetic mean of (3.86), and the calculated value of (T) was significant at the significance level ($0,05 \alpha =$); therefore, the null hypothesis is rejected and the alternative hypothesis which states that the presence of statistically significant effect between the information system and the work teams is rejected.

Table 3: The Arithmetic Mean, Deviation and (T) Test Values for the Employees’ Estimation of the Information System Role in the Work Team Component

No.	item	arithmetic mean	deviation from the arithmetic mean	order	T test	(T) level of significance
the information system of the bank contributes in						
1	promoting a climate of cooperation between co-workers	3,66	(0,05)	3	12,51	0,00
2	supporting collective performance	3,65	(0,06)	4	11,55	0,00
3	supporting confidence among the members of the working groups	3,69	(0,02)	2	16,00	0,00
4	supporting the formation of work teams	3,86	0,15	1	18,85	0,00
Total arithmetic mean		3,71				

3. Training

The arithmetic mean of this component was (3.70), which exceeded the standard mean. The item of the contribution of the information system in the development of plans for training ranked first with a mean of (3.76) , while the item stating about the contribution of the information system in encouraging employees to share their experiences came with a mean of (3.57). It is evident from table (4) that the calculated values of (T) were significant at ($0,05 = \alpha$), therefore, based on the above, the third sub-hypothesis is rejected and the alternative hypothesis, which indicates the presence of statistically significant effect between the information system and training was accepted.

Table 4: The Arithmetic Mean, Deviation and (T) Test Values for the Employees’ Estimation of the Information System Role in the Training Component

No.	item	arithmetic mean	deviation from the arithmetic mean	order	T test	(T) level of significance
the information system of the bank contributes in:						
1	developing plans for training	3,76	0,06	1	14,62	0,00
2	encouraging workers for exchanging experiences among them	3,57	(0,13)	4	10,41	0,00
3	searching for new ways to develop work performance	3,73	0,03	3	13,63	0,00
4	enriching training programs that are related with performance	3,75	0,05	2	13,56	0,00
Total arithmetic mean		3,70				

4. Effective Communication

The data listed in Table (5) indicate that the public and private arithmetic mean of the impact of the information system on the effective communication component has reached (3.85), an above average level compared to the standard level (3). The contribution of the information system in finding effective and developed means of communication had the highest arithmetic mean among the four items which represent the effective communication. The calculated values of (T) were significant at ($0,05 = \alpha$).

Accordingly, the null hypothesis is rejected and the alternative hypothesis which states that there is a statistically significant effect between the information system and the effective communication was accepted.

Table 5: The Arithmetic Mean, Deviation and (T) Test Values for the Employees' Estimation of the Information System Role in the Effective Communication Component

No.	item	arithmetic mean	deviation from the arithmetic mean	order	T test	(T) level of significance
the information system of the bank contributes in:		3,72	(0,13)	4	13,51	0,00
1	clarifying directions and procedures					
2	getting access to decision-makers	3,91	0,06	2	18,05	0,00
3	finding an effective and developed means of communication	3,96	0,11	1	17,05	0,00
4	providing information in a a sufficient and qualified way	3,83	(0,02)	3	18,05	0,00
Total arithmetic mean						

5. Motivation

Table (6) shows that the total arithmetic mean of the motivation component was (3.74), which is higher than the standard level (3). The arithmetic mean of the item stating that the contribution of the information system in promoting a sense of the fairness and objectivity of the information system was (3 , 93), which is ranked first while the item of the contribution of the information system in the estimation of the efforts of workers came in the last rank with a mean of (3.58). The calculated values of (T) were significant at (0,05 = α). Accordingly, the null hypothesis is rejected and the alternative hypothesis which states that there is a statistically significant effect between the information system and motivation was accepted.

Table 6: The Arithmetic Mean, Deviation and (T) Test Values for the Employees' Estimation of the Information System Role in the Motivation Component

No.	item	arithmetic mean	deviation from the arithmetic mean	order	T test	(T) level of significance
the information system of the bank contributes in:		3,93	0,19	1	18,74	0,00
1	fostering the sense of the fairness and objectivity of the promotion system					
2	respecting the efforts of workers	3,58	(0,16)	4	11,058	0,00
3	supporting participation in decision-making	3,65	(0,009)	3	11,74	0,00
4	creating an efficient system of incentives	3,82	0,08	2	16,08	0,00
Total arithmetic mean		3,74				

From the above, we can say that the highest arithmetic mean was between the information system and the effective communication, and the lowest was the relationship between the information system and authorization. Through discussing the sub-assumptions, we reject the main hypothesis, which confirms the depth of the relationship between the information system and the empowerment in the Jordanian banks.

Conclusions and Recommendations

Empowerment is considered a modern trend and one of the developed methods in management, particularly in Jordan. This comes in line with the environmental and regulatory changes imposed by the business environment. Since the human element is one of the most important resources of organizations, its empowerment is considered a must. Also, the information systems play a pivotal role in the success of empowerment. It turns out that there is a variation in the elements of the problem of empowerment according to the jurisprudence of researchers and the environments in which the studies are conducted.

In terms of the field work of the Jordanian banks, it became evident that the impact of the information system on all the elements of empowerment was positive exceeding the theoretical mean. However, the level of the impact did not reach high levels remaining in the medium degree. Accordingly, the management of the Jordanian banks should work to increase interests in the management information system so as to be more efficient and effective, use modern technologies, activate the mechanisms that promote the escalation indicators of empowerment towards high levels through pushing powers into lower levels, support workers to make decisions and encourage them to share their experiences with each other, and finally appreciate the efforts of workers to raise the levels of empowerment.

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