

## Level of Management Innovation at the Palestinian Ministries

مستوى الابتكار الإداري لدى الوزارات الفلسطينية

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### Abstract

This research aims to investigate the level of management innovation at the Palestinian ministries. The different variables which influence innovation were examined. These variables include, directing a creative business, developing creative capability, building a creative culture, managing learning for new ideas, organizing for creativity and taking wise decisions. Descriptive analytical methods were utilized. In addition, both primary and secondary sources were used. Further a stratified random sample of 400 persons was used. The Palestinian ministries enjoy a satisfactory level of innovation. However, they do not encourage the flow of new ideas. The rules and regulations are allowed to hinder work and directors do not encourage direct communication with their subordinates. Further, the organizations' of Palestinian ministries were not support creativity or taking wise decisions. The study recommended establishing a creative culture of innovation. This requires long-term training and education strategy. Regulations and bylaws should be improved. Directors should empower their subordinates and encourage direct communication with them.

**ملخص**

تسعى هذه الدراسة للتعرف على مستوى الإبداع الإداري لدى الوزارات الفلسطينية. وكان هناك العديد من المتغيرات التي استخدمت كمؤشرات لقياس مستوى الإبداع وهي: التوجيه نحو العمل المبدع، تطوير القدرات الإبداعية، بناء ثقافة الابتكار، إدارة التعلم لأفكار جديدة، تنظيم المؤسسة من أجل الابتكار واتخاذ قرارات حكيمة. ولقد تم استخدام المنهج الوصفي التحليلي، كما تم استخدام العينة التطبيقية والبيانات الأولية والثانوية. ولقد بلغت حجم العينة ٤٠٠ شخص. ولقد خلصت الدراسة إلى وجود مستوى مقنع من الإبداع لدى الوزارات الفلسطينية، إلا أن هناك تعطيل لانسياب الأفكار، كما أن التشريعات واللوائح تعيق العمل، ولا يشجع المدراء في الوزارات الفلسطينية الاتصال المباشر مع المسؤولين كما أن الهياكل التنظيمية للوزارات لا تدعم الإبداع فيها أو اتخاذ القرارات المناسبة. أوصت الدراسة ببناء ثقافة مشجعة للابتكار عبر إيجاد استراتيجية طويلة الأجل للتعلم والتدريب، كما أن هناك حاجة لتطوير التشريعات والأنظمة الداخلية للوزارات وهناك حاجة لمزيد من التفويض وتعزيز مكانة العاملين في الوزارات.

**1) Introduction**

In a dynamic environment, innovation is very important to generate long-term stability, growth and sustainable performance (Cook, 1998). Innovation is essential for sustainable competitive advantage (Jacobs and Heracleous, 2005).

Innovation is holistic in nature. It covers the entire range of activities necessary to provide value to target groups, and a satisfactory return to the business. For the public sector innovation should cover the activities of best utilization of resources and client satisfaction. Successful innovation requires management concern with ideas and people. Therefore, the role of people and their thinking process in innovation need to be appropriately considered (Thompson, 2001).

The Palestinian ministries were established in 1994 after the formation of Palestine National Authorities (PNA). However, PNA is relying highly on Donors in covering its expenses either in regular activities or development. Nonetheless, the Palestinian ministries are marked with over employment, corruption and low productivity (Zanoon, 2006). Many factors influence productivity in the ministries including, level of innovation among staff, physical resources, level of loyalty among employees and management proficiency. However, this research

will investigate the level of innovativeness at the Palestinian ministries among managers. Therefore, the research will answer the following question:

**What is the level of innovation among managers at the Palestinian ministries?**

## **2) Research Objectives**

The study aims to achieve the following objectives:

1. To investigate the level of innovation among managers at the Palestinian ministries.
2. To explore the way of improving innovativeness in the ministries.
3. To investigate the impact of innovation on some of the managerial practices.
4. To draw some recommendations that may help in promoting level of innovation that may help in promoting productivity in the Palestinian ministries.

## **3) Research Hypothesis**

The following hypotheses are investigated:

1. There is a significant difference at (0.05) in the level of innovation in the Palestinian ministries attributed to some organizational and personal characteristics (Governorate, position, qualification and experience). This hypothesis is divided to the following sub-hypothesis:
  - a. There is significant difference at (0.05) in the level of innovation attributed to Governorate.
  - b. There is significant difference at (0.05) in the level of innovation attributed to respondents' position.
  - c. There is significant difference at (0.05) in the level of innovation attributed to respondents' qualification.
  - d. There is significant difference at (0.05) in the level of innovation attributed to respondents' experience.



## 6) Research Population and Sample

The research population is the different managerial levels operating in the Palestinian ministries. They range from Deputy minister to head of department. Table 1 reveals that study population accounts for 3118 persons.

The researcher used a relative stratified random sample. The sample size was 400 persons. It was 12.8% of total population (see Table 1). The questionnaire was distributed during December 2005. The researcher used 5 research assistants in distributing the questionnaire in Gaza Strip's governorates. However, 350 questionnaires were returned. Nevertheless, the researcher neglected 10 of the returned questionnaires because they were incomplete. Overall response rate was 85%.

**Table (1):** Numbers and percentages of managers at the Palestinian Ministries in year 2005, Strata and research sample.

	<b>Deputy minister\General Director\Deputy General Director</b>	<b>Director/ Deputy Director</b>	<b>Head of Department</b>	<b>Total</b>
Study population (No.)	209	1465	1444	3118
Strata percentage from Population	7%	47%	46%	100%
Sample (No.)	28	188	184	400

**Source:** General Personnel Council, Unpublished Data, Palestine, November 2005.

## 7) Questionnaire Validity

The researcher examined and developed the questionnaire through the following manners:



## 9) Theoretical framework

There is no consensus among writers on defining innovation. For example, innovation is considered the new way of delivering quality to the customer both consistently and with economic viability in mind (Zairi, 1994). Porter (1990) believes that companies achieve competitive advantage through acts of innovation. According to Porter innovation includes technologies and new ways of doing things. However, innovation is often confused with invention: An invention is an idea, or model for a new or improved device, product, process or system. Whereas innovation in the economic sense is accomplished only with the first commercial transaction involving the new product, process, system or device (Freeman, 1982). Innovation may be seen as something that is new or conducted by an enterprise to create significantly added value either directly for the enterprise or indirectly for its customers (Business council of Australia, 1993). The Organization for Economic Cooperation and Development (OECD, 1981, pp.15) said: "innovation consists of all those scientific, technical, commercial and financial steps necessary for the successful development and marketing of new or improved manufactured products, the commercial use of new or improved processes or equipment or the introduction of a new approach to a social service". There are three main types of innovation: process innovation, product/service innovation and strategy innovation. Some workers consider management system innovation and market innovation (Johns, 1999).

Based on the above mentioned definitions innovation includes the following elements: 1) the renewal and improvement of the range of products and services and the related markets; 2) the founding of new methods of production, supply and distribution; and (3) the introduction of changes in management, work organization, and the working conditions and skills of the workforce.

### Drivers of Innovation

The primary drivers of innovation comprise (Hamel, 1996):





c. Change efficiency.

**3. Building a creative culture:**

- a. Encouraging staff to take initiative.
- b. Objectives for new ideas.
- c. Mutual support for new ideas.

**4. Managing learning for new ideas:**

- a. External comparisons for new idea sources.
- b. Availability of experienced people.
- c. Staff updating with best Practice learning.

**5. Organizing for creativity:**

- a. New product introduction efficiency.
- b. Support for new ideas from the top.
- c. Organizational structure to support creativity.

**6. Taking wise decisions:**

- a. Resources to develop ideas.
- b. Consideration of ideas before decisions is made.
- c. Plan for development

**Environment of Organization**

Organization environment is divided into two types (Wheelen and Hunger, 2006):

1. External environment: it is also called societal environment, which includes economic, social, demographic, political, legal, technological, and international factors. In addition, industrial environment is part of external environment. Industrial environment are those elements or groups that directly affect the corporation and, in turn, are affected by it. Porter's Five Forces Model explain the industry environment. These forces are 1) potential entrants, 2) bargaining power of suppliers, 3) substitutes 4) competition among existed industry, and 5) bargaining power of Buyers. Industry profit potential depends on these competitive forces.



the Palestinian ministries should organize their activities, taking in consideration the available resources. In addition, decision making process should be improved by using an appropriate computerized database and improving the skills of people who are involved in decision making.

## **Discussion of the variables of Innovation**

### **1. Directing a Creative Business**

There is an agreement with the findings of McAdam (2000). He concluded that innovative companies scored high in directing business for creativity. Those companies were good at producing and developing business and giving full consideration to ideas before decisions are made. However, their leaders did not actively support new ideas i.e. the staff did not receive support from the top. Humphreys ( 2005) on the other hand showed a strong commitment to innovation in the organizations' management. His study highlighted the importance of providing visionary leadership that is competent and excels at inspiring people.

### **2. Developing a creative capability**

The Palestinian ministries showed success in developing internal creative capabilities. The ministries identify the necessary competences needed to develop innovation, such as, facilities, skills, technology, leadership and team work. This study agreed with the findings of Tidd et al, (2001). In order to improve the level of innovation it is necessary to consider the whole diminutions of organization. It affects every discipline and process.

### **3. Building a Creative Culture**

The Palestinian ministries showed success in building a creative culture (see Table 2). However, much need to be done in encouraging new ideas to flow, allow direct communication between directors and their subordinates. McAdam (2000) found that innovative companies were poor at building a creative culture and he stated that failure to build

a creative culture stops the essential processes of innovation, while a commitment to the continuous improvement process can reinforce it.

#### **4. Managing learning for new ideas**

Table 2 manifested that the Palestinian ministries encourage its employees to develop new ideas. A number of factors were identified by the OECD as crucial factors for effective organizational innovation. These factors are centered on learning with special emphasis on learning by organizations as a whole (OECD, 1981). Some studies indicated a correlation between learning organization and innovation (Ismail, 2005). The relationship between learning, knowledge and innovation organizations was studied by Merx-Chermin and Nijhof (2005) who found strong correlations between these three variables. They concluded that the most important factors in the creation of new knowledge are; knowledge sharing and reflective learning on the job. They considered the rotation of valuable employees as one of the most effective strategies for knowledge sharing and dissemination.

#### **5. Organizing for creativity**

Palestinian ministries revealed weak organizing for creativity (Table 2). They do not organize work and people for creativity. In addition managers do not support new ideas or reward it. This is similar to the finding of McAdam (2000) which stated that many organizations do not adequately organize for creativity. In addition, McAdam indicated that one of the common barriers to innovation is the fact that creative ideas are not rewarded (McAdam, 2000).

Further attention need to be considered to the structure of ministries. The structure should be flat and eliminate bureaucracy. This would encourage innovation, facilitate flow of communication and promote work (Tidd et al, 2000).

#### **6. Taking wise decisions**

Table 2 pointed that decisions are unwisely made in Palestinian ministries. The findings revealed that managers do not enjoy enough power in decision making. They do not have adequate information. In

addition, there is no data verification to make wise decision. Humphreys et al (2005) showed that organization's ability to take wise decisions is essential for achieving innovation. Humphreys et al (2005) found that the team leader approach was essential in enabling lower levels of employees to give innovation inputs to the decision making process and that a clear and open two-way channels of communication were vital to the process. Wu et al (2002) in a study of the interrelationships between management styles and organizational innovation found that innovative organizations emphasize on; risk taking, aggressive management styles and tend to adopt an entrepreneurial decision making mode rather than a participative decision making mode (Wu et al, 2002) .

### 11) Hypothesis Testing

**Hypothesis one:** There is a significant difference at (0.05) in level of innovation in the Palestinian ministries attributed to some organizational and personal characteristics (Governorate, qualification, experience and job position).

**a. There is significant difference at (0.05) in level of innovation attributed to Governorate.**

Kruskal-Wallis Test was used to test this hypothesis. Table 3 showed that there is no significant difference (sig. 198) in level of innovation attributed to Governorate. Probably this result is logic, since all ministries in Palestinian governorates belong to the public sector. They are almost similar in systems, staff skills and procedures. Many studies have questioned the competitiveness and innovativeness of the disadvantaged firms in peripheral countries and regions (McAdam and McClelland, 2002). Peripheral firms tend to maintain a traditional management style as distinct from embracing innovative best practices (Mason, 1998). In addition, peripheral regions can be hostile environments for new and small firms (Anderson et al, 2001).

**b. There is a significant difference at (0.05) in level of innovation attributed to qualification.**



	.Sig	
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... Continue table (3)

Variables	Grouping Variable	North	Gaza	Middle	Khan Younis	Rafah
Organizing for Creativity	Mean	2.5	2.66	2.62	2.58	2.63
	Chi-Square	2.340				
	Asymp. Sig.	<b>0.08</b>				
Taking wise decisions	Mean	3.02	3.1	2.87	2.90	2.85
	Chi-Square	5.340				
	Asymp. Sig.	<b>0.140</b>				
<b>Total</b>	<b>Mean</b>	<b>3.21</b>	<b>3.27</b>	<b>3.22</b>	<b>3.19</b>	<b>3.21</b>
	<b>Chi-Square</b>	<b>4.345</b>				
	<b>Asymp. Sig.</b>	<b>0.198</b>				

**Table (4):** Kruskal-Wallis Test for differences in level Of innovation attributed to "Level of qualification"

Variables	Grouping Variable	BA	High Diploma /Master degree	Ph.D	Others	Non
Directing a creative business	Mean	3.55	3.75	3.79	3.61	3.4
	Chi-Square	4.932				
	Asymp. Sig.	<b>0.08</b>				
Developing a creative capability	Mean	3.41	3.56	3.57	3.50	3.45
	Chi-Square	3.567				
	Asymp. Sig.	<b>0.456</b>				



Building a creative culture	Mean	3.43	3.54	3.46	3.48	3.43
	Chi-Square	2.124				
	Asymp. Sig.	<b>0.256</b>				
Managing learning for new ideas	Mean	3.46	3.66	3.45	3.48	3.40
	Chi-Square	4.567				
	Asymp. Sig.	<b>0.134</b>				

... Continue table (4)

Variables	Grouping Variable	BA	High Diploma /Master degree	Ph.D	Others	Non
Organizing For Creativity	Mean	2.53	2.65	2.56	2.67	2.70
	Chi-Square	1.23				
	Asymp. Sig.	<b>0.234</b>				
Taking wise decisions	Mean	3.02	3.21	3.08	3.12	3.04
	Chi-Square	3.361				
	Asymp. Sig.	<b>0.141</b>				
<b>Total</b>	<b>Mean</b>	<b>3.23</b>	<b>3.39</b>	<b>3.32</b>	<b>3.31</b>	<b>3.23</b>
	<b>Chi-Square</b>	<b>3.921</b>				
	<b>Asymp. Sig.</b>	<b>0.181</b>				

**c. There is a significant difference at (0.05) in level of innovation attributed to years of experience.**

Table 5 showed that there is no significant difference in level of innovation attributed to years of experience. The sig. value was 0.115. This limited impact of experience on level of innovation could be attributed to the fact that the majority (85%) of research sample enjoy more than 10 years of experience (Table 6). In addition, promotion in Palestinian ministries relies on years of experience rather than innovation and performance.

Ayyoub (2000) found a positive correlation between innovation and length of experience. In addition, Humphreys et al (2005) found that the stability of the management team, with an average service of 15 years was an important factor in promoting innovation. Some other studies

found negative relationship between innovation and length of experience (Awamleh, 1994). This may be interpreted with; old managers hinder rather than support innovation. Some Palestinian managers refuse delegation and discourage the flow of new ideas from lower ranks and adopt close-door policy. Those managers may believe that innovative people are a threat to their positions (El-Farra, 2004).

**Table (5):** Kruskal-Wallis Test for differences in level innovation attributed to Years of experience.

Variables	Grouping Variable	Less than 10 years	10-20 years	More than 20 years
Directing a creative business	Mean	3.53	3.60	3.66
	Chi-Square	3.006		
	Asymp. Sig.	<b>0.09</b>		
Developing a creative capability	Mean	3.60	3.57	3.50
	Chi-Square	4.21		
	Asymp. Sig.	<b>0.08</b>		
Building a creative culture	Mean	3.55	3.53	3.46
	Chi-Square	4.11		
	Asymp. Sig.	<b>0.085</b>		
Managing learning for new ideas	Mean	3.60	3.63	3.55
	Chi-Square	2.57		
	Asymp. Sig.	<b>0.15</b>		
Organizing For Creativity	Mean	2.63	2.66	2.55
	Chi-Square	3.32		
	Asymp. Sig.	<b>0.123</b>		
Taking wise decisions	Mean	3.01	3.12	3.11
	Chi-Square	1.23		
	Asymp. Sig.	<b>0.234</b>		
<b>Total</b>	<b>Mean</b>	<b>3.32</b>	<b>3.35</b>	<b>3.21</b>



Building a creative culture	Mean	3.43	3.47	3.48	3.49
	Chi-Square	2.17			
	Asymp. Sig.	<b>0.361</b>			
Managing learning for new ideas	Mean	3.61	3.71	3.83	3.56
	Chi-Square	3.45			
	Asymp. Sig.	<b>0.190</b>			
Organizing for Creativity	Mean	2.66	2.57	2.63	2.58
	Chi-Square	2.14			
	Asymp. Sig.	<b>0.234</b>			
Taking wise decisions	Mean	3.02	3.00	3.07	3.03
	Chi-Square	3.24			
	Asymp. Sig.	<b>0.235</b>			
<b>Total</b>	<b>Mean</b>	<b>3.31</b>	<b>3.32</b>	<b>3.33</b>	<b>3.30</b>
	<b>Chi-Square</b>	<b>2.15</b>			
	<b>Asymp. Sig.</b>	<b>0.198</b>			

**Hypothesis two:** There is a significant correlation at (0.05) between "innovation" and "building a creative culture" in the Palestinian ministries.

Table 8 shows a significant correlation between level of innovation and building a creative culture in Palestinian ministries. The r value of total level of innovation was 0.591 and sig. value was 0.00.

McAdam McConvery and Armstrong (2004) found a strong correlation between innovation and culture and stressed that strategic plans for innovation must address the underlying cultural barriers to innovation. The study also found that the main barrier to innovation was related to cultural issues e.g. building a creative culture. In addition,

organizations which, adopted a culture of continuous improvement have a high level of innovation than those who did not have such culture (McAdam, McConvery and Armstrong 2004). Humphreys et al (2005) recommended to adopt a broader approach to innovation to include people and cultural issues in addition to technological innovation.

**Table (8):** Correlations (Spearman's rho) between level of Innovation and Building a creative culture.

Variables	Spearman's Correlation Coefficient	(Sig. 2-tailed)
<b>INNOVATION</b>		
Directing a creative business	.573**	0.000
Developing a creative capability	.667**	0.000
Managing learning for new ideas	.551**	0.000
Organizing For Creativity	.590**	0.000
Taking wise decisions	.573**	0.000
<b>Total</b>	<b>.591**</b>	<b>0.000</b>

\*\* Correlation is significant at 0.01 level (2-tailed).

**Hypothesis three:** There is a significant correlation at (0.05) between level of innovation and internal and external environment of the Palestinian ministries.

Table 9 shows a significant correlation between innovation and the working environment. The r value of total level of innovation was 0.598 and sig. value was 0.00. Improving innovation in the Palestinian ministries requires the development of conducive environment supportive to innovation. Ministries should ensure that their internal systems, structure and overall capabilities support innovation. In addition, external environment with its different variables should be considered. The relationship between "Innovation" and "Environment" was addressed in many studies. Ayyoub (2000) found a positive relationship between appropriate environment and innovative behavior of managers. Taqi and Al Khayyat (2002) concluded that innovation correlates with higher levels of environmental complexity. However, Awamleh (1994)

differentiates between internal and external environments in its relationship to innovation. He found that the most significant obstacles to innovation are those related to organizational climate rather than those related to societal environment.

**Table (9):** Correlations (Spearman's rho) between Innovation and "Environment".

Variables	Spearman's Correlation Coefficient	(Sig. 2-tailed)
<b>INNOVATION</b>		
Directing a creative business	.445**	0.000
Developing a creative capability	.514**	0.000
Building a creative culture	.550**	0.000
Managing learning for new ideas	.544**	0.000
Organizing For Creativity	.587**	0.000
Taking wise decisions	.598**	0.000
<b>Total</b>	<b>.534**</b>	<b>0.000</b>

\*\* Correlation is significant at 0.01 level (2-tailed).

## 12) Conclusions

The great majority of managers hold a first university degree or high. There are no significant differences in level of innovation in the Palestinian ministries attributed to governorate, qualification, years of experience or job position. The Palestinian ministries from management viewpoint enjoy a satisfactory level of innovation. They showed success in directing a creative business, developing a creative capability, building a creative culture and managing learning for new ideas. However, Palestinian ministries do not encourage the flow of new ideas. The rules and regulations are allowed to hinder work and directors do not encourage direct communication with their subordinates. Further, the Palestinian ministries do not organize for creativity or taking wise decisions. Decisions are made at top management with little delegation of power. The study revealed significant correlation between innovation

and building a creative culture. In addition, there is a significant correlation between innovation and environment.

### 13) Recommendations

Employees are always the basis for innovation. Therefore, employees should be selected and recruited on the basis of their competencies and qualification. In addition, they should be encouraged systematically to develop their skills. The Palestinian ministries should enhance the innovative environment. They should encourage creativity and taking wise decisions. In addition, encourages new ideas and the development of the employee's potential capabilities should be adopted. Creating culture of innovation requires long-term training and education strategy. Moreover, regulations and bylaws should be improved. Directors should empower their subordinates and encourage direct communication with them. A fair rewarding system should be stored. Further, organizational structure needs to be flattered to support innovation. Resources need to be allocated for development and research needs to be encouraged. Palestinian ministries should balance their commitments to staff, technology, customer and work. Such balance would either maintain the existed qualified staff or attract new innovators. These activities would improve and enhance level of innovation.

### References

- Anderson, A. Jack, S. & McAuely, A. (2001). "Periphery? What periphery? Marketing to a state of mind". Marketing Review. 14(1).
- Ayyoub, N. (2000). "Al awamel al mo'athira alal solook al idari al ibtikari ladal modeereen fi Qita' al bonook al tijariya al saudiya". {Factors influencing the innovative managerial behaviour of the managers in the Saudi Commercial Banks}, "*Al Idara Al A'mma*" General Management. 40(1).
- Awamleh, N.A.H.K. (1994). "Managerial Innovation in the Civil Service in Jordan, A Field Study". Journal of Management Development. 13(9).



- Bessant, J. Francis, D. (1999) "Developing strategic continuous improvement capability". International Journal of Operations and Production management. 19(11).
- Business council of Australia. (1993). "Managing the Innovation Enterprise". In Australian Innovation Models, Final Report (1999), Australia: The Allen Consulting Group,
- Camelo-Ordaz, C. Hernandez-Lara, A.B., & Valle-Cabrera, R. (2005). "The relationship between top management teams and innovative capacity in companies". Journal of Management Development. 24(8).
- Cook, P. (1998). "The creativity advantage – is your organization leader of the pack". Industrial and commercial training. 30(5).
- El-Farra M. (2004). "Management characteristics in Gaza's manufacturing establishments: A comparative study". Journal of the Islamic University of Gaza, (Humanities Sciences Series). 12(1).
- Freeman, C. (1982). "The Economics of Industrial Innovation", London: Frances Pinter; taken from Neely, A., et al (2001), "A framework for analyzing business performance, firm innovation and related contextual factors: perceptions of managers and policy makers in two European regions". Integrated Manufacturing Systems. 12(2).
- General Personnel Council. November (2005). *Unpublished Data*, Palestine.
- Hamel, G. (1996). "Strategy as revolution". Harvard Business Review. July/August, (74).
- Humphreys P. McAdam R. & Leckey J. (2005). "Longitudinal evaluation of innovation implementation in SMEs". European Journal of Innovation Management. 8(3).
- Ismail M. (2005). "Creative climate and learning organization factors: their contribution towards innovation". Leadership & Organization Development Journal. 26(8).
- John, A. (1999). "Successful market innovation". European Journal of Innovation Management. 2(1).

- Jacobs C D. & Heracleous L Th. (2005). "Answers for questions to come: reflective dialogue as an enabler of strategic innovation". Journal of Organizational Change Management. 18(4).
- Mason, C. (1998). "Spatial variations in enterprise: the geography of new firm foundation". Taken from McAdam et al, (2004). "Barriers to innovation within small firms in a peripheral location". International Journal of Entrepreneurial Behaviour & Research. 10(3).
- McAdam R. Stevenson, P. & Armstrong, G. (2000). "Innovative change management in SMEs: beyond continuous improvement". Logistics Information Management. 13(3).
- McAdam, R. & McClelland, J. (2002). "Sources of new product ideas and creativity practices in the UK textile industry". Journal of Technovation. (22).
- McAdam, R. McConvery, T. & Armstrong, G. (2004). "Barriers to innovation within small firms in a peripheral location". International Journal of Entrepreneurial Behaviour & Research. 10(3).
- Merx-Chermin, M. & Nijhof, W.J. (2005). "Factors influencing knowledge creation and innovation in an organization". Journal of European Industrial Training. 29(2).
- OECD. (1981). "The Measurement of Scientific and Technical Activities". Paris: OECD, taken from Neely, A., et al (2001). "A framework for analyzing business performance, firm innovation and related contextual factors: perceptions of managers and policy makers in two European regions". Integrated Manufacturing Systems. 12(2).
- Porter, M.E. (1990). The Competitive Advantage of Nations. London: MacMillan.
- Shanty, Mahmoud. (2006). "The Impact of Organizational Environment on Human Resource Performance: Field Study on the Ministries of Palestinian Authorities in the Gaza Strip". (Thesis), Unpublished, Islamic University of Gaza, Palestine.

- Taqi A.A. & Al Khayyat R. (2002). "The effects of organizational and environmental constraints on innovation – A field study". Journal of the Gulf and Arabian Peninsula Studies. (106).
- Thompson, J.L. (2001). "Innovation through people". Management decision. 42(9).
- Wheelen, Th. & Hunger, D. (2006). Concepts in Strategic Management and Business Policy. 10<sup>th</sup>, Prentice Hall.
- Woodcock, M. & Francis, D. (2001). "Developing Agile Organizations: Theory and interventions". Leadership and Organizational Development Journal. 22(2).
- Zanoon, Mohammed. (2006). "The Reality of Selection and Employment Policies in Managerial Jobs in the Palestinian National Authority ministries in the Gaza Strip, and their Impact on the Level of Performance". (Thesis), Unpublished, Islamic University of Gaza, Palestine.
- Zairi, M. (1994). "Innovation or Innovativeness? Results of a benchmarking study". Total Quality Management. 5(3).