The Effect of Some Organizational Factors on the Knowledge Management Implementation at the Municipality of Gaza

Dr. Wasim A. Al-HAbil[1],[*], Dr. Yaser A. El-Shorafa[1], Ms. Basema R. "Salem Deeb"[1]

[1]Department of Business Administration, Faculty of Commerce, Islamic University of Gaza, Gaza Strip, State of Palestine

Abstract

The study aims to study knowledge management as an effective tool for the development of administrative and service performance at the Municipality of Gaza, and to investigate the factor (infrastructure, intellectual capital, organization culture) that influence knowledge management implementation. The frame work illustrates knowledge process (acquisition, sharing and implementation) and the factors that influence the success of this process.

The research has utilized a combination of qualitative and quantitative methodologies. A questionnaire has been developed and tested by a pilot study and then distributed personally to a sample consisting of 240 employees and have 94% response rate. The study finds that 67.26% of the Municipality of Gaza staff agreed that there is a statistical significant effect of Knowledge Management implementation on development of administrative and service performance, this reveals that Knowledge Management is an effective tool and strongly affect performance. The study recommends initiating a new core center as an infrastructure for knowledge creation and sharing with an experienced team who has not only management skills but a broad knowledge of the Municipality of Gaza strategy, rules, services and practices.

Keywords: Organizational Factors, Knowledge Management, Municipality of Gaza.

تنمية الأداء الخدماتي والإداري في بلدية غزة من خلال إدارة المعرفة

الملخص

تهدف هذه الدراسة إلى دراسة إدارة المعرفة كوسيلة فعالة في تنمية الاداء الخدماتي والاداري لبلدية غزة، ولفحص عوامل البنية التحتية ورأس المال الفكري والثقافة التنظيمية التي تؤثر على تطبيق إدارة المعرفة. استخدم البحث منهجية بحث كمية ونوعية حيث تم استخدام استبانة في الدراسة الاستطلاعية ومن ثم تم توزيع الاستبانة النهائية على عينة مكونة من 240 موظف حيث كانت نسبة الاستجابة 94%. لقد وجدت الدراسة أن 67.2% من موظفي البلدية وافقوا على أنه توجد علاقة ذات دلالة إحصائية بين تطبيق إدارة المعرفة وتنمية الأداء الخدماتي والإداري للبلدية. وأوصت الدراسة بتأسيس مركز بنية تحتية للمعرفة ومشاركة طواقم العمل بخبراتهم في إدارة المعرفة للبلدية ووضع خطة استراتيجية لبناء خبرات قوية لموظفي البلدية بطريقة منظمة ومن خلال تبادل العلاقات بين الكادر العامل داخل البلدية مع البلديات الأخرى.

الكلمات المفتاحية: إدارة المعرفة، رأس المال الفكري، تنمية الأداء الخدماتي والإداري.

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[*] Corresponding author e-mail address: walhabil@iugzaza.edu.ps

1. Introduction:

Knowledge management could be defined as the effective management of ideas, skills and experiences of intellectual capital to achieve the over whole quality of business organizations. It has been recognized as one of the contemporary and perfect management tools that motivate researchers and decision makers to consider its cultural, social and technical aspects.

The concept of knowledge management (KM), refers to the developing body of methods, tools, techniques and values through which organizations can acquire, develop, measure, distribute and provide a return on their intellectual assets (Kamara et al. 2002), Knowledge is increasingly considered the most important asset of organizations (Carneiro, 2000).

Knowledge has evolved with time. It started with family where sons learn from father through a long process of learning. With our new world and the progress of the business organization, people work together to benefit from each other. Today's efforts aim at knowledge being shared among large organizations which may be geographically spread over the world and active in different kinds of areas.

Problem Statement:

Because of its importance in initiating communication links that develop employees' performance, facilitate the customers' inquiries and administrative processes and reduce operational costs, Knowledge management has been recognized by many public and private organizations and institutions for effective performance and developed level of services provided.

Research Objectives:

The research aims to achieve the following objectives:
1. Study knowledge management as an effective tool for the development of administrative and service performance at MOG;
2. Investigate the factors (infrastructure, intellectual capital, organization culture) that influence knowledge management implementation at MOG;
3. Build a proposed framework for knowledge management implementation at MOG. The frame work illustrates knowledge process (acquisition, sharing and implementation) and the factors that influence the success of this process.
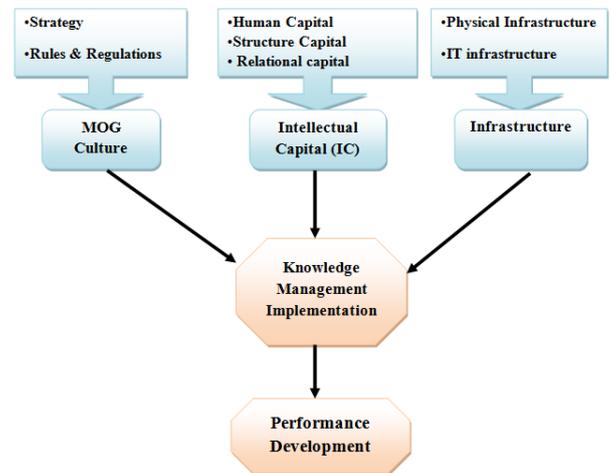
Research Variables:

Figure (1): *Conceptual Map*

Source: *Researchers, 2012*

Research Hypotheses:

1- There is a statistical significant effect of the Infrastructure on knowledge management at 0.05 level.
2- There is a statistical significant effect of the intellectual capital on knowledge management at 0.05 level.
3- There is a statistical significant effect of the organization culture on knowledge management at 0.05 level.
4- There are significant differences among the respondents' answers regarding the effect of Infrastructure, intellectual capital and MOG culture on knowledge management implementation and development of administrative and service performance due to the individual characteristics.

Background:

1. Data, Information and Knowledge:

Oxford dictionary (2001) defines knowledge as, set of information or whatever is acknowledged qualitatively by the organization or the worker within. While Harrington (2005) defines knowledge as a mix of experiences, practices, traditions, values,

contextual information, expert insight, and a sound intuition that provides an environment and framework for evaluation and incorporating new experiences and information.

Kahn & Adams (2000) viewed data as a set of facts, information represented as categorized, reviewed and scrutinized data and knowledge is the result of merging information with practice, perspective and expression. (Spiegler, 2000) mention that data does not include a value but Information include limited value and knowledge append insight, abstractive value, enhanced understanding.

2. Knowledge Management:

Knowledge management is the effective management of ideas, skills and experiences of intellectual capital to get the right information to the right people at the right time in order to achieve the over whole quality of organization.

Nowadays, knowledge is concerned as the key source assets of organization and a critical source of competitive advantage, while management process plays a crucial role in the organization changes. So it can be considered that Knowledge management is the link of knowledge and management. In our new world it receives great attention although the first uses of the term knowledge management arises when Nicholas Henry (1974) used knowledge management in a manner that resembles our current understanding of the expression (Mathi, 2004).

Yang and Wan (2004) provide a comprehensive view of the concept of KM that manages to identify all of the processes involved. They define KM as the process of collecting and identifying useful information (i.e. knowledge acquisition), transferring tacit knowledge to explicit knowledge (i.e. knowledge creation or transfer), storing the knowledge in the repository (i.e. organizational memory), disseminating it through the whole organization (i.e. knowledge sharing), enabling employees to easily retrieve it (i.e. knowledge retrieval) and exploiting and usefully applying knowledge (i.e. knowledge leverage).

3. Knowledge Management Process:

3.1 Knowledge Acquisition:

Nonaka, 1995 defines knowledge creation as "a continuous process of learning by acquiring a new context, a new view of the world and new knowledge in overcoming the individual boundaries and constraints imposed by existing information parameters.

There are different sources for knowledge creation as the organization can't create knowledge by itself. The two forms of tacit and explicit knowledge can appear while creating knowledge that is acquired from internal and external sources. The internal source are presented in the organization in the form of skills and experiences of the employees, operation process, services and administrative functions, organization strategy, on the other hand information and knowledge can be acquired externally form the local community and the whole stakeholders , but the main source of these knowledge is the customers as their satisfaction is the criteria for organization success

3.2 Knowledge Sharing:

The second process is knowledge sharing that is a social process where individuals with different knowledge interact and thereby create new knowledge, also technical communication channels is one of sharing tools. (Capar , 2005; Sagan, 2006) emphasizes that the ways and tools for effective knowledge sharing are : Formal social communication network, informal social communication network, teamwork, communities of practices, organizational learning, rumors and formal structured technological communication networks (e-mail, mobile communications, teleconferences, videoconferences, etc.).

3.3 Knowledge Implementation:

Knowledge implementation is a continuous, integrated process that begins with knowledge acquisition and goes on knowledge sharing through social and technical communication tools to reach the step of using this knowledge to achieve goals through procedures, rules, decisions and processes.

Knowledge application's purpose is to apply and represent information to knowledge seekers in appropriate matter. Also, Knowledge application is the solution to wrapping knowledge to guarantee widespread usage. Moreover, knowledge application translates information into practical tools and applying the knowledge into real world. Knowledge application presents the knowledge in more clear and storable way (Sun, and Gang, 2006).

Implementing both tacit and explicit knowledge inside and outside the organization's boundaries with the purpose of achieving corporate objectives in the most efficient manner (Monavvarian and khamda, 2010). Knowledge is effectively applied during the developmental processes of an organization through rules and directives, routines and self-organized teams. Also knowledge is applied to formulate and refine the standards, procedures and processes developed to execute tasks within the organization (Sandhawalia and Dalcher, 2011).

4. Knowledge Management Models and Frameworks:

4.1 Knowledge Creation framework by Nonaka and Takeuchi:

Nonaka and Takeuchi (1995) offer a SECI model of knowledge creation. It focuses on knowledge spirals that explains the transformation of tacit knowledge into explicit knowledge and then back again as the basis for individual, group, and organizational innovation and learning.
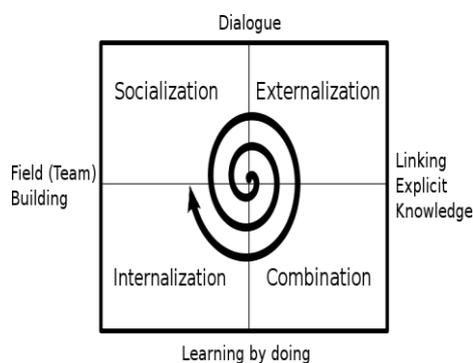

Figure (2): *SECI Model*
Source: *Girard (2010)*

Socialization: is the first process, by which synthesized knowledge is created through the sharing of experiences between people as they develop shared mental models and technical skills. Since it is fundamentally experiential, it connects people through their tacit knowledge (Walker and Finegan, 2007). It is sharing knowledge through the interaction process either socially or between employees and customer on the organization level, they share experiences and spend time together.

Externalizationcomes next; it is the process of concept creation as tacit knowledge is converted to explicit and articulated in the communication process. It can be defined as "a quintessential knowledge creation process in that tacit knowledge becomes explicit, taking the shapes of metaphors, analogies, concepts, hypotheses, or models" (Nonaka and Takeuchi, 1995).

Combination: the next process in which explicit knowledge is transformed through its integration by adding, combining and categorizing knowledge (Walker and Finegan, 2007). This integration of knowledge is also seen as a systemizing process. This mode of knowledge conversion involves combining different bodies. It is the process of improvement of the collected information and organizing it logically

Internalization or the learning process, it is the final process, which occurs through the behavioral development of the operational knowledge. According to Nonaka and Takeuchi (1995), Internalization is a process related to "learning-by-doing". It is the conversion from explicit to implicit knowledge into individual mind who then reframe, extend and broaden it in a form of new knowledge.

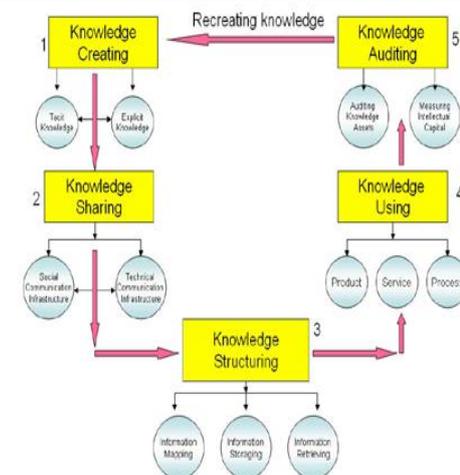### 4.2 Knowledge Management Life Cycle Model:

Figure (3): *KM Life Cycle Model*
Source: *SAĞSAN (2006)*

SAĞSAN (2006) depicts the life cycle of Knowledge management under five stages: Knowledge Creating, Knowledge sharing, knowledge structuring, knowledge use and knowledge auditing.

- The first stage of KM life cycle is knowledge creating through which tacit and explicit knowledge can appear

- The second important stage of KM life cycle is knowledge sharing that involves creating knowledge by individuals and groups with their interactivity and connectivity in organizations. It is carried out by social and technical communication channels.
- The third stage of structuring knowledge is based on sorting, organizing, codifying, analyzing, and reporting information that provides information retrieval what organization needs in the future.
- At the fourth stage, Knowledge can be used in the organizations for determining organization's work processes and making strategies for sustainable competitive advantage.
- The final stage of the cycle is knowledge auditing that refers to the capacity of information processing in organizations

Successful knowledge Management ImplementationFactors Improving the Administrative and Service:

1. Infrastructure:

Infrastructure is basic physical and organizational structures needed for the operation of a society or organization or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structural elements that provide framework supporting an entire structure of development. It is an important term for judging a country or region's development (www.wikepedia.org)

1.1 Information Technology (IT):

Information technology plays an important role in successful knowledge management initiatives. IT comprises the resource used by an organization to manage data, information and knowledge needed order to carry out its mission. IT may consist of computers, computer networks and other pieces of hardware, It also consists of software that enables the system to manage and process data, information and knowledge in ways that are useful for the organization. Modern information technology can collect, store, combine, distribute and present information. According to Gottschalk, 2002 The computational power has little relevance to knowledge work, but the communication and storage capabilities of networked computers make it an important enabler of effective knowledge work. Through email, groupware, the Internet, and intranets, computers and networks can point to people with knowledge and connect people who need to share knowledge independent of time and place.

1.2 Physical Infrastructure:

Although the technological infrastructure is an essential factor in knowledge transmitting, the physical infrastructure can facilitate easy contact among employees and increase interaction. To get most out of work force, employees have to stay at a comfortable offices with communication tools like phone, fax, internet.

Oxford dictionary defines physical infrastructure as the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise. These physical assets are facilities for service provision.

2. Intellectual Capital:

Intellectual capital (IC) is the vital pillar for competitive advantage & a key driver of the organization real wealth that sought in the people, their knowledge and skills, internal processes and relation. It is an integrated system of HR (HC), Organization structure (SC) and internal and external relations (Relational Capital).

The term first introduced by economist John Kenneth Galbraith in 1969, refers to the difference between an organization's market value and book value. Many researchers have come to regard intellectual capital as a firm's primary means of creating competitive advantage (Hsu and Fang, 2009).

2.1 Human Capital (HC):

Human Capital is the soul of organization body and an innovation source for success. Employees with technical, vocational and administrative skills and experiences, companied with creativity, attitude for learning and knowledge share have a crucial role in the development and improvement of the organization.

Hofmann (2008) defines the HC as the technical skills, social competences and motivation of management and staff, patents, copyrights etc. Employees generate IC through their competence, attitude and their intellectual agility. The competence includes skills and education, while attitude covers the

behavioral component of the employees work. Intellectual agility enables an employee to change practices and to think of innovative solutions to problems (Salleh, 2007).

2.2 Structural Capital (SC):

Organization structure is the hierarchy of the organization levels, formed to portray the formal organizational relationship among different departments and sections and the kind of power and control management that used. This hierarchy is flexible to manage processes in line with organization's strategy and goals, also SC is influenced by the external and internal environment. Organizational structure may be defined as the manner in which individuals and posts are organized to make the performance of the organization's work possible (Ikhsan& Rowland 2004).

2.3 Relational Capital

RC acts as a bridge and a catalyst on the operations of IC, it is the main requirement and determinant in converting IC into market value and thereupon organization business performance. Without RC, market value or organizational performance cannot be achieved. RC is most directly related to a company's business performance. The cultivation of RC relies on the support from HC, SC and innovation (Chen, 2004).

Although the customer relation is very important capital for knowledge and the success of organization, another relations are also essential and source of knowledge needed for the organization work, this include external relation with stakeholder who are community, government, other organizations and institutions, also the internal relationship among employees in the same organization are very important for knowledge flow and work success.

2.4 Knowledge Management & Intellectual Capital:

KM and IC are complementary concepts and cannot be separated. Where IC is considered as an organization's strategic valuable resource of wealth creation, KM are the activity used to transform these resources into services that create value for customers and organization competitive advantage. This means that the successful management of IC is closely linked to the KM processes of the organization which in turn implies that the successful implementation and usage of KM ensures the acquisition and growth of IC.

Peter F. Drucker said that knowledge will be the only competitive resource for companies in the future. Knowledge management (KM) has emerged as a major issue that managers must deal with, if the organizations want to maintain their competitive advantage. (Hung et al., 2006). Most researches have either focused on the link between knowledge management and organizational performance, or on the link between intellectual capital and corporate performance.

In many different sectors, knowledge management and intellectual resources are increasingly important factors in the successful achievement of organizational objectives (Striukova et al., 2008). McKeen (2006) finds that social capital mediates the relationship between structural capital and KM, also (Lin and Huang, 2005) find that the effects of human capital on career mobility are fully mediated by social capital.

3. Organization Culture (OC):

In fact appropriate culture can provide the situation for appropriate knowledge management in an organization as culture affects the way individuals make decisions, feel, perform tasks, set objectives, and administer the necessary resources to achieve objectives. Each organization has different rules, experiences, values, regulations, vision and mission. Knowing this will help to realize that each one defines organization culture a little differently.

3.1 Organization Strategy (OS):

An effective KM requires an organization strategy with long-term commitment from all organization members and leadership that enthusiasm for improvement and receptive to global changes. Organizations need to analyze and plan their strategies in terms of the knowledge they currently possess and the knowledge they will need for future work process. Organizational strategy specifies the organization's mission, vision and objectives for long term and develops policies and plans in terms of projects and programs, created to achieve the organization's objectives. It also allocates resources to implement them.

3.2 Rules & Regulations:

Rules and regulation are the statements that presents acts , commitment and conditions that organization have on a written document and use through daily work routine to guide decisions and achieve outcomes, It is guidelines for managing the organization. According to Keiser, Beck and Tainio , 2001, the formal rules enable organizational learning and knowledge and increase the effectiveness of organizational communication. While Gold et al., 2001 said that rules and directives help sequencing problem solving and decision making, which in turn facilitate knowledge accumulation.

The absence of clear rules or the avoidance of implementation, can create situations that undermine board authority, jeopardize organizational efficiency and risk the smooth functioning of the group (Berl, 2005). Organizational rules play a crucial role in the use of dispersed knowledge in organizations, so better understanding of the roles is necessary to improve understanding of organizational learning process (Richebe 2002). Ichijo, Von Krogh and Nonaka highlighted that knowledge processes require flexibility and less emphasis on work rules (Quink,2008).

3.3 Organization Culture & KM:

Culture is the heart of knowledge management, the success or failure of organization depends on culture, many researches and studies have been done in the field of organizational culture and knowledge management, which will be highlighted.

Studies on the role of culture in knowledge management have focused on such issues as: the effect of organizational culture on knowledge sharing behaviors (DeLong & Fahey, 2000); the influence of culture on the capabilities provided by KM (Gold, Malhotra&Segars, 2001); Constructive cultures (emphasizing values related to encouragement, affiliation, achievement, and self-actualization) tended to achieve greater KM success Baltahazard and Cooke (2003).

Organization Performance:

Performance is what is expected of a fully qualified and experienced person in the position. Organizational performance comprises the actual output or results of an organization according to its goals and objectives. It has been the most important issue for organization in order to consider which factors influence it.

Organizational performance is described as the extent to which the organization is able to meet the needs of its stakeholders and its own needs for survival. Hence, performance should not be wholly equated with certain profit margin, high market share, or having the best products, although they may be the result from fully achieving the description of performance (Griffin, 2003; Abu-Jarad,2010).

Organization Performance & KM:

KM has the potential to help organizations to select, organize, capture, distribute, and transfer significant information, knowledge, and expertise which enables improvement of organizational performance. Since knowledge is rapidly becoming a very important measure of the organizational future performance (Choi and Lee, 2003), Tanriverdi, 2005 found that knowledge management is a critical organizational capability through which IT influences firm performance. His study shows that KM capability leads to superior firm performance. The KM capability creates and exploits cross-unit synergies from the product, customer, and managerial knowledge resources of the firm. These synergies increase the financial performance of the firm.

Previous Studies:

1. Arabic Studies:

-   **Modallalah, 2012:** "Knowledge Management Implementation at the Palestinian Governmental Organizations and its Effect on Performance- Case study Presidency of Council of Ministers"

The purpose of this study is to identify the infrastructure of implementing Knowledge management in The Palestinian Governmental Institutions, and determine its impact on Organizational performance. Also, to propose the recommendations needed to create the appropriate working environment in the Presidency of Council of Ministers to implement KM. The Study adopted the descriptive analytical method to achieve its aims. Survey questionnaire were personally distributed to all (46) technical, administrative and supervisory employees working at the Presidency of Council of

Ministers. A total of (44) fully answered questionnaires that were received from the respondents, at return rate of 95.7%.

The study found that there is a Lack of availability of KM implementation infrastructure in the Presidency of Council of Ministers by 55.78%. These infrastructure requirements vary as follows: Information Technology 59.53%, Organizational Culture 56.74%, Personnel 53.18%, Leadership 53.14%, also it found that there is significant relationship between the availability of KM implementation infrastructure and the level of performance in the Presidency of Council of Ministers by 0.829.

The Study Recommended to Rebuild the public employee as an intellectual capital and the most effective factor to achieve Institutional success, throughout investing and developing the employees knowledge abilities and to adopt a strategy for knowledge management, as a scientific and applicable methodology to achieve the optimal implementation of KM processes in Presidency of Council of Ministers.

- **Al-Jabari, 2010:** "The reality of knowledge management at the municipalities of Hebron and Bethlehem from their manager's perspective"

The study aims to realize the reality of knowledge management at Hebron and Bethlehem municipalities and to define the role of knowledge management in improving performance. The researcher relied on the descriptive analytical method to achieve the goal of this study. A questionnaire was used as an instrument to collect data, the questionnaires were distributed by mean of comprehensive survey, the number of distributed questionnaires was 255 and those that were returned and found usable are 194. The results at the reality of knowledge management was low at municipalities of Hebron and Bethlehem governorates from point of view of their administrators, whereas results showed considerable realization at administrators on concept of knowledge management with differences of statistical consideration attribute to variation of educational Qualifications. Based on the findings the researcher suggested a number of recommendations such as the necessity to develop the organizational structure of the municipalities which shall include a specialized department to manage

knowledge in municipalities, and to include knowledge management to the strategic plans of municipalities, and to start specialized team from department of human resources, IT and planning and development departments whose duties shall include the spread of the concept of knowledge management and organizing knowledge management operations.

- **Analoui, et al., 2010:** "Parameters of managerial effectiveness: The case of senior managers in the Muscat Municipality, Oman"

This paper seeks to report on the findings of a recent study which explores the ways/factors which influence and/or determine the effectiveness of the senior management in the Muscat Municipality, Oman, by assessing the perception of senior managers concerning the influences (parameters) on their effectiveness. The research has utilized a combination of qualitative and quantitative methodologies. Analoui's model of "eight parameters for effectiveness" has been used as a basis to explore the awareness, perceptions, skills, organizational standards, motivation, degree of demands and constraints, and the presence of choices and opportunities for effectiveness.

The study found that Analoui's model of "managerial effectiveness" is applicable to the public sector in Oman. Senior managers are aware of their own effectiveness and better understanding of their effectiveness requires paying attention to the identified parameters and contexts in which they perform their tasks. Unfortunately, little attention has been paid to their management development. The study is suggested that senior managers should be enabled: to communicate effectively with other people; to manage their own time and use it effectively; to make decisions/resolve problems; and to lead and motivate employees effectively at work. The reward system needs revising and a learning environment ought to be established to foster transformational leadership.

2. **International Studies:**
- **Gaffoor&Cloete, 2010:** "Knowledge management in local government: The case of Stellenbosch Municipality"

The goals of the study were, to investigate the extent to which Stellenbosch Municipality demonstrates readiness for implementing KM

practices in its organization through the assessment of existing KM enablers present in that organization and to identify general principles demonstrated by Stellenbosch Municipality that can be used for wider application in the South African local government sphere. The main role players in KM in the Municipality that were focused on in this case study were the Corporate Services, Strategic Services and Financial Services directorates. Theoretical data were obtained through documentary assessment and empirical data were attained by means of interviews with municipal personnel present in the selected departments.

The research indicated that the concept of KM is still an indistinct and novel idea among senior personnel members of Stellenbosch Municipality and that a greater awareness of its importance and subsequent benefits needs to be instilled among senior managers. The study recommended that if the municipality wants to become a knowledge-based organization and ultimately achieve organizational effectiveness, it has to devise an explicit KM strategy, to build an organizational memory (also known as a knowledge repository); to reward employees and create incentives for contributions to knowledge generation, sharing and management; to actively implement a KM division within the organization.

- **Ikhsan& Rowland, 2004:** "Knowledge Management in a public organization: a study on the relationship between organizational elements and the performance of Knowledge transfer"

The paper investigates the relationship between organizational elements and the performance of knowledge transfer. Five main independent variables were identified- organizational culture, organizational structure, technology, people and political directive. To achieve an in depth empirical study, the Ministry of Entrepreneur Development of Malaysia was chosen for a case study, the findings are based on replied to a questionnaire survey done from Sept. to Dec. 2001.

The results reveal that there are significant relationship between some of the variables and either the creation of knowledge assets or the performance of knowledge transfer. The study recommended that it is necessary for organization to consider some of the elements that show a relationship between the tested

variables in implementing a knowledge management strategy in a organization

- **Choi, B., (2005):** "Knowledge Management Enablers, Processes, and Organizational Performance: An Integration and Empirical Examination"

The primary objective of this dissertation is to delineate an integrative view of knowledge management and provide some guidelines. The study proposed an integrated model for knowledge management, including knowledge management enablers (e.g. organizational culture, organizational structure, people, and information technology), knowledge creation processes, organizational creativity, and organizational performance. It also investigated the relationship among knowledge management components empirically. The main study was conducted through mail survey and interviews, which covered 127 organizations and its 1290 middle managers in Korea.

The study found that organizational culture variables are found to be essential for knowledge creation, collaboration is positively related with socialization, externalization, and internalization while it does not affect the combination mode. In particular, trust is a significant predictor of all knowledge creation processes; Centralization is negatively related with socialization, externalization, and internalization while it is not significantly related with combination. By contrast, formalization and T-shaped skills of members do not significantly affect knowledge creation. Information technology support is significantly related with knowledge combination only. Knowledge creation is positively related with organizational creativity, which is positively related with organizational performance.

- **Zaharova&Zelmene, 2004:** "Knowledge Management in Delivering Customer Oriented Services in Public Sector"

The paper addresses the question whether the knowledge management approach that has proven to be successful in business environment is applicable to the provision of public sector services. Today in response to the changes in global economy, growing customer demands and increasing IT possibilities the public sector adapts approaches that have proven to be successful in business environment. The answer to the

question of the paper is based on research of academic and business literature, as well as experience gained from participation in Riga municipality e-city project (Riga is the capital of Latvia).

The study concluded that there are no theoretical obstacles for employment of KM in public sector CRM implementation, improving quality and efficiency of public services gaining similar benefits as in the private sector; Employment of KM allows standardization and automation of customer service and support processes, as well as introduction of customer-centric universal front office service delivery model in public sector institutions. It could improve and more consistent public service quality; more accessible services, aligned with customer preferences (channel selection possibility); more streamlined and efficient customer service process.

The study found that the public sector is lagging behind the private sector in applying modern customer-centric service methods and currently is focusing on the implementation of CRM initiatives providing basic CRM functionality and there is a need for extensive application of KM in the provision of public services is not widespread yet; it could become a common practice as soon as CRM implementation initiatives are successfully completed.

Municipality of Gaza:

a. Historical Review:

The Municipality of Gaza (MOG) is the biggest municipality in the Gaza Strip. It was established in 1893 and the last municipal council was composed in March 2008. Through its long historical existence, MOG provide the service for the population of Gaza City (about 650,000) who lives in 19 neighborhoods in the Gaza city at 55 km2.

MOG structure is composed of 8 General Directories (GD) with 1497 employees distributed in different directories and sections. The municipality has a top-down, hierarchical organizational structure, which is not the most conducive to KM efforts, in that it is characterized by a bureaucratic nature and thus it is not very responsive to changes being made. Furthermore, it is also a deterrent to horizontal communication flows.

The process of knowledge management at the MOG depends on traditional procedure of knowledge transmitting under the routine based concept; knowledge is centralized at one department or limited in the mind of a particular employee. Knowledge is transmitted as information or data on vertical way from the top level (Mayor) to a particular GD which transmit to other levels at the same department and finally the information is stored at the archiving system without sharing with other department at the MOG. Consequently a delay of service provision and waste of time and efforts occur.

Research Methodology:

The study used the analytical descriptive method which described and access the effect of Infrastructure, Intellectual capital and MOG culture on KM and development of administrative and service performance. The descriptive method is used to compare, explain and evaluate in order to organize meaningful results.

The primary data obtained from survey questionnaire that has been developed based on the literature and has been modified regarding the supervisor's recommendations and the experts and academic judgments. The population frame for this study consisted of male and female employees at MOG who are working at different departments , while excluding some technicians who are not related , workers of sewage stations, garbage collectors who are less than full secondary certificate.

A random sample of 30 respondents from the study population were conducted as a pilot study to assess reliability and validity of the questionnaire. After the modification of the questionnaire it was self-distributed to the target population of MOG employees who are holding a degree more than tawjihi, Although the target population are 242 employees, 160 reply to the questionnaire as 82 were technicians who are not related and not involved in the study.

Data validity and Reliability Test:

The table below shows the results for Kolmogorov-Smirnov test of normality. From the table, the p-value for each field is greater than 0.05 level of significance, then the distribution for each field is normally distributed. Consequently, Parametric tests will be used to perform the statistical data analysis. Organization Fit

Table 1	Kolmogorov-Smirnov test	
	Kolmogorov-Smirnov	
Field	**Statistic**	**P-value**
Technological and Physical Infrastructure	0.968	0.306
Intellectual Capital	0.578	0.893
MOG Culture	0.483	0.974
Knowledge Management Implementation at MOG & Development of Administrative and Service Performance	0.906	0.384
All paragraphs of the questionnaire	0.663	0.772

Table 2	Correlation coefficient of each field and the whole of questionnaire		
No.	**Field**	**Pearson Correlation Coefficient**	**P-Value (Sig.)**
1	Information Technology	.933	0.000*
2	Physical Infrastructure	.900	0.000*
3	Technological and Physical Infrastructure	.725	0.000*
4	Human Capital	.906	0.000*
5	Structural Capita	.714	0.000*
6	Relational Capital	.935	0.000*
7	Intellectual Capital	.924	0.000*
8	MOG Strategy	.948	0.000*
9	MOG Rules & Regulations	.900	0.000*
10	MOG Culture	.903	0.000*
11	Knowledge Management Implementation at MOG & Development of Administrative and Service Performance	.828	0.000*
* Correlation is significant at the 0.05 level			

Table 3	Cronbach's Alpha for each filed of the questionnaire	
No.	**Field**	**Cronbach's Alpha**
1.	Technological and Physical Infrastructure	0.872
2.	Intellectual Capital	0.951
3.	MOG Culture	0.944
4.	Knowledge Management Implementation at MOG & Development of Administrative and Service Performance	0.963
	All paragraphs of the questionnaire	0.973

Thereby, it can be said that the researcher proved that the questionnaire was valid, reliable and ready for distribution for the population sample.

Data Analysis:

Table 4	Personal data	
Gender	**Frequency**	**Percent**
Male	125	78.1
Female	35	21.9
Total	160	100

Table 5	Personal data	
Years of Experience	**Frequency**	**Percent**
Less than 5 years	12	7.5
5-less than 10 years	11	6.9
10-less than 15 years	51	31.9
15 years and more	86	53.8
Total	160	100

Table 6	Personal data	
Job title	**Frequency**	**Percent**
General Director	2	1.3
Director	9	5.6
Deputy Director	14	8.8
Head of Departments	33	20.6
Other Administrative & Engineers	102	63.8
Total	160	100

Table 7 *Analysis for each field*				
Filed	**Mean**	**Mean %**	**Test value**	**P-value (Sig.)**
Technological and Physical Infrastructure	3.25	64.93	4.27	0.000*
Intellectual Capital	2.91	58.15	-1.52	0.065
MOG Culture	2.71	54.19	-4.15	0.000*

* The mean is significantly different from 3

The mean of the field "**Technological and Physical Infrastructure**" equals 3.25 (64.93%), test value = 4.27, and p-value =0.000, which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value. It can be concluded that the respondents agreed to the field of "**Technological and Physical Infrastructure**".

The analysis results shows 64.93% of the MOG staff agreed for the role of technological and physical infrastructure on KM and performance development, as the employees aware of globalization and new technology around the world.

76.86 % of MOG employees agree that information technology is used for service provision and follow up this is due to the new system that MOG initiated at the beginning of the year 2012 for electronic service. On the other hand 49.17% disagree that internet is available for employees at MOG , this is due to the MOG policy that provide Internet to higher level positions as General Directors, and Directors.

The mean of the field "**Intellectual Capital**" equals 2.91 (58.15%), test value = -1.52, and p-value =0.065, which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 3. We conclude that the respondents (Do not know, neutral) to field of "Intellectual Capital".

The analysis results shows 58.15% of the MOG staff don't know or neutral in their responses to the impact of intellectual capital on KM and performance and this is related to the diversity of responses to field's questions between agree and disagree , as the analysis shows that the mean of responses to paragraph "4" and paragraph "1" present the agreement to the questions, on the other hand the

other means reveal disagreements to the questions. The nature of organization and the socioeconomic situation of the employees have negatively affect the responses of the employees.

The mean of the field "**MOG Culture**" equals 2.71 (54.19%), Test-value =--4.15, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this field is significantly smaller than the hypothesized value 3. We conclude that the respondents disagreed to field of "MOG Culture".

The respondents disagreed to field of "MOG Culture" due to the fact that MOG Culture (strategy and Rules and Regulations) are not publicized to the employees. The results not consistent with Holowetzki (2002) that finds that information systems, organizational structure, reward systems, processes, people, and leadership are the factors that impact KM initiatives.

Research Hypothesis Test:

There is a statistical significant effect of the Infrastructure on knowledge management at 0.05 level.

R Square = 0.360, this means 36.0% of the variation in the knowledge managementis explained by "Information Technology and Physical Infrastructure".

The table shows the Analysis of Variance for the regression model. Sig.= 0.000, so there is a significant relationship between the dependent variable "knowledge management" and independent variables "Information Technology and Physical Infrastructure".

Table 8 *ANOVA for Regression*					
	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Regression	42.159	2	21.079	43.591	.000
Residual	74.953	155	0.484		
Total	117.111	157			

There is a statistical significant effect of the intellectual capital on knowledge management at 0.05 level.

R Square = 0.561, this means 56.1% of the variation in the knowledge managementis explained by "Structural Capital and Relational Capital".

The table shows the Analysis of Variance for the regression model. Sig. = 0.000, so the independent variables "Structural Capital and Relational Capital" affects significantly the dependent variable "knowledge management."

Table 9 ANOVA for Regression				
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	65.721	2	32.861	97.840	.000
Residual	51.387	153	0.336		
Total	117.109	155			

There is a statistical significant effect of the organization culture on knowledge management at 0.05 level.

R Square = 0.465, this means 46.5% of the variation in the "knowledge managementis explained by "MOG Strategy" The table shows the Analysis of Variance for the regression model. Sig.=0.000, so the independent variable "MOG Strategy" affects significantly the dependent variable "knowledge management"

Table 10 ANOVA for Regression				
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	54.478	1	54.478	135.688	.000
Residual	62.633	156	0.401		
Total	117.111	157			

1. There are significant differences among the respondents' answers regarding the impact of Infrastructure, intellectual capital and MOG culture on knowledge management implementation and development of administrative and service performance due to the individual characteristics.

The results reveal that the characteristic of the respondents Gender, Age, Qualifications, and Job title has no effect on each field. While the characteristic of the years of experience has an effect on this field.

Conclusions:

This research investigates the development of administrative and service performance at the MOG through KM implementation, by studying the factors that influence KM implementation. Three factors are considered to influence KM implementation in order to develop performance. those factors are Infrastructure, intellectual capital and organization culture.

In light with the findings that were presented in the previous chapter, the most notable conclusions were:

- 67.26% of the MOG staff agreed that there is a statistical significant effect of KM implementation on development of administrative and service performance, this reveals that KM is an effective tool and strongly affect performance.

- 64.93% of the MOG staff agreed that there is a statistical significant effect of technological and physical infrastructure on KM and performance. The results reveal that IT strongly affects KM implementation, while physical infrastructure has less impact on KM implementation.

- 58.15% of the MOG staff agreed that there is no statistical significant effect of intellectual capital on KM and performance. The results show that the dimension of SC strongly affect KM with a mean of 57.91, on the other hand RC has less impact on KM implementation.

- 55.90% of the MOG staff agreed that there is no statistical significant effect of organization culture on KM and performance.

- There are no significant differences among the respondents' answers regarding the impact of Infrastructure, intellectual capital and MOG culture on knowledge management implementation and development of administrative and service performance due to gender, age, qualification, job title. This might be attributed to the fact that everyone nowadays realizes the great influence of the modern information technology and its contribution to the administrative and service performance in any organization.

- There are significant differences among the respondents' answers regarding the impact of Infrastructure, intellectual capital and MOG culture on knowledge management implementation and development of administrative and service performance due to years of experience. This might be attributed to the fact that the employees who have higher number of work experiences can distinguish clearly the method of doing the work and providing the services in the past and now.

Recommendations:

The research indicates that the concept of KM is still an indistinct and novel idea among biggest municipality of the Gaza Strip and in order to enhance the concepts of KM at public organization and its role in the development of performance, and in light of the aforementioned results, the following recommendations are formulated. The recommendations are suggested to be for other municipalities at Gaza Strip:

1. To Initiate a new core center as an infrastructure for knowledge creation and sharing with an experienced team (financial, technical, administrative) who has not only management skills but a broad knowledge of the MOG strategy, rules, services and practices.

2. To set up strategies and plans that build a strong and solid experiences among the employees and to manage the mutual knowledge transfer between the organizations' members in a systematical approach in addition to strengthen internal & external communication through mutual exchange for the staff with municipalities that have mutual relations;

3. To increase the awareness of knowledge management and the importance of knowledge share among employees through workshops, brochures and training

4. To reinforce employees loyalty though enhance the idea of staff sharing in setting goals and policies and emphasis reward mechanisms that appropriate for employees who share their knowledge, experiences and skills;

5. To use job rotation to create special skill and knowledge transfer and to call on particularly skilled employees to undertake special organizational training and mentoring;

6. To Emphasis the rehabilitation of physical work environment to facilitates knowledge sharing through good design offices and well furnished with modern equipment.

7. Finally, Establish online knowledge bank for whole resources concerning municipal strategies, services, activities and projects and set a written handbook of MOG goals, polices and strategies and to distribute it to all employees .

Proposed Framework for Knowledge Management at MOG:

The framework suggested to apply KM through the presence of a core center for knowledge management, is illustrated below.

The process of KM at MOG can be considered as a dynamic cycle of input and output, MOG generates knowledge through interacting with internal environment (employees) and external environment (civil & stakeholders), by face-to-face communication or shared experience through meeting or workshops in which the staff discuss what is important and consider others suggestions.

The knowledge collected combined with strategy, rules, skills and experiences is processed in order to create new knowledge in the shape of service, projects, and criteria. In order to proceed in the knowledge management process effectively, MOG has to consider two important factors; Human Resources (employees) and the Infrastructure.
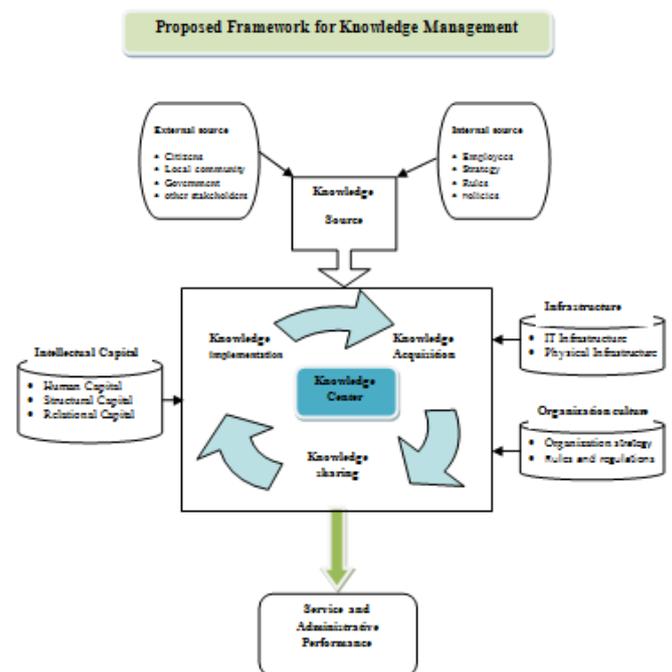

Figure (4): *Proposed Framework for KM*
Source: *Researchers (2012)*

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