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**Deanship of Higher Education**  
**Faculty of Commerce**  
**Business Administration Department**



**The Acceptance and the Implementation of Information Technology  
(IT) by Palestinian Non-Governmental Organizations (NGOs) in the  
Gaza Strip**

" قبول و تطبيق تكنولوجيا المعلومات في المنظمات غير الحكومية الفلسطينية العاملة في  
قطاع غزة "

**Thesis submitted in partial fulfillment of the requirements for the  
degree of master in business administration.**

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## GLOSSARY OF TERMS

**Effort Expectancy:** Is the degree of ease associated with the use of the system.

**Facilitating Conditions:** The degree to which an individual believes that an organizational and technical infrastructure exist to support use of the system.

**Free Access to Information:** The effect of distance and the existence in different areas on the usage of IT in general.

**Information Technology:** Is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, in this study, researcher concerns only “software “applications of information technology.

**Information Technology acceptance:** An individual’s psychological state with regard to his or her voluntary or intended use of a particular technology.

**Perceived Enjoyment:** The extent to which the activity of using a specific system is perceived to be enjoyable in its’ own right, aside from any performance consequences resulting from system use.

**Performance Expectancy:** Is the degree to which an individual believes that using the system will help him or her to attain gains in job performance.

**Palestinian Non-Governmental Organizations Network:** Is a network of Palestinian Non-governmental organizations founded in 1993.

**Questionnaire:** A pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives.

**Research Design:** The arrangement of conditions to collect and analyze data in a manner that aims to combine relevance to the research purpose with economy in procedure.

**Research Methodology:** The overall approach to the research process, from the theoretical underpinning to the collection and analysis of data.

**Research Methods:** The various means or techniques or procedures used to gather and analyze data related to some research question or hypothesis.

**Research Population:** The group of people or things of interest under investigation by the researcher.

**Social Influence:** Is the degree to which an individual perceives that important others believe he/she should use the new system.

**Theoretical Framework:** A collection of theories and models from the literature which supports a positivist research study.

## **ABBREVIATIONS LIST**

**BI:** Behavioral Intention.

**EE:** Effort Expectancy.

**FC:** Facilitating Conditions.

**FAI:** Free Access to Information.

**IT:** Information Technology.

**NGOs:** Non-Governmental Organizations.

**PE:** Performance Expectancy.

**PET:** Perceived Enjoyment.

**PLS:** Partial Least Square.

**PNGO:** Palestinian Non-Governmental Organizations Network.

**SPSS:** Statistical Package for the Social Sciences

**UB:** Usage Behavior.

**UTAUT:** Unified Theory of Acceptance and Use of Technology.

## **Abstract**

Information Technology (IT) acceptance literature has developed many models that empirically test user acceptance of IT. The most recent model is the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al. (2003). In this study, researcher aims to extend UTAUT model in the context of non-governmental organizations (NGOs) based in the Gaza Strip. The extension is based on variables related to Gaza Strip situation.

In this study, the researcher applies a quantitative research methodology by using an on-line questionnaire distributed to a random sample of NGOs. Then, data are analyzed by using SPSS program for statistical analysis. The extension of UTAUT is examined by using a PLS-Graph (build 1126), a PLS structural equation modeling tool.

Based on a sample of 154 organizations, the researcher finds that the proposed model explains 67.9 % of the variance in behavior intention. Furthermore, the findings highlight the importance of using and improving IT application as an alternative communication tool with the outside world in the besieged Gaza Strip. It also helps to come up with concrete recommendations for improving the use of IT in the NGO's community in the Gaza Strip.

## ملخص الدراسة

عرضت أدبيات تكنولوجيا المعلومات العديد من الدراسات التي طورت عدة نماذج قبول وتبني الأفراد لتكنولوجيا المعلومات. أحد أحدث هذه النماذج هو " نموذج النظرية الموحدة لقبول واستخدام تكنولوجيا (UTAUT)" الذي تم تطويره من قبل فينكاتيش واخري (2003). هذه الدراسة ، تهدف الباحثة إلى تسليط الضوء والبحث في العوامل التي تؤثر في تبني وتقبل الأفراد لتكنولوجيا المعلومات من خلال تطبيق نموذج محدث من UTAUT بحيث يتم إضافة بعض العوامل التي تتناسب مع حالة قطاع غزة، وتطبيق هذا النموذج بشكل عملي على المؤسسات غير الحكومية الفلسطينية العاملة في قطاع غزة ( النية السلوكية) ( تكنولوجيا المعلومات).

معظم الدراسات الحديثة تظهر أن نموذج UTAUT فاق النماذج الأخرى الباحثة في تقبل الأفراد لتكنولوجيا . في هذه الدراسة، تطبق الباحثة منهجية البحث الكمي باستخدام الإستبيان الإلكتروني بحيث يتم توزيعه على عينة عشوائية من المنظمات غير الحكومية في قطاع غزة، ومن ثم تحليل البيانات باستخدام برنامج التحليل الإحصائي (SPSS) (PLS-Graph (build 1126)).

إعتمادا على تحليل عينة من 154 منظمة حكومية، تجد الباحثة أن نموذج الدراسة المقترح يفسر التغير في (النية السلوكية) 67.9%. علاوة على ذلك، تظهر الدراسة أهمية استخدام وتطوير تطبيقات التكنولوجيا كأداة تواصل بديلة مع العالم الخارجي في حالة قطاع غزة في ظل الحصار المفروض عليه. كما تساعد هذه الدراسة في طرح توصيات من أجل تحسين استخدام التكنولوجيا في بيئة المنظمات غير الحكومية الفلسطينية العاملة في قطاع غزة.

# CHAPTER 1: Introduction

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## 1.1 Background of the research

In this era, we are living in the digital and information technology (IT) time, where we are facing every day with a huge amount of information to deal with and think about. The digital world forced us to get involved in it regardless of our background and knowledge. For that, we are racing everyday to get the most recent techniques produced from this information revolution. In addition, IT facilitates organizational activities and processes (Turban, Rainer et al. 2001). As such it is of crucial importance for managers and staff members to learn about IT from the standpoint of their respective specialized field, and also from the standpoint of IT across the entire organization (Kripanont 2007).

The issue of IT acceptance and use has acquired the interest and attention of researchers and practitioners for over a decade. Successful investment in technology can improve productivity and performance, while failed IT systems can lead to negative consequences such as financial losses and dissatisfaction among employees (Venkatesh 2000).

User acceptance models were developed in many studies and researchers tried to examine the factors affecting individual acceptance of IT adoption. One of these models is the Unified Theory of Acceptance and Use of Technology (UTAUT), which was developed by Venkatesh et al. (2003) (Venkatesh, Morris et al. 2003). This model examines factors which influence the acceptance and implementation of IT. UTAUT is

an integrated model which captures the essential elements of other developed models (Alikilic and Atabek 2012).

Recent studies including Venkatesh et al. (2003) and Alikilic and Atabek (2012), among others show that UTAUT outperforms other models. Venkatesh et al. (2003) reviewed eight models of technology acceptance and adoption, such as: The versions of Technology Acceptance Model (TAM1 through TAM3) of (Davis 1989); Theory of Planned Behavior (TPB) of Ajzen (Ajzen 1991); Innovation Diffusion Theory (IDT); Social Cognitive Theory (SCT) (Compeau, Higgins et al. 1999). The UTAUT identifies factors that could be considered as a determinant of 'intention to use' and 'usage behavior' of individuals.

This study aims to examine UTAUT in the context of Palestinian Non-Governmental Organizations (NGOs) based in the Gaza Strip. In order to discover factors affecting IT adoption in these organizations, and individual acceptance of this adoption, also, the researcher modifies the UTAUT to fit the situation of Gaza Strip. This study also considers the present of the Israeli blockade to Gaza Strip as one of the control variable of the dependency on IT.

The researcher applies the quantitative research methodology by using a questionnaire distributed to a sample of NGOs-based in the Gaza Strip. Then, the UTAUT is examined by using the Partial Least Square (PLS)-Graph (build 1126), a PLS structural equation modeling tool. It assesses the psychometric properties of the measurement model, and estimates the parameters of the structural model. This tool enables the simultaneous analysis of up to 200 indicator variables, allowing the examination of extensive interactions among moderator and latent predictor variable indicators.

## **1.2 Research problem**

In this study, the main goal is to identify the acceptance and adoption of IT in Palestinian NGOs. Many models were developed to examine IT adoption, but, despite their usefulness, a number of researchers are still interested to know whether these models should be revised or modified to account for rapid change in both technologies and their environments (Kripanont 2007). Accordingly, the researcher applies the modified version of UTAUT to examine the power of it in identifying the (behavioral intention) and (usage behavior) in the content of Palestinian NGOs in the Gaza Strip. Also, an important role of IT is highlighted specially for Palestinian NGOs, where IT, due to the permanent siege and closure of passageways, becomes an important (and sometimes the only) tool to communicate with the outside world to access information and accomplishing required tasks, for that, researcher tries to understand and addresses the factors that play the main role in individual acceptance to use IT efficiently, as an alternative communication tool, and if these factors could explain the behavioral use of the IT at Palestinian NGOs in Gaza. In addition, this study explores to what extent UTAUT can help in defining and understanding the adoption and acceptance of IT by NGOs in Gaza. It also examines the linkages between the implementation of IT and the achievement of the organizational functions and goals.

## **1.3 Research objectives**

The main objective of this study is to empirically examine a modified model of UTAUT to identify factors affecting “intention to use” and “usage behavior” of IT in Palestinian NGOs in the Gaza Strip. The understanding of the model may help in discovering reasons of technology resistance and would also help to take efficient



measures to improve user acceptance/usage of the technology. Applying the UTAUT model also aims to address the following issues:

- Determine the effects and role of moderator variables defined by UTAUT in the relationship between the dependent and independent variables.
- Determine the contribution of the following factors:
  - ◆ The level of performance expectancy that exists among IT users.
  - ◆ The level of effort expectancy that exists among IT users.
  - ◆ The level of social influence that exists among IT users.
  - ◆ The level of facilitating conditions that exists among IT users.
  - ◆ The level of free access to information that exists among IT users.
  - ◆ The level of perceived enjoyment that exists among IT users.
- Find out how much NGOs are ready to adopt and use the IT applications.
- To give recommendations to the non-profit sector about IT adoption and its importance to their work.

#### **1.4 Research contribution**

The importance of this study comes from the fact that it is the first one that examines UTAUT model in the Palestinian NGOs. In addition, the importance also comes from the significant power of UTAUT model with regard to other models. Recent studies including (Venkatesh, Morris et al. 2003) and (Alikilic and Atabek 2012) among others show that UTAUT outperforms other models. The advantages of UTAUT

are in its power to explain the moderators and mediators variables that influence the uses and acceptance of IT. According to Alikilic and Atabek (2012), UTAUT “integrated previously established models on individual acceptance of information technology into a unified theoretical model which captures the essential elements of previously established ones” (Alikilic and Atabek, 2012:58). Furthermore, UTAUT equips managers with a practical tool to assess the possibilities of success for new technologies and assists them to understand the reasons behinds acceptance, so that they design proper actions targeting users who may decline to adopt and use new technologies (Venkatesh, Morris et al. 2003).

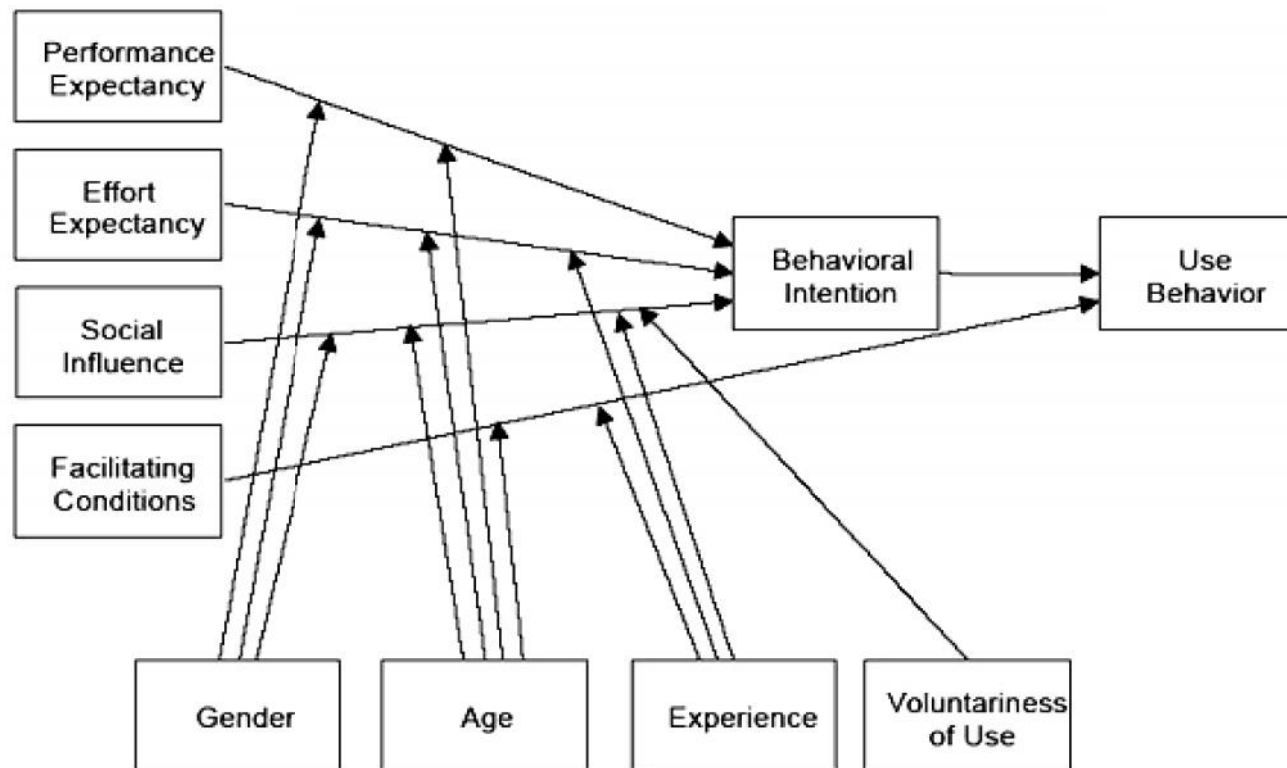
This study also highlights the importance of using and improving IT application as an alternative communication tool with the outside world in the besieged Gaza Strip, and helps to come up with concrete recommendations for improving the use of IT in the NGO’s community in the Gaza Strip.

## **1.5 Research variables**

- **Dependent variable:**
  - Usage Behavior (**UB**).
- **Mediator variable:**
  - Behavioral Intention (**BI**).
- **Independent variables:**
  - Performance Expectancy (**PE**).
  - Effort Expectancy (**EE**).
  - Social Influence (**SI**).
  - Facilitating Conditions (**FC**).
  - Free Access to Information (**FAI**).

- Perceived Enjoyment (**PET**).

According to UTAUT, there are four moderator variables: Gender; Age; Experience; Voluntariness of Use as illustrated in Fig 1.



**Figure 1: Unified Theory of Acceptance and Use of Technology, Source: (Venkatesh, Morris et al. 2003)**

## 1.6 Research hypotheses

In order to examine the model of UTAUT, hypotheses are suggested by the model as follows (*All hypotheses are tested at level of significance = 0.05*):

***H<sub>1</sub>***: PE will have a positive influence on BI.

*H<sub>1a</sub>*: Gender may positively moderate the influence of PE on BI for men

*H<sub>1b</sub>*: Age may positively moderate the influence of PE on BI for younger people.

***H<sub>2</sub>***: EE will have a positive influence on BI.

*H<sub>2a</sub>*: Gender may negatively moderate the influence of EE on BI for men.

*H<sub>2b</sub>*: Age may negatively moderate the influence of EE and BI for elder people.

*H<sub>2c</sub>*: Experience may positively moderate the influence of EE on BI for people with lower experience.

***H<sub>3</sub>***: SI will have a positive influence on BI.

*H<sub>3a</sub>*: Gender may positively moderate the influence of SI on BI for women.

*H<sub>3b</sub>*: Age may negatively moderate the influence of SI on BI for elder people.

*H<sub>3c</sub>*: Experience may positively moderate the influence of SI on BI with lower experience.

*H<sub>3d</sub>*: Voluntariness of use may positively moderate the influence of SI on BI for voluntary people.

***H<sub>4</sub>*: FC will have a positive influence on the UB of IT.**

*H<sub>4a</sub>*: Age may positively moderate the influence of **FC** on **UB** for elder people.

*H<sub>4b</sub>*: Experience may positively moderate the influence of **FC** on **UB** with lower experience.

***H<sub>5</sub>*: FAI will have a positive influence on BI.**

*H<sub>5a</sub>*: Gender may positively moderate the influence of **FAI** on **BI** for males.

*H<sub>5b</sub>*: Age may negatively moderate the influence of **FAI** on **BI**.

*H<sub>5c</sub>*: Experience may positively moderate the influence of **FAI** on **BI** for higher experience.

***H<sub>6</sub>*: PET will have a positive influence on BI.**

*H<sub>6a</sub>*: Gender may positively moderate the influence of **PET** on **BI** for women.

*H<sub>6b</sub>*: Age may negatively moderate the influence of **PET** on **BI** for elder people.

*H<sub>6c</sub>*: Experience may positively moderate the influence of **PET** on **BI** for higher experience.

***H<sub>7</sub>*: BI will positively mediate the relationship between (PE; EE; SI; FAI; and PET) and UB.**

## **1.7 Research methodology and data collection**

This study uses the quantitative methodology with the survey. The survey is based on the questions of UTAUT as applied by Vankatesh et al. (2003). The data is collected

through the use of an online questionnaire. An e-mail message was sent to Palestinian Non-Governmental Organizations Network (PNGO)<sup>1</sup> participants, the number and names of Palestinian NGOs were obtained from the mechanical search on The Online Data Base of PNGO. PNGO data base is an online service (<http://palngo.org/>), provides vital information about NGOs in the Gaza strip. According to the website, any organization that operates and legally registered is qualified to join the data. A special online application form is available and may be filled out by the organization, but joining the data is subject to approval after verifying qualifications by the administration of the database.

As of November 19, 2013, the database has been joined by 289 NGOs in the Gaza Strip, including member and non-member organizations in PNGO. Most of these organizations are registered as associations in the Ministry of Interior. Few other organizations are registered as nonprofit companies in the Companies' Registrar Office at the Ministry on National Economy.

## **1.8 Summary and conclusions**

Many studies discussed user acceptance and use of technology, and many theories have been developed. To the best of researcher's knowledge, no empirical studies in the context of the Palestinian non-governmental organizations have been taken on the acceptance of IT. Therefore this research comes to shed light on this usage of IT by using the model of UTAUT. In this chapter, researcher discussed the problem, objectives and contributions of this research, in addition to the variables and hypotheses.

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<sup>1</sup> The Palestinian Network of Nongovernmental Organization is a network of Palestinian NGOs founded in 1993.

The following chapters are organized as follows: **Chapter Two:** contains the literature review of the UTAUT and its implementation, as well as the literature on the context of Palestinian NGOs working in the Gaza strip; **Chapter Three:** includes the research methodology; **Chapter Four:** discusses the data collection method; **Chapter Five:** explains the data analysis; and **Chapter Six:** discusses the findings and suggests recommendations.



# CHAPTER 2: Literature Review

---

## 2.1 Introduction

Levy and Ellis (2006) refer to the definition of literature review made by Hart (1998) as “the use of ideas in the literature to justify the particular approach to the topic, the selection of methods, and demonstration that this research contributes something new” (Levy and Ellis 2006: 182). This chapter aims to provide an overview about the Palestinian NGOs and revises the literature of NGOs. It also provides figures and information about the situation of these NGOs in Gaza Strip. Also, this chapter introduces a collection of the most Palestinian theses related to local NGOs between (2001-2013), and another selected list of other relevant studies on Palestinian NGOs. In addition, the researcher presents a literature review of IT acceptance models developed to examine individual adoption of IT, and provide illustration of previous studies that applied UTAUT model to examine IT adoption in different fields.

## 2.2 Nongovernmental organizations (NGOs)

This study aims to apply one of the most important Technology Acceptance Models, UTAUT, on the community of Palestinian NGOs in Gaza Strip. After reviewing the literature on NGOs, the researcher finds that there have been two broad types of organizations that are unbeatably recognized and clearly defined: the market and the state, or the private sector and the public sector. No such acceptance prevails, however, about the existence and the definition of a third type of organizations that plays an increasing role in

our life and which occupies a significant space outside both the market and the state. That is the nonprofit sector, or what is widely considered, in other words, as the (NGOs).

### **2.2.1 Defining NGOs**

NGOs play an increasing role in our life. They are now recognized as “key third sector actors on the landscapes of development, human rights, humanitarian action, environment, and many other areas of public action” (Lewis 2010: 1 ). However, “it has not been yet clearly defined what the term NGO encompasses” (Martens 2002: 1). Precise definitions “vary as to what constitutes NGO and the challenge of analyzing the phenomenon of NGOs remains surprisingly difficult” (Lewis 2010: 2). One reason for this, according to Lewis, is that NGOs are a diverse group of organizations that defy generalization, ranging from small informal groups to large formal agencies. NGOs play different roles and take different shapes within and across different societies. As a result, “NGO” is an analytical category that remains complex and unclear.

Describing such entities that have emerged since the mid nineteenth century, the term NGOs appeared in the aftermath of World War II, and was initially coined by the United Nations (UN) which may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. It added that such arrangements may be made with international organizations and, where appropriate, with national organizations after consultation with the member of the United Nations concerned. Thus, scholar at first mainly used the term of NGOs to refer only to those societal actors which are international bodies that fitted the UN criteria and which engaged within the UN context. In recent decades, however, the term NGOs has been increasingly adopted more broadly by both academics and

activists to refer to such societal actor, national and international, whether within or outside the UN context (Martens 2002).

Many other equivalent terms and expressions have emerged to describe this kind of entities prior and after the widely dissemination of the term NGOs. Such entities that are neither government agencies, nor business organizations are also called: charities, associations, nonprofit organizations, voluntary organizations, pressure groups, and many more expressions.

A major contribution in the effort to identify nonprofit organizations is attributed to the John Hopkins University Comparative Nonprofit Sector Project. A group of scholars in thirteen countries throughout the world were involved to formulate a common language and concept of “nonprofit sector” that could guide systematic data gathering on this sector. The results of this effort were presented in a special volume authored by Lester M. Salamon and Helmut K. Anheier (Salamon and Anheier 1997).

Salamon and Anheier (1997) attempted to identify certain common features shared by the entities that lie outside the market and the state. In doing so, they examine three major types of definitions: the legal definition; the economic/financial definition; and the functional definition. Building on the positive elements of these definitions, they develop a fourth definition that is called “structural- operational definition” (Salamon and Anheier 1997).

The first, most certain and straightforward system for defining the nonprofit sector, according to (Salamon and Anheier 1997), is the legal definition, the one provided in a country’s law. Most countries in the world have special laws or legal provisions that classify organizations within the realm of nonprofit sector. In the United States for instance, nonprofit organizations are legally defined as incorporated entities that qualify for exemption from federal income tax under

the internal revenue code. Accordingly, organizations as diverse as burial societies and business leagues, garden clubs and charitable, educational, religious, or scientific institutions can thus qualify as parts of the nonprofit sector under this definition.

A second definition is the economic/financial one which emphasizes on the source of income for an organization. This is the approach adopted by the UN System of National Accounts (SNA), which is a set of conventions adopted by the world governments for official reporting on national income. The SNA breaks all economic activities into five sectors, one of which is the nonprofit sector. The key feature of the nonprofit organizations, according to this definition, is that they receive the bulk of their income not from the sale of goods and services in the market, but rather from the dues and contributions of their members and supporters.

A third approach to define the nonprofit sector is the functional definition which is based on the functions or purposes that the organizations in this sector carry out. The most common type of function or purpose in the nonprofit sector is the “public interest” or “public purposes.” Salamon and Anheier (1997) refer to the definition made by O’Neil (1982), who defined nonprofit organizations as “private organizations serving a public purpose” (Salamon and Anheier 1997). Another definition is that of Lohmann (1992), where nonprofit organizations are “groups of people who join together voluntarily for some common or shared purpose and interact in a spirit of mutuality” (Lohmann 1992).

Finding such approaches incomplete and insufficient, Salamon and Anheier (1997) developed what they call a “structural/operational” definition that was derived from a fuller analysis of an organization’s observable features. They proposed five key characteristics for an NGO. Lewis (2010) summarized these characteristics in that the organization must be: Formal

(The organization is institutionalized in that it has regular meetings, office bearers and some organizational permanence); Private (It is institutionally separate from government, though it may receive some support from government); Nonprofit distributing (And if a financial surplus is generated it does not accrue to owners or directors (often termed the “non-distribution constraint”)); Self-governing (Therefore able to control and manage its own affairs); Voluntary (Even if it does not use volunteer staff as such, there is at least some degree of voluntary participation in the conduct or management of the organization, such as in the form of a voluntary board of directors) (Lewis 2010).

### **2.2.2 The Palestinian NGOs**

The above mentioned characteristics or features of NGOs apply directly or indirectly to entities defined as NGOs in Palestine. Currently, there are two sets of legal provisions that govern the formation and the operation of NGOs in the Palestinian Authority (PCHR, 2013):

1) The Law No. 1 for the Year 2000 on Charitable Associations and Civil Society Organizations. Article 2 of this law identifies the association or organization as “any charitable association or civil society organization with an independent legal character, established upon the agreement of no less than 7 persons to achieve legitimate objectives of public concern, without aiming at financial profit-making or other personal benefit for the members.” The Ministry of Interior is delegated by the law to register and license this form of NGOs.

2) The Company Law: The Applicable law in the Gaza Strip is the Corporate Law No. 18 of 1929, which allows, according to Article 23, that an association may be licensed as a nonprofit company. In the West Bank, a presidential decree was issued in 2008 to amend the

applicable Jordanian Company Law No. 12 of 1964 in order to allow, for the first time, the creation of a nonprofit company. Before mapping the current NGOs sector, particularly in the Gaza Strip, it is worthy to provide a brief account to the historical settings and the increasing role of the Palestinian NGOs:

The emergence of Palestinian NGOs can be traced back to the turn of the 20th century, when charities emerged based on a legal framework stipulated in the 1907 Ottoman law of charitable organizations. It is argued that the “absence of a state providing basic public goods to the Palestinian community in a colonial context is major explanatory factor behind the creation of local NGOs” (Lopes 2011: 5). As a consequence of both the 1948 War and the establishment of Israel on most of Palestine, and the 1967 War which furthered the dispossession of Palestinians and the occupation of what was left of Palestine, the Palestinians had no government to provide public services. NGOs were formed to fill critical gaps in providing the crucial services to their communities.

When the Palestinian Authority was established in 1994, the number of NGOs in the West Bank and Gaza was estimated at 1500 NGOs. NGOs provided almost 60% of basic healthcare services, 50% of hospital care, 100% of disability care; approximately 100% of agricultural services; and almost 30% of educational services (Sullivan 1996).

### **2.2.3 Facts and figures about NGOs in Gaza Strip**

Most recent figures released by the Ministry of Interior in Gaza, reveal that the number of Palestinian NGOs registered in the Ministry has increased to 901 NGOs, 825 as local NGOs and 76 as International NGOs. The General Directorate for Public Affairs and NGOs, the body within

the Ministry of Interior which licenses NGOs, reported that 15 new local and international NGOs have been licensed in 2014.<sup>2</sup>

Another form of NGOs is the nonprofit company, registered and licensed by the Companies' Registrar, a body within the Ministry of National Economy, in accordance with the relevant applicable company law. As of December 2013, 48 NGOs in the Gaza Strip were registered as nonprofit companies. It is quite interesting to note though, that some of these nonprofit companies are considered as amongst the strongest and most influential NGOs in the Gaza Strip.

#### **2.2.4 Palestinian NGOs field of work**

Palestinian NGOs are active in almost all spheres of our life. They provide services in many fields such as education, health, rehabilitation for people with special needs, agriculture, environment, children and youth programs. NGOs are also active in the fields of human rights, democracy development, women rights, and cultural activities.

Most recently, the PNGO has launched a new initiative called "PNGO Database." It is an online service (<http://palngo.org/>) that provides vital information about NGOs in the Gaza Strip. According to the website, any organization that operates and legally registered is qualified to join the data. A special online application form is available and may be filled out by the organization, but joining the data is subject to approval after verifying qualifications by the administration of the database.

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<sup>2</sup>Ministry of Interior and National Security, Available at: <http://www.moi.gov.ps/news/42788>

As of November 5, 2013, the database has been joined by **287** NGOs. Most of these organizations are registered as associations in the Ministry of Interior. Few other organizations are registered as nonprofit companies at the Companies' Registrar Office.

The data available on each organization includes field of work, where a range of 14 categories have been acknowledged. The website is still under construction and no classified data on NGOs by field of work available. To have a closer look at the range of NGOs' fields of activities and how many organizations fit in each field, the researcher had to do it manually. The following **Table 2.1** clarifies NGOs in the Gaza Strip by field of activity for a total of 901 NGOs in the Gaza Strip.



**Table 2. 1: Number of NGOs by field of work**

<b>Field of work</b>	<b>No. of NGOs</b>
Handicapped Associations	26
Trade Unions Associations	45
Fraternity Associations	1
Tourism and Antiquities	2
Agriculture Associations	38
Associations of Higher Education	38
Human Rights Associations	11
Graduates Associations	7
Youth and Sport	54
West Bank Branches	5
Environment Associations	12
Culture and Arts Associations	77
mothers and children	50
Social Associations	393
Education Associations	1
Family and Clan Associations	8
Medical Associations	54
Friendship Associations	3
<b>Total</b>	<b>901</b>

Source: Constructed by the researcher upon information extracted from PNGO Database.

### 2.2.5 Employment characteristics in Palestinian NGOs

There is a very little information on personal characteristics of Palestinian NGOs' employees. However, an invaluable study that provides very detailed and relatively updated data has been based on a quantitative survey that was carried out between August 2010 and March 2011 (Gerster and Baumgarten 2011). The survey covered 1050 questionnaire in almost 200 NGOs, covering all districts in the West Bank and the Gaza Strip. The following are some basic facts about NGOs' employees as revealed in this study: Palestinian NGOs provide around 10% of job opportunities in the Palestinian labor market; 57% of employees are female and 42% are male; 71% are in the age between 17-37 years, the age group between 26-37 years has the highest percentage (48%), followed by the age group 17-25 years (23%); 88% are born in Palestine, and 82% have Palestinian passports (West Bank 74%, Gaza 96%); almost identical copy with the population: 76.5% urban, 16.5% rural, 7% refugees; An academic background is shared by 90% of employees (59% BA, 19% diploma, 12% MA, 1% PhD).

As for the working contracts and level of income, the study found out that: 68% of the employment in the NGO sector is a full time and 32% is a part time; a huge gap found between the West Bank and Gaza (84% in the West Bank full time and 16% part time, compared to 48% full time and 52% part time in Gaza.); The monthly wage for 42% of NGO employees is less than \$500, while 38% receive between \$501 and \$1000 monthly, 12% of the employees have monthly wages between \$1001 and \$1500. The fact that more than half of the employment in the Gaza Strip NGO's (52%), compared to their counterparts in the West Bank (16%), may be considered an indicator for more financial stability in West Bank organizations. West Bank NGO's are apparently wealthier than their counterparts in the Gaza Strip. This is supported by the following **Table 2.2**

that reveals significant, and even drastic, difference between wages in the West Bank as compared to Gaza, as well as between men and women.

**Table 2.2: Monthly salaries of Palestinian NGOs' employees**

In \$	Total %	West Bank		Gaza		Total %
		Male %	Female %	Male %	Female %	
<500	42.5	20	34	28	48	62
501-1000	38	47	46	46	36	28
1001-1500	12	21	11.5	16	11	6
1501-2000	3	5	3	4	2	1
2001-2500	2	4	3	3	0.5	1
2501-3000	1	1	1	1	2	1
3000-4000	1	2	1	1	0.7	1
>4000	0.3	0.3	0.8	0.5		

Source: (Gerster and Baumgarten 2011).

### 2.2.6 Funding

In order to operate and deliver their intended services, Palestinian NGOs rely mainly on international aids. A study that was carried out by Palestine Economic Policy Research Institute (MAS) and NGO Development Center (NDC), revealed that almost 80% of NGOs budgets are covered by external donations (De Voir and Tartir 2009). According to the study, 10% of international aid to the Palestinian Territory is channeled through NGOs sector. The following **Table 2.3** illustrates the portion of external aids channeled through NGOs between 1999 and 2008.

**Table 2.3: External aids to Palestinian NGOs as a percentage of total external aids to the West Bank & Gaza (USD)**

<b>Year</b>	<b>Estimated External Aid to the WB and GS</b>	<b>Estimated External Aid to PNGOs</b>	<b>Percent of External Aid</b>
1999	516,000,000	48,000,000	9.3
2000	637,000,000	55,000,000	8.6
2001	869,000,000	93,000,000	10.7
2002	1,610,000,000	103,000,000	6.3
2003	972,000,000	65,000,000	6.7
2004	1,115,000,000	57,000,000	5.1
2005	1,116,000,000	218,000,000	19.5
2006	1,450,000,000	196,000,000	13.5
2007	1,876,000,000	213,000,000	11.4
2008	3,250,000,000	258,000,000	7.9
<b>Total</b>	<b>13,417,000,000</b>	<b>1,305,000,000</b>	<b>9.7</b>

Source: (De Voir and Tartir 2009), based on estimates by the World Bank and the Palestinian Ministry of Planning.

De Voir and Tartir (2009) revealed significant increase in Palestinian NGOs dependency on external aids during the period 1999-2008. Local donations, self-generated revenues and other forms of local financial support continued to decline, according to the study. The following **Table 2.4** shows comparative figures over the course of ten years period:

**Table 2.4: Palestinian NGOs source of revenue (%) - (1999, 2006 & 2008)**

<b>Source/year</b>	<b>1999</b>	<b>2006</b>	<b>2008</b>
External Aid	46.8	60.9	78.3
Self-generated Revenue	28.8	20.5	12.4
PA Funding	4.9	0.7	0.8
Local donations	10.8	9.3	5.3
Donations from Palestinians in 1948	1.4	3.7	0.1
Donations from Palestinians in Diaspora	5.5	3.2	2.3
Other	1.8	0.7	0.8
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: (De Voir and Tartir 2009), based on estimates by the World Bank and the Palestinian Ministry of Planning.

### **External aid to Palestinian NGOs in the Gaza Strip:**

No verified and updated data is available about external aid to Palestinian NGOs in the Gaza Strip. The study of De Voir and Tartir (2009), however, provides some interesting comparative figures for the years 1999 and 2006, illustrating external aid as a percentage of Palestinian NGOs funds by governorate.

According to **Table 2.5**, NGOs based in the Gaza Strip governorates rely heavily on external aids. 83.4% of funding for Khan Younis NGOs came from external aid in 2006 as compared to 57% in 1999. Dependency on external aid for the Gaza City NGOs increased from 60% in 1999 to 68.1% in 2006. In Rafah, NGOs' dependency on external aid increased from 57%

in 1999 to 82% in 2006. Interestingly, NGOs' dependency on external aid decreased in both the Middle Area and North Gaza from 81% to each governorate in 1999 to 73.5% and 58.4% in 2006 respectively.

**Table 2.5: Number of NGOs by governorate, external aid as a percentage of Palestinian NGOs' funds by governorate.**

Governorate	# of PNGOs in each Governorate		% of PNGO funding Governorate from External Aid	
	1999	2006	1999	2006
Jenin	42	110	37	23.1
Tubas	8	24	78	70.7
Tulkarm	35	65	28	20.2
Nablus	81	125	35	25
Qalqyia	22	32	29	63
Salfit	12	26	0	73.3
Ramallah/Al-Bireh	85	132	37	71.4
Jericho	9	17	8	8.1
Jerusalem	69	63	49	21.4
Bethlehem	82	99	44	63.3
Hebron	112	133	32	35.6
North Gaza	10	48	81	58.4
Gaza City	64	149	60	68.1
Middle Area	28	70	81	73.5
Khan Younis	35	62	57	83.4
Rafah	16	51	57	82
Total	710	1206	46.8	60.9

Source: MAS, 2001 & 2007. The survey covers approximately 77% of NGOs in 1999 and 81% of NGOs in 2006.

## 2.3 Previous local studies relate to NGOs field

Through revising previous studies in the field of NGOs, the researcher finds that there is a number of studies that cover different aspects of NGOs. e.g.: NGOs and strategic planning; NGOs and fundraising; NGOs and human resources management... etc. The researcher tries to collect different theses and studies relate to NGOs, and presents them in an descending order as shown in **Table 2.6**:

### 2.3.1 Academic Theses in Palestinian Universities

**Table 2.6: Palestinian studies relate to Palestinian NGOs (2001-2013).**

Thesis Subject	Author	Publisher	Date
The Use of Social Networks by the NGOs in Gaza Strip to Strengthen their Relations with the Public	Mohammed Halasah	IUG	2013
The State of Human Resources Information Systems and their Impact on the Effectiveness of the Administrative Work in the Non-governmental Organizations in the Gaza Strip واقع نظم معلومات الموارد البشرية وأثرها في فعالية العمل الإداري في المنظمات غير الحكومية في قطاع غزة .	Ahmed Odeh	IUG	2013
The Relationship Between the Management Information Systems and the Improvement of Management Performance: A Field Study Applied on Non-governmental Organizations in the Gaza Strip علاقة نظم المعلومات الإدارية في تحسين الأداء الإداري: دراسة ميدانية بالتطبيق على المنظمات غير الحكومية بقطاع غزة	Ayman Abu Karim	Al-Azhar University-Gaza	2013
The Role of the Palestinian Civil Society Organizations in promoting Human Development (The West Bank as a Case Study) دور منظمات المجتمع المدني الفلسطيني في تعزيز التنمية البشرية (الغربية كحالة دراسة)	Saed Abu Odwan	Al-Najah National University	2013
The Effect of Strategic Thinking on the Performance of the Higher Administration in the Non-governmental Organizations Working in the Field of Rehabilitation in the Gaza Strip أثر التفكير الاستراتيجي على أداء الإدارة العليا في المنظمات غير الحكومية في مجال التأهيل في قطاع غزة.	Nehal Al-Ashi	IUG	2013

Thesis Subject	Author	Publisher	Date
The Role of Non-governmental Organizations in Poverty Reduction During the Israeli Siege on the Gaza Strip: An Analytical Study on Charitable Associations	Abd el-Raheem Shehab	IUG	2013
Evaluating the Extent to which Non-governmental Organizations in Gaza Strip Adhere to Financial Requirements of International Donors and the Impact of this on Fund Sustainability	Hiba Dallol	IUG	2013
The Impact of External Fund to the Palestinian Non-governmental Organizations on their Role in Influencing Public Policies of the Palestinian National Authority 1998-2008 أثر التمويل الخارجي للمنظمات الأهلية الفلسطينية على دورها في التأثير في السياسات العامة للسلطة الوطنية الفلسطينية 1998-2008	Maher Eisa	Al-Azhar University-Gaza	2013
واقع تخطيط الموارد البشرية وعلاقته بقدرة المؤسسات غير الحكومية في قطاع غزة على الحفاظ على الأعداد اللازمة من العاملين	Khalil Zaqqout	IUG	2013
The Quality of Working Life and its Impact on Job Performance of Workers in Non-governmental Organizations in the Gaza Strip جودة الحياة الوظيفية وأثرها على الأداء الوظيفي للعاملين في المنظمات غير الحكومية في قطاع غزة	Osama Al-Balbaisi	IUG	2012
The Effect of the Technical Capabilities of the Administration of the Non-governmental organizations on Fundraising أثر القدرات الفنية لدى إدارة المنظمات غير الحكومية على تجنيد الاموال	Talaa't Al-Jerjawi	IUG	2012
The Role of the Application of Principles of Good Governance in the Non-governmental Organizations in Achieving Sustainable Development دور تطبيق مبادئ الحكم الرشيد في المنظمات غير الحكومية في قطاع غزة في تحقيق التنمية المستدامة	Ahmed Al-Helou	IUG	2012
The Role of Personality Traits Among Project Managers in the Success of NGOs' projects in the Gaza Strip الشخصية المشاريع مشاريع الأهلية	Ayman Al-Derawi	IUG	2012
The relationship between workers staffing and individual appropriate for them organizations (Empirical Study on non-governmental organizations operating in the Gaza Strip) العلاقة بين توظيف العاملين وملائمة الأفراد لمنظماتهم (دراسة تطبيقية على المنظمات غير الحكومية العاملة في قطاع غزة)	Nabil Al-Ghoul	Al-Azhar university-Gaza	2011



Thesis Subject	Author	Publisher	Date
The Extent Effectiveness of External Audit for Non-governmental Organizations Operating in the Gaza Strip: An Exploratory Study مدى فاعلية التدقيق الخارجي للمؤسسات الاهلية العاملة في قطاع غزة: استطلاعية	Khalid Musallam	IUG	2011
The Ability of Health Non-governmental Organizations in the Gaza Strip to Implement the Balanced Scorecard (BSC) as a Tool to Evaluate the Funding Performance الأهلية الصحية (BSC) تطبيق لتقويم الأداء التمويلي	Aadel Al-Rafati	IUG	2011
The Impact of the Structure of the Internal Control System in Accordance with the COSO Framework to Achieve the Control Objectives (The Case of NGOs in Gaza Strip)	Abd Al-Salam Badawi	IUG	2011
The Reality of Identifying the Training Needs Process for the Workers in Non-governmental Organizations in the Gaza Strip عملية تحديد الاحتياجات التدريبية للعاملين غير الحكومية	Rajab Al-Sarraj	Al-Azhar university-Gaza	2010
Studying and Evaluating the Accounting Information Systems in Non-governmental Organizations: An Applied Study on Non-governmental Organizations in the Gaza Strip دراسة وتقييم نظم المعلومات المحاسبية في المؤسسات غير الحكومية: تطبيقية على المؤسسات غير الحكومية في قطاع غزة	Meslih Salah	IUG	2010
Projects Evaluation in Non-governmental Organizations in the Gaza Strip تقييم المشاريع في المنظمات غير الحكومية في قطاع غزة	Rashad Hammad	Al-Azhar university-Gaza	2010
Leadership Styles and their Relationship to Job Performance in the Palestinian Non-governmental Organizations from the Viewpoint of their Employees. الانماط القيادية وعلاقتها بالأداء الوظيفي في المنظمات الأهلية الفلسطينية من وجهة نظر العاملين	Hasan Naser	IUG	2010
The Application of Strategic Planning and its Relationship with the Performance of the Palestinian Women Organizations in the Gaza Strip تطبيق التخطيط الاستراتيجي و علاقته بأداء المؤسسات النسوية الفلسطينية في	Amal Syam	Al-Azhar university-Gaza	2010
The Role of Human Resources Development Strategies in Developing the Institutional Performance in Non-governmental Organizations in Gaza دور استراتيجيات التنمية البشرية في تطوير الأداء المؤسسي في المنظمات غير الحكومية في غزة	Abdelmenem Al-Tahrawi	IUG	2010

Thesis Subject	Author	Publisher	Date
The Extent of Efficiency in the Use of Funds and their Impact on Fundraising Process in Non-governmental Organization: A Field Study on Non-governmental Organizations in the Gaza Strip مدى كفاءة استخدام الأموال وتأثيرها على عملية جلبها للمؤسسات الأهلية التي لا تهدف إلى تحقيق الربح: دراسة ميدانية على المؤسسات الأهلية في قطاع - فلسطين	Murad Abu Daqqa	IUG	2009
The Extent of the Application of the Responsibility Accounting System in the Palestinian NGO تطبيق المسؤولية الأهلية الفلسطينية	Salem Mekki	IUG	2009
Evaluation of the Financial Management in Non-governmental Organization in the Gaza Strip تقييم أداء الإدارة المالية في المنظمات غير الحكومية العاملة في قطاع غزة	Yousef Al-Nabahin	IUG	2008
The Extent of Adherence of the Non-governmental Organizations in the Gaza Strip to the Requirement of the International Accounting Standard No. (1): An Applied Study مدى التزام المنظمات غير الحكومية في قطاع غزة بتجهيز وعرض القوائم المالية وفقاً لمتطلبات المعيار الدولي المحاسبي رقم (1): دراسة تطبيقية	Mohammed Muhsin	IUG	2008
The Extent of Satisfaction of Non-governmental Organizations on Banking Services Provided to them by the Banks Operating in the Governorates of Gaza Strip الأهلية المصرفية لها	Firas Al-Gedaili	IUG	2008
The Status of the Use of Quantitative Methods in Decision Making and Solving Problems in Non-governmental Organizations in the Gaza Strip واقع استخدام الأساليب الكمية في اتخاذ القرار وحل المشكلات لدى المؤسسات الأهلية بقطاع غزة.	Jaber Ayesh	IUG	2008
The Organizational Development and its Effect on the Effectiveness of Administrative Decisions in Non-governmental Organizations in the Gaza Strip التطوير التنظيمي وأثره على فعالية القرارات الإدارية في المؤسسات الأهلية في	Isam Matar	IUG	2008
Role of Palestinian NGOs in Utilizing the International Fund to Promote Entrepreneurs and Create Sustainable Job Opportunities, Case Study: Gaza Strip	Haneen Abu Nahla	IUG	2008
The Applied Methods in the Management of Organizational Conflict in Non-governmental Organizations from the Viewpoint of Managers الأساليب المتبعة في دارة الصراع التنظيمي داخل المنظمات غير الحكومية في قطاع غزة من وجهة نظر المدراء	Moamen Abdelwahed	IUG	2008

Thesis Subject	Author	Publisher	Date
The Impact of Job Satisfaction on Organizational Loyalty Among Workers in the Palestinian NGO الأهلية العاملين التنظيمي الوظيفي الفلسطينية	Ihab Aweeda	IUG	2008
واقع الرقابة الإدارية الداخلية في المنظمات الأهلية في قطاع غزة The Reality of the Interior Administrative monitoring in the Non-governmental Organizations in the Gaza Strip.	Samar Shaheen	IUG	2007
The Ability of the Administrative Decision-Makers Benefit from Financial Data: A Field Study on Non-governmental organizations in the Gaza Strip قدرة متخذي القرارات الإدارية على الاستفادة من البيانات المالية: دراسة ميدانية على المنظمات غير الحكومية في قطاع غزة	Husam Al-Naffar	IUG	2007
The Role of Women Organizations in Developmental Planning in the Palestinian Territories دور المؤسسات النسوية في التخطيط التنموي في الأراضي الفلسطينية	Somayyah Amer	Al-Najah National University	2007
Studying the Reality of Strategic Planning with the Managers of Local NGOs in the Gaza Strip التخطيط الاستراتيجي مديري غير الحكومية المحلية	Ibraheem Al-Ashqar	IUG	2006
The Effectiveness of Organizational Development and Change Management Requirements in the Palestinian Non-governmental organizations فعالية متطلبات التطوير التنظيمي وإدارة التغيير لدى المؤسسات غير الحكومية الفلسطينية.	Ibtisam Marzouq	IUG	2006
Charitable Societies and Tax Evasion in the West Bank During the Era of the PNA الجمعيات الخيرية والتهرب الضريبي في الضفة الغربية في عهد السلطة الفلسطينية	Amjad Al-Emam	Al-Najah National University	2006
Evaluation of the Role of Non-governmental Organizations in the Process of Economic Development in Palestine - A Case Study on the Gaza Strip تقييم الأهلية عملية التنمية الاقتصادية فلسطين -	Kamal Hindi	IUG	2005
The Effect of Financial Monitoring on the Continuity of Funding og Non-governmental Organizations: A Field Study – The Nongovernmental organizations in the Gaza Strip – أثر الرقابة المالية على استمرار التمويل للمؤسسات الاهلية: دراسة ميدانية – المؤسسات الاهلية في قطاع غزة	Jehad Sharaf	IUG	2005

Thesis Subject	Author	Publisher	Date
Assessment of the Palestinian NGOs Efficiency and Decision-Making Aspects- Ramallah Area	Nadine Sinokrot	Birzeit University	2005
Program Evaluation Conditions at the Palestinian Non-governmental organizations	Amjad Ghosheh	Birzeit University	2005
The Status of Human Resources Management in Non-governmental Organizations in the Gaza Strip and Methods of its Development واقع إدارة الموارد البشرية في المؤسسات غير الحكومية في قطاع غزة وسبل تطويره	Rehab Shbair	IUG	2004
Evaluation of Managerial Training Programs Funded by External Donors: An Applied Study on the Nongovernmental Organizations in the Gaza Strip تقييم برامج التدريب الإداري الممولة من الخارج: دراسة تطبيقية على المؤسسات غير الحكومية في قطاع غزة	Yousef Abu Sultan	IUG	2004
The Role of Environmental and Self Obstacles on the Role and Vision of the Non-governmental Organizations working on Human Rights and Democracy in the West Bank and Jerusalem أثر المعوقات الذاتية والبيئة على دور ورؤية المنظمات الأهلية العاملة في حقوق الإنسان والديمقراطية في الضفة الغربية و	Raed Al-Qarout	Al-Najah National University	2004
The Evaluation of the Programs of Palestinian Women Organizations in the West Bank During the Years 1995-2000 تقييم برامج المنظمات النسائية الفلسطينية في الضفة الغربية بين الأعوام 1995-2000	Waseem Abu Fasha	Al-Najah National University	2004
Obstacles to the Access of Woman to Higher Administrative Positions in Palestinian Institutions معوقات وصول المرأة للمناصب الإدارية العليا في المؤسسات الفلسطينية	Samar Bani Odeh	Al-Najah National University	2002
The Status of the Demand for Audit Service in Local Non-governmental Organizations in the Gaza Strip. الأهلية المحلية تدقيق	Adnan Awad	IUG	2001

## 2.3.2 Other studies on Palestinian NGOs

**Table 2.7: Selected list of other relevant studies on Palestinian NGOs**

<b>Title of Study</b>	<b>Author</b>	<b>Publisher</b>	<b>Date</b>
تأثير انقسام السلطة الفلسطينية على الجمعيات وتنظيمها القانوني The Effect of the Division in the Palestinian Authority on Charitable Associations and their Legal Organization	The Palestinian Center for Human Rights	The Palestinian Center for Human Rights	2013
Social Accountability Innovations in the NGO Sector in the West Bank and Gaza: The Palestinian NGO Projects.	Ghassan Kasabreh and Others	The World Bank	2012
Examining the Perceived Internal and External Effectiveness of NGOs in the Palestinian Territories: The Role of Complexity, Resilience, and Job Adaptability	Naira Musallam	COLUMBIA UNIVERSITY	2011
Palestinian NGOs and Their Cultural, Economic, and Political Impact in the Palestinian Society	Karin A. Gerster and Helga Baumgarten	Rosa Luxemburg Foundation in Palestine	2011
The World Bank and the Palestinian NGO Project: Assessing the Impact on Actors and Relationships	Liana Lopes	University of Porto, Portugal.	2011
Tracking External Donor Funding to Palestinian Non-Governmental Organizations in the West Bank and Gaza Strip, 1999-2008	Joseph DeVoir and Alaa Tartir,	NDC, Ramallah,	2009
Peace, Aid & Renewed Anti-colonial Resistance: The Development of Secular Palestinian NGOs in the Post-Oslo Period	Michael , Irving Jensen	The Danish Institute for International Studies, Copenhagen	2005
The Intifada and the Aid Industry: The Impact of the New Liberal Agenda on the Palestinian NGOs	Sari Hanafi	<i>Comparative Studies of South Asia, Africa and the Middle East</i>	2003
Palestinian NGOs since Oslo: From Politics to Social Movement?	Rema Hammami	<i>Middle East Report</i>	2000
Comments on Palestinian CSOs, How to Trace Down the Impact of External Aid?	Benoit Challand	Foundation for Future	
NGOs in Palestine: Agent of Development & Foundation of Civil Society	Denis Sullivan	Journal of Palestine Studies	1996

It is observed from **Tables 2.6** and **2.7** that the studies apply different and diverse managerial topics on the community of NGOs, but none of them apply the concept of “Individual Technology Acceptance” in the NGOs community, accordingly, this study will be the first that addresses the individual technology acceptance models, and applies one of the latest and most important models, UTAUT, on the Palestinian NGOs community in Gaza Strip.

## **2.4 Technology acceptance models**

### **2.4.1 Introduction to technology acceptance models**

Hu et al. (2003) refer to the definition made by Gattiker (1984) who defines IT acceptance as the individual’s psychological state that relate to his or her voluntary or intended use of a particular technology (Hu, Clark et al. 2003: ). There are many theories and models in the literature that have been developed in order to understand individual acceptance for a new technology, and identify factors that play the major role in this acceptance. Fishbein and Ajzen tailored the *Theory of Reasoned Action (TRA)*, which is considered the inspiration for most of the theories and models that have been developed and applied in this field, according to them, a behavioral intention will be a predictor of the performance of any voluntary act, unless intent changes before the performance or unless the intention measure does not correspond to the behavioral criterion in terms of action, target, context, time-frame and/or specificity (Sheppard, Hartwick et al. 1988).

Then, TRA was extended with the *Theory of Planned Behavior (TPB)* by Ajzen. Ajzen illustrates that TPB provides a conceptual framework for dealing with complexities of human

social behavior. TPB traces attitudes, subjective norms and perceived behavioral control to an underlying foundation of beliefs about behavior (Ajzen 1991).

Depending on TRA, the *Technology Acceptance Model (TAM)* was developed by Davis et al. (Davis 1989). TAM is one of the most important and influential extensions of TRA. Davis applied TRA to show that beliefs influence the attitudes which lead to intentions, and therefore generate behaviors (Lederer, Maupin et al. 2000). TAM has been developed and expanded to (TAM2) and (TAM3).

Thompson et al. (1991) introduced the *Model of PC Utilization (MPCU)*, This model uses a competing theory of behavior proposed by Triandis (1980) (Thompson, Higgins et al. 1991). The results of the study show that social norms and three components of expected consequences (complexity of use; fit between the job and PC capabilities; long term consequences) have a strong impact on utilization. These findings confirm the importance of the expected consequences of using PC technology (Thompson, Higgins et al. 1991).

The *Social Cognitive Theory (SCT)* was developed to test the influence of computer self-efficacy, outcome expectations, affect and anxiety on computer usage. Findings of the test provide a strong confirmation that both self-efficacy and outcome expectations impact on an individual's affective and behavioral reactions to IT (Compeau, Higgins et al. 1999).

Rogers (1995) also introduced the *Innovation Diffusion Theory (IDT)*. IDT states that if an innovation (idea, product, system or process) is considered by members of any social system to be useful, it will be adopted (Rogers 2002).

There is also a combined model which is called *the Combined TAM and TPB*. Taylor and Todd (1995) that compared TAM and the TPB to evaluate which model best help to

understand usage of information technology. The results indicate that the decomposed theory of planned behavior provides a fuller understanding of behavioral intention (Taylor and Todd 1995).

#### **2.4.2 Previous studies related to UTAUT**

In this section, the researcher displays the key studies that deal with the individual acceptance of technology; including studies that examine the role of UTAUT in discovering this acceptance:

##### **1. (Jackson, Yi et al. 2013), “An Empirical Test of Three Mediation Models for the Relationship between Personal Innovativeness and User Acceptance of Technology”**

Jackson, Yi et al. (2013) focus on a personality trait that is relevant to the adoption of technological innovativeness in IT (PIIT). This study examines the casual pathways by which trait affects behavioral intention by testing three models: Model1 based on innovation diffusion theory (IDT); Model2 based on the theory of planned behavior (TPB); and Model3 based on an integrative perspective. In Model1, mediators are: usefulness; ease of use; compatibility; result demonstrability; image. Model2 has the following mediators: usefulness; ease of use; subjective norm; and perceived behavioral control. Model3 integrates all of the proposed mediators.

Data is collected from 196 hospital administrators in South Korea. Their results indicate a strong and positive relationship between PIIT and each of the mediators mentioned above, providing evidence of its important role as an antecedent to the mediating variables.



The study recommends that management's efforts should be more specifically directed toward utilizing the additional knowledge of the consequential behavior of innovative individuals beyond their perceptions of innovation characteristics.

## **2. (Alikilic and Atabek 2012), "Social Media Adoption Among Turkish Public Relations Professionals: A Survey of Practitioners"**

Alikilic and Atabek (2012) examine the social media adoption among public relations (PR) professionals in Turkey. The study examines how PR practitioners employ social media tools both internally and externally by using (UTAUT) model. The researchers use a convenience sample of PR practitioners who are members of the Turkish Public Relations Association (TUHID). The criteria for selection identify those who care about their professional identity and tend to be familiar with industry. An online survey is sent to 158 members of the (TUHID), but a total of 126 respondents completed the survey. The study also examines the differences in the adoption according to socio-demographic factors; the dependency on organization type; how PR practitioners in Turkey are adopting social media into PR functions and how they consider they are adapted to certain social media; and what are their opinions and attitudes toward social media in PR industry.

The findings of the study show that PR professionals in Turkey are highly aware of the PR functions through the social media, and that the social media awareness has been raised. PR professionals have started to facilitate dialogues with their publics by using social media. It also shows that the value of engaging social media can be seen in every aspect of PR.

The researchers believe that this study suggests a number of new routes for future researches by PR scholars. The restrictions about Internet and social media access in Turkey are recommended as one of the most important research topics in future studies. Another important research topic which is recommended would be the integration of social media to the curriculum of higher education PR programs.

### **3. (Al-Ammary and Hamad 2012), “Information Technology for Enhancing NGOs’ Performance in the Kingdom of Bahrain”**

Al-Ammary and Hamad (2012) investigate the state of the NGOs in the Kingdom of Bahrain from many aspects: types of IT adopted; reasons behind IT adoption; obstacles of IT adoption; perception of the impact of adopting IT to enhance organizational performance; and perception of the importance of using the Internet and web-based technology in enhancing NGOs’ organization services. Based on the investigation, a framework for adopting IT by NGOs in the Kingdom of Bahrain is developed. Methodology and data collection are include a study sample composed of people from various types of NGOs. Two hundred questionnaires are distributed to people belonging to different types of NGOs in an attempt to solicit their views. The survey instrument provided a response rate of 75%.

Study findings reveal that NGOs in the Kingdom of Bahrain possess a limited understanding and awareness about the potential of IT, and they are still ignorant of effective and strategic roles of IT in NGOs. Some NGOs are isolated from the world of technology and thus face a challenge in deciding which technologies are more suitable for them. The findings, moreover, indicate that most of NGOs own very basic IT equipment and limited hardware/software essential to perform efficient tasks.

The study recommends that adopting a more-comprehensive application of new technology tools in the NGOs will continue to enhance organizational performance, encourage citizens to participate in the development of their communities, and change the way that NGOs do business.

#### **4. (Alshehri, Drew et al. 2012), “The Effects of Website Quality on Adoption of E-Government Service: An Empirical Study Applying UTAUT Model Using SEM”**

Alshehri, Drew et al. (2012) use and modify UTAUT model to investigate and discuss the effect of the website quality factor on the acceptance of using e-government services (G2C) in the Kingdom of Saudi Arabia (KSA). The sample of the study consists of 400 Saudi citizens who are randomly chosen from three major cities in different geographic regions. A quantitative questionnaire is employed to collect the empirical data. Data is analyzed using SEM, the structural equation modeling tool.

The findings of this study show that effort expectancy; performance expectancy; facilitating conditions and website quality contribute significantly to citizen adoption of e-government services and directly affect the usage behavior. The study reveals that the effect of social influence variable is insignificant to Saudi citizens.

The researchers recommend that their work be extended using qualitative data to investigate more in-depth perceptions about other factors that affect the e-government services adoption. Furthermore, they recommend that other variables such as trust and culture could be integrated in the UTAUT model to obtain a better and deeper understanding of e-government services adoption.

**5. (Rahman, Jamaludin et al. 2011), “Intention to Use Digital Library Based on Modified UTAUT Model: Perspectives of Malaysian Postgraduate Students”**

Rahman, Jamaludin et al. (2011) apply a modified UTAUT model to investigate factors that are expected to influence the intention of postgraduate student in Malaysia to use digital library. Constructs at the modified model are: performance expectancy; effort expectancy; information quality; and service quality, and moderated by Age; gender and experience in using digital library. A sample comprises of (534) postgraduate students (Master’s and Doctorate) from four public intensive research universities in Malaysia has been used. The Questionnaire is developed and distributed to the students at their respective university locations. Then, the collected data is analyzed using SPSS software.

The findings of the study indicate that performance expectancy; effort expectancy; information quality are positively related to the intention to use digital library, while service quality is negatively related to the intention to use.

**6. (Curtis, Edwards et al. 2010), “Adoption of Social Media for Public Relations by Nonprofit Organizations”**

Curtis, Edwards et al. (2010) examine the role of social media that offers a new opportunity for public relations (PR) practitioners to communicate with publics, and talking with them instead of talking to them. In the study, a survey is applied for nonprofit public PR practitioners to examine UTAUT. The survey measures social media adoption and its relation to performance expectancy, effort expectancy; social influence; facilitating conditions; voluntariness of use; self-efficacy; and anxiety. Questions are presented as statement with 5-point Likert scale

and credibility scale. Data is collected from a list of nonprofit organizations that was systematically generated from Forbes, National Charity Seal Program, Accredited Charity Directory and the Charity Navigator. An e-mail invitation was sent to respondents.

The study finds that nearly all respondents indicated that they used some form of social media compared to only 5 who indicated that they did not use any of the 18 forms of social media that were specified in the survey. The results show that social media tools are becoming beneficial methods of communication for PR practitioners in the nonprofit sector.

The study recommends that PR practitioners recognize the resourcefulness of social media tools and take advantage of every available opportunity to effectively reach their public.

## **7. (AbuShanab, Pearson et al. 2010), “Internet Banking and Customers’ Acceptance in Jordan: The Unified Model’s Perspective”**

AbuShanab, Pearson et al. (2010) extend UTAUT by adding perceived facilitating conditions and personality dimensions. One of the objectives of their study is to replicate UTAUT and examine the model’s applicability to a country outside the US. The frame of the study is (counter bank customers) sampled in three banks from three major cities in Jordan. The survey tested the variables in the study; items are tested 7-point Likert scale. The collected data from bank customers resulted in a final sample of 523 cases.

The findings provide partial support for UTAUT with respect to the predictors’ effect on behavioral intention. The major contribution of the study is an addition and extension of the world of technology acceptance knowledge.

Based on the significant results of this study, the researchers conclude that there is still a need for more research in the technology acceptance domain. They recommend longitudinal research to explore certain effects like experience. Usage also is a costly construct that needs resources and time to explore, and the researchers call for more research on actual usage. They also recommend that more emphasis be placed on the performance of Internet banking systems as it is a main indicator in influencing customers' intentions to use it. Another area for additional research, according to the researchers, is perceived facilitating conditions.

#### **8. (Al-Shafi and Weerakkody 2010), "Factors Affecting E-GOVERNMENT Adoption in the State of Qatar"**

Al-Shafi and Weerakkody (2010) utilize the UTAUT model to identify the adoption of e- government services in the state of Qatar. Primary data are collected through a survey of 1179 citizens. Regression analysis is used to examine the effect of UTAUT factors.

The findings of the study reveal that effort expectancy and social influence determine citizen's behavioral intention towards e-government, while facilitating conditions and behavioral intention determine citizen's use of e-government services in Qatar.

The researchers recommend further studies in order to explore adoption factors such as culture and trust that might affect the citizen's intention to adopt e-government in Qatar as well as other gulf and regional countries. Future research is also recommended to extend this study to other Gulf Cooperation Council and regional countries, and draw comparative analysis of e-government adoption.

**9. (Van Raaij and Schepers 2008), “The Acceptance and Use of a Virtual Learning Environment in China”**

Van Raaij and Schepers (2008) aim to explain differences between individual students in the level of acceptance and use of Virtual Learning Environment (VLE). They assess three models of technology acceptance: TAM; TAM2 and UTAUT, then, they built a conceptual model that extended TAM2 and included subjective norms; personal innovativeness in the domain of information technology; and computer anxiety. The data is collected from 45 Chinese participated in an executive MBA program, but 40 questionnaires were used. The data is analyzed by using PLS Graph 3.0.

The findings of this study show the following results: perceived usefulness has a direct effect on VLE use; perceived ease of use and subjective norm have only indirect effect through perceived usefulness; and both of personal innovativeness and computer anxiety have direct effects on perceived ease of use only.

The study recommends conducting more future research to investigate in the development of subjective norm over time. It further recommends that from a managerial perspective it would be interesting to see what practices or actions influence an individual's innovativeness with technologies or one's computer anxiety.

**10. (Al-Gahtani, Hubona et al. 2007), “Information Technology (IT) in Saudi Arabia: Culture and Acceptance and Use of IT”**

Al-Gahtani, Hubona et al. (2007) examine a modified version of UTAUT to determine ‘intention to use’ and ‘usage behavior’ of information technology. The study hypothesizes and tests the similarities and differences between the North American and Saudi Arabia validations. The researchers examine the UTAUT according to the cultural differences which lead to organizational acceptance of IT in the two societies. The study reviews technology acceptance models and theories by using a survey sample collected from 722 knowledge workers. The sample targets the voluntary users of computers. The research model is analyzed using PLS-Graph, a PLS structural equation modeling tool.

Most of the findings confirm the assumptions of Venkatesh et al (2003). The model explained 39.1% of intention to use variance, and 42.1% of usage variance. Effort expectancy did not have a significant effect on intention in the presence of interactions with the moderating variables. Both of performance expectancy and subjective norm had a positive significant effect on intention. While there was a weak negative effect of facilitating conditions on usage behavior.

#### **11. (Kripanont 2007), “Examining a Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools”**

Kripanont (2007) investigate to what extent Thai academics use and intend to use the Internet in their work, UTAUT model is modified to generate and validate the research model that best describes Thai academics’ Internet usage behavior and behavior intention.

Questionnaire survey method is used to collect primary data from 927 academics within Business Schools in 20 Public Universities in Thailand. The survey yielded 455 usable questionnaires, with a response rate of 49%. Statistical analysis methods and Structural Equation Modeling with AMOS are used to analyze data.



Findings state that perceived usefulness perceived ease of use and self-efficacy significantly determined usage behavior in teaching and explain 31.6% of its variance. Perceived usefulness and self-efficacy significantly determined usage behavior in other tasks and explain 42.6% of its variance. Also, the model explained 55.7% in behavior intention in teaching and 59.8% in behavior intention in other tasks.

The study recommends that further research in the area of information technology regarding the Internet in the higher education context, should concentrate more on moderators including gender, age, education, academic position, experience, e-university, Research University, level of reading and writing, and Thai language with a bigger sample size to investigate the impact of these moderators on usage behavior.

## **12. (Hyvönen 2007), “Strategy, Performance Measurement Techniques and Information Technology of the Firm and their Links to Organizational Performance”**

Hyvönen (2007) investigates the relationships between organizational performance and customer-focused strategies, performance measures and information technology. The theoretical framework used in the study is based on Porter (1980, 1985), who argues that for a firm to compete effectively, it must derive its competitive advantage either from differentiation, cost leadership or focus. The data is collected as a part of a larger mailed questionnaire survey in Finland. The sample consists mainly of large firms (at the business unit level) operating in three industries important for Finland, i.e. forest, metal and electronics. The mailings resulted in 51 usable responses.

The findings indicate that when a firm does not follow a customer-focused strategy, contemporary management accounting systems in combination with advanced information technology are related to high customer performance of the firm. The results also indicate that contemporary performance measures do not help firms with a highly customer-focused strategy to achieve high customer performance. Also, a fit between the customer-focused strategy and financial performance measures improves customer performance.

The researcher recommends that more research is needed to study the association between performance and the three-way interaction involving strategy, performance measures and information technology.

### **13. (Marchewka, Liu et al. 2007) “An Application of the UTAUT Model for Understanding Student Perceptions Using Course Management Software”**

Marchewka, Liu, et al. (2007) apply UTAUT model to examine student’s acceptance and perception of Blackboard. Blackboard is a web-based tool that becomes important and popular course management software application in higher education. An online survey is developed based on Venkatesh et al. (2003). Data is collected between (2006-2007) from a sample of 132 students from university’s college of business who participated in the survey.

The findings of the study show mixed support for UTAUT in terms of reliability of the scale items representing UTAUT determinants.

Due to the limited sample size of this study, the researchers recommend that research be conducted to include older students (e.g., distance learning) for testing the fitness of the UTUAT

model. Another future direction for research is recommended to be the use of Blackboard itself. Schools are investing heavily in course management software. The researchers question whether it is really that much better than a web site, or is the software just not being used to its full capabilities? If this is the case, they recommend that a better model for understanding adoption may be needed.

#### **14. (Yang 2007), “How Do Chinese Civic Associations Respond to the Internet? Findings from a Survey”**

Yang (2007) made an empirical study to understand the level of internet capacity and internet use in urban grass-roots association in China. The model used to measure the internet capacity has been developed through adapting an information index used by the International Telecommunication Union to measure the development of telecommunication technology on the national level. Adapting this index to the organizational level, four indicators are used to measure an organization’s internet capacity: number of computers; number of computer hosts; proportion of computer hosts to staff; and proportion of computer hosts to staff. Data is collected through a survey of a purposive sample of 550 urban civic associations from Oct. 2003 to Jan.2004. In Beijing, trained interviewers are sent to conduct a questionnaire survey with each organization’s office manager. In other regions, a standardized questionnaire was sent to the organizations by regular mail. In all, the data analysis is based on 129 valid cases.

The findings show that urban grassroots organizations are equipped with a minimal level of internet capacity, and, for these organizations, the internet is most useful for publicity work, dissemination of information, and networking with peer and international organizations.

Thirdly, social change organizations, younger organizations and organizations in Beijing report more use of the internet than business associations, older organizations and organizations outside Beijing.

The study recommends that future research should examine in more details how internet use shapes the development of civic associations in China as well as their role in producing a broader social change.

#### **15. (Neufeld, Dong et al. 2007), “Charismatic Leadership and User Acceptance of Information Technology”**

Neufeld, Dong et al. (2007) integrate UTAUT with the theory of charismatic leadership<sup>3</sup> to examine the role of project influencing user adoption. A survey is executed on 7 organizations that had been engaged in a large-scale IT implementation. Data is collected from 209 employees in these organizations. The model is tested by PLS Graph and SEM tool.

The results provide a confirmation and extension of the UTAUT model, the determinants of UTAUT influence behavioral intention and directly or indirectly the usage behavior.

The study recommends future research to examine the influence of other dimensions of transformational leadership on IT adoption and use. Future research is recommended to extend the basic theoretical model, and to advance our understanding of how leaders influence technology implementation processes.

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<sup>3</sup> The theory presents the argument that charismatic leadership has its effects by strongly engaging followers' self-concepts in the interest of the mission articulated by the leader (Arthur et al., 1993).

**16. (Carlsson, Carlsson et al. 2006), “Adoption of Mobile Devices/Services- Searching for answers with UTAUT”**

Carlsson, Carlsson et al. (2006) provide that the future is expected to rely on mobile services, and this depends on the third generation (3G) mobile telephones usage. But the adoption of new mobile services is still slower than expected. So, the paper explores answers for the adoption rate in Finland by testing the application of UTAUT. Data is collected through an empirical study among 300 Finnish consumers residing in the Aland Islands. Respondents are selected by the Finnish Population Register Centre and random sampling is used. The study is a part of larger, ongoing longitudinal series of studies, which have been carried out yearly since 2002. A questionnaire is distributed to all subjects by regular mail. Out of 300 consumers, 157 took part in the survey accumulating a response rate of 52.3%.

The findings of this study state that performance expectancy and effort expectancy could be found as explanations for behavioral intention, but that social influence could not be used as such for explanations. The results show that “UTAUT to some extent and with some reservations can be used as a starting point to find some explanations for the adoption and of mobile devices/services”.

**17. (Sun and Zhang 2006), “The Role of Moderating Factors in User Technology Acceptance”**

Sun and Zhang (2006) aim to provide a systematic analysis of explanatory and situational limitations of existing technology acceptance models. The paper examines the moderating effects in user technology acceptance. Ten moderating factors were identified and

classified into three groups: organizational factors that contain (Voluntariness, Task/Profession); technological factors that contain (Individual/Group, Purpose, Complexity); and individual factors that include (Intellectual Capability; Cultural Background; Gender; Age; and Experience).

Findings of the study propose a new model with propositions pertaining to the effects of the moderating factors. The study recommends that research should pay more attention to less studied issues. For instance, few studies have empirically examined cultural issues associated with user technology acceptance. The mechanisms through which the culture exerts its influence are still unclear. Therefore, the study suggests that future research may focus on “how” questions by identifying the major cultural dimensions and their corresponding relationships with user technology acceptance.

Compared to the moderating effects of individual factors, according to the study, those effects of organizational factors such as the nature of tasks, and technological factors such as technology complexity, have not received sufficient attention so far and thus leaves room for further investigations.

#### **18. (Burton-Jones and Hubona 2006), “The Mediation of External Variables in the Technology Acceptance Model”**

Burton-Jones and Hubona (2006) apply the Technology Acceptance Model (TAM) to test one of its assumption that the determinants (perceived ease of use) and (perceived usefulness) fully mediate the influence of external variables on usage behavior. Data is collected from 125 staff and professional employees of a large government agency in the eastern US. A questionnaire is

applied with respect to two applications: e-mail and word processing. PLS-Graph and SEM is used to perform the analysis.

The findings show that external variables could have direct effects on usage behavior over and above their indirect effects. The study highlights also the different results that occur with more complex measure of usage.

The study recommends management to increase systems usage by making systems more usable and useful, for example, through refined systems selection or IT training. As the results also showed that users' individual differences, such as age and experience, can have a direct effect over and above the indirect effect on PU and PEOU, managers are recommended to tailor their selection and training methods to meet the needs of different users.

#### **19. (Bergeron, Raymond et al. 2001), "Fit in strategic Information Technology Management Research: An Empirical Comparison of Perspectives"**

Bergeron, Raymond et al. (2001) examine the impacts of information technology on business performance. The theoretical framework used is built upon contingency models, based on the notion of "fit" between the organization's management of IT, its environment, strategy, and structure seem to show promise. A cross-sectional survey is conducted, with a target population consisting of 1000 small enterprises.

Results obtained from applying and comparing the six perspectives: moderation; mediation; matching; covariation; profile deviation; and gestalts, illustrate that the mediation and covariation approaches seem to confirm the performance implications of the strategy-technology

pair only, whereas the moderation and matching approaches do the same for the structure-technology pair. The third observation is that both the profile deviation and gestalts perspectives confirm the existence of specific configurations of strategic IT management, strategic orientation, structural complexity, and environmental uncertainty that are more effective than others.

The study recommends that future research must further demonstrate the potential of strategic IT management contingency theory in two essential ways. One is by using organizational assessment typologies that incorporate multiple performance criteria rather than a single objective or subjective criterion. The other is by adopting a dynamic rather than a static perspective, with longitudinal rather than cross-sectional operationalizations of fit.

## **20. (Bharadwaj 2000), “A Resource-Based Perspective on Information Technology Capability and Firm Performance: An Empirical Investigation”**

Bharadwaj (2000) develops the concept of IT as an organizational capability, and empirically examines the association between IT capability and firm performance (1991 through 1994). The purpose of the paper is to employ the resource-based view to develop the theoretical links and empirically examines the association between IT capability and business performance.

The “matched sample comparison group” (Matching is a statistical technique which is used to evaluate the effect of a treatment by comparing the treated and the non-treated units in an observational study or quasi-experiment) methodology is employed to empirically assess the relationship between superior IT capability and firm performance. Data is collected from 149 firms. The study finds out that firms with high IT capability tend to outperform a control sample of firms on a variety of profit and cost-based performance measures. This study contributes to the



growing body of literature linking IT and the resource-based view, and provides a framework for understanding how IT may be appropriately viewed as organizational capability.

The researcher recommends additional research to identify the full chain of variables connecting IT capability to firm performance. It is recommended also that a model for examining and classifying IT capability of firms based on the quality of their IT resources and skills must be developed.

**21. (Venkatesh 2000), “Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model”**

Venkatesh (2000) examines and tests an anchoring and adjustment-based theoretical model of the variables of system-specific perceived ease of use. The model proposes (Computer self-efficacy, facilitating conditions, computer playfulness, and computer anxiety) as anchors that determine the ease of use of a new system. Computer use, will adjust to reflect objective usability, perceptions of external control specific to the new system environment, and system-specific perceived enjoyment. Venkatesh (2000) tested the model in three different organizations among 246 employees using three measurements taken over a three-month period.

By using PLS, the results show that the model explained up to 60% of the variance in the perceived ease of use.

The study recommends future research to work on longitudinal analysis to enhance the attitude of causality proposed by the model. Also, it recommends future work to examine the mandatory usage contexts to test the boundary conditions of the proposed model.

## **22. (Walczuch, Van Braven et al. 2000), “Internet Adoption Barriers for Small Firms in the Netherlands”**

Walczuch, Van Braven et al.(2000) focus on the internet usage in small firms in the Netherlands. The researchers seek to identify factors that influence small business in their choice of internet use. They examine four issues of the internet: benefits of internet; uses of the internet; form and content of websites, and barriers obstructing internet use. The study randomly select 944 names of small businesses (less than 50 employees)<sup>4</sup>, and have a response rate of 16%; and after reviewing literatures and researches on this issue, a questionnaire is developed.

The results show that 48% of the companies have an Internet access and their own websites, 38% claims that they will have this access within the year, the study concludes that the main barriers to internet adoption and developing a websites that the internet will not achieve more efficiency or lower costs; on the other side, the benefits deriving from this adoption can be described as “border crossing”; The study has shown that many Dutch small businesses are well on their way to using the internet to reach new markets, and found its way into the internet.

The study recommends policy makers wanting to increase the percentage of small businesses making use of the Internet, which the best strategy of convincing small business owners of the benefits of electronic commerce is through showing concrete examples. In this respect the study suggest thinking of showcases of similar small firms that have achieved higher sales and/or cost reductions through the use of the internet.

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<sup>4</sup> According to the criteria of the European Community.

## 2.5 Conclusion and comments

To the best of researcher's knowledge, this study is the first that examines UTAUT model in the Palestinian NGOs. As **Tables 2.6** and **2.7** show, there are many studies that address various topics relate to Palestinian NGOs, but none of them examines the adoption of IT among these organizations.

From the presented previous studies related to UTAUT, there are many studies that practically apply UTAUT model, but none of them adopted the variables that are used in this study as a set. The researcher highlights the importance of using and depending on IT applications as an alternative communication tool with the outside world in the besieged Gaza Strip, by using (Free Access to Information) as a dependent variable to measure the extent of this dependency. This variable is adopted by the researcher and was not used in any of the previous studies.

Also, this study is the first study that modified UTAUT with (perceived enjoyment) as a determinant of (Behavioral intention) to use IT. The researcher adopted this variable from Venkatesh (2000) study.

In conclusion, there are many studies examine IT acceptance models to discover variables the affected individual adoption of IT. In Palestine, there is a lack of studies that search in this field. The researcher hopes that this study will fill the gap and examine the factors that affect IT adoption in Palestinian NGOs, and opens the door to much future research to search and develop new models to examine this adoption, and highlight the importance of IT acceptance models.

# CHAPTER 3: Theoretical Framework

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## 3.1 Introduction

The literature review presented in the previous chapter is useful for the theoretical background of this study. In this chapter, researcher aims to modify a model according to the UTAUT model which provides the theoretical basis for this study, which could contribute to a practical application and a prediction together with an understanding about the IT acceptance in Palestinian NGOs in Gaza Strip.

Viswanath Venkatesh; Michael G. Morris; Gordon B. Davis and Fred D. Davis (2003) reviewed the literature of user acceptance of technology and discuss eight models of information technology acceptance, these models were: the theory of reasoned action; the technology acceptance model; the motivational model; the theory of planned behavior; a model combining the technology acceptance model and the theory of planned behavior; the model of PC utilization; the innovation diffusion theory and the social cognitive theory (Venkatesh, Morris et al. 2003).

Venkatesh, Morris et al. (2003) conducted a longitudinal field studies (data are gathered at several points in time). By using data from four organizations over a six- month period, and a pre-tested questionnaire containing items measuring constructs from all eight models, findings of his study formulate the UTAUT model, which integrates elements across these eight models. UTAUT suggests that three constructs are affecting **BI**: **PE**; **EE**; and **SI**. **UB** was directly affected by **BI** and **FC**. These relationships are moderated with age; experience; gender; voluntariness of use (Venkatesh, Morris et al. 2003).

According to Venkatesh, Morris et al. (2003), UTAUT variables' defined as follows:

- **PE** is the degree to which an individual believes that using the system will help him or her to attain gains in job performance. The relationship between **PE** and **BI** is moderated by gender and age.
- **EE** is defined as the degree of ease associated with the use of the system. The relationship between **EE** and **BI** is moderated by gender; age; and experience.
- **SI** definition is the degree to which an individual perceives that important others believe he/she should use the new system. In other models as Theory of Reasoned Action; Technology Acceptance Model; Theory of Planned Behavior and others, **SI** was represented as (Subjective Norm) construct. But in this study, IT concerns Software applications, so **SI** is used. The relationship with **BI** is moderated with all four moderators (age; gender; experience; voluntariness of use).
- **FC** that is the degree to which an individual believes that an organizational and technical infrastructure exist to support use of the system. According to Venkatesh et al., when both **PE** and **EE** constructs are present, **FC** becomes non-significant in predicting intention. The relationship between **FC** and **UB** is moderated by age and experience (Venkatesh, Morris et al. 2003).

The eight models reviewed by Venkatesh et al. explained between 17% and 53% variance in user intentions to use information technology, while the empirical results of UTAUT explains as 70% of the variance in usage intention (Venkatesh, Morris et al. 2003).

The existence of moderators and the role they played in moderating most of the key relationships in the model is considered very important from a theoretical perspective. Also, they refer to that UTAUT advances individual acceptance research by unifying the theoretical perspectives common in the literature and incorporating four moderators to account for dynamic

influences including organizational context, user experience, and demographic characteristics (Venkatesh, Morris et al. 2003). One of the recommendations cited at Venkatesh, Morris et al. (2003) study is that the future research should examine alternative determinants of intention to use IT and usage behavior in extending UTAUT to other contexts, this is what this study tries to do, the researcher aims to generate a model that could contribute to a practical application and a prediction to understand IT adoption in Palestinian NGOs in Gaza by modifying UTAUT and adding new two constructs. In the following section, a discussion for the proposed model that derived from UTAUT will be explained.

### **3.2 Theoretical framework**

Kripanont (2007) refer to the definition made by Hussey and Hussey (1997), they define the theoretical framework as a collection of theories and models from the literature which supports a positivist research study (Kripanont 2007). The framework guides readers to understand the relationships between variables and then set the hypotheses. A hypothesis is a statement about the relationships between social phenomena that can be tested. After setting the hypotheses, a test must take place to examine the nature of these relationships if they are positively or negatively affecting on each other, and examine the validity of the proposed model.

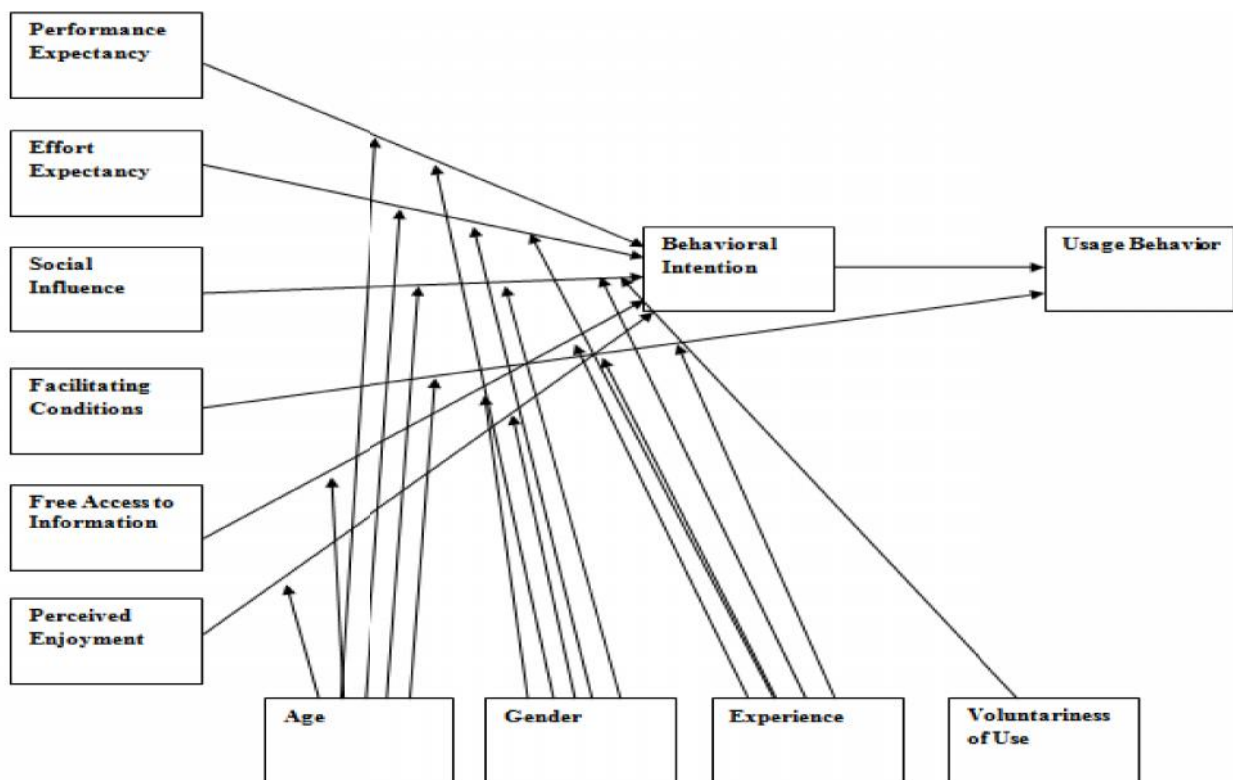
In this study, the proposed model was mostly derived from UTAUT, and contains four types of variables (See chapter1, Fig.1):

- Independent Variable: A variable that influences the dependent or criterion variable and explains its variance. Six core constructs are considered as independent variables in this study, 4 of them are derived from UTAUT which they are: **PE**, **EE**, **SI**, **FC**, and two variables are added by the researcher: Perceived Enjoyment (**PET**) and Free Access to Information (**FAI**). Researcher adapted **PET** from the study of (Venkatesh and Davis 2000), who adapted **PET** from Davis et al. (1992) study and defined it as the “extent to which the activity of using a specific system is perceived to be enjoyable in its’ own right, aside from any performance consequences resulting from system use” (Venkatesh 2000: 351-353). Also, Hsu and Lin (2008) used **PET** as a determinant of attitude toward using blogging and found that they were positively related (Hsu and Lin 2008)

**FAI** variable proposed and added by the researcher to assist in understanding the effect of distance and the existence in different areas on the usage of IT in general. In specific, choosing **FAI** factor is according to Gaza Strips’ situations, such as permanent closure of borders and the continuous siege on Gaza people that make the usage of IT applications becomes the only choice for the NGOs to keep in touch with the outside world and to have a link with their branches outside Gaza Strip

- Dependent Variables: is what we measure in the study and what is affected during the study. The dependent variable responds to the independent variable. One main variable in this study is considered as a dependent variable: **UB**, that expected to be affected by the six constructs mentioned above.

- Mediator Variable: variable is one that explains the relationship between the two other variables. One variable in this study is a mediator: **BI**.
- Moderator variables: variable is one that influences the strength of a relationship between two other variables. In this study, 4 moderators expected to influence the relationships between variables: gender, age, experience and voluntariness of use.



**Figure 2: Conceptual research model (developed by the researcher, 2014).**



### **3.3 Research hypotheses**

This study set two types of hypotheses: the first type is hypotheses for the direct determinants' effect on the mediator variable **BI**, and the mediator effect on the dependent variable **UB**. The second type is for test the effect of moderating variables on the relationship between independent variables and the mediator variable. **All hypotheses are tested at level of significance  $\alpha= 0.05$ .**

#### **3.3.1 Direct hypotheses**

This study contains seven main hypotheses examines the effect of five determinants on the mediator variable **BI** and two hypotheses examines the direct effect of **FC** and **BI** determinant effect on the main dependent variable **UB**. These hypotheses are:

***H<sub>1</sub>: PE will have a positive influence on BI.***

***H<sub>2</sub>: EE will have a positive influence on BI.***

***H<sub>3</sub>: SI will have a positive influence on BI.***

***H<sub>4</sub>: FC will have a positive influence on the UB of IT.***

***H<sub>5</sub>: FAI will have a positive influence on BI.***

***H<sub>6</sub>: PET will have a positive influence on BI.***

***H<sub>7</sub>: BI will positively mediate the relationship between (PE; EE; SI; FAI; and PET) and UB.***

### 3.3.2 Moderating hypotheses

Moderating hypotheses examine the effect of the four moderating variables (gender, age, experience, and voluntariness of use) on the relationship between variables. The hypotheses examine whether the existence of this moderator will effect positively or negatively on the relationship. These hypotheses are:

#### 1) PE relation with BI:

*H<sub>1a</sub>*: Gender may positively moderate the influence of **PE** on **BI** for men

*H<sub>1b</sub>*: Age may positively moderate the influence of **PE** on **BI** for younger people.

#### 2) EE relation with BI:

*H<sub>2a</sub>*: Gender may negatively moderate the influence of **EE** on **BI** for men.

*H<sub>2b</sub>*: Age may negatively moderate the influence of **EE** and **BI** for elder people.

*H<sub>2c</sub>*: Experience may positively moderate the influence of **EE** on **BI** for people with lower experience.

#### 3) SI relation with BI:

*H<sub>3a</sub>*: Gender may positively moderate the influence of **SI** on **BI** for women.

*H<sub>3b</sub>*: Age may negatively moderate the influence of **SI** on **BI** for elder people.

*H<sub>3c</sub>*: Experience may positively moderate the influence of **SI** on **BI** with lower experience.

*H<sub>3d</sub>*: Voluntariness of use may positively moderate the influence of **SI** on **BI** for voluntary people.

#### **4) FC relation with UB:**

*H<sub>4a</sub>*: Age may positively moderate the influence of **FC** on **UB** for elder people.

*H<sub>4b</sub>*: Experience may positively moderate the influence of **FC** on **UB** with lower experience.

#### **5) FAI with BI:**

*H<sub>5a</sub>*: Gender may positively moderate the influence of **FAI** on **BI** for males.

*H<sub>5b</sub>*: Age may negatively moderate the influence of **FAI** on **BI**.

*H<sub>5c</sub>*: Experience may positively moderate the influence of **FAI** on **BI** for higher experience.

#### **6) PET with BI:**

*H<sub>6a</sub>*: Gender may positively moderate the influence of **PET** on **BI** for women.

*H<sub>6b</sub>*: Age may negatively moderate the influence of **PET** on **BI** for elder people.

*H<sub>6c</sub>*: Experience may positively moderate the influence of **PET** on **BI** for higher experience.

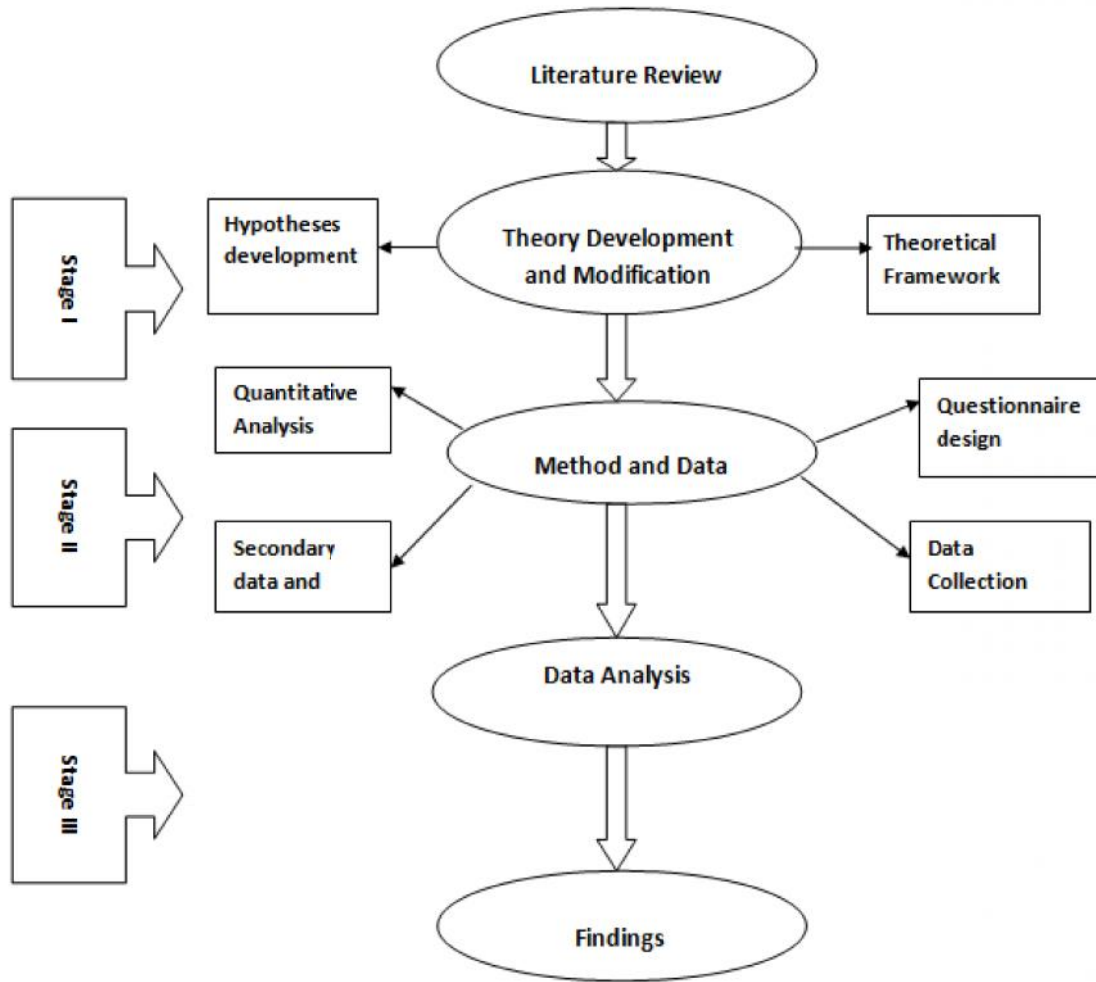
# CHAPTER 4: Research Methodology

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## 4.1 Introduction

This chapter introduces the methodology and the data collection process used in this study. Also, this chapter includes the population, sample, questionnaire design, test of data validity and reliability.

Kothari (2004) refer to the definition of research design made by Claire Selltiz et al. (1962) as the arrangement of conditions to collect and analyze data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari 2004). The research design is important because it is an illustration of the operation's flow in the research. The research design of this thesis contains: literature review and previous study; theory development and modification; the theoretical framework and hypotheses development; questionnaire development and data collection process; data analysis process; findings and results. The following **Figure 3** shows research design stages as follows:



**Figure 3: Research design (developed by the researcher, 2014).**

## 4. 2 Research methodology

There are many research methodologies and methods. Kripanont (2007) refer to Hussey and Hussey (1997) definition that define research methodology as the overall approach to the research process, from the theoretical underpinning to the collection and analysis of data. Also, they mention that there are many types of research including exploratory, descriptive, analytical, predictive, quantitative, qualitative, deductive, inductive, applied, and basic research. Also, they define methods as the various means or techniques or procedures used to gather and analyze data related to some research question or hypothesis (Kripanont 2007). In this research, the survey research methodology is used. Quantitative methodology with the survey (Online survey) to collect the data, the data collected in a quantitative research is measurable, often systematically standardized and easily presented in short space. The methods used are: an online questionnaire used to collect the primary data of the survey; many statistical analyses by SPSS; PLS-Graph (build 1126), a PLS structural equation modeling tool.

Surveys involve selecting a representative and unbiased sample of subjects drawn from the group you wish to study, while the emphasis of quantitative research is on collecting and analyzing numerical data; it concentrates on measuring the scale, range, frequency etc. of phenomena<sup>5</sup> .

To test the hypotheses, an online field survey is conducted. Most of the survey has been constructed based on the questions of UTAUT as applied by Venkatesh, Morris et al (2003), with some modifications according to the variables added by the researcher. The data is collected through using of online questionnaire available by docs.google.com.

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<sup>5</sup> Introduction to research and research methods, Bradford university, available on: [www.bradford.ac.uk/management/els](http://www.bradford.ac.uk/management/els)

### **4.3 Data collection**

Sekaran (2003) defines the questionnaire as a pre-formulated written set of questions to which respondents record their answers, usually through rather closely defined alternatives (Sekaran 2003). In this research, the questionnaire is the main tool to collect the primary data. The items used to measure the research model (items used in the questionnaire) were based mostly on items used in measurements by Venkatesh, Morris et al. (2003) and Venkatesh (2000). The questionnaire was distributed by e-mail in coordination with PNGO as where it was an on-line one. The reasons for choosing an on-line technique are:

- Whereas this research examines the technology adoption in the Palestinian NGOs, it was necessary to examine this adoption practically. Receiving and answering the on-line questionnaire would be a good indicator for IT adoption.
- This technique helps covering wider geographical area in the Gaza Strip.
- Respondents are not restricted with a specific time during their work time; they can complete the questionnaire when they are at home or any other place through their personal computers or even their smart phones.

An e-mail message is sent in coordination with PNGO to all its participants existed in the mailing list they have, with a recommendation letter that encourages answering the questionnaire. When the person receives the e-mail, he just needs to enter the URL provided in the message that also summarized the purpose of the study, and then start to answer the questions and then press (submit) button.

### 4.3.1 Questionnaire design

Questions are classified into two parts: Part 1 is the demographic questions, which includes questions to discover the real usage behavior of the employee at the organization. This part contains also the questions that examine the dependent variable **UB**. The researcher prefer to give a feeling to the respondents that this is not a formal question about their real usage of IT, that may guarantee a more real answer about their usage.

Part 2 contains seven main sections. A five point Likert Scale with anchors of (strongly disagree) to (strongly agree) was used to measure each item. In five of these sections (**PE; EE; SI; FC; and BI**) most of the questions were adapted based on the questions of UTAUT model with a reference to “the system” changed to “Information Technology (IT) Applications”. Also, there were some modifications done to the questions in order to meet the culture and nature of NGOs in Gaza. A summary of each section can be illustrated as follows (see Appendix A):

- **The first section** is about **PE** and consists of **5** questions. This section measures the extent to which the employee who uses information technology applications believes that using these applications will help him to attain gains in job performance. Questions are diverse between the extent of usefulness; effectiveness; increase of quality; increase productivity; and quick accomplishment that the usage of IT will provide for the employee.
- **The second section** focuses on **EE** and consists of **4** questions to measure the degree of ease the employee believes that it is associated with using the system. Questions measure the employees’ point of view about the clearness of understand how to use IT applications and how these applications are easy to learning.



- **The third section** measures, through **4** questions the **SI** which is the degree to which an individual perceives that important others believe he or she should use the new IT applications. Questions measure how much the employee is affected by the opinions of the important people around him at work in the usage of IT applications.
- **The fourth section** is the **FC** that examines with **3** questions the employee believes that an organization provides to support use of the IT applications. Questions measure the extent of Palestinian NGOs' providing for the employees by different resources for help in IT usage and learning.
- **The fifth section** measures **FAI** that is defined as the extent the employee thinks that IT applications help to overcome challenges resulting from the closure and restrictions on movement on the Gaza Strip. This section is added by the researcher to the UTAUT model in order to make it useful to the Gaza strip status and to discover how IT applications could help in filling the gaps resulted from the Israeli closure. This section contains **6** questions.
- **The sixth section** contains **5** questions used as a measurement of the role of **PET** in the IT applications adoption, which is defined as the extent the employee feels that using a specific system is enjoyable.
- **The seventh section** measures the **BI**, where, the researcher used a measure that differs from that used in UTAUT. The researcher tried to but diversified **4** questions to examine the user self assessment toward continue using the IT applications and adopt new ones, encourage others to use and adopt, this work deals with Al-Gahtani, Hubona et al. (2007).

At the first phase, the response rate was low. The researcher made supportive actions like follow-up calls and visits to the organizations, in addition to using interpersonal relationships, which led to increase the response rate. This process deals with Alikilic and Atabek (2012).

#### **4.4 Population size**

Sekaran (2003) defines the population as the group of people or things of interest under examination by the researcher (Sekaran 2003). In this research, the population includes: the employees in the Palestinian NGOs in Gaza Strip that registered in PNGO database and numbering approximately 5000 employees<sup>6</sup>.

#### **4.5 Sample size**

This study takes a random sample of NGOs' employees which are registered in the online data base of PNGO (287 NGOs). The reason for selecting this sample is that all organizations registered in this database must include usage of IT applications in the form of websites and electronic mail, and this indicates a kind of care and acceptance about using IT. The Data Base includes data that the researcher believe very reliable to construct a sample for this study. Surfing through this website, a researcher can easily find classified information about these organizations, by governorate and field of work.

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<sup>6</sup> According to Amjad Al-Shawwa, PNGO's director in Gaza Strip.

## **4.6 Response rate**

The online questionnaire yielded (**154**) questionnaire filled completely from different NGOs working in many fields from Gaza's five governorates from 287 distributed questionnaire. This means that the response rate is approximately **54%** and represents 154 NGOs in Gaza Strip.

## **4.7 Questionnaire translation process**

Culture is a crucial factor in the process of language interpretation. Only through understanding the cultural context of the language, the translator can capture the implied meaning. This suggests that cross-cultural understanding is needed and that openness on the second language from different angles is required (Al-Shawi and Mahadi 2012).

This study is executed in Gaza Strip. Even though most of the employees working in local NGOs have a good English language according to the demands of working in these organizations, but it is not suitable to distribute the questionnaire in English language. So, the questionnaire is translated into Arabic. The language is an essential component of international business research. Sometimes, the interpreter may not find same meaning of particular words in Arabic and English. For this reason, a meaning-based perspective is applied, as suggested by a number of anthropologists and international business scholars (Chapman, Gajewska-De Mattos et al. 2004). The translation process used in this research included the following steps: Firstly, two professional interpreters translated the questionnaire into Arabic. The researcher compared the two copies to examine the differences in the understanding of the concepts and meaning. Secondly, A copy of both Arabic and English questionnaire was sent to native Arab PhD student who studies comparative literature in Australia, to overcome any confusion in understanding the questions and

to add any comments or notes on the translated version, this step deals with the work of Al-Gahtani, Hubona et al.(2007). Finally, the researcher interviewed an English literature professor at Al-Azhar University in Gaza who reviewed the questionnaire, to make sure that the questions and phrasings are grammatically correct (see Appendix B).

## **4.8 Test of data validity and reliability**

### **4.8.1 Test of validity**

#### **1. Experts validation:**

Even though most of the questions are adapted from UTAUT model, an evaluation of the questionnaire is conducted by a number of experts in various faculties (IT; Business Administration; Arts) from both Al Azhar University and the Islamic University. After that, a final copy of the questionnaire was updated according to the given recommendations (see Appendix C).

#### **2. Statistical validity of the questionnaire:**

Appleton (1995) mentions that Pilot and Hungler (1985) define the questionnaire validity as the degree to which an instrument measures what it is supposed to be measuring (Appleton 1995). To insure the validity of the questionnaire, two statistical tests are applied (Pearson Correlation Coefficient; Factor analysis) by using IBM SPSS as follows:

- **Internal validity**

Internal validity of the questionnaire is the first statistical test that is used to test the validity of the questionnaire. It is measured by a scouting sample, through measuring the correlation coefficients between each paragraph in one field and the whole field. **Table 4.1** illustrates the correlation coefficient for each paragraph of the **PE** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.1: Correlation coefficient of each paragraph of “PE” and the total of this field**

<b>Paragraph</b>		<b>PE</b>
I find IT applications useful in my job	Pearson Correlation	0.904
	P-value (Sig.)	0.000*
Using IT applications enables me accomplish my tasks more quickly.	Pearson Correlation	0.909
	P-value (Sig.)	0.000*
Using IT applications in my work increases my productivity.	Pearson Correlation	0.924
	P-value (Sig.)	0.000*
Using IT applications in my work enhances my effectiveness.	Pearson Correlation	0.941
	P-value (Sig.)	0.000*
Using of IT applications will significantly increase the quality of My work.	Pearson Correlation	0.930
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

**Table 4.2** clarifies the correlation coefficient for each paragraph of the **EE** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of

this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.2: Correlation coefficient of each paragraph of “EE” and the total of this field**

<b>Paragraph</b>		<b>EE</b>
My interactions with IT applications are clear and understandable.	Pearson Correlation	0.858
	P-value (Sig.)	0.000*
It is easy for me to become skillful using IT applications.	Pearson Correlation	0.876
	P-value (Sig.)	0.000*
I find IT applications easy to use.	Pearson Correlation	0.917
	P-value (Sig.)	0.000*
Learning to use IT applications is easy for me.	Pearson Correlation	0.918
	P-value (Sig.)	0.000*

\*Correlation is significant at  $p < 0.05$

The following **Table 4.3** clarifies the correlation coefficient for each paragraph of the **SI** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.3: Correlation coefficient of each paragraph of "SI" and the total of this field**

Paragraph		SI
Most people who are important to me and my colleagues at work prefer me to use IT applications.	Pearson Correlation	0.740
	P-value (Sig.)	0.000*
I will use IT applications if my colleagues whom I trust their opinion at work use them.	Pearson Correlation	0.775
	P-value (Sig.)	0.000*
People whose opinions and behavior at work I value would prefer me to use IT applications.	Pearson Correlation	0.868
	P-value (Sig.)	0.000*
My supervisor at work want me to use IT applications fulfill my work.	Pearson Correlation	0.807
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

**Table 4.4** clarifies the correlation coefficient for each paragraph of the **FC** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.4: Correlation coefficient of each paragraph of "FC" and the total of this field**

Paragraph		FC
I have the resources and the knowledge	Pearson Correlation	0.697
and the ability to make use of IT.	P-value (Sig.)	0.000*
A specific person/group is/are available by	Pearson Correlation	0.855
the organization for assistance with IT	P-value (Sig.)	0.000*
applications problems and difficulties.		
Organizations' management provides	Pearson Correlation	0.885
most of the necessary help and resources	P-value (Sig.)	0.000*
for using IT applications.		

\* Correlation is significant at  $p < 0.05$

**Table 4.5** clarifies the correlation coefficient for each paragraph of the **FAI** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.



**Table 4.5: Correlation coefficient of each paragraph of "FAI" and the total of this field**

Paragraph		FAI
In my work, I need to travel outside the Gaza Strip.	Pearson Correlation	0.775
	P-value (Sig.)	0.000*
The presence of technology applications make it easier for me to communicate with the outside world.	Pearson Correlation	0.502
	P-value (Sig.)	0.000*
Regardless of travel restrictions, I use IT applications to accomplish my work abroad instead of traveling.	Pearson Correlation	0.716
	P-value (Sig.)	0.000*
When unable to travel, I find IT tools very efficient to do my work abroad.	Pearson Correlation	0.741
	P-value (Sig.)	0.000*
I need to travel in order to do my job out of the country despite the presence of information technology applications.	Pearson Correlation	0.738
	P-value (Sig.)	0.000*
Instead of staff training abroad, we rely more on E-learning.	Pearson Correlation	0.499
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

**Table 4.6** clarifies the correlation coefficient for each paragraph of the **PET** and the total of the field. The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.6: Correlation coefficient of each paragraph of "PET" and the total of this field**

<b>Paragraph</b>		<b>PET</b>
I find using information technology in my work enjoyable	Pearson Correlation	0.696
	P-value (Sig.)	0.000*
I feel bored using information technology in my work.	Pearson Correlation	0.361
	P-value (Sig.)	0.000*
The use of information technology in completing my tasks eliminates boredom.	Pearson Correlation	0.770
	P-value (Sig.)	0.000*
Time passes quickly during my use of information technology.	Pearson Correlation	0.779
	P-value (Sig.)	0.000*
I feel happy when the Internet connection is available at work.	Pearson Correlation	0.672
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

**Table 4.7** clarifies the correlation coefficient for each paragraph of the **BI** and the total of the field. . The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.7: Correlation coefficient of each paragraph of "BI" and the total of this field**

Paragraph		BI
I plan to continue using IT t applications in the next few months.	Pearson Correlation	0.788
	P-value (Sig.)	0.000*
I will be the first to use new IT applications that fit my work.	Pearson Correlation	0.812
	P-value (Sig.)	0.000*
There is a possibility that I will use IT applications in the next few months.	Pearson Correlation	0.799
	P-value (Sig.)	0.000*
I will recommend to others that they use IT applications in the next few months.	Pearson Correlation	0.826
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

**Table 4.8** clarifies the correlation coefficient for each paragraph of the **UB** and the total of the field. . The p-values (Sig) are less than 0.05. So the correlation coefficients of this field are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to measure what it is set for.

**Table 4.8: Correlation coefficient of each paragraph of "UB" and the total of this field**

Paragraph		UB
Percentage of using IT to accomplish work.	Pearson Correlation	0.938
	P-value (Sig.)	0.000*
Frequency of using IT.	Pearson Correlation	0.720
	P-value (Sig.)	0.000*

\* Correlation is significant at  $p < 0.05$

- **Factor analysis:**

Factor analysis refers to a number of statistical procedures used to determine characteristics that relate to each other. Factor analysis is examining the relationships between large numbers of variables. The researcher applied factor analysis using the procedure in SPSS software. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) is known as one of the best measures for determining the suitability of a set of data for subsequent factor analysis. If the value of KMO is greater than 0.5, this means that using the factor analysis is valid (Field 2009).

KMO Measure of Sampling Adequacy values can be rated as follows: in the 0.90 as marvelous, in the 0.80's as meritorious, in the 0.70's as middling, in the 0.60's as mediocre, in the 0.50's as miserable, and below 0.50 as unacceptable (Sivakumar, Kumar et al. 2014).

The following **Table 4.9** illustrates the factor analysis and KMO values for all the fields:

**Table 4.9: KMO values for the fields**

<b>Field</b>	<b>KMO Measure of Sampling Adequacy</b>	<b>P-value (Sig.)</b>
<b>PE</b>	.888	0.000*
<b>EE</b>	.848	0.000*
<b>SI</b>	.728	0.000*
<b>FC</b>	.605	0.000*
<b>FAI</b>	.716	0.000*
<b>PET</b>	.705	0.000*
<b>BI</b>	.785	0.000*
<b>UB</b>	.500	0.000*

\* Significant at p <0.05

The value of the KMO for **PE** is 0.888, which would be labeled as “meritorious”. Since the KMO Measure of Sampling Adequacy meets the criteria, we do not have a problem. Also, the sig value for this test is less than 0.05. This leads to conclude that there are correlations in the data set that are appropriate for factor analysis. For **EE**, the value of the KMO is 0.848, which would be labeled as “meritorious”. The sig value for this test is less than 0.05. This concludes that there are correlations in the data set that are appropriate for factor analysis.

The value of the KMO for **SI** is 0.728, which labeled as “middling”. The sig value for this test is less than 0.05. This means that there are correlations in the data set that are appropriate for factor analysis. For **FC**, KMO value is 0.605, which labeled as “mediocre”. The sig value for this test is less than 0.05. This indicates that there are correlations in the data set that are appropriate for factor analysis. **FAI** KMO value is 0.716, which labeled as “middling”. Also, the sig value for this test is less than 0.05. Which concludes that there are correlations in the data set that are appropriate for factor analysis.

The value of the KMO for **PET** is 0.705, which labeled as “middling”. The sig value for this test is less than 0.05. This leads to conclude that there are correlations in the data set that are appropriate for factor analysis. BI value of the KMO Measure of Sampling Adequacy is .785, which would be labeled as “middling”, and the sig value for this test is less than 0.05, which also means there are correlations in the data set that are appropriate for factor analysis. Finally, the value of the KMO for **UB** is .500, which would be labeled as “miserable”. Also, the sig value for this test is less than 0.05; this leads us to conclude that there are correlations in the data set that are appropriate for factor analysis.

## 4.8.2 Reliability test

Cronbach's coefficient alpha value examine the internal research consistency of measuring (Hinton, Brownlow et al. 2004). In this study, the questionnaire is the main instrument for the data collection. Most of questions measure the respondents' answers with 5 Point Likert Scale except for the **UB** field. Hinton, Brownlow et al. (2004) study suggests four points of reliability: excellent (0.90 and above); high (0.70 - 0.90); high moderate (0.50 – 0.70) and low (0.50 and below). The reliability values for this study illustrated in **Table 4.10** show excellent points for the variables **PE and EE** Values. High points are shown for **SI, FC, FAI,** and **BI**. Both **PET** and **UB** considered as a high moderate. Also, reliability of all paragraphs of the questionnaire (0.914) is considered excellent.

**Table 4.10: Cronbach's Alpha Analysis for Each Filed of the Questionnaire**

<b>Field</b>	<b>Cronbach's Alpha</b>
<b>PE</b>	0.955
<b>EE</b>	0.915
<b>SI</b>	0.805
<b>FC</b>	0.747
<b>FAI</b>	0.745
<b>PET</b>	0.610
<b>BI</b>	0.815
<b>UB</b>	0.516
<b>All paragraphs of the questionnaire</b>	<b>0.914</b>

# CHAPTER 5: Data Analysis and Results

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## 5.1 Introduction

This chapter contains the analysis of responses and discussion of the results with explanations for the meaning of these results. Also, it provides a clear idea about the respondents' demographic data, and provides the variance explained with PLS analysis. In this chapter, the researcher uses two analytical tools: IBM SPSS statistics 20; PLS-Graph (build 1126), a PLS structural equation modeling tool. It assesses the psychometric properties of the measurement model, and estimates the parameters of the structural model. This tool enables the simultaneous analysis of up to 200 latent predictor variable indicators. Researcher uses PLS to analyze UTAUT and examine the variance of variables.

## 5.2 The characteristics of demographic sample

### 1. Gender distribution:

**Table 5.1** shows that the sample consisted of approximately equal percentages of male and female who form the population of the study. This result can be attributed to the nature of NGOs which give equal opportunities in employment for both males and females. Actual recruitment in Palestinian NGOs is even higher for women than men. Gerster and Baumgarten (2011) survey shows a high percentage of females' employment (57%) in Palestinian NGOs.

**Table 5.1: Respondents' distribution according to gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	76	49.4
Female	78	50.6
Total	154	100%

**2. Age distribution:**

The following **table 5.2** illustrates the respondents' distribution with respect to their ages; the highest percentage (41.6%) was for those whose ages range between (31- 40 years), followed by the group of (20 – 30 years) who has (39.0%) percentage.

The percentage of employees with (41- 50) years was relatively small (13.0%), where the group of employees whose ages were more than 50 years formed the smallest percent (6.4%).

**Table 5.2: Respondents' distribution according to age**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
20 – 30 Years	60	39.0
31 – 40 Years	64	41.6
41 – 50 Years	20	13.0
More than 50 years	10	6.4
Total	154	100.0



### 3. Academic degree distribution:

**Table 5.3** presents the distribution of respondents according to their academic degree. Results showed that the Bachelor degree holders formed the highest rate (63.7%), while higher education holders were (28.6%), followed by Diploma holders with a rate of (7.1%). From the researcher point of view, this distribution of education is due to the requirements of the NGOs which demand a minimum Bachelor degree for employment. And this could be considered as an indicator of the interest of the Palestinian people in their education where Bachelor degree becomes an essential matter.

**Table 5.3: Respondents' distribution according to academic degree**

Academic Degree	Frequency	Percentage
Less than Diploma	1	0.6
2 Years Diploma	11	7.1
Bachelor	98	63.7
Higher Education	44	28.6
Total	154	100.0

### 4. Employees' field of work distribution:

**Table 5.4** illustrates respondents' distribution by field of work. The highest percentage of respondents (31.2%) refers to employees in departments, followed by department's directors (23.4%). Project's employee percentage is (18.8%), while organizations' directors comprise (16.9%) of the respondents. The percentage declines drastically to (9.7%) for project managers. The researcher attributes these variations to fact that most NGOs in the Gaza Strip are department-

structured, or in other words each organization has a director (general or executive) and specialized number of departments or units which carry out the work. Accordingly, department's employees and directors compose the bulk of employment within these NGOs. The decline in the number of project managers who responded to the questionnaire can refer to the fact that many NGOs have no such post at all. Even when they implement specific projects, directors of departments may manage such projects.

**Table 5.4: Respondents' distribution according to employees' field of work**

<b>Employee's field of work</b>	<b>Frequency</b>	<b>Percentage</b>
Organization's Director	26	16.9
Department's Director	36	23.4
Project Manager	15	9.7
Department's Employee	48	31.2
Project's Employee	29	18.8
Total	154	100.0

### **5. Voluntariness of use distribution:**

**Table 5.5** reveals drastic variation between those respondents who use IT tools voluntarily and mandatory. (65.6%) of respondents are required to use IT by their organizations, while (34.4%) of respondents use IT tools voluntarily. The researcher believes that this variation is due to the fact that most employees in NGOs are required to use IT tools in their work.

**Table 5.5: Respondents' distribution according to voluntariness of use**

<b>Voluntariness of use</b>	<b>Frequency</b>	<b>Percentage</b>
Voluntary	53	34.4%
Mandatory	101	65.6%
Total	154	100%

### **6. Years of Experience distribution:**

**Table 5.6** illustrates respondents' distribution according to years of experience in using IT applications. Interestingly, the table shows that the highest level of respondents (38.3%) have between (5-10) years of using IT experience. Those respondents who have (11-15) years of experience represent (27.9%) of the responses. The most experienced employees, with more than 15 years of IT usage experience, represent (14.3%) of the responses, while those who have less than 5 years experience in IT in their work comprise (19.5%) of the responses.

The researcher believes that these various percentages can be attributed to the fact that NGOs prefer to hire IT- experienced staff members rather than fresh and inexperienced ones. It is an indicator also about the continuity of these organizations.

**Table 5.6: Respondents' distribution according to years of experience**

<b>Years of Experience</b>	<b>Frequency</b>	<b>Percentage</b>
Less than 5 years	30	19.5
5–10 years	59	38.3
11–15 years	43	27.9
More than 15 years	22	14.3
Total	154	100.0

## **5.2 Statistical analysis for each dimensions of questionnaire**

### **5.2.1 Independent T- test**

Independent sample t-test is used to show the differences between two groups such as males and females, younger and older subjects. In this study, it is used due to the need to compare the mean score on some continuous variables.

- **Independent T- test for (gender):**

The following **Table 5.7** shows interesting results. The p-value (Sig.) for the field **EE**= 0.046 (which is significant at the level of 0.05). This means that there is a significant difference among the respondents regarding to this field due to gender, and means also that men have less **EE** than women. On the other hand, the p-values (Sig.) are greater than the level of significance ( $\alpha=0.05$ ) for the other fields, which means that there is an insignificant difference among the respondents with regard to these fields due to gender.

**Table 5.7: Means differences of the fields of the questionnaire according to gender**

Field	Test Value	P-value (Sig)	Means	
			Male	Female
PE	1.678	0.095	4.678	4.502
EE	-2.008	0.046*	4.167	4.371
SI	.270	0.788	4.134	4.102
FC	.089	0.930	4.083	4.072
FAI	1.529	0.128	3.542	3.453
PET	.854	0.394	3.765	3.684
BI	.396	0.693	4.342	4.298

\*Significant at  $p < 0.05$

- **Independent T- test for (voluntariness of use):**

The following **Table 5.8** shows that the p-values (Sig.) are greater than the level of significance ( $\alpha=0.05$ ) for all the fields. However, there is an insignificant difference among the respondents with regard to these fields due to the Voluntariness of Use.

**Table 5.8: Means differences of the fields of the questionnaire according to voluntariness of use**

Field	Test Value	P-value (Sig.)	Means	
			Voluntary	mandatory
PE	-1.256	0.180	4.598	4.637
EE	-.897	0.477	4.207	4.304
SI	-3.066	0.781	4.272	4.247
FC	-2.498	0.057	4.174	4.184
FAI	-.650	0.287	3.490	3.575
PET	.861	0.681	3.781	3.695
BI	-1.159	0.923	4.231	4.366

## 5.2.2 One-way ANOVA

One-Way ANOVA analysis is used to examine if there is a statistical significant difference between several means. Results of this analysis according to the age and experience for all fields are shown below:

- **One- way ANOVA test for (age):**

The following **Table 5.9** shows that the p-values (Sig.) are greater than the level of significance ( $\alpha=0.05$ ) for the fields **PE; EE; FC; PET; and BI**, then there is insignificant difference among the respondents regarding to these fields due to Age. On the other side, the p-value (Sig.) for the field **SI**= 0.011 (which is significant at the level of 0.05), the means differences show that older people have higher **SI** degree than younger people. P-value (Sig.) for the field **FAI**= .002 (which is significant at the level of 0.05), the means differences show that older people have higher **FAI** degree than younger people

**Table 5.9: ANOVA differences of the fields of the questionnaire according to age**

Field	Test Value	Sig	Means			
			20-30	31-40	41-50	More than 50
PE	1.533	0.208	4.516	4.609	4.840	4.400
EE	2.058	0.108	4.308	4.332	4.187	3.825
SI	3.811	0.011*	4.070	4.140	4.475	3.550
FC	1.713	0.167	3.938	4.177	4.266	3.900
FAI	5.033	0.002*	3.294	3.619	3.991	3.700
PET	.343	0.794	3.730	3.715	3.810	3.580
BI	1.070	0.364	4.270	4.371	4.450	4.225

\* Significant at  $p < .05$

- **One- way ANOVA test for (experience):**

The following **Table 5.10** shows that the p-values (Sig.) are greater than the level of significance ( $\alpha=0.05$ ) for the fields **EE; SI; FC; PET; BI** which means that there is insignificant difference among the respondents regarding to these fields due to experience. Also, the results show that the p-values (Sig.) for both the fields **PE= 0.018**, and **FAI= 0.036** (which both are significant at the level of 0.05) that means there is a significant difference among the respondents with regard to these two fields due to experience. Means differences values indicate that the less expertise people have the less **PE** and **FAI**.

**Table 5.10: ANOVA differences of the fields of the questionnaire according to experience**

Field	Test Value	Sig	Means			
			Less than 5	5-10	11-15	More than 15
PE	3.438	0.018*	4.2600	4.6305	4.7163	4.6818
EE	2.036	0.111	4.0333	4.2754	4.3779	4.3750
SI	2.470	0.064	3.8000	4.1568	4.2326	4.2273
FC	1.867	0.138	3.9222	3.9774	4.2326	4.2576
FAI	2.913	0.036*	3.2500	3.5254	3.6240	3.8561
PET	1.075	0.362	3.5667	3.7390	3.7535	3.8455
BI	4.394	0.06	3.9417	4.3729	4.5000	4.3409

\* Significant at  $p < .05$

### 5.2.3 One sample T tests

A one sample t-test allows us to test whether a sample mean (of a normally distributed interval variable) significantly differs from a hypothesized value. One-Sample T test compares the mean of a single column of numbers against a hypothetical mean that we provide.

#### 1- Analyzing the first field (PE):

Table 5.11 shows that the means of all paragraphs are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of all the tests are positive, so the mean of this paragraph is significantly greater than the hypothesized value (3). This means that the respondents agreed to these paragraphs. Also, the analysis results show that 45.8% of IT users in NGOs agreed that IT helps in attaining gains in job performance.

**Table 5.11: One sample T-test for PE**

	<b>PE1</b>	<b>PE2</b>	<b>PE3</b>	<b>PE4</b>	<b>PE5</b>	<b>(PE)</b>
<b>Mean</b>	4.66	4.66	4.56	4.53	4.55	4.58
<b>SD</b>	0.67	0.611	0.732	0.725	0.768	0.65591
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	30.652	31.108	26.422	26.244	24.981	30.075

\*Significant at  $p < 0.05$



## 2- Analyzing the second field (EE):

Table 5.12 shows the means of all paragraphs, are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of the all the tests are positive, so the mean of this paragraph is significantly greater than the hypothesized value (3). This shows that the respondents agreed to these paragraphs.

**Table 5.12: One sample T-test for EE**

	EE1	EE2	EE3	EE4	(EE)
<b>Mean</b>	4.27	4.25	4.27	4.3	4.27
<b>SD</b>	0.707	0.726	0.723	0.697	0.63654
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	22.33	21.314	21.719	23.133	24.781

\* Significant at  $p < 0.05$

## 3- Analyzing the third field (SI):

Table 5.13 shows the means of all paragraphs of SI field. Means are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of the all the tests are positive, so the mean of this paragraph is significantly greater than the hypothesized value (3). This shows that the respondents agreed to these paragraphs.

**Table 5.13 One sample T-test for SI**

	<b>SI1</b>	<b>SI2</b>	<b>SI3</b>	<b>SI4</b>	<b>(SI)</b>
<b>Mean</b>	4.15	4	4.08	4.24	4.1185
<b>SD</b>	0.823	1.054	0.900	0.936	0.74052
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	17.336	11.773	14.954	16.439	18.744

\* Significant at  $p < 0.05$

#### 4- Analyzing the forth field (FC):

**Table 5.14** illustrates the means of all paragraphs of FC field. Means are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of the all the tests are positive. The mean of this paragraph is significantly greater than the hypothesized value (3), this shows that the respondents agreed to these paragraphs.

**Table 5.14: One Sample T-Test for FC**

	<b>FC1</b>	<b>FC2</b>	<b>FC3</b>	<b>(FC)</b>
<b>Mean</b>	4.10	4.16	3.97	4.07
<b>SD</b>	0.798	1.019	0.914	0.74564
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	17.056	14.152	13.221	17.94

\* Significant at  $p < 0.05$

## 5- Analyzing the fifth field (FAI):

Table 5.15 shows the following results:

- that the mean of paragraph #1 (*In my work, I need to travel outside the Gaza Strip*) equals 2.97 (29.7%), Test-value = -0.220, and P-value = 0.827 which is greater than the level of significance ( $\alpha = 0.05$ ), then the mean of this paragraph is insignificantly different from the hypothesized value (3), this shows that the respondents disagree to this paragraph.
- The means of Paragraphs #5 and #6 are greater than the hypothesized value (3), the test-values are (.576) and (1.419) respectively, and Sig values are (.565) and (.158) which are greater than the level of significance ( $\alpha = 0.05$ ). Then the means of these two paragraphs are insignificantly different from the hypothesized value 3. It is concluded that the respondents are (neutral) to these paragraphs.
- The means of all other paragraphs are significantly greater than the hypothesized value (3). Also, the sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ), so the mean of this paragraph is significantly greater than the hypothesized value (3). This shows that the respondents agreed to these paragraphs.

**Table 5.15: One sample T-test for FAI**

	<b>FAI1</b>	<b>FAI2</b>	<b>FAI3</b>	<b>FAI4</b>	<b>FAI5</b>	<b>FAI6</b>	<b>(FAI)</b>
<b>Mean</b>	2.97	4.56	3.74	3.81	3.06	3.13	3.54
<b>SD</b>	1.468	0.74	1.095	1.004	1.399	1.136	.77274
<b>P-value (Sig.)</b>	0.827	0.000*	0.000*	0.000*	0.565	0.158	0.000*
<b>t-test</b>	-0.220	26.233	8.386	9.955	0.576	1.419	8.777

\* Significant at  $p < 0.05$

#### **6- Analyzing the sixth field (PET):**

**Table 5.16** presents the following results:

- The mean of paragraph #2 (*I find using information technology in my work enjoyable*) equals 1.99 (19.9%), Test-value = -10.253, 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 paragraph is significantly smaller than the hypothesized value 3. We conclude that the respondents disagreed to this paragraph.
- The means of all other paragraphs are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of the all the tests are positive, so the mean of this paragraph is significantly greater than the hypothesized value (3). This shows that the respondents agreed to these paragraphs.

**Table 5.16: One sample T-test for PET**

	<b>PET1</b>	<b>PET2</b>	<b>PET3</b>	<b>PET4</b>	<b>PET5</b>	<b>(PET)</b>
<b>Mean</b>	4.31	1.99	3.82	4.05	4.46	3.72
<b>SD</b>	0.787	1.226	0.964	0.895	0.768	0.589
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	20.592	-10.253	10.613	14.488	23.605	15.261

\* Significant at  $p < 0.05$

#### 7- Analyzing the sixth field (BI):

**Table 5.17** presents that the means of all paragraphs are significantly greater than the hypothesized value (3). Also, the Sig values are 0.00 which are smaller than the level of significance ( $\alpha = 0.05$ ) and the sign of the all the tests are positive, so the mean of this paragraph is significantly greater than the hypothesized value (3). This shows that the respondents agreed to these paragraphs.

**Table 5.17: One sample T-test for BI**

	<b>BI1</b>	<b>BI2</b>	<b>BI3</b>	<b>BI4</b>	<b>BI</b>
<b>Mean</b>	4.45	4.19	4.25	4.38	4.3198
<b>SD</b>	0.724	0.984	0.881	0.826	0.68867
<b>P-value (Sig.)</b>	0.000*	0.000*	0.000*	0.000*	0.000*
<b>t-test</b>	24.934	15.068	17.571	20.779	23.783

\* Significant at  $p < 0.05$

### 5.3 UTAUT analysis

In this section, the researcher analyzes the variance for the regression model. Moderators added are variables that statistically significant according to SPSS statistics, which showed that only **EE**'s relationship with **BI** is moderated by gender, while age moderates the relationship between both **SI** and **FAI** with **BI**, where **PE** and **FAI** relationships with **BI** are moderated by experience. Voluntariness of use is not statistically significant.

However, the researcher examines the model without the mediation, and test the direct effect of independent variables and **BI** as independent on the dependent variable **UB**, the results are illustrated in the following **Table 5.18**

**Table 5.18: Path coefficients for independent variables without mediator <sup>a</sup>**

Variable	Coefficients	T-test
PE	-.219	1.47
EE	-.027	0.2065
SI	-.410	2.60*
FC	.087	0.89
FAI	-.095	1.22
PET	.1523	0.98

<sup>a</sup> Dependent variable: UB

\* Significant at p <0.05

It is clear from the Sig values given in **Table 5.18** that most of independent variables have no significant direct impact on the dependent variable **UB** in the absence of

the mediator variable's effect. This result highlights the importance of the role of mediator variable **BI** in the UTAUT model. It also tests the relationship between **FC** and **UB** with the mediation effect of **BI**, which is not significant.

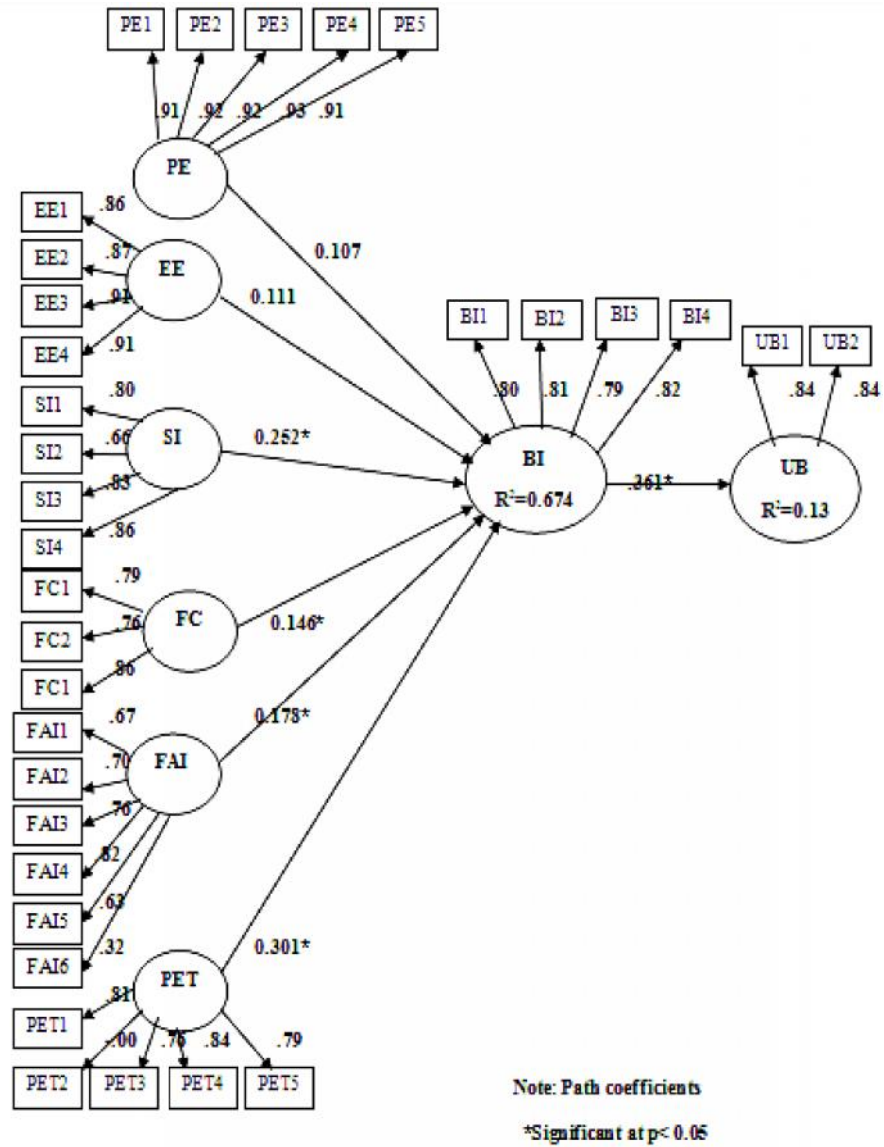
In order to examine the role of moderator variables in affecting the relationship between the independent variables and the mediator, the researcher firstly conducts the structural model with elimination of moderators' variables' effects. The following **Table 5.19** presents the Path coefficients for independent variables on the mediator **BI**; the mediator effect on the dependent variable **UB** without moderators' effect. It is clear that both **EE** and **PE** have a non-significant effect on **BI**, while **SI**; **FC**; **FAI**; and **PET** variables have a positive influence on **BI**:

**Table 5.19: Path coefficients for independent variables with mediators  
(without moderators' effect)**

<b>Variable</b>	<b>Coefficient</b>	<b>T Statistics</b>
PE	0.0107	1.372
EE	0.111	1.044
SI	0.252	3.435*
FC	0.146	2.017*
FAI	0.178	2.289*
PET	0.301	3.698*
BI --> UB	0.361	3.287*

\*Significant at P < 0.05

The results illustrated in **Figure 4** shows that the beta coefficient for each variable without moderators' effect:



**Figure 4** Structural model results (without moderators' effect)



To compare the model before and after moderator's effect, the structural model with moderating effects is examined. The researcher adds moderator variables that are statistically significant according to SPSS analysis (gender; age; and experience). **Table 5.20** illustrates the Path coefficients for independent variables with moderators' effect on the mediator **BI**; the mediator effect on the dependent variable **UB**. Results indicate that both **EE** and **PE** have a non-significant effect on **BI**, while **SI**; **FC**; **FAI**; and **PET** variables have a positive influence on **BI**. The results show that **PET** has the largest impact in the explanation of variation of **BI** to adopt IT in Palestinian NGOs. **Table 5.20** outlines the results:

**Table 5.20: Path coefficients for independent variables (with moderators' effect)**

Variables	Coefficient	T Statistics
PE	0.084	0.858
PE * Experience	-0.065	0.679*
EE	0.100	0.915
EE*Gender	-0.035	0.429*
SI	0.252	2.672*
SI*Age	0.023	0.293*
FC	0.152	2.086*
FAI	0.190	2.207*
FAI*Age	0.018	0.171*
FAI*Experience	0.027	0.299*
PET --> BI	0.301	3.675*
BI --> UB	0.361	3.275*

\*Significant at P <0.05

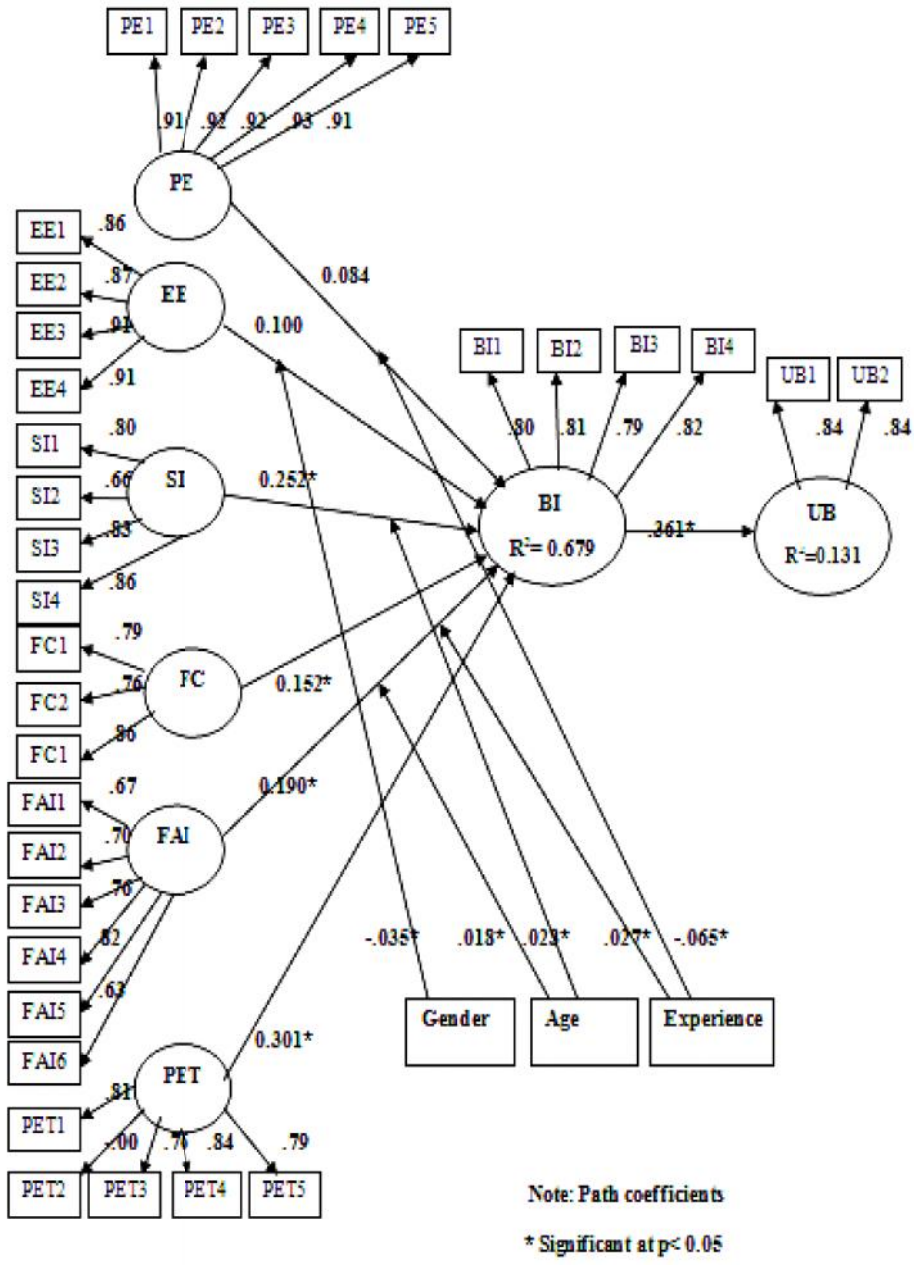


Figure 5 Structural model results (with moderators' effect)

From the previous results, the importance of the mediation variable role is appeared. This result deals with the study of Jackson, Yi et al. (2013), that showed a strong and positive relationship between the variable (PIIT) and each of the mediators mentioned in the study, providing evidence of its important role as an antecedent to the mediating variables.

Also, it is observed through comparing results of **Tables 5.19** and **5.20** that gender has a negative interacting effect with **EE** on **BI** (Beta = -.035). The loading factor decreased, which explains that males have less **EE** than women in the model. Age also has a two positive effects with both **SI** and **FAI** on **BI** (Beta = .023, .018) respectively. The loading factor increased, which explains that older people have higher **SI** and **FAI** than younger people in the model. Experience on using IT also presented two moderation effects on **BI**, a negative moderating effect for **PE** (Beta = -.065), and a positive moderating effect for **FAI** variable (Beta = .027). For **PE**, the loading factor decreased, which explains that less expertise people have lower **PE** degree in the model. For **FAI**, the loading factor increased, which explains that higher expertise people have higher **FAI** degree in the model. It is found that ( $R^2 = 0.679$ ) for **BI** and ( $R^2 = 0.131$ ) for **UB**, this means that the model explains 67.9% of the variance in **BI** and 13.1% of the variance in **UB**. The following **Table 5.21** illustrates the factor loadings and cross loadings for all fields:

**Table 5.21: Factor loadings (bolded) and cross loadings**

	<b>BI</b>	<b>EE</b>	<b>FAI</b>	<b>FC</b>	<b>PE</b>	<b>PET</b>	<b>SI</b>	<b>UB</b>
<b>BI1</b>	<b>0.8083</b>	0.4867	0.4510	0.4946	0.5491	0.5254	0.5339	0.2283
<b>BI2</b>	<b>0.7997</b>	0.4885	0.4019	0.3145	0.4927	0.5020	0.6057	0.4174
<b>BI3</b>	<b>0.7915</b>	0.4821	0.4356	0.5412	0.4548	0.4561	0.5081	0.2618
<b>BI4</b>	<b>0.8277</b>	0.4730	0.4218	0.4870	0.4886	0.6115	0.4720	0.2485
<b>EE1</b>	0.5501	<b>0.8625</b>	0.3195	0.5577	0.5551	0.4107	0.5441	0.3118
<b>EE2</b>	0.5169	<b>0.8716</b>	0.2527	0.4621	0.4985	0.4501	0.4844	0.1493
<b>EE3</b>	0.5540	<b>0.9185</b>	0.2060	0.5712	0.5051	0.4139	0.5169	0.2477
<b>EE4</b>	0.5114	<b>0.9169</b>	0.2659	0.5002	0.5230	0.3953	0.4736	0.2716
<b>FAI1</b>	0.3139	0.1006	<b>0.6714</b>	0.1904	0.2387	0.2606	0.1372	0.1411
<b>FAI2</b>	0.5029	0.3062	<b>0.7027</b>	0.3841	0.3810	0.4223	0.3059	0.1165
<b>FAI3</b>	0.3025	0.2735	<b>0.7596</b>	0.2466	0.3615	0.1861	0.2677	0.1994
<b>FAI4</b>	0.4134	0.2631	<b>0.8199</b>	0.3614	0.3661	0.3153	0.2833	0.2162
<b>FAI5</b>	0.3141	0.0453	<b>0.6356</b>	0.1423	0.1785	0.2360	0.1682	0.1701
<b>FAI6</b>	0.0926	0.0758	<b>0.3195</b>	0.0501	0.0961	0.2923	0.1497	0.0490
<b>FC1</b>	0.5361	0.6370	0.2459	<b>0.7946</b>	0.4398	0.3646	0.4966	0.2103
<b>FC2</b>	0.3356	0.2880	0.2884	<b>0.7669</b>	0.2536	0.1589	0.2335	0.0747
<b>FC3</b>	0.4609	0.4293	0.4115	<b>0.8660</b>	0.4099	0.2900	0.4289	0.2205
<b>PE1</b>	0.6006	0.6031	0.4474	0.4640	<b>0.9133</b>	0.4046	0.5712	0.3972
<b>PE2</b>	0.6314	0.5697	0.4274	0.4722	<b>0.9208</b>	0.4129	0.5706	0.3869
<b>PE3</b>	0.5810	0.5153	0.3699	0.4491	<b>0.9223</b>	0.4848	0.5487	0.3884
<b>PE4</b>	0.5018	0.4899	0.3786	0.3930	<b>0.9331</b>	0.4245	0.5535	0.3404
<b>PE5</b>	0.4940	0.4919	0.3679	0.3720	<b>0.9188</b>	0.4325	0.5559	0.3805
<b>PET1</b>	0.5186	0.4147	0.3632	0.3445	0.3929	<b>0.8174</b>	0.3020	0.0831
<b>PET2</b>	0.1110	-0.0048	0.1337	0.0784	0.0744	<b>-0.0027</b>	0.2701	0.1366
<b>PET3</b>	0.4514	0.3139	0.3137	0.2508	0.3535	<b>0.7623</b>	0.2998	0.0447
<b>PET4</b>	0.4822	0.3740	0.3636	0.3022	0.3076	<b>0.8408</b>	0.3284	0.1034
<b>PET5</b>	0.5886	0.3902	0.3054	0.2250	0.4200	<b>0.7897</b>	0.4700	0.1584
<b>SI1</b>	0.5663	0.4947	0.3388	0.5065	0.5604	0.3813	<b>0.8039</b>	0.4318
<b>SI2</b>	0.3092	0.3563	0.1021	0.2754	0.3282	0.2393	<b>0.6605</b>	0.1462
<b>SI3</b>	0.4605	0.4593	0.2090	0.3012	0.4261	0.3702	<b>0.8359</b>	0.3019
<b>SI4</b>	0.6588	0.4744	0.3450	0.4517	0.5567	0.4331	<b>0.8640</b>	0.4297
<b>UB1</b>	-0.3063	-0.2826	-0.1885	-0.1591	-0.3722	-0.0891	-0.4328	<b>0.8478</b>
<b>UB2</b>	0.3048	-0.1844	-0.1977	-0.2157	-0.3263	-0.1401	-0.3141	<b>0.8461</b>

# CHAPTER 6: Findings and Recommendations

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## 6.1 Introduction

This chapter illustrates the main findings of this study. It presents which variables have the most effect in explaining the variance in **BI** and **UB** of IT in Palestinian NGOs. Also, this chapter includes: the results of the suggested hypotheses in this study with illustration of which hypotheses are accepted or rejected about determining variables that have a significant effect on IT adoption; the updated model based on the reached results; the conclusion of the study; and finally researcher's recommendations based on the results that have been reached.

## 6.2 Testing hypotheses

The main hypotheses of this study state that there is a direct effect of independent variables on the mediator variable **BI**. According to the results of UTAUT that are mentioned in chapter 5 (See **Table 5.20**), the researcher discusses the results of the hypotheses of this study as follows (**All hypotheses are tested at level of significance = 0.05**):

***H<sub>1</sub>*: PE will have a positive influence on BI:**

PE has non-significant (beta= .084) influence on BI, so, this hypothesis is rejected.

***H<sub>1a</sub>***: Gender may positively moderate the influence of PE on BI for men:

Gender is not significant with PE, so, this hypothesis is rejected.

***H<sub>1b</sub>***: Age may positively moderate the influence of PE on BI for younger people:

Age is not significant in the performance expectancy, so, this hypothesis is rejected

***H<sub>2</sub>*: EE will have a positive influence on BI:**

EE has non-significant (beta= .100) influence on BI, so, this hypothesis is rejected.

***H<sub>2a</sub>***: Gender may negatively moderate the influence of EE on BI for men:

This hypothesis is accepted as the results show that gender has a negative influence (beta= -0.035,  $p < 0.05$ ) on the relation between EE and BI.

***H<sub>2b</sub>***: Age may negatively moderate the influence of EE and BI for elder people:

Age is not significant with EE, so, this hypothesis is rejected

***H<sub>2c</sub>***: Experience may positively moderate the influence of EE on BI for people with lower experience:

Experience is not significant with EE, so, this hypothesis is rejected.

***H<sub>3</sub>*: SI will have a positive influence on BI:**

This hypothesis is accepted as the results show that **SI** has a positive influence (beta=.252,  $p < 0.05$ ) on **BI**.

***H<sub>3a</sub>***: Gender may positively moderate the influence of **SI** on **BI** for women:

Gender is not significant with **SI**, so, this hypothesis is rejected.

***H<sub>3b</sub>***: Age may negatively moderate the influence of **SI** on **BI** for elder people:

This hypothesis is rejected as the results show that age positively moderates the influence of social influence (beta= .023,  $p < 0.05$ ) on **BI** for elder people.

***H<sub>3c</sub>***: Experience may positively moderate the influence of **SI** on **BI** with lower experience:

Experience is not significant with **SI**, so, this hypothesis is rejected.

***H<sub>3d</sub>***: Voluntariness of use may positively moderate the influence of **SI** on **BI** for voluntary people:

Voluntariness of use is not significant with **SI**, so, this hypothesis is rejected.

***H<sub>4</sub>***: FC will have a positive influence on the UB of IT:

This hypothesis is rejected as the results show that **FC** has non-significant direct influence on **UB**.

***H<sub>4a</sub>***: Age may positively moderate the influence of **FC** on **UB** for elder people:

Age is not significant with **FC**, so, this hypothesis is rejected.

**H<sub>4b</sub>**: Experience may positively moderate the influence of **FC** on **UB** with lower experience:

Experience is not significant with **FC**, so, this hypothesis is rejected.

**H<sub>5</sub>**: **FAI** will have a positive influence on **BI**:

This hypothesis is accepted as the results show that **FAI** has a positive influence (beta= .190,  $p < 0.05$ ) on **BI**.

**H<sub>5a</sub>**: Gender may positively moderate the influence of **FAI** on **BI** for males:

Gender is not significant with **FAI**, so, this hypothesis is rejected.

**H<sub>5b</sub>**: Age may negatively moderate the influence of **FAI** on **BI**:

This hypothesis is rejected as the results show that age positively moderates the influence of **FAI** (beta= 0.018,  $p < 0.05$ ) on **BI**.

**H<sub>5c</sub>**: Experience may positively moderate the influence of **FAI** on **BI** for higher experience:

This hypothesis is accepted as the results show that experience has a positive influence (beta= 0.027,  $p < 0.05$ ) on the relationship between **FAI** and **BI** for higher experience.



**H6: PET will have a positive influence on BI:**

This hypothesis is accepted as the results show that **PET** has a positive influence (beta= 0.301,  $p < 0.05$ ) on **BI**.

**H<sub>6a</sub>: Gender may positively moderate the influence of PET on BI for women:**

Gender is not significant with **PET**, so, this hypothesis is rejected.

**H<sub>6b</sub>: Age may negatively moderate the influence of PET on BI for elder people.**

Age is not significant with **PET**, so, this hypothesis is rejected.

**H<sub>6c</sub>: Experience may positively moderate the influence of PET on BI for higher experience.**

Experience is not significant with **PET**, so, this hypothesis is rejected.

**H<sub>7</sub>: BI will positively mediate the relationship between (PE; EE; SI; FAI; and PET) and UB.**

This hypothesis is accepted as the results show that **BI** positively mediates the relationship between (**PE; EE; SI; FAI; and PET**) and **UB** (beta= .361,  $p < 0.05$ ).

### 6.3 Findings

Findings of this study show that “UTAUT to some extent and with some modifications can be used to determine IT adoption in Palestinian NGOs. The results present new relationships that are not suggested in the hypotheses beside the suggested ones. For all variables, there is no effect for voluntariness of use as a moderator on the relationship between the mediator variable **BI** and the six independent variables in this study.

Contrary to the study of Venkatesh, Morris et al. (2003), the results find that **PE** is insignificant with **BI**, and there is no influence of age and gender on the relationship between **PE and BI**, and results show that experience has a positive interacting effect of **PE on BI**.

Also for **EE**, there is no significant effect on **BI**, and the negative moderation effect of gender between **EE and BI** indicates that for men, **EE** becomes not important in determining **BI**. These findings agree with the result of Al-Gahtani, Hubona et al. (2007) that found there is no significant effect for **EE on BI**.

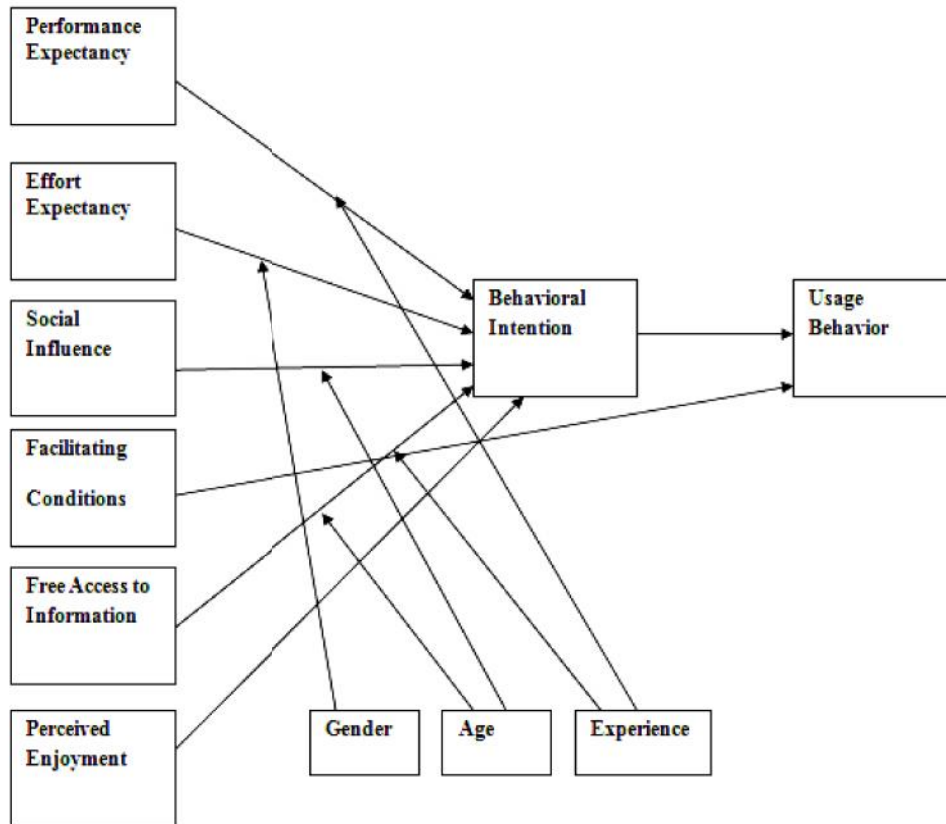
For **SI**, as suggested by UTAUT, a positive significant effect on **BI** exists, as well as a positive interacting effect between **SI and age on BI**, but no significant effect for gender and experience with **SI on BI**.

For **FC**, results indicate that there is no direct effect for **FC on UB**, but it positively affects **BI**, but there is no significant moderating effect for gender and age with **FC on BI**. This result is opposite to the hypothesis made by Venkatesh, Morris et al. (2003), which states that there is a direct relation between **FC and UB**.

For the two added variables by the researcher to the UTAUT model (**FAI** and **PET**), results show that they both have a positive effect on **BI**, especially for **PET**, where results indicate that it outperforms other variables in predicting **BI** through the highest significant effect, but, for moderators, gender does not moderate the influence of both **FAI** and **PET** on **BI**. Age positively moderates the influence of **FAI** on **BI**, but there is no significant effect for age with **PET** on **BI**. **Experience** does not moderate the influence of **PET** on **BI**, but it is positively moderates the influence of **FAI** on **BI**.

For **BI**, results indicate that it mediates positively the relationship between (**PE**; **EE**; **SI**; **FAI**; and **PET**) and the dependent variable **UB**. Also, Results show a very important matter. As stated by Venkatesh, Morris et al.(2003), when both **PE** and **EE** constructs are present, **FC** becomes non-significant in predicting intention, Therefore, there is a direct relation between **FC** and **UB** without mediation effect (Venkatesh, Morris et al. 2003). The results support this fact where a relation between **FC** and the mediator **BI** becomes significant when **PE** and **EE** effects on **BI** are non-significant.

These findings lead the researcher to derive the new model of IT acceptance in Palestinian NGOs in Gaza strip according to the reached results as follows:



**Figure 6 IT Acceptance Model for Palestinian NGOs (developed by the researcher, 2014).**

### 6.3 Conclusion

This study aims to examine an updated version of UTAUT on the context of NGOs in Gaza Strip. Many studies discussed user acceptance and use of technology, and many theories were developed. To the best of the researcher knowledge, no empirical studies in the context of Palestinian NGOs have been taken on the acceptance of IT. Therefore this research comes to shed light on this usage of IT by using the model of UTAUT. Some modifications to the model are conducted. Also, the two variables suggested by researchers as a modification to fit Gaza Strip situations were introduced as significant predictors for

behavioral intention to adopt IT. The findings show that the enjoyment in using IT applications play a major role in expecting the intention to use IT, also, the results highlight the importance of using and improving IT application as an alternative communication tool with the outside world in the besieged Gaza Strip.

## **6.4 Recommendations**

The results of this study lead to the following recommendations:

1. There is a need to invest in IT usage in Palestinian NGOs in Gaza strip in a more efficient manner to improve the quality of performance.
2. NGOs should increase the awareness of employees about the importance of IT as a main tool to keep updated with the outside world in the besieged Gaza Strip.
3. NGOs management should pay more attention to (Performance expectancy and effort expectancy) measures between employees and work more efficiently to improve these measures, and increase awareness in training in the field of IT.
4. NGOs must allocate more resources to develop their websites and interact with audience and targeted people in addition to the donors through social media tools and smart phones applications.

5. NGOs' strategic plans must contain at least one objective about IT improvement in the organization and increase their main dependency in this field.
6. Further research, using UTAUT, must be conducted to explore factors that influence users' acceptance and adoption of new technologies in other sectors in the Gaza Strip.
7. Conduct future research to develop new models with new variables in order to examine the adoption of IT in Palestinian NGOs.

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# **Appendices**

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## **Appendix A**

### **Questionnaire (English Version)**

**Islamic University - Gaza**  
**Deanship of Higher Education**  
**Faculty of Commerce**  
**Business Administration**



**Dear Sir/Madam**

**Subject: Answering the Questionnaire**

This research studies the acceptance and implementation of information technology in the Palestinian non-governmental organizations that work in the Gaza Strip, to fulfill the requirements of having the MBA degree at the Islamic University of Gaza.

I hope to receive your cooperation and answers that meets reality taking in consideration, that all data will be handled in top confidentiality and only for scientific research purposes.

**With respect,**

**Mona Khrais**

## SECTION 1: PERSONAL INFORMATION

### 1) Gender

Male ( )                      Female ( )

### 2) Age

20-30 years ( )                      31-40 years ( )

41-50 years ( )                      Above 50 years ( )

### 3) Academic Degree

Less than Diploma ( )                      2 Years Diploma ( )

Bachelor ( )                      Higher Education ( )

### 4) Employee's field of work (job title)

Organization's Director ( )                      Department's Director ( )                      Project Manager ( )

Department's Employee ( )                      Project's Employee ( )                      Other (        )

5) Are you the person responsible for the department/work of information technology (including computers, softwares, website, electronic networks, or other relevant tools?)

Yes ( )                      No ( )

### 6) Organization's Field of Work

Please, check the most relevant field of work of your organization.

Field of Work	(x)	Field of Work	(x)
Agriculture and development		Culture and Education	
Democracy and Human Rights		Social Services	

Media		Sport and Training	
Relief		Youth	
Woman and Child		Health	
Rehabilitation of Disabled		Community Rehabilitation	
Economic Development		Traffic Safety	
Other			

**7) What kinds of information and communication technologies' applications are used in your organization?**

- Internet network**
- Management Information Systems**
- Microsoft Office Applications**
- E-mail**
- Social Media Tools**
- Organization's Website**
- Other**

**8) Using these technologies at my work is:**

- Voluntary**       **Mandatory**

**9) Approximately, I accomplish.....of my workload by using information technology applications:**

- %100**
- %90**
- %70**
- %50**
- Other**

**10) I use information technology**

**Daily**            ()

**Almost daily** ()

**Occasionally** ()

**11) Years of Experience: For how many years have you been using information technology?**

**Less than 5 years**    ()    **5–10 years**                    ()

**11–15 years**                    ()    **More than 15 years** ()

**12) Does your organization allocate a computer device for each of its employees?**

**Yes**                    ()                    **No**                    ()

## **SECTION 2**

**Following is a list of seven groups that will measure the variables of this study, with a set of statement below each of them. Please fill in a score for each statement that you believe most relevant to you. The scale ranges between 1-5, with score (5) reflects the highest level of agreement, while score (1), reflects lowest level as follows:**

- (1) Strongly disagree;**                    **(2) Disagree;**  
**(3) Indifferent;**  
**(4) Agree;**                                    **(5) Strongly agree**

<b>First: Performance Expectancy</b>	<b>Answer</b>
<b>To what extent do you think that using the IT applications will help you attain gains in job performance</b>	



#	Statement	(1-5)
1	<i>I find IT applications useful in my job</i>	
2	<i>Using IT applications enables me accomplish my tasks more quickly.</i>	
3	<i>Using IT applications in my work increases my productivity.</i>	
4	<i>Using IT applications in my work enhances my effectiveness.</i>	
5	<i>Using of IT applications will significantly increase the quality of My work</i>	
<b>Second: Effort Expectancy</b>  <b>To what degree using IT applications is easy.</b>		
6	<i>My interactions with IT applications are clear and understandable.</i>	
7	<i>It is easy for me to become skillful using IT applications.</i>	
8	<i>I find IT applications easy to use.</i>	
9	<i>Learning to use IT applications is easy for me.</i>	
<b>Third: Social Influence</b>  <b>To what degree you believe that your direct supervisor and your colleagues at your department support that you use IT applications in your work.</b>		
10	<i>Most people who are important to me and my colleagues at work prefer me to use IT applications.</i>	
11	<i>I will use IT applications if my colleagues whom I trust their opinion at work use them.</i>	
12	<i>People whose opinions and behavior at work I value would prefer me to use IT applications.</i>	

13	<i>My supervisor at work want me to use IT applications fulfill my work.</i>	
<b>Forth: Perceived Facilitating Conditions</b>		
<b>To what degree do you believe that an organizational and technical infrastructure exists to support use of the IT applications.</b>		
14	<i>I have the resources and the knowledge and the ability to make use of IT.</i>	
15	<i>A specific person/group is/are available by the organization for assistance with IT applications problems and difficulties.</i>	
16	<i>Organizations' Management provides most of the necessary help and resources for using IT applications.</i>	
<b>Fifth: Free Access Expectancy</b>		
<b>To what extent do you see IT applications help to overcome challenges resulting from the closure and restrictions on movement on the Gaza Strip</b>		
17	<i>In my work, I need to travel outside the Gaza Strip.</i>	
18	<i>The presence of technology applications make it easier for me to communicate with the outside world.</i>	
19	<i>Regardless of travel restrictions, I use IT applications to accomplish my work abroad instead of traveling.</i>	
20	<i>When unable to travel, I find IT tools very efficient to do my work abroad.</i>	
21	<i>I need to travel in order to do my job out of the country despite the presence of information technology applications.</i>	

22	<i>Instead of staff training abroad, we rely more on E-learning.</i>	
<b>Sixth: Perceived Enjoyment</b>		
<b>To what extent you feel that using a specific system is enjoyable</b>		
23	<i>I find using information technology in my work enjoyable</i>	
24	<i>I feel bored using information technology in my work.</i>	
25	<i>The use of information technology in completing my tasks eliminates boredom.</i>	
26	<i>Time passes quickly during my use of information technology.</i>	
27	<i>I feel happy when the Internet connection is available at work.</i>	
<b>Seventh: Behavioral Intention</b>		
28	<i>I plan to continue using IT t applications in the next few months.</i>	
29	<i>I will be the first to use new IT applications that fit my work.</i>	
30	<i>There is a possibility that I will use IT applications in the next few months.</i>	
31	<i>I will recommend to others that they use IT applications in the next few months.</i>	

# **Appendix B**

## **Questionnaire**

### **(Arabic Version)**



الجامعة الإسلامية- غزة

عمادة الدراسات العليا

كلية التجارة

قسم إدارة الأعمال

الاستبانة

حضرة السيدة/..... المحترم/ة

السلام عليكم ورحمة الله وبركاته،،،

### الموضوع: تعبئة استبانة لرسالة ماجستير

تقوم الباحثة بدراسة حول مدى قبول و تطبيق تكنولوجيا المعلومات من قبل الأفراد العاملين في المنظمات الأهلية الفلسطينية العاملة في قطاع غزة، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في إدارة الأعمال من الجامعة الإسلامية بغزة.

و من منطلق إيماننا بأنكم كعاملين في المنظمات الأهلية من ذوي الخبرة أفضل مصدر للوصول للمعلومات المطلوبة بدقة و أمانة، نأمل من حضرتكم التكرم بتعبئة الإستبانة المرفقة باختيار الإجابات التي تعكس واقع العمل في منظماتكم، علماً بأن المعلومات التي سيتم الحصول عليها من قبلكم ستعامل بسرية تامة، و لن تستخدم .

ر

: منى خريس

أولاً: البيانات الشخصية

(1) الجنس

( ) ( )

(2) العمر

30-20 ( ) 40-31 ( )  
50-41 ( ) 50 ( )

(3) الدرجة العلمية

( ) ( )  
( ) بكالوريوس ( )  
( ) شهادة متوسطة ( )  
( ) دراسات عليا ( )

(4) موقعك الوظيفي

( ) مدير مؤسسة ( )  
( ) مدير مشروع ( )  
( ) مدير قسم ( )  
( ) ( )

(5) هل أنت المسؤول مباشرة عن قسم أو العمل في تكنولوجيا المعلومات (بما في ذلك أجهزة الحاسوب، البرمجيات، الموقع الإلكتروني، الشبكات، أو غير ذلك).  
( ) ( )

(6) مجال عمل المنظمة

برجاء اختيار واحد من المجالات التالية بما يتوافق مع عمل المنظمة

مجال العمل	(x)	مجال العمل	(x)
ثقافة وتعليم		زراعة وتنمية	
اجتماعية		ديمقراطية وحقوق الإنسان	
رياضة وتدريب			
تأهيل مجتمعي		تأهيل ذوي الاحتياجات الخاصة	
سلامة مرورية		تنمية اقتصادية	

7) ماهي تطبيقات تكنولوجيا المعلومات و الاتصالات المستخدمة في المنظمة؟

- ( ) نظم معلومات ادرارية  
( ) تطبيقات Microsoft office  
( ) البريد الالكتروني  
( )

غير ذلك .....

8) أستخدم هذه اكنولوجيا في عملي بشكل:

- ( ) إختياري  
( )

9) أنجز حوالي ..... من عملي باستخدام تطبيقات تكنولوجيا المعلومات:

- ( ) 100% ( ) 90% ( ) 70% ( ) 50%

غير ذلك .....

10) أستخدم تكنولوجيا المعلومات بشكل:

- ( ) يومي ( ) شبه يومي ( )

11) سنوات الخبرة في استخدام تكنولوجيا المعلومات

- ( ) 5 ( ) 10-5  
( ) 15 ( ) 15-11

12) هل هناك جهاز حاسوب مخصص لكل موظف

- ( ) ( )

**ثانياً: الأسئلة**

فيما يلي سبعة مجموعات لقياس المتغيرات التي تبحثها الدراسة، يقع تحت كل منها مجموعة من . يرجى التكرم باختيار الاجابة الأكثر موافقة معكم لكل عبا :

أولاً: الأداء المتوقع						
إلى أي مدى تعتقد/ين أن استخدام تطبيقات التكنولوجيا سيساعدك على تحقيق مكاسب في أدائك الوظيفي؟						
#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
1.	تطبيقات تكنولوجيا المعلومات مفيدة لي في عملي.					
2.	تطبيقات تكنولوجيا المعلومات يمكنني من انجاز مهماتي بسرعة					
3.	تطبيقات تكنولوجيا المعلومات في عملي يزيد من انتاجي					
4.	تطبيقات تكنولوجيا المعلومات في عملي يعزز فعاليتي					
5.	تطبيقات تكنولوجيا المعلومات سيزيد من جودة عملي بشكل					
ثانياً: الجهد المتوقع						
ما مدى سهولة استخدام تطبيقات التكنولوجيا بالنسبة اليك/ي ؟						
#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
6.	تطبيقات تكنولوجيا المعلومات واضحة ومفهومة.					
7.	من السهل أن اصبح ماهراً في استخدام تطبيقات تكنولوجيا المعلومات.					
8.	تطبيقات تكنولوجيا المعلومات سهلة الاستخدام.					
9.	تطبيقات تكنولوجيا المعلومات سهل بالنسبة لي.					
ثالثاً: التأثير الإجتماعي						
لأية درجة تعتقد/ين أن مسؤولك المباشر و زملائك في القسم يدعمون استخدامك لتطبيقات تكنولوجيا المعلومات في عملك؟						
#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
10.	يجذب الأشخاص المهمين بالنسبة لي في القسم و زملائي في العمل أن أستخدم تطبيقات تكنولوجيا المعلومات.					
11.	سوف أستخدم تطبيقات تكنولوجيا المعلومات في حال إستخدامها زملائي الذين أثق بآرائهم في العمل.					



					يفضل الأشخاص الذين أتأثر بارائهم و سلوكهم في العمل أن أستخدم تطبيقات تكنولوجيا المعلومات.	12.
					يرغب مديري العمل أن أستخدم تطبيقات تكنولوجيا المعلومات في	13.

**رابعاً: تسهيلات بيئة العمل  
لأية درجة تعتقد/ين أن البنى التحتية التنظيمية والتقنية الموجودة تدعم استخدام تكنولوجيا المعلومات؟**

#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
14.	يتوفر لدي الموارد والمعرفة والقدرة على استخدام تطبيقات تكنولوجيا					
15.	تقوم المؤسسة بتوفير ( ) / لتقديم تطبيقات تكنولوجيا					
16.	معظم المساعدة والموارد الضرورية لاستخدام تطبيقات تكنولوجيا المعلومات.					

**خامساً: سهولة الوصول للمعلومات  
لأي مدى ترى/ين أن تطبيقات تكنولوجيا المعلومات تساعدك في التغلب على التحديات الناجمة عن الإغلاق والقيود المفروضة على الحركة في قطاع غزة؟**

#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
17.						
18.	تطبيقات التكنولوجيا يسهل تواصلها					
19.	بصرف النظر عن القيود على السفر، أنا أستخدم تطبيقات تكنولوجيا المعلومات في أنجاز مهمات خارجية في العمل عوضاً عن السفر.					
20.	تطبيقات تكنولوجيا المعلومات فعالة مهام عملي					
21.	للسفر من أجل القيام بعملية خارج البلاد بالرغم من وجود تطبيقات تكنولوجيا المعلومات.					
22.	بدلاً من تدريب الطاقم خارج البلاد، نعتد على التعليم عن بعد.					

سادساً: توقع التمتع باستخدام تطبيقات تكنولوجيا المعلومات  
إلى أي مدى تشعر/ين بالمتعة في استخدام تطبيقات تكنولوجيا المعلومات؟

#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
.23	تطبيقات تكنولوجيا المعلومات في العمل أمر ممتع.					
.24	تطبيقات تكنولوجيا المعلومات في انجاز مهامي الوظيفية.					
.25	تطبيقات تكنولوجيا المعلومات في انجاز المهام الموكلة لي يقضي الروتين.					
.26	الوقت يمر بسرعة أتنا لتطبيقات لتكنولوجيا المعلومات.					
.27	.					

سابعاً: النية السلوكية  
ماهي توجهاتك نحو استخدام تطبيقات تكنولوجيا المعلومات في المستقبل القريب؟

#	العبارة	موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة
.28	تطبيقات تكنولوجيا المعلومات في الأشهر القليلة .					
.29	سوف أكون أول من يستخدم تطبيقات جديدة للتكنولوجيا تتلائم مع عملي					
.30	هناك إجمال بأن أستخدم تطبيقات تكنولوجيا المعلومات في الشهور القليلة .					
.31	سوف أوصي الآخرين باستخدام تطبيقات تكنولوجيا المعلومات في الأشهر .					

شكراً لحسن تعاونكم ،،،،

# **Appendix C**

## **Referees**

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<b>Name</b>	<b>University</b>
Dr. Khaled Dehleez	Islamic University of Gaza
Dr. Waseem Al-Habeel	Islamic University of Gaza
Dr. Sami Abu Al-Ross	Islamic University of Gaza
Dr. Akram Samor	Islamic University of Gaza
Dr. Asaad Abu Sharkh	Al- Azhar University- Gaza
Prof. Samy Abu Naser	Al- Azhar University- Gaza
Yousef Abu Sultan	Al- Azhar University- Gaza

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# **Appendix D**

## **Frequencies**

## Frequencies:

Frequencies, in statistics, refer to counts of categories or responses. It's a basic statistical tool that provides a sense of how often specific response options occur in a population. In the following tables, the frequency of respondent's answers that ranged between (Strongly Disagree to Strongly Agree) is illustrated as follows:

### 1- Performance Expectancy:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>PE1</b>	0.6	0.6	5.2	19.5	74.0	4.66	0.67
<b>PE2</b>	0.6	0.6	4.5	20.8	73.4	4.66	0.661
<b>PE3</b>	0.6	0.6	8.4	22.7	67.5	4.56	0.732
<b>PE4</b>	0.6	0.6	7.8	26.6	64.3	4.53	0.725
<b>PE5</b>	1.3	0.6	7.1	24	66.9	4.55	0.768

### 2- Effort Expectancy:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>EE1</b>	.6	.6	9.1	50.0	39.6	4.27	0.707
<b>EE2</b>	.6	0	13.0	46.8	39.6	4.25	.726
<b>EE3</b>	.6	0	12.3	46.1	40.9	4.27	.723
<b>EE4</b>	.6	0	9.7	48.1	41.6	4.30	.697

### 3- Social Influence:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>SI1</b>	0	1.9	21.4	36.4	40.3	4.15	.823
<b>SI2</b>	3.9	5.8	14.3	38.3	37.7	4.00	1.054
<b>SI3</b>	1.3	2.6	20.8	37.0	38.3	4.08	.900
<b>SI4</b>	1.9	1.3	18.8	26.6	51.3	4.24	.936

### 4- Facilitating Conditions:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>FC1</b>	.6	2.6	15.6	48.7	32.5	4.10	.798
<b>FC2</b>	1.9	5.8	15.6	27.3	49.4	4.16	1.019
<b>FC3</b>	1.3	3.9	23.4	39.0	32.5	3.97	.914

### 5- Free Access to Information:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>FAI1</b>	23.4	16.2	22.1	16.2	22.1	2.97	1.468
<b>FAI2</b>	1.3	.6	5.2	26.0	66.9	4.56	.740
<b>FAI3</b>	6.5	3.9	25.3	37.7	26.6	3.74	1.095
<b>FAI4</b>	1.9	7.8	26.6	35.1	28.6	3.81	1.004
<b>FAI5</b>	18.2	17.5	26.0	16.2	22.1	3.06	1.399
<b>FAI6</b>	9.7	15.6	40.3	20.8	13.6	3.13	1.136

### 6- Perceived Enjoyment:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>PET1</b>	.6	1.3	12.3	38.3	47.4	4.31	.787
<b>PET2</b>	47.4	26.6	13.6	4.5	7.8	1.99	1.226
<b>PET3</b>	1.9	5.2	29.2	35.7	27.9	3.82	.964
<b>PET4</b>	.6	6.5	14.3	44.8	33.8	4.05	.895
<b>PET5</b>	1.3*	.6	7.1	32.5	58.4	4.46	.768

### 7- Behavioral Intention:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Indifferent</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>SD</b>
<b>BI1</b>	.6	1.3	5.8	36.4	55.8	4.45	.724
<b>BI2</b>	1.3	6.5	13.0	29.9	49.4	4.19	.984
<b>BI3</b>	1.3	2.6	13.6	35.1	47.4	4.25	.881
<b>BI4</b>	1.3	1.3	10.4	31.8	55.2	4.38	.826

### 8- Usage Behavior:

	<b>80-100%</b>	<b>60-80%</b>	<b>Less than 60%</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<b>UB1</b>	63.6	22.7	13.6	1.500	1.000	.7254
<b>UB2</b>	87.0	12.3	.6	1.1364	1.000	.3627