

## TECHNOLOGY ACCEPTANCE AND THE EFFECT OF GENDER IN THE TURKISH NATIONAL POLICE: THE CASE OF THE POLNET SYSTEM

### Türk Polis Teşkilatında Teknoloji Kullanımının Kabulü ve Cinsiyetin Rolü: POLNET Örneği

Kübra GÜLTEKİN

#### Özet

Bu makale, Teknoloji Kabul Modeli (TAM) ile Nedensel Aksiyon Teorisi Modelini (TRA) birleştirerek algılanan gereklilik, algılanan kolay kullanım ve kişisel normların POLNET kullanımı üzerindeki etkisini incelemektedir. Ayrıca, bu çalışmada cinsiyetin POLNET kullanımına etkisi de irdelenmiştir. Bu araştırma için Türk Polis Teşkilatındaki POLNET kullanıcılarından toplanan ikincil veri kullanılmıştır. Sonuç olarak, cinsiyetin POLNET kullanımında önemli bir etkisinin olmadığı, ayrıca, algılanan fayda, algılanan kolay kullanımda ve kişisel normlarda erkek ve kadın polisler arasında (POLNET kullanıcıları) bir farklılık olmadığı görülmüştür.

**Anahtar Kelimeler:** Türk Polis Teşkilatı, POLNET, Cinsiyet, Teknoloji Kabul Modeli, Nedensel Aksiyon Teorisi Modeli.

#### Abstract

This article approaches technology acceptance by combining two theoretical models: The Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA) model. The effects of perceived usefulness, perceived ease of use and subjective norm on intention of use of POLNET was investigated. Additionally, the effect of gender on adoption of POLNET was examined. Secondary data, collected from police officers who have used POLNET in the Turkish National Police, was used for this analysis. Result shows that gender has no significant effects on behavioral intention to use POLNET. Moreover, the effects of per-

ceived usefulness, perceived ease of use and subjective norm do not differ between male and female police officers.

**Key Words:** Turkish National Police, POLNET, Gender, Technology Acceptance Model, Theory of Reasoned Action Model.

## Introduction

Information access and information sharing are getting more involved in human life by the increasing of information and communication technologies. Within the new era, called the information age or information area (Handzic, 2004:13), computers have integrated in our lives and so, deficiencies of industrial age, such as limited communication based on face-to-face or paper-based interactions, and tangible and immediate knowledge (Miller, 2002:1) have been eliminated.

Globalization based on competition, virtualization, or digitalization facilitated by information technology, as well as the transformation to a knowledge-based economy has formed the information age, and all organizations are trying to keep up with information area for becoming knowledge-based organization. However, to achieve this goal depends on the number of successful knowledge workers in the organization and the use of successful, productive and efficient knowledge throughout the organization. This is called knowledge management (KM) that can be defined as handling and using of knowledge in different ways in order to achieve organizational goals (Handzic, 2004:34).

By the knowledge management process organizations can organize their knowledge and share it easily. Therefore, dynamic learning, decision-making and problem solving activities become spontaneously in the organizations, and the organizations benefits from all these activities (Gupta et al., 2000:18). Knowledge management strategies increase the organizations' performance, lead improvements, and maximize the business value of intellectual assets (Lloyd, 1996:577).

Besides business organizations, the public sectors are also turning to the knowledge environment (Luen and Al-Hawamdeh, 2001:315; Schultz, 2000). Among them, knowledge management is very important for the police, the most knowledge-intensive government organization (Collier, 2006:112). Adoption of the information technologies by the police organizations, knowledge management activities becomes the essential for the police (Hauck et al., 2002:163). In their job, police officers have to deal with numerous issues such as handling violent crimes, dis-

order, and anti-social behaviors; investigating; preventing crime; and community policing (Luen and Al-Hawamdeh, 2001:316). During these stressful and complex duties, knowledge management increases police performance by creating, organizing, and utilizing knowledge effectively and efficiently.

The Turkish National Police (TNP), similar to all other police organizations, needed a system that provides access to all necessary information related to police work from anywhere, at anytime, and as quickly and securely as possible. Therefore, in the frame of KM, TNP has established a police computer network and information system, known as POLNET, to enable knowledge repository, retrieval, and sharing processes (Gultekin, 2009:4).

In addition to the importance of information technologies in both business and government organizations, it is most important to note the reasons, methods, and frequency with which these technologies are adopted by users. For this reason, many researchers, practitioners, and professionals in the information science field have studied user acceptance models, focusing on “how and why individuals adopt new information technologies” (Venkatesh et al., 2003:427). Many models and theories of individual acceptance have been used, combined, and implemented to understand user acceptance of information technology in the business sector. Among these varied models and theories, the Technology Acceptance Model (TAM) (Davis, 1989:319) has one of the most powerful explanations concerning user acceptance and usage behavior (Venkatesh and Morris, 2000:124).

TAM has been adopted and extended by many researchers to investigate usage of technology in the workplace. Only a limited number of studies, however, have been conducted in governmental organizations, especially police organizations. Most of these studies are more specifically related to technology acceptance in US police departments. For example, COPLINK, established at the University of Arizona’s Artificial Intelligence Lab by collaboration efforts of the Tucson Police Department and the Phoenix Police Department, is a KM system used for capturing, storing, evaluating, and sharing law enforcement-related. The COPLINK project includes the Connect Database, Detect Criminal Intelligence Analysis, and Intelligent Agent applications by focusing on the development of different KM technologies information (Chen et al., 2003:29).

Another shortcoming of prior studies is a very limited focus on gender differences in adopting business information technologies (Gefen and Straub, 1997:391). These few studies, again, have investigated gender differences in different workplaces, not in governmental organizations (Ahuja and Thatcher, 2005:432; Venkatesh and Morris, 2000:120; Venkatesh et al., 2000:42).

This study overcomes these previous limitations by conducting research concerning gender differences and information technology use in a non-American police organization. Therefore, this study holds significance by providing three new features: 1) being a cross-national study, 2) being conducted in a semi-military police organization, and 3) focusing on gender differences in adoption of information technologies in workplaces.

The number of female Turkish National Police officers has increased, and, like their male colleagues, these women also use POLNET to fulfill their duties in the workplace. However, perceptions usage and adoption of new technology are different between men and women (Gefen and Straub, 1997:394). Therefore, this study focuses on factors that affect female officers' use of information technologies. The main question leading this research is: What conditions significantly influence male and female Turkish police officers to adopt the POLNET system?

To answer the research question, this study first gives brief information about POLNET and the two theoretical models which are the basis for this research study. Second, the hypotheses are discussed. The method section covers information about data set, measurements for dependent and independent variables, and methods to test hypotheses. Lastly, results of analyses and conclusion are presented.

## **1. Literature Review**

### ***1.1. What is POLNET?***

POLNET is defined as a modern information system through which the police can reach any information related to duty in a fast, easy, and secure way. It is one of the most important projects that help Turkey be an information society. POLNET was designed to be integrated into all national and international information webs and databanks (<http://www.egm.gov.tr/bilgiislem/demo/3/polnet.html>). The purpose of POLNET is to provide access to all necessary information related to po-

lice duty from anywhere, at anytime, and as quickly as possible. Some of the programs are TBS (Traffic Information System), AFIS (Finger Prints Program), PBS (Personnel Information System), MOBESE (Mobile Electronic System Integration), security investigations, wanted/stolen vehicles, vehicle registration, wanted persons, passport, etc. Today, POLNET is used in 82 cities, 751 countries, 93 border gates (air, land, sea and railway), and other police units (Gultekin, 2009:60-61).

POLNET provides fast and secure information and knowledge to all units at any time from anywhere. It also allows information and knowledge sharing among all police units throughout Turkey. It is designed to meet the needs of the police organization. The POLNET system can also easily adapt new technological improvements if it is needed (Gultekin, 2009:62).

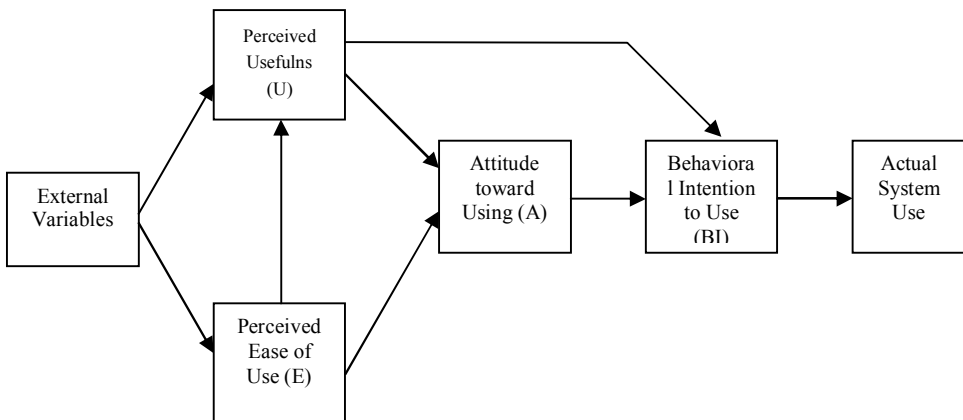
POLNET project, being the knowledge management system in Turkish law enforcement, mainly includes two parts: Police Computer and Communications Network Infrastructure (TransPol), and Police Information and Computer System (POLNET). POLNET is a comprehensive database system, transmitting information processing service to all units of the police organization, and TransPol is a secure, rapid, and reliable physical telecommunication infrastructure that allows voice, pictures and video sharing besides data transmission.

By the adaptation of POLNET, the quality of service in the organization has increased, time and paper consumption has decreased. For example, criminals are caught in a short time due to the transition of necessary evidences and documents such as fingerprints, ballistic comparisons, DNA analysis, blood and tissue analysis, and similar documents throughout police departments. Citizens can also manage their legal requirements without going to police station. Many issues such as passports and car registrations, and driver's licenses can be pursued online. Besides those, all personnel of the Turkish National Police can be informed about new progresses in the police organization, and all correspondences between administrative offices and others are made through POLNET (Gultekin, 2009:62-63).

## 1.2. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) (Davis, 1989:319) focuses on user information technology acceptance and usage behavior. This model offers two specific variables, perceived usefulness and perceived ease of use, as fundamental determinants of user acceptance (Figure 1). Perceived usefulness (U) is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989:320). Perceived ease of use (E), on the other hand, refers to “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989:320).

**Figure 1:** Technology Acceptance Model (TAM)



**Source:** Davis, F. D.; Bagozzi, R. P., and Warshaw, P. R., (1989), “User Acceptance of Computer Technology”, *Management Science*, 35 (8), p.985.

According to this model, a person’s technology usage is determined by his or her behavioral intention (BI), and BI is constituted by U and a person’s attitude (A) together. It means that, all else being equal, a person’s behavioral intention to use new technology is positively affected by his or her attitude (Davis et al., 1989:984). Additionally, A is formed by U and E.

### **1.3. Theory of Reasoned Action (TRA)**

The Theory of Reasoned Action is the theoretical basis model for TAM (Davis *et al.*, 1989:982). TRA is widely used in social psychology to understand any human behavior, in general (Ajzen and Fishbein, 1980:55). Therefore, it is also appropriate to explain computer-usage behavior specifically. The basic goal of the model is to explain a person's performance of a specified behavior (Davis *et al.*, 1989:993). According to TRA, performance of any behavior by an individual is determined by his or her behavioral intention. Behavioral intention is signified by the person's attitude (A) and subjective norms (SN) together (Figure 2).

## **2. Theoretical Development**

### **2.1. Dependent Variable – Behavioral Intention to Use (BI)**

Both models argue that behavioral intention to use directly affects actual behavior. Assuming behavioral intention to use is more important in accepting new technology than actually using it, I chose "behavioral intention to use" as a dependent variable. Additionally, involuntary and compulsory usage affects actual using but these results do not reflect correctly the adoption of the system.

### **2.2. Independent Variables:**

#### **2.2.1. Perceived Usefulness (U)**

As mentioned earlier, perceived usefulness refers to a person's belief about increasing the job performance by using a new system (Davis, 1989:320). TAM research has explained that perceived usefulness has a positive effect on behavioral intention to use. In terms of gender differences in the role of perceived usefulness, Venkatesh and Morris (2000:120) indicate that men have greater impact on perceived usefulness in determining behavioral intention. Therefore, I hypothesize:

H1. There is a positive relationship between perceived usefulness and behavioral intention to use. Police officers who think using the POLNET system is useful and increases job performance are more likely to intend to use POLNET.

H2. The effect of perceived usefulness on behavioral intention to use POLNET is specified by gender. Male officers are more likely to consider perceived usefulness of POLNET than female officers.

### 2.2.2. Perceived Ease of Use (E)

Perceived ease of use is defined as the degree to which the user assumes that the system would be effortless (Davis, 1989:321; Davis et al., 1989:985). According to the original TAM research (Davis, 1989:319), perceived ease of use affects behavioral intention to use in two ways: (1) a direct effect of intention, and (2) an indirect effect through perceived usefulness. Prior research asserts that the direct influence is more important than the indirect effect. Venkatesh and Morris (2000:135) found in their research that perceived ease of use is more important for women than men because men perceive the system to be easier to use based on previous experience. These findings allow me to assume that perceived ease of use is more important for women than men in determining behavioral intention to use new technology. Thus, I hypothesize:

H3. There is a positive relationship between perceived ease of use and behavioral intention to use. Police officers who think using the POLNET system is effortless are more likely to intend to use POLNET.

H4. The effect of level of perceived ease of use on the behavioral intention to use POLNET varies significantly between male and female officers. Female officers are more likely to consider perceived ease of use than male officers to intend to use POLNET.

### 2.2.3. Subjective Norm (SN)

The original Technology Acceptance Model has no subjective norm; however, subjective norm has been considered an important determinant for the Theory of Reasoned Action as well as many other researches (Lee et al., 2006:470; Fishbein and Ajzen, 1975; Venkatesh and Davis, 2000:190). Subjective norm refers to individual beliefs that are affected by opinions of others who are important to him or her. Studies discuss two determinants of subjective norm: peer and superior influences (Lee et al., 2006:476). In their research, Venkatesh and Morris (2000:125) have found that women were more strongly influenced by subjective norm, although its effect is diminished over time. The differences between men and women's approaches to evaluate achievement situations (Roberts,



1991:299) play significant roles on why subjective norm has a stronger affect on behavioral intention to use for women. Accordingly, men are more likely than women to respond to the competitive nature of evaluative achievement, adopt a self-confident approach, and deny other's opinions and evaluations. Women, in contrast, seek other's opinions to extend their abilities. Consequently, I hypothesize:

H5. There is a positive relationship between subjective norm and behavioral intention to use. Police officers who are affected by peer or superiors' opinion are more likely to intend to use POLNET.

H6. The effect of subjective norm on the behavioral intention to use POLNET varies significantly between male and female officers. Female officers are more likely to consider subjective norms than male officers to intend to use POLNET.

#### *2.2.4. Gender*

Men and boys, compared with girls and women, consider that computers are more appropriate for them, and believe themselves more competent when performing computer-related tasks (Whitley, 1997:11). This result led to the following hypothesis:

H7. Male officers are more likely to intend to use the POLNET system than female officers.

### **3. Data and Methods**

#### ***3.1. Sample***

For this study, I use secondary data, originally collected by a member of the Turkish National Police (TNP) for his dissertation. The reason that I chose this data is the similarities of research objectives between presented research and the original study. The author used a survey sampling technique to collect data. The sample was selected from the police officers of the TNP who actively use POLNET. For the representativeness, the researcher, first of all, used purposive sampling. The sample population was drawn from the police officers who work under the Department of Information Technologies and the Department of Communication in the TNP General Directorate and the 81 city police agencies. The reason for using purposive sampling was to reach police officers who are more

knowledgeable about the POLNET system. Later, the sample was chosen by using simple random sampling to ensure that each officer had an equal chance to be selected from the sample frame. Survey responses were collected from 407 police officers. The respondents self-administered a 47-item questionnaire. For each question, respondents circled one response category out of a five-point, Likert-type scale, ranging from strongly agree (5) to strongly disagree (1), which best described their level of agreement with the statements. For this study, I have chosen 12 questions out of 47 that are related to the objectives of this study. Additionally, the questionnaire includes demographic characteristics about gender, age, job experience, and education level. All of these variables are also standardized according to ordinary response categories. Age categories were 21-30, 31-40, 41-50, 51-60, and over 61. Job experience categories were 0-2 years, 3-6 years, 7-10 years, 11-15 years, and more than 15 years. Education level categories were high school, community college, university, master's degree, and PhD.

The biggest advantage of this data is that all respondents, selected purposively, use POLNET frequently as a part of their job. As a result, they could answer the survey questions easily. Another advantage of the data is the response rate. This study has a high percentage of response. On the other hand, the results of the study may not represent the rest of the TNP members because of purposive sampling.

### 3.2. Measures

All variables in the questionnaire were measured by more than one statement. The dependent variable 'behavioral intention to use' and one independent variable 'subjective norm (SN)' were measured by two statements, while the remaining two independent variables, 'perceived usefulness (U)' and 'perceived ease of use (E)', were measured using four statements. I created new variables by adding the statements and dividing by the number of statements the variable possessed. For example, to create new variable for 'behavioral intention to use,' I adopted following formula:  $BI_{last} = [BI_1 + BI_2] / 2$ . For others, the following formulas were used:  $U_{last} = [U_1 + U_2 + U_3 + U_4] / 4$ ;  $E_{last} = [E_1 + E_2 + E_3 + E_4] / 4$ ;  $SN_{last} = [SN_1 + SN_2] / 2$ . Gender was dummy coded (male=1, female=0). In table 1, the other demographic characteristics, age, job experience, and education level, were also represented. All of them were five-category ordinal variables.

### **3.3. Methods**

To test hypotheses, I used ordinary least squares regression (OLS). This type of regression is the best since the dependent variable is an ordinal variable at least five categories. First of all, to test direct relationships between dependent and independent variables (H1, H3, H5, and H7), I used multivariate regression analysis. In table 2, Model 1 and Model 2 show relationships between dependent and four independent variables. The next step is to test hypotheses 2, 4, and 6 to determine gender role between the dependent variable and three independent variables. For this purpose, I have first constituted three cross-products. To form the first cross-product, I multiplied gender and perceived usefulness (man x U), and then, I multiplied gender and perceived ease of use (man x E), and gender and subjective norm (man x SN) to form the second and third cross-products. After having cross-products, I again used ordinary least square regressions with four independent and interaction variables to determine the relationship between all variables (Model 3).

## **4. Findings**

### **4.1. Descriptive Analysis**

Besides summarizing the measurements, Table 1 also gives the means and standard deviations of the dependent, independent, and demographic variables. Means for dummy variables can be interpreted as percentages by multiplying by 100. Accordingly, of the 393 surveyed, more than three-quarters (76%) of the respondents were male. Half of the respondents (50%) were between 31-40 years old. The majority of the respondents (34) had 11-15 years job experience, and 37% of them graduated from community colleges.

**Table 1:** Means and Standard Deviations (S.D) of Variables in the Analysis

Variable	Measurement	Percent	Standard Deviation
<b><i>Dependent Variable</i></b>			
<u>Behavioral Intention to Use</u>			
Strongly agree	1=strongly agree, 0=else	59	.49
Agree	1=agree, 0=else	36	.48
Neutral	1=neutral, 0=else	03	.18
Disagree	1=disagree, 0=else	02	.12
Strongly disagree	1=strongly disagree, 0=else	00	.00
<b><i>Predictors</i></b>			
<u>Perceived Usefulness</u>			
Strongly agree	1=strongly agree, 0=else	60	.49
Agree	1=agree, 0=else	32	.47
Neutral	1=neutral, 0=else	04	.20
Disagree	1=disagree, 0=else	03	.16
Strongly disagree	1=strongly disagree, 0=else	00	.00
<u>Perceived Easy of Use</u>			
Strongly agree	1=strongly agree, 0=else	01	.09
Agree	1=agree, 0=else	79	.41
Neutral	1=neutral, 0=else	19	.39
Disagree	1=disagree, 0=else	01	.09
Strongly disagree	1=strongly disagree, 0=else	00	.00
<u>Subjective Norm</u>			
Strongly agree	1=strongly agree, 0=else	38	.49
Agree	1=agree, 0=else	42	.49
Neutral	1=neutral, 0=else	10	.31
Disagree	1=disagree, 0=else	09	.29
Strongly disagree	1=strongly disagree, 0=else	01	.07
<u>Gender</u>			
Male	1=male, 0=female	76	.40
<u>Age</u>			
21-30 years	1=21-30 years, 0=else	30	.46
31-40 years	1=31-40 years, 0=else	50	.50
41-50 years	1=41-50 years, 0=else	15	.36
51-60 years	1=51-60 years, 0=else	05	.07
Over 61 years	1=over 61 years, 0=else	00	.00
<u>Job Experience</u>			
0-2 years	1=0-2 years, 0=else	04	.19
3-6 years	1=3-6 years, 0=else	18	.38
7-10 years	1=7-10 years, 0=else	24	.43
11-15 years	1=11-15 years, 0=else	34	.47
More than 15 years	1=more than 15 years, 0=else	17	.37
<u>Education</u>			
High School	1=high school, 0=else	27	.44
Community College	1=community college, 0=else	37	.48
University	1=university, 0=else	24	.43
Master Degree	1=master Degree, 0=else	06	.24
PhD	1=PhD, 0=else	01	.10

In terms of behavioral intention to use POLNET, the majority of the respondents (59%) strongly agreed to intend to use the POLNET system. Similarly, 60% of respondents strongly agreed that using the POLNET system increased their job performance. Almost four-fifths (79%) of the respondents agreed that they believe using POLNET is effortless. As indicated before, subjective norm refers to users' perceptions affected by their peers and supervisors. The majority of the respondents (42%) agreed that they consider their peer and supervisors' opinions about POLNET. Moreover, 38% percent of respondents strongly agreed to this statement.

#### ***4.2. Multivariate Analysis***

Table 2 presents the OLS regression estimates predicting respondents' intention to use POLNET. Model 1 does not include demographic characteristics—gender—and interaction variables. As shown, all three independent variables are significant. Accordingly, police officers who think using the POLNET system is useful and increases job performance, officers who believe using the POLNET system is effortless, and officers who are affected by peer or superiors' opinion are more likely to intend to use POLNET. This model explains 43% of the variance in the dependent variable ( $R^2=.430$ ).

**Table 2:** Unstandardized Regression Coefficients for Predicting Respondents' Intention to Use POLNET

Predictor	Model 1	Model 2	Model 3
Constant	1.255*** (.231)	1.341*** (.262)	-.688 (.927)
Perceived Usefulness (U)	.399*** (.041)	.406*** (.043)	.364** (.110)
Perceived Easy of Use (P)	.227*** (.062)	.189** (.065)	.694** (.228)
Subjective Norm (SN)	.150*** (.029)	.154*** (.030)	.208** (.076)
Male		.005 (.064)	2.180* (.961)
<i>Interactions</i>			
Male x U			.048 (.119)
Male x P			-.545* (.238)
Male x SN			-.061 (.083)
R <sup>2</sup>	.430	.414	.424
df	3	4	7
F	95***	64***	38***
N	383	368	368

\* p≤.05 \*\* p≤.01 \*\*\* p≤.001 (one- tailed test)

Note: Standard errors in parentheses.

Model 2 tests Hypothesis 7 which assumes that male officers are more likely to intend to use POLNET than female officers. Contrary to expectation, gender coded as male dummy is not statistically significant. Thus, gender has no affect on behavioral intention to use POLNET. The percent (41%) of the variance in the dependent variable has slightly decreased ( $R^2=.414$ ). An F test for comparing Model 2 and Model 1 reveals that an F value of -5.92 is not statistically significant at the .05 level with 1 and 363 degrees of freedom<sup>2</sup>. This result implies that there is no relationship between gender and police officers' intention to use POLNET.

Model 3 includes all dependent and interaction variables. It seems male dummy and male-P interaction variables are significant. However, according to the F test, Model 3 is not the best model to interpret (the F value for difference in  $R^2$  between Model 3 and Model 1 is -.56 which is not significant at the .05 level with 4 and 360 degrees of freedom). As a result, the effect of perceived usefulness, perceived ease of use and subjective norm on the police officers' intention to use the POLNET system does not vary between male and female police officers. Thus, three hypotheses related to interaction variables (H2, H4, H6) are rejected. Following table shows summary of testing results:

**Table 3:** Summary of the Testing Results

	<b>Hypothesis</b>	<b>Result</b>
H1	U → BI	Supported
H3	E → BI	Supported
H5	SN → BI	Supported
H7	Gender → BI	Not significant
H2	Gender – U → BI	Not significant
H4	Gender – E → BI	Not significant
H6	Gender – SN → BI	Not significant

<sup>2</sup> The formula to determine the best-fitting model is:  

$$F = \frac{[(R_2^2 - R_1^2) / (K_2 - K_1)]}{[(1 - R_2^2) / (N_2 - K_2 - 1)]}$$
 $R_1^2$ :  $R^2$  of the model with more predictors,  
 $R_2^2$ :  $R^2$  of the model with fewer predictors,  
 $K_2$ : Number of predictors for the more inclusive model,  
 $K_1$ : Number of predictors for the less inclusive model,  
 $N$ : Number of cases in the more inclusive model.

## **Discussion and Conclusion**

This analysis has tested both the effects of three variables—perceived usefulness, perceived ease of use, subjective norm—and gender on police officers' intention to use the POLNET system in the Turkish National Police. Results reveal that gender with respect to intent to use POLNET is not important, even though the remaining three variables have significant affect on the dependent variable. Moreover, the affect of perceived usefulness, perceived ease of use, and subjective norm on the police officers' intent to use the POLNET system does not vary between male and female police officers. This result is contrary to prior research, which investigated gender differences in adopting information technology (Ahuja and Thatcher, 2005:427; Ong and Lai, 2006:816; Venkatesh et al., 2000:33). I conclude that the differences come from the differences of organizations. All other organizations were private organizations.

However, the police organization is, first, a semi-military governmental organization. Second, its job title is different than any other occupation. The nature of police work is dynamic, complex, stressful, and exceedingly different than any other organization's work. In their daily activities, police officers deal with numerous problems including preventing crime; handling serious violent crimes, disorder, and anti-social behaviors; managing incidents; investigating; and community policing (Collier, 2006:110; Luen and Al-Hawamdeh, 2001:312). All of those duties require the police to be an information-dependent organization. The police collect diverse types of information and use them to increase their service, respond to citizens' calls, and combat crime. On the other hand, collecting and accessing information itself is not enough. For example, the first reaction of a criminal is to escape. Under normal circumstances, if 72 hours pass after the incident, it would be very difficult to explore the case and catch the criminal. Therefore, information should be shared to inform other officers about the incident, help them reach the same data, and facilitate their job. For this reason, accessing and sharing information in a safe environment and in a short amount of time has gained importance. To facilitate all those tasks, and to provide more effective and efficient service to public, the police organizations use information technologies. IT helps the police organize a wide amount of information; facilitate reaching, reusing, and sharing knowledge; and decrease work load (Manning, 1992:356). Being aware of all job responsibilities, the POLNET system is used in the Turkish National Police, regardless of gender.



The contributions of this study are three fold. First, it successfully uses TAM and TRA to reveal the affect of gender in the intention to use POLNET in the Turkish National Police. Therefore, it contributes to gender studies, IS research about technology acceptance, and policing studies. Second, it reveals that in regard to job responsibilities, gender does not affect police officers' intention to use of POLNET. And third, this research shows that POLNET is considered easy to use, and is believed to increase job performance among police officers. Opinions of peers and supervisors are also important in officers' intention to use POLNET. Thus, high ranking officer should especially encourage inferior officers to use POLNET in the workplace.

Several limitations of this research should be noted. First, the results of this analysis cannot be generalized to other information technologies used in the Turkish National Police. POLNET has been used since the late 1990s. However, some other information systems such as MOBESE (Mobile Electronic Systems Integration) for city information and security, and laptop computers in police patrol vehicles are relatively new compared to the POLNET system. Future researches should separately focus on the acceptance of these new systems.

Secondly, the result of user acceptance of information systems in TNP may not be generalized to other police forces in different countries because of differences in the information systems, background of police officers with computer familiarity, and culture.

The third limitation of this research comes from the sampling design of the study. Purposive sampling design was adopted and all samples were selected from Computer and Communication Departments. Most of the police officers who work in these departments, however, are familiar with computers. It can be easily assumed that the acceptance of the POLNET system would be higher among these selected samples. Therefore, again, the results may not be generalized to all police officers who work in other departments. Future researches should select their samples randomly to enable generalizability of the results.

This research has several policy implications. The result of the study shows how important considering a new system easy to use and increase job performance is in adopting a new system. Therefore, policy makers or administrators should first beware of the hardware and software technology that could be used in TNP. The result of this study also discusses the importance of subjective norms on intent to use POLNET. It is obvious

that opinions of peers and supervisors affect police officers' intention to use POLNET. Thus, executives should always mention the importance of POLNET and encourage employees to use the system. In general, this study also shows that examining user opinions about a new system makes future systems better. In consequence, it should be routine in TNP to ask user opinions about new systems.

In conclusion, POLNET is one of the most important technologies in TNP; therefore, adoption of the system by users is a vital issue. In this perspective, this analysis gives theoretical and implicational results. Furthermore, I believe that this study helps gain a better understanding of POLNET adoption among police officers.

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