EXAMINING THE ANTECEDENTS OF THE WORK MOTIVATION IN THE CONTEXT OF TURKISH NATIONAL POLICE

By

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ABSTRACT

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The present study enhances our understanding of police officers' work motivation in the context of Turkey. An extensive literature review was devoted in order to develop a revised model for examining the antecedents of the police officers' work motivation. The model was developed based on the existing literature and previous empirical evidence regarding Locke & Latham's (1990) goal-setting theory. The model not only helps us to have a better understanding about antecedents of the work motivation but also portrays the relationship between work motivation and related independent variables, including goal content, goal commitment, self-efficacy, feedback, rewards, and participatively-set goals.

The data for this study was collected using a self-administrated survey of police officers who are assigned to formal police duties and as well as guarding the airport security under the command of the Security Directorate of Istanbul. Each of the study items was measured and multiple items were derived from previously validated studies. The survey was administered to the police officers who work at Ataturk Airport, plain clothes, and the public order department. Multivariate Ordinary Least Square (OLS) regression analyses were conducted to test the hypothesized relationships between the independent and dependent variables. The results of the study were mainly consistent with the goal-setting model. The results indicated that goal difficulty, goal specificity, task significance, commitment, self-efficacy, and rewards were related to police officers' sense of motivation. Finally, recommendations for policy implications and for future research were suggested based on the result of the study.

Dedicated to Him
to my parents
to my wife Nesibe
and to my son Emir Kamil

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CHAPTER 1

INTRODUCTION

1.1 Statement of the Problem

Why is work motivation important? According to Simon (1991), all sectors including private, public, and nonprofit organizations share a similar and fundamental problem, namely, "inducing their employees to work toward the organizational goals" (p. 28). Especially in public administration, researchers have long argued about and focused on how to motivate public employees "to work energetically and intelligently towards achieving public purposes" (Behn, 1995, p. 315). However, much of the prior research has focused "too heavily on employees within the industrial and business organizations" (Perry & Porter, 1982, p. 97). Furthermore, there has been little improvement on work motivation in the field of public policy and public administration (Wright, 2001).

The current literature on motivational factors in policing is also limited, although policing is one of the most examined issues in the field of criminal justice. Many of the researchers focused on police functions and role in a society (Bittner, 1970; Muir, 1977; Lipsky, 1980), police use of force and brutality (Westley, 1970; Adams, 1995; Klockars, 1995; Worden, 1995; Milton et al., 1977; Skolnick & Fyfe, 1993; Friedrich, 1980), police socialization and personality (Bayley & Bittner, 1997; Skolnick, 1975; Van Maanen, 1973, 1975; Herbert, 1998; Fielding, 1984; Wilson, 1978), police deviance and corruption (Kappeler et al., 1998; Barker, 1978; Barker & Carter, 1986; Shearing, 1981; Sherman, 1974, 1978; Goldstein, 1975; Newburn, 1999; Punch, 2000), the effectiveness of policing (Kelling & Coles, 1996; Clarke & Hough, 1984; Skogan, 1976, 2004; McGarrell et al., 2001; Sherman, 1992; Sherman & Weisburd, 1995), police discretion and its determinants (Black, 1980; Friedrich, 1980; Mastrofski et al., 1987; Sherman,

1980; Worden, 1989; Goldstein, 1960, 1963), private policing (Nalla & Newman, 1990; Johnston, 1992; Shearing & Stenning, 1987; Button, 2002; Wakefield, 2003), and policing philosophies including community policing (Klockars, 1988; Mastrofski et al., 1995; Skogan & Hartnett, 1997; Skogan, 2004; Trojanowicz & Bucqueroux, 1990; Greene & Mastrofski, 1988; Rosenbaum, 1994; Friedmann, 1992), problem-oriented policing (Goldstein, 1990; Bichler & Gaines, 2005; Eisenberg & Glasscock, 2001; Eck & Spelman, 1987), broken windows policing (Kelling & Coles, 1996; Harcourt & Ludwing, 2006), and intelligence-led policing (Ratcliffe, 2008; Ratcliffe & Guidetti, 2008; McGarrell et al., 2007; Carter & Carter, 2009; Cope, 2004).

Some researchers (Roberg, 1979; Roberg et al., 2002; Bennett & Hess, 2004; Fyfe et al. 1997; More & Wegener, 1992; Sheehan & Cordner, 1995; Swanson et al., 2005) offered linkages between motivational theories and policing to improve police management. Moreover, existing literature on policing examined various aspects of performance of police officers and police departments, including departmental and personal factors and public evaluation of police performance (Armeli et al., 1998; Fagan et al., 1998; Mazerolle et al., 2007; Moore & Braga, 2003; Cortina et al., 1992; Mas, 2006; Reisig, 1999; Reisig & Correia, 1997). Researchers and police departments mostly rely on reported crime rates, overall arrests, clearance rates, and response times to measure police performance (Alpert & Moore, 1998; Mastrofski, 1996), although researchers argued over the validity of these performance indicators (Black, 1970; Kelling, 1996). Thus, researchers and police departments started to use other performance measures such as fear of crime, criminal victimization, citizen confidence and citizen satisfaction with police (Stephens, 1996). However, our understanding about the correlation between motivational factors and individual performance of police officers is still limited.

The quality of life in a work place and productivity are related to the performance of the employees (Rainey, 2009). Although Katzell & Thompson (1990) noted that "empirical studies on various [motivation] theories typically account for less than 20% of the variance in output" (p. 64), scholars and researchers have examined motivation for decades to improve individuals' and organizations' performance and productivity (Pinder, 1998; Latham, 2007; Rainey, 2009). Aside from some factors like level of investment, successful innovation, development of new technology, and political environment, which are beyond the control of most individuals, performance and productivity can be explained by the motivation and ability of employees (Pinder, 1998; Latham, 2009; Ambrose & Kulik, 1999). Ability can be defined as aggregation of natural skills and gained skills through experience and training that one possesses (Pinder, 1998). The second factor that affects productivity is motivation. In addition to individual ability, immediate managers and higher level managers in public and private organizations have some control over the motivation of their employees.

Managers ask their employees to perform to the best of their ability and try to ensure that they can and do (Ambrose & Kulik, 1999). It is argued that ability is a more important factor than motivation for job performance (Kanfer & Ackerman, 1989; Pinder, 1998). Higher motivation alone does not necessarily mean higher performance (Rainey, 2009). In some cases, such as when an employee does not have adequate ability to perform a job, a greater level of motivation cannot ensure the individual can perform the job as well as desired. Moreover, gaining experience during work time may increase the ability of a person, whereas it may decrease the motivation to work.

The term "motivation" comes from the Latin word *movere*, which means "movement" (Latham, 2009). Work motivation can be described as "a person's desire to work hard and work

well to the arousal, direction, and persistence of effort in work settings" (Rainey, 2009, p. 248). According to Pinder (1998), work motivation refers to "a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity, and duration" (p. 11). The intensity dimension refers to the level of motivation at a given moment regardless of the potential available. It is assumed that people are less likely to be motivated when little effort is needed. However, when the task is difficult or requires much effort, people show higher levels of motivation. The direction is related to specific goals, while the duration implies accomplishment. The definition (Pinder, 1998) also considers other factors such as environmental influences and biological features of work-related behavior. Furthermore, the definition stresses that, since motivation cannot be observed directly, it is an invisible physical process and internal concept.

Work motivation is one of the core concepts in the field of management to which both researchers and managers have paid extra attention (Steers et al., 2004). It is a topic studied more than any other micro factor like work-related attitudes, communication, and decision making and macro factors like organizational design, organizational change, and organization culture (Baron, 1991) in the organizational behavior field (Pinder, 1998), especially in the micro level focus of organizational behavior (O'Reilly, 1991). A study conducted by Cascio & Aguinis (2008) showed that predictors of performance and work motivation are the two most-examined topics in the top five areas of industrial and organizational behavior. It is believed that although we cannot measure motivation directly, it exists and affects human productivity (Pinder, 1998).

1.2 Purpose of the Study

The purpose of this paper is to advance understanding of work motivation in the field of policing. Work motivation and employee performance are two of the most examined topics in

the field of organizational psychology, especially in the industrial and business organizations (Perry & Porter, 1982). Some of the previous research on policing examined job satisfaction and its determinants among police officers (Greene, 1989; Griffin et al., 1978; Buzawa, 1984; Dantzker, 1993, 1994, 1997; O'Leary-Kelly & Griffin, 1995; Nalla et al., 2011; Buker & Dolu, 2010). However, some researchers (Pinder, 1998; Vroom, 1964; O'Reilly, 1991; Locke & Latham, 1990; Latham, 2007; Rainey, 2009) argued that job satisfaction is related to employee turnover, employee absenteeism, and mental and physical health, rather than employee productivity.

Another limitation of individual performance of police officers is that existing research on policing focused on performance of street police work. However, aside from other responsibilities, such as peace and public tranquility preservation, crime prevention, crime investigation and offender arrest, and law enforcement, one of the primary functions of the police is to protect lives and properties (Bouza, 1990; Steverson, 2008; Grieve et al., 2007), including airports. In many countries, including Turkey, police or federal agencies are responsible for protecting airports.

Therefore, the present study will contribute to our understanding of work motivation in the public sector by employing goal-setting theory within the context of a public sector organization and, more specifically, within the context of policing. This study will utilize existing literature to develop a model of work motivation and contrast the motivational differences, if any, between police officers working at airports and police officers working on the streets. The model will be tested by using data which will be collected by applying a self-administrated survey. An OLS regression analysis will be conducted to analyze data. Finally, the

results of the study will be examined to improve our understanding of work motivation in the context of policing.

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Framework: Goal-Setting Theory

Goal-setting theory assumes that the goals related to a task affect people's performances and choices (Locke & Latham, 1990a). Moreover, the theory asserts that difficult goals and specific goals lead to higher task performance than easy or vague goals (Locke, 1966; Locke & Latham, 1990a; Locke & Latham, 1990b; Locke & Latham, 2006; Latham, 2007; Latham & Locke, 2007). Pinder (1998) formulated the theory with four tenets: goals affect human effort, difficult goals result in higher performance, specific goals also lead to higher performance, and incentives are meaningful except when they are related to specific or hard goals. Goals affect task performance by four mechanisms: "by directing attention and action (choice), mobilizing energy expenditure or effort, prolonging effort over time (persistence), and motivating the individual to develop relevant strategies (cognition)" (Locke et al., 1981, p. 145; Latham, 2007, p. 53).

Since the concept of goal is identified as an important concept of motivation (Pervin 2003), using goals over needs or external forces as a motivational construct offers many advantages (Latham 2007). According to Pervin (2003), "goals have cognitive, affective, and overt behavioral properties with them" (p. 311). The cognitive component of the goals refers to the mental representation of people's conscious or unconscious goals. Furthermore, people set their goals based on a variety of emotional feelings like achieving pleasure or avoiding some pain. Finally, people make "behavioral plans" including "cognitive representation of activities" and some assessments (Pervin, 2003, p. 312) to achieve their goals. By doing so, "the employee is oriented toward the future as far as cognitive capacity permits." (Latham, 2007, p. 54).

According to Locke & Latham (2002), goals work in four ways to affect performance: by directing functions, energizing functions, enforcing persistence, and leading to the arousal, discovery, and use of task-relevant knowledge and strategies (p. 706-707).

The origin of the theory goes back to Locke's (1964) doctoral dissertation (Latham, 2007). Locke & Latham (1990b; 2006) stated that goal-setting theory was developed through previous research on intentions, task and set, and level of aspiration. The model evolved over a 25-year period, based on nearly 400 experimental and field studies with more than 40,000 subjects and 88 different tasks in the US and seven other countries (Locke & Latham, 2006; Locke & Latham, 1990b; Latham & Locke, 1991; Latham & Locke, 2007). The generalizability of the theory to other tasks and countries was provided by those studies (Latham & Locke, 1991).

Goal-setting theory is one of the most examined and most dominant theories in the field of organization behavior (O'Reilly, 1991; Mitchell & Daniels, 2003). Pinder (1998) referred to goal-setting theory as "being the most dominant, valid, and useful modern theory of work motivation" (p. 382). Heslin et al. (2009) noted that goal-setting theory can be used to enhance the performance of individuals, groups, organizational units, and even an entire organization. Furthermore, some researchers (Wiese et al., 2005; Brunstein, 1993) argued that goal context is related to personal well-being. For example, Brunstein (1993) showed in a longitudinal study that students' subjective well-being is related to "the intensity of students' commitment to pursue personal goals" (p. 1067). Finally, researchers argued (Latham et al., 2008; Perry & Vandenabeele, 2008) and showed (Wright, 2001; 2004) that goal-setting theory can be applicable to the employees working in public sector organizations.

Although the origin of the goal-setting theory dates back to the 1960s, Locke & Latham (1990a) offered their formal model in 1990. After introducing the full model, researchers examined other factors within the goal-setting model (Steers et al., 2004; Locke & Latham, 2006). For example, Earley & Erez (1991), Latham & Locke (1991), and Mathieu & Button (1992) examined the effects of assigned goals and normative information on performance. Further, researchers (Klein & Mulvey, 1995; O'Leary-Kelly et al., 1994; Mitchell & Silver, 1990; Crown & Rosse, 1995; DeShon et al., 2004) examined the individual and group goals within the goal-setting context. Moreover, Smith et al. (1990), Baum et al. (2001), and Baum & Locke (2004) examined the performance of an entire organization. The other new focus areas can be categorized as goal determinants of goal choice, the effects of learning goals on performance, the relationship between the framing of a goal as gain versus loss and performance, and how subconscious goals affect performance (Locke & Latham, 2006). The model tries to answer why some people perform better than others, if their abilities and knowledge are equal (Latham & Locke, 1991). According to Latham & Locke (1991), the answer to the question is that motivational factors cause performance differences among people.

According to Locke & Latham (1990a), the model states that goals and intention, which are immediate indicators of human actions, affect and direct human behaviors. The term of the goal refers to something that people want to achieve (Locke & Latham, 1990a). Goals take many forms such as level of job performance, performance standard, quota, work norm, task, objective, deadline, and budget (Locke et al., 1981). Goals consist of two main dimensions: content and intensity (Latham & Locke, 1991). Goal content refers to "the object or result being sought" (Locke & Latham, 1990a, p. 25). Those objects can be buying a house, pursuing a career in academia, and feelings like happiness or having a good reputation.

Goal content may vary from person to person and include few or many goals, short-term or long-term goals, easy or difficult goals, specific or value goals, and consistent and conflicting goals (Locke & Latham, 1990a). However, the goal-setting model mostly focuses on difficult goals versus easy goals and specific goals versus "do your best" goals. Specific and difficult goals increase one's level of performance more than vague, non-quantitative goals like "do your best" and other unspecific goals (Locke & Latham, 1990a). Since vague goals give people a huge amount of discretion, people at any point may think that they do their best for a task in a range from minimum to maximum. However, people feel accomplishment when they finish or reach the specific goal. On the other hand, difficult goals stimulate people's attention and lead to higher levels of persistence to accomplish the goals.

Another concept that should be explained clearly is task. Task refers to "a piece of work to be accomplished" (Locke & Latham, 1990a, p. 25). The distinction is important since finishing a task could be a goal for many people. There is also a distinction between the goal difficulty and task difficulty (Locke & Latham, 1990a). A task can be hard for a person based on the task's complexity and skill and knowledge level required to accomplish it. Harder tasks demand a higher performance level but may yield a lower performance score than easier tasks. For example, it is easier for people to write a letter than a scientific paper, since the second one requires more knowledge and skills than the first one.

However, Locke & Latham (1990a) noted that in some instances task difficulty may lead to a higher performance score as in the study of Campbell & Ilgen (1976). Campbell & Ilgen's (1976) study is unique, since it is the only study that considered goal and task difficulty separately (Locke & Latham, 1990a). The result (Campbell & Ilgen, 1976) showed that task difficulty affects task performance. Although task difficulty does not affect the motivational

process, people gain more information and more insight while doing difficult tasks. Even if a person fails to accomplish the task, the task knowledge gained in the attempt is useful for the performance of future tasks that require similar skills or knowledge. Similar to hard tasks, hard goals also require more knowledge and skills than easier goals. A person may want to finish a specific task in a shorter period than usual. To be able to do that, he/she needs more skills and knowledge. Harder goals result in more performance. It is found that there is a consistent linear and positive relationship between the performance and goal difficulty (Latham & Locke, 1991). In sum, goal difficulty refers to the level of task proficiency, whereas task performance refers to the nature of a task. Latham & Locke (1991) noted that "knowing task difficulty, however, does not reveal the person's goals and thus makes it difficult to predict how well a person will perform the task" (p. 214).

Goal intensity refers to several factors that operate together and combine within the goal-setting process. Those factors are: the effort necessary to form a goal; its importance relative to a person's other goals; the level of commitment; and, the value of the goal. The term intention refers to people's determination to accomplish one goal or task by taking certain actions (Locke & Latham, 1990a). One of the major aspects of intensity that has been studied extensively is commitment (Latham & Locke, 1991). Goal commitment refers to "the degree to which the individual is attached to the goal, considers it significant or important, is determined to reach it, and keeps it in the face of setbacks and obstacles" (Latham & Locke, 1991, p. 217). The sources of the goal —whether set by an individual, assigned by an external source, or decided jointly— do not affect goal commitment (Locke & Latham, 1990a).

The literature on goal commitment shows that there is a direct and moderate effect of goal commitment on performance (Locke & Latham, 1990a; Latham & Locke, 1991). Existing

research indicates that when goal difficulty is held constant, people who commit themselves strongly to a goal perform better than those who are less committed to a goal. People who do not commit themselves to a goal tend to give up their hard goals in favor of finding easier ones. The moderator effect of goal commitment works with the performance. Locke & Latham (1990a) suggest that high goal commitment and high performance increase people's goal level. Latham & Locke (1991) noted the ultimate goal proof as "the action taken to attain it which in turn reflects the thinking which preceded it and the choice to act on that thinking" (p. 217). According to Latham (2007), goal commitment increases job performance, since "the goal provides a regulatory mechanism that allows the employee to observe, monitor, subjectively evaluate, and adjust job behavior in order to attain the goal" (p. 53). It should be also noted that Locke et al. (1988) define goal commitment and goal acceptance differently. Goal commitment refers to a more inclusive concept, which can be applied to any goal regardless of whether it is self-set, participative set, or assigned. However, goal acceptance refers to a goal which is assigned to a person.

Since there is a relationship between goal commitment and performance, it is worthwhile to mention determinants of goal commitment. The determinants of goal commitment are authority, peer influence, publicness, rewards and incentives, punishment, general valance and instrumentality, and expectancy of success and self-efficacy (Locke & Latham, 1990a). People consider their immediate supervisors or managers in the public or private sector as legitimate authorities. Supervisors and managers tell people their tasks, observe their performance, and give warnings when necessary. Although further research is needed to examine the correlation between authority and goal commitment, existing research suggests that a legitimate authority affects goal commitment in these conditions: when an authority is physically present, is

supportive, is trustworthy, convinces an employee of the rationality of the goal, exerts reasonable pressure, and is knowledgeable and likable (1990a, p. 136). When employees feel that there is no conflict between the organizational goals and given tasks and they are capable to do the given tasks, employees follow the orders given by a legitimate authority.

Another factor which affects goal commitment is peer influence. It was found that people who are assigned to a group have a higher commitment level for individual and group goals than do people who work alone. Moreover, research suggests that if a person observes a strong role model, he/she tends to have a higher goal commitment level. However, when people observe a negative role model, they show a low goal commitment level. Finally, peer groups exert pressure on people to perform better and this leads to a high level of goal commitment. Literature on task performance indicates that competition has direct and indirect effects on employee performance. However, none of the research directly tested how competition affects goal commitment. Locke & Latham (1990a) proposed that since there could be a link between competition and goal commitment, further research should examine the relationship between two.

Researchers also examined the effects of public and private work environments on goal commitment. It was found that although research suggests inconsistent findings on performance differences in work performed in a public or private environment, publicness significantly affects people's goal commitment level. Some other work motivation theories like expectancy and social learning theories suggest that incentives and rewards work as an alternative to goal commitment. However, few studies examine directly the relationship between the incentives and rewards and goal commitment. The findings are inconsistent and researchers found insignificant relations between the incentives and rewards and goal commitment in most cases. Locke & Latham (1990a) argued that incentives and rewards affect performance in various ways, which

also affects goal commitment. They (1990a) suggest that researchers should examine the effects of incentives and rewards on goal commitment with better study designs and measurement. In contrast to research on incentives and rewards, some studies examined how punishment affects goal commitment. The research indicates that the effects of punishment on goal commitment depend upon how it is used and perceived.

Valance and instrumentality refers to "how individuals process and respond to incentives" (Locke & Latham, 1990a, p. 145) in goal-setting theory. Research indicates that goal instrument is significantly related to goal commitment. Moreover, perceived rewards lead to higher commitments and subsequently to higher performance as well. However, existing research suggests that a number of personal factors such as ego and goal conflict may affect valance and, subsequently, goal commitment. Expectation of success and self-efficacy are other factors that affect goal commitment. People tend to have a higher level of goal commitment if they believe the goal is achievable. If people believe the goal is too difficult to accomplish, they are more likely to have a lower goal commitment level. Related to the expectation of success, self-efficacy has effects on goal commitment and on performance. Self-efficacy refers to a person's judgment about his/her ability to accomplish a task (Locke & Latham, 1990a). Self-efficacy is especially useful for maintaining goal commitment level when a person encounters a challenge or obstacle in performing a task. Moreover, the information provided at the beginning of a task or during the task as feedback affects people's self-efficacy. However, providing information at the beginning or during the task does not always lead to a higher performance level.

As indicated before, a goal can be set in three ways. Someone may assign a goal to an individual, the goal can be assigned mutually, or an individual may set the goal himself. Many

researchers have examined whether employees should participate in the goal decision-making process (Pinder, 1998). Two theoretical perspectives approach the question differently (Locke & Latham, 1990a). Classical management theories state that managers and leaders are responsible for goal assignments and employees' commitments to the goal. However, humanistic organizational theories argue that employees should participate in the goal decision-making process. Participating in the goal decision-making process causes employee attachment and higher levels of commitment to the goals.

These two different theoretical perspectives cause considerable argument in the literature concerning the effects of assigned goals versus participatively-set goals on goal commitment and performance (Latham & Locke, 1991). Based on a series of 11 studies conducted by Latham and his colleagues (Locke & Latham, 1990a; Latham & Locke, 1991), the researchers concluded that there are no or few differences between the effects of assigned goals and participatively-set goals on goal commitment and performance. However, another set of seven studies conducted by Latham and his colleagues indicated that participatively-set goals lead to higher commitment levels than assigned goals (Latham & Locke, 1991; Locke & Latham, 1990a; Pinder, 1998).

These inconsistent findings between two studies led to an unusual solution, namely, that "Latham and Erez decided to place their differing views head to head by collaborating on the design of four experiments using a mutually respected third party, Edwin Locke, as mediator." (Pinder, 1998, p. 373-374). However, this unusual study showed that assigned goals affect motivation and goal commitment as much as participatively-set goals do. Nevertheless, participation may lead to higher performance levels through two cognitive mechanisms (Pinder, 1998). Employee participation affects self-efficacy and the quality of the strategies that employees develop and use. Finally, it was found that self-set goals also do not have significant

and consistent effects on goal commitment and performance (Locke & Latham, 1990a). In sum, research indicates that none of the methods of setting goals perform better than others or affect goal commitment and performance.

The goal-setting model examines the relationship between goals and feedback (Locke & Latham, 1990a; Latham & Locke, 1991; Pinder, 1998). Latham & Locke (1991) noted that studies that indicated the positive effects of feedback on performance were not conducted properly. Feedback was used to set improvement goals for the study subjects by comparing their past performance. When subjects are provided with feedback that cannot be used to set goals, research indicates that feedback or goal-setting alone do not affect performance. In other words, feedback and goal-setting have effects on performance when they exist together. Locke & Latham (1990a) examined 33 studies to show the effectiveness of goals plus feedback versus goals or feedback alone. They concluded that the effectiveness of goals plus feedback is more consistent and has a more positive effect on performance than goals or feedback alone. The joint effect of goals and feedback affect performance, because of the distinction between goals and performance (Locke & Latham, 1990a). Goals provide information about the level of performance that is to be attained. However, feedback refers to information, while a goal refers to evaluation. People use feedback to track their performances by comparing standards and set goals as needed. Two possible outcomes occur based on the provided feedback (Latham & Locke, 1991):

1. If performance meets or exceeds the standard, performance is typically maintained.
2. If performance falls below the standard, subsequent improvement will occur to the degree that: (a) the individual is dissatisfied with that level of

> performance and, more importantly, expects to be dissatisfied with it in the future; (b) the individual has high self-efficacy, that is, confidence in her ability to improve; and (c) the individual sets a goal to improve over her past performance (p. 226).

The model also considers other variables such as ability, demographic variables such as gender, age, and race, and situational constraints (Locke & Latham, 1990a; Latham & Locke, 1991). Research shows an inconsistent and curvilinear relationship between performance and ability. Moreover, the effect of ability on performance is related to goal difficulty. When goal difficulty is above the ability of a person, goal difficulty limits the ability of a person and prevents high performance. Locke & Latham (1990a) argued that education level has no effect on goal-setting, and there is no logical reason why there should be one. Besides ability, since there are very few studies conducted on race, age, and gender, we need further studies to examine how those variables effect goal-setting and performance. Finally, research on situational constraints and performance indicates that when situational constraints are low, goal level is significantly related to performance. In particular, when people have high self-efficacy and high commitment in low-level situational constraints, they perform better than others.

The final topic in the model is the consequences of the goals (Locke & Latham, 1990a; Latham & Locke, 1991). Based on satisfaction theory, Latham & Locke (1991) state that "emotional responses are the result of automatic, subconscious value appraisals" (p. 231). People try to reach their goals, which are desired or valued outcomes. It is obvious that when people accomplish a goal, they feel satisfaction with their performance. Therefore, it can be expected that the level of satisfaction is increased based on the degree of success experienced. Based on 16 studies, Locke & Latham (1990a) found a strong correlation between the degree of success

and satisfaction. Satisfaction level moves in either direction, positive or negative, according to the level of success or failure. The importance of the goal leads to a greater negative or positive satisfaction level. In addition to satisfaction, the importance of the goals prevents boredom and reduces the role of conflict and ambiguity.

2.2 Determinants of Work Motivation

As discussed in the previous section, goal-setting theory was formulated and developed based on extensive field research and experimental studies. However, to provide a better overview, research regarding the determinants of work motivation within goal-setting theory will be examined. This chapter will examine in detail five factors-goal content, goal commitment, self-efficacy, feedback, and money-as incentives that affect performance the most.

2.2.1 Goal Content

Goal content refers to characteristics of goals like goal difficulty, specificity, and vagueness. Much of the previous research focused on how specific goals and difficult goals are related to the performance of employees and people (Locke et al., 1981; McCaul & Kopp, 1982; Locke & Latham, 1990a; Klein et al., 1990). Locke et al. (1981) examined studies conducted between 1969 and 1980 to see the relationship between goals and performance. Regarding goal difficulty, Locke et al. (1981) found that 29 experimental laboratory designs showed a linear relation between, and four experimental studies provided conditional support for, goal difficulty and task performance, whereas only six experimental designs showed no relation between goal difficulty and performance. Furthermore, 15 field studies showed the goal effects on performance in varying degrees, while only three field studies resulted in negative associative effects between goals and performance.

Regarding goal specificity, the study (Locke et al., 1981) showed that 20 experimental studies and 31 field studies, including 7 field studies that concurred partially, supported the hypothesis that specific hard goals lead to better performance. Only one experimental and one field study showed no relationship between goal specificity and performance. Overall, it was found that 99 of 110 experimental and field studies partly or wholly supported the hypothesis that difficult goals and specific goals result in higher performance. Later, Locke & Latham (1990a) conducted a more comprehensive and detailed meta-analysis of the relationship between goal difficulty and performance and specific goals and performance based on 393 field and experimental studies. The results of their study showed that 140 of 192 studies of goal difficulty and performance and 152 of 201 studies of specific and hard goals as opposed to vague goals and performance, a total of 292 out of 393 studies, revealed significant effects of goal content on performance.

Before Locke & Latham (1990a) offered their formal model, several other researchers conducted meta-analyses on goal difficulty and performance and goal specificity and performance. For example, Guzzo et al. (1985) found in their meta-analysis that goal-setting was one of the most significant and effective psychologically-based intervention programs on worker productivity. Mento et al. (1987) conducted a meta-analysis by analyzing research conducted between 1966 and 1984. They examined 70 studies of goal difficulty and performance and 49 studies of goal specificity and performance. The results of the study showed similar patterns regarding the relationship between goal difficulty and performance and goal specificity and performance. They found strong support for the effects of goal difficulty and goal specificity on performance. Another meta-analysis study conducted by Tubbs (1986) and involving 56 studies of goal difficulty and 48 studies of goal specificity also showed strong support for their main

hypothesis that difficult goals and specific goals are related to performance. Both researchers, Mento et al. (1987) and Tubbs (1986), argued that experimental studies show stronger support for the relationship between the goal difficulty-specificity than the field studies do.

Wood et al. (1987) extended Mento's et al. (1987) meta-analysis by including additional field and experimental studies and by employing more careful analysis of task complexity. The results of the meta-analysis showed that goal difficulty and goal specificity are strongly related to task performance. Furthermore, they found that "the magnitude of goal effects on performance was greater on simple tasks than on complex tasks" (1987, p. 420). Zetik & Stuhlmacher (2002) conducted a meta-analysis involving 22 research reports that examined the effects of goals and their attributes on the performance of negotiators. Their findings (2002) can be summarized as: (a) negotiators who set specific goals consistently made higher profits than the negotiators who did not pursue specific goals; and (b) difficult goals lead to higher performance and, subsequently, to higher profits. They (2002) concluded that goal-setting theory can be used for negotiations and "negotiators are at a great advantage for earning profit when they go into negotiation prepared with a goal, especially when the goal is specific and difficult" (p. 47).

Aside from meta-analysis, the existing literature provides a huge list of experimental and field studies of goal content and performance (Locke & Latham, 1990a; Locke & Latham, 2002). For example, one of the earliest studies was conducted by Bryan & Locke (1967). They conducted a two-phase experimental design with two groups consisting of a total of 48 undergraduate students and five trials to test the effect of time on attitudes. Two groups were provided the same task and procedures but the number of assigned tasks was lower for the second group. The students were asked to solve problems within a designated time allotment (12 minutes and 6 minutes) in the first three trials, in a self-paced time allotment in trial four, and in

the fastest time possible in the last trial. They found that students who were provided more time slowed their pace and took longer than the students who were provided less time to solve the problems. In other words, subjects who were given shorter time limits increased their performance to solve the problem. However, the results showed no significant differences for trial four and trial five for both groups.

Latham & Locke (1975) replicated Bryan & Locke's (1967) experimental design within a real-life setting. They examined 379 independent wood-harvesting crews. The first group was free to sell as much wood as they could in a given month, whereas the second group had quotas for one or more weeks during each month. Latham & Locke (1975) followed each group consecutively for three months, from April to June. The results showed that aside from April, the crews who experienced quotas were more productive than the crews who were free to sell as much as they could harvest.

Another experimental design was conducted by Latham & Baldes (1975) to test how specific hard goals as opposed to "do your best" goals affected the performance of 36 logging drivers. The logging drivers were observed July to September, when weather is most suitable for logging, without being assigned specific goals, and they were observed again during the nine consecutive months of less suitable weather with specific assigned goals that required logging drivers to load their trucks up to the maximum legal weight. The results indicated that although there were seasonal differences among the months, logging drivers performed much better after they were assigned a specific goal. Smith et al. (1990) examined goal-setting in a macro-level study to test the effects of goal-setting on organizations. They assigned 296 undergraduate students in 16 simulated organizations. Researchers used Miles & Randolph's (1979) "organizational game" and observed these 16 simulated organizations running at different times

for 12 months. The results indicated that specific organizational goals affected organizational performance. Furthermore, the results also suggested that specific goals were related to planning quality.

Brown & Latham (2000) tested goal-setting theory with 32 unionized employees working at a telecommunications company. These 32 subjects were divided into three groups: goal-setting, self-instruction plus goal-setting, and "do your best". The findings of the study showed that employees who set specific and difficult goals performed more than employees who were allowed to do their best. In other words, the main hypothesis of the goal-setting theory that difficult and specific goals lead to higher performances, was achieved. Brown & Latham (2000) found that there was a linear relationship between the goal level and performance. However, the results suggested that there was no correlation between the self-instruction and performance. Finally, one of the most recent experimental studies was conducted by Morisano et al. (2010). They tested goal-setting theory with 85 college students who did not perform well in a real-life setting. The importance of their study is that students were instructed and trained through a web-based program. Researchers used a revised version of Peterson & Mar's (2004) program consisting of eight steps to allow students to set specific personal goals. After a four-month period, students who participated in the goal-setting experiment showed significant differences and increased their overall grade-point average (GPA).

When it comes to field studies, Andrews & Farris (1972) conducted one of the very earliest field studies. They examined the relationship between time pressure and scientists' performance. They used a panel study to collect data from scientists and engineers working at a NASA research division where scientists and engineers were subjected to extreme time and physical pressures. The first phase was conducted in 1965 and involved 117 scientists and

engineers; the second phase of the study was administrated after five years and involved 118 scientist and engineers, 78 of whom participated in the first phase as well. The results of the study suggested that contrary to the idea that scientists should be relaxed in order to perform better and to be productive, the challenge of greater time pressure was positively related to higher performance after controlling for supervisory status, education, and seniority. Furthermore, it was found that scientists and engineers who performed at higher levels demanded more pressure. The researchers also argued that time pressure is related to several other aspects of performance including usefulness, innovation, and productivity.

A meta-analytic study (Lepine et al., 2005) regarding stressors' effects on performance revealed the same findings. Lepine et al. (2005) examined 82 articles and manuscripts to see how challenge stressors (measures of job role demands, pressure, time urgency, and workload) and hindrance stressors (measures of constraints, hassles, resources, inadequacy, role ambiguity, role and interpersonal conflict) affect peoples' performances. The results of the study indicated that while hindrance stressors are negatively related to performance, challenge stressors have a positive effect on performance.

Wright (2004) examined goal-setting in a public organization. He conducted a survey with 385 New York State employees working at several different state agencies. Wright (2004) examined how the elements of goal-setting theory, including goal difficulty, goal specificity, feedback, and self-efficacy, affect state employees' work motivation. The results of the study indicated that both goal difficulty and goal specificity were related to state employees' work motivation. Wright (2004) noted that the goal-setting model provides a useful framework to understand public sector employees' task, mission, and motivation. One of the most recent field studies was conducted by Webb et al. (2010). They examined the factors that affect employees'

goal choices and performance. To test their hypothesis, they collected data from employees at four call centers with a final sample size of 476. Additionally, the companies provided employees' actual performance data to the researchers. The researchers found that employees who performed better in the past set more difficult goals. Furthermore, the results indicated that prior performance and goal difficulty are positively related to their future performance.

Researchers have tested how goal context has affected employees' performance since the origin of the theory. The above-mentioned meta-analyses, experimental studies, and field studies showed that goal difficulty and goal specificity are two of the most significant predictors of employee performance within the goal-setting context. As demonstrated, (a) setting a goal leads to higher performance than a no-goal situation, (b) specific high goals result in higher performance than vague goals, and (c) difficult goals lead to higher performance than easy goals. The research showed that goal context is not only related to employee performance but also related to quality of work. Furthermore, in some cases, goal context also results in innovative ideas and products. Moreover, the theory can be used for employees working at public sector organizations to increase their performance. Therefore, it can be concluded that setting specific and difficult goals in both the private and public sectors leads to higher employee, group, and department performances.

2.2.2 Goal Commitment

The second important component of the goal-setting framework is commitment. Commitment refers to "the degree to which the individual is attached to the goal, considers it significant or important, is determined to reach it, and keeps it in the face of setbacks and obstacles" (Latham & Locke, 1991). Locke (2000), Locke & Latham (1990a; 1990b) argued that unless employees committed to a goal including any specific or challenging

objective, employees did not show higher level performance within the goal-setting model. Goal commitment has a direct and indirect effect on performance (Latham & Locke, 1991). People who show higher level commitment to difficult goals are more likely to perform better, since less committed people are more likely to abandon hard goals and pursue easier ones. However, Latham & Locke (1991) noted that "when goals are low, on the other hand, high commitment may restrict performance because committed people will be loathe to raise their goals, whereas uncommitted people may set higher goals" (p. 217).

A meta-analysis conducted by Donovan & Radosevich (1998) showed that the interaction of goal difficulty and goal commitment accounted for only 3% of the variance in task performance. In other words, the 12 studies included in the meta-analysis revealed inconsistent findings regarding the relationship between goal commitment and performance. According to Klein et al. (1999), the negative result of Donovan & Radosevich's (1998) study was caused by including only a small sample of studies in their own study. Furthermore, other researchers examined why research failed to show a significant relationship between goal commitment and performance. Hollenbeck & Klein (1987) noted that previous research failed to show a relationship effect of goal commitment on performance because many previous studies ignored goal commitment as a variable, even though it was one of the central concepts in the goal-setting model. Furthermore, many of the previous studies showed inconsistencies in their conceptualization of goal commitment. Locke et al. (1981) examined why studies showed inconsistent findings regarding goal commitment and performance relationship. According to Locke et al. (1981), the possible reasons for inconsistent findings are (a) problems with measuring goal acceptance; (b) problems with limited variation among the subjects caused by the

scales used to measure goal commitment; and (c) problems with subjects who "may not be able to discriminate small differences in psychological commitment" (p. 143).

Similar to Locke et al. (1981) and Hollenbeck & Klein (1987), Tubbs (1993) noted that researchers failed to test the effect of goal commitment on performance because of the application of different measures and concepts. Hollenbeck et al. (1988a) constructed a Likert-type scale consisting of nine items to measure goal commitment. However, after conducting a principal axis factor analysis, Hollenbeck et al. (1989a) excluded two items from the scale and used a seven-item Likert-type scale instead of the nine-item likert-type scale. They conducted an experimental study with 190 college students to examine the antecedents and results of goal commitment. The results of the study indicated that (a) goal commitment was significantly related to performance; (b) goal commitment was related to publicness, locus control, and need for achievement but not goal origin had an effect on goal commitment; (c) goal commitment was partially related to goal level; (d) the constructed goal commitment scale was reliable.

Hollenbeck et al. (1989b) examined the construct validity of the self-report measure of goal commitment which was applied in Hollenbeck et al.'s (1989a) study. They (1989b) combined three previous studies to develop an efficient and valid measure of goal commitment. They offered a four-item unidimensional scale to measure goal commitment after examining the studies. Hollenbeck et al. (1989b) noted that the four-item goal commitment scale has internal consistency, is related to performance, and covers three alternative measures of the same construct, namely, force to attain the goal, self-set goal-assigned goal discrepancy, and actual goal change. Further, Klein et al. (2001) conducted a more comprehensive analysis by combining meta-analytic and multi-sample confirmatory factor analytic technique. They examined 15 studies consisting of 17 independent samples and 2,918 subjects. The result of the study

suggested that the five-item scale is "unidimensional and equivalent across measurement timing, goal origin, and task complexity" of goal commitment (Klein et al., 2001, p. 33).

Furthermore, researchers argued (Locke & Latham, 1990a; 1990b; 2006; 2009; Locke et al., 1988; Pinder, 1998; Mitchell & Daniels, 2003; Heslin et al., 2009; Seijts & Latham, 2000a; Porter, 2005) and showed (Erez & Zidon, 1984; McCaul et al. 1987; Locke et al. 1984; Klein, 1991; Wright, 1992; Wright et al., 1993; Porter, 2005) goal commitment is related to performance. According to Locke et al. (1988), "if there is no commitment to goals, then goal setting does not work" (p. 23). Wofford et al. (1992) conducted a meta-analysis with 78 goal-setting studies to examine the antecedents and consequences of goal commitment. They found that goal commitment was related to goal achievement. According to Wofford et al. (1992), goal achievement was a more important factor than the performance within the goal-setting model. Furthermore, they found that self-efficacy, expectation of goal attainment, and task difficulty were significantly related to goal commitment.

Another and more comprehensive meta-analysis was conducted by Klein et al. (1999) based on 74 studies with 83 independent samples which ranged in size from 20 to 406. They (1999) found that (a) goal commitment is positively related to performance across studies; (b) the relationship between the goal commitment and performance is robust; (c) goal level moderates the relationship between goal commitment and performance such that difficult goals lead to a stronger relationship between goal commitment and performance than easy goals do; (d) goal origin, task complexity, and incentives do not have an effect on the relationship between goal commitment and performance; and, (e) there is a positive relationship between goal commitment and expectancy, attractiveness, and motivational forces as antecedents of goal commitment (p. 889-890).

Both field and experimental studies showed that goal commitment is a vital component of the goal-setting model that affects performances. For example, Seijts et al. (1997) examined how task importance and publicness affect the relationship between goal difficulty and performance. To do so, they conducted an experimental design with 200 undergraduate students. They used a seven-point Likert-type item (such as, how important is this task to you?) to measure perceived task importance. The results of the study showed that (a) perceived task importance moderates the relationship between the goal level and performance; (b) more difficult goals lead to a higher level of perceived task importance; (c) publicness increases the perceived task importance of subjects more than an anonymous condition; and (d) subjects who committed themselves to more difficult goals performed better than subjects who did not commit themselves to difficult goals. Seijts et al. (1997) noted that "the goal difficulty-performance function appears to hold only when participants worked under public conditions on a task that was perceived as important" (p. 58-59). Klein & Kim (1998) examined the effects of goal commitment on performance in a retail organization. The study's sample consisted of salespersons. The results of the study indicated that goal commitment was significantly related to salespersons' performance. Furthermore, the results also suggested that while managerial support had a positive effect on salespersons' commitment, situational constraints were negatively related to goal commitment.

The existing literature showed that although goal commitment is one of the central concepts in the goal-setting model, most of the early studies in goal-setting context either ignored it or did not measure it appropriately. However, since the late 1980s when Hollenbeck et al. (1989a) offered a Likert-type goal commitment scale, it has been used in much of the research performed. It is suggested that goal-setting theory does not work without goal commitment. In other words, if a person does not have goal commitment, goal-setting, regardless of whether the

goals are difficult or specific, does not affect performance. The above-mentioned meta-analyses and research showed that goal commitment has a moderating and direct effect on performance.

2.2.3 Self-Efficacy

Locke (2000) and Locke & Latham (2002) suggested that two factors are critical to goal commitment. The first one is the relevant or significant value of a goal to a person. The second one is self-efficacy, of the quality of "being capable or attaining or making substantial progress toward the goal" (Locke, 2000, p. 46). In other words, people should believe that they can accomplish the goal fully or at least partially. Bandura (1995) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). Self-efficacy is related to people's thought patterns, actions, and emotional responses (Bandura, 1982). Bandura (1982) noted, "In causal tests the higher the level of induced self-efficacy, the higher the performance accomplishments and the lower the emotional arousal" (p. 122).

According to Bandura (1977), self-efficacy has a direct effect on goal choices. People choose their behaviors based on their expectations for the outcomes and their perceived self-efficacy. If they believe they can not accomplish a goal in a given situation because they convince themselves that the given situation is beyond their skills and capabilities, they do not pursue such goals. Otherwise, they engage and pursue the goals. For example, Lee & Bobko (1992) found in their experimental design with 92 undergraduate students that self-efficacy was negatively related to the perceived difficulty of a task. Furthermore, perceived self-efficacy affects behaviors by fostering an expectation of success. That is, when people choose their behaviors, their sense of self-efficacy determines "how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences" (Bandura, 1977, p. 194).

Within the goal-setting model, self-efficacy leads to (a) setting higher goals, (b) being more committed to difficult goals, (c) being more resilient and persistent despite the possibility of failure, (d) having the possibility of developing better task strategies, and (e) being more likely to perform better (Locke, 2000, p. 46).

Many of the researchers examined the effects of self-efficacy on performance theoretically and empirically. Bandura & Cervone (1983) examined the effects of self-evaluation and self-efficacy on motivation within the goal-setting framework. They conducted an experimental design with four experimental groups consisting of 20 subjects and with one control group consisting of 10 subjects. The results of the experimental study indicated that subjects who had goals performed better than subjects who did not have goals. Moreover, it was found that subjects who were dissatisfied with their performance in a situation were more likely to improve their performance in future challenges. Finally, it was proven that when subjects had goals and were provided feedback, self-efficacy was significantly related to their performances.

Bandura & Wood (1989) conducted an experimental design with 60 subjects who were assigned to participate in a simulated organization. They examined how perceived controllability and performance standards affect people's self-efficacy and goal choices. The results of their study (1989) showed that belief in controllability is positively related to self-efficacy. Subjects who did not believe that they could control the simulated organization showed a low sense of self-efficacy. The results also suggested that subjects tended to set more difficult goals when they believed they could control the simulated organization. In addition, the study indicated that prior performance of the subjects affected perceived self-efficacy, personal goal-setting, and subsequent performances. Moreover, the researchers found that self-efficacy was related to performance directly and indirectly by developing analytic strategies to achieve their goals.

Finally, the results indicated that self-efficacy had an effect on subjects' goal-setting as well. Subjects who had strong self-efficacy set more challenging goals than subjects who did not have as high a sense of self-efficacy.

A meta-analysis conducted by Stajkovich & Luthans (1998) based on 114 studies with a total sample size of 21,616 showed a significant and positive relationship between self-efficacy and performance. Furthermore, they (1998) found that self-efficacy was significantly related to performance for low, medium, and high levels of task complexity. Additionally, the power of the relationship between self-efficacy and work performance was higher in the studies involving a low level of task complexity than in the other two task complexity groups. Barling & Beattie (1983) found that self-efficacy was related to sales performance. Bouffard-Bouchard (1990) examined the influence of self-efficacy judgments on cognitive performance. The results showed that self-efficacy was related to the number of completed problems, the efficiency of subjects' problem-solving strategies, and the accuracy of their self-evaluation of their responses. The researcher (1990) referred to self-efficacy as "a viable construct for comprehending performance" (p. 353).

The study conducted by Cervone et al. (1991) indicated that self-efficacy was positively related to task performance. Furthermore, they (1991) argued that "[s]elf-efficacy judgments should most strongly regulate action on challenging, valued activities for which people have enough information to assess adequately their performance capabilities" (p. 265). Zimmerman et al. (1992) found that self-efficacy for academic achievement was positively and significantly related to setting more difficult goals and higher performance. In their experimental design Brown & Latham (2000) found that employees with a higher level of self-efficacy perform better than employees with a lower level of self efficacy. Earley & Erez (1991) conducted an

experimental design involving 174 college students. They found that self-efficacy was positively related to performance.

Silver & Bufanio (1996) examined the effects of group-efficacy on performance in an experimental study with 75 students who participated in two task trials. They found that group-efficacy was significantly and positively related to group goals and subsequent task performance. Furthermore, the study indicated that group-efficacy was a more significant predictor than group past performance. Later, Seijts & Latham (2000b) conducted a more comprehensive experimental design study on the relationship between group-efficacy and performance. They argued that the size of the group is related to group commitment, group self-efficacy, and their subsequent performances. Furthermore, it was expected that the members of the small group committed themselves more than the members of the large group. The results of the study suggested that the members of the small group had a significantly higher sense of commitment and self-efficacy than the large-group members. Furthermore, the small-group members subsequently performed better than the large-group members.

In sum, self-efficacy is an important concept within the goal-setting model. Researchers argued and showed that self-efficacy has a positive, direct and moderate effect on performance. People with a higher sense of self-efficacy tend to set more difficult goals, develop analytic strategies to accomplish a task, and commit themselves to difficult goals. Self-efficacy is also an important factor for groups, although small groups foster a higher sense of self-efficacy and subsequently more commitment and better performance. Finally, existing research suggests that self-efficacy is an important factor that affects people in various situations and organizations.

2.2.4 Feedback

Researchers argued (Ilgen et al., 1979; Pritchard et al., 1988) and found (Guzzo et al., 1985; Ilgen & Moore, 1987) that feedback has a positive effect on performance. Feedback in a goal-setting framework refers to "information to the individual as to the degree to which the standard is being met" (Latham & Locke, 1991, p. 226). Providing feedback to people improves work performance in a couple of ways (Latham & Locke, 1991). First, when individuals know/learn that their performance is below the standard, they become dissatisfied and tend to improve their performance. Second, individuals with a higher sense of self-efficacy are more likely to improve their performance to reach or surpass the standard. Finally, individuals might set more difficult goals to improve upon their past performance when they are aware of their past performance level.

However, researchers (Locke & Latham, 1990a; Latham & Locke, 1991) argued that providing feedback alone does not always lead to higher performances. For example, Kluger & DeNisi (1996) conducted a meta-analysis on the effects of feedback on performance; the study used 131 papers, 607 effect sizes, and 23,663 observations. The results of the study indicated that although feedback is significantly and positively related to performance, nearly one-third of the studies included in the meta-analysis showed an inverse relationship between feedback and performance. According to Ilgen et al. (1979), several factors like source (formal performance appraisal, the supervisor, co-workers, the task, and self), message (timing, sign, and frequency), and the characteristic of the recipients may affect how people perceive and accept feedback (p. 353-358). Therefore, providing feedback does not always lead to positive outcomes or work as a reinforcement of people's behavior. Existing literature suggests that offering feedback in some cases, for example, when the feedback is negative, may lead to anger, tension, annoyance, and

frustration (Baron, 1988; Geddes & Baron, 1997). Providing negative feedback might result in "adopting ineffective techniques for dealing with poor performances, intensifying subsequent conflict between the source and recipients, and reducing self-set goals and feelings of self efficacy" (Baron, 1990, p. 235).

Similar to goal commitment, goal-setting is ineffective and has little effect on performance without feedback (Locke & Latham, 1990a; Latham & Locke, 1991), and feedback is also ineffective without goal-setting (Locke & Latham, 1990a; Locke, 2001). DeNisi & Kluger (2000), who developed their own theory regarding feedback titled "feedback intervention theory", argued that one of the basic and most straightforward assumptions is that "behavior is regulated by a comparison of feedback with a goal or standard" (p. 131). A meta-analysis on goals and feedback together versus either one alone showed that "17 of 18 studies found the combination of goals and feedback to be better than goals alone, and 21 of 22 studies found it to be better than feedback alone" (Locke & Latham, 1990a, p. 192). Similarly, Mento et al. (1987) found that feedback plus goal-setting was a stronger predictor of performance than only a goal-setting framework. Another meta-analysis conducted by Neubert (1998) on 11 studies with 16 effect sizes supports similar findings. Neubert (1998) found that adding feedback to goal-setting showed a stronger effect on performance than only goal-setting. The results indicated that adding feedback to goal-setting was especially significant for complex tasks as compared to relatively simple tasks.

Erez (1977), who was the first to examine the moderating effect of feedback on performance in a goal-setting model (Locke & Latham, 1990a), conducted a two-stage experimental design to examine the relationship between feedback and performance within the goal-setting framework. The results of the study suggested that the interaction effect of feedback

and goal was a stronger predictor of performance than the two other main factor, feedback and goal, on its own. Bandura & Cervone (1983) found that subjects who had goals and who were provided feedback performed significantly better than either subjects who had goals or subjects who were provided feedback alone. Cervone & Wood (1995), based on an experimental design that studied the relationship among goals, feedback, self-regulatory processes, and performance, suggested that people do not perform at higher levels unless they are given specific goals and feedback on their efforts.

Pritchard et al. (1988) conducted an experimental design in which they introduced "Productivity Measurement and Enhancement System" (ProMES) to test the relationship among group feedback, goal-setting, incentives, and organizational productivity with military personnel working at an air force base. Before they applied the feedback, goal-setting, and incentives treatments to the subjects, they had developed a productivity measurement system and examined the study site for nine months. Next, the subjects were subjected to feedback for five months, feedback plus goal-setting for another consecutive five months, and finally feedback plus goal-setting plus incentives for another consecutive five months. The results of the study indicated that feedback is strongly and positively related to performance. The results also suggested that group-level feedback has a positive effect on performance even for complex tasks.

Existing literature suggests that feedback has a positive effect on performance. However, it should be noted that feedback and goal-setting should be set at the same time to increase work performance. The source, the message, and the nature of the feedback recipients receive are factors that affect employees' behavior in either direction, positive or negative. Therefore, work performance requires both goal-setting and appropriate feedback. Employees should be aware of their performance level compared to goals. Subsequent to such feedback, people and groups are

expected to consider their performances and adjust their behaviors to reach goals when necessary.

2.2.5 Rewards

The relationship between incentives and performance has long been studied by researchers both in a goal-setting framework and in other models (Pritchard et al., 1988). Locke et al. (1981) refer to money as a "powerful motivator of performance" (p. 136). However, one of the first studies examining the effects of incentives on performance in a goal-setting model failed to show such a relationship (Locke et al., 1968). Furthermore, Guzzo et al. (1985) found that although the variance of financial compensation was the greatest among all other intervention programs (including recruitment and selection, training and instruction, appraisal and feedback, management by objectives, goal-setting, and work redesign), financial compensation was not significantly related to performance. Additionally, providing rewards to people sometimes leads to negative behavioral attitudes. When people see rewards as "too general and non-personal", which means people who do not deserve recognition are also rewarded, "routine or non-contingent", "insulting or degrading", and as "punishment", they may feel "anger, betrayal, or insulted" (Doherty, 1998, p. 998). Such feelings may lead to a decrease in job satisfaction and goal commitment. Guzzo et al. (1985) and Pritchard et al. (1988) argued that the positive effect of incentives on performance depends on circumstances and the methods by which incentives are delivered. It should also be mentioned that personality and situational factors like leadership, wage-policy, and organizational characteristics may moderate the effect of incentives on performance (Terborg & Miller, 1978; Thierry, 1987). However, it is not the purpose of this study to examine such relationships.

Bandura (1997) noted that incentives affect people's behaviors if they believe they can accomplish a task successfully. Lee et al. (1997) found that subjects tend not to pursue difficult goals when they believed they could not achieve the rewards. Further, existing research suggests that rewards are related to performance in a goal-setting framework. For example, Pritchard & Curts (1973) examined the effects of incentives and goal-setting on performance separately with a two-phase experimental design. They found that monetary incentives were significantly and positively related to performance in both goal-setting and no-goal-setting conditions. Furthermore, the results suggested that subjects showed higher performance in goal-setting conditions than no–goal-setting conditions. The results indicated that there were no significant differences between the no incentives and small incentives conditions in the goal-setting design. Subjects who were paid more performed better than the other two groups in the goal-setting design. According to Pritchard & Curts (1973), one of the reasons that might have led Locke et al. (1968) to find no significant relationship between rewards and performance could be that the incentives offered to subjects were too small. Locke (1968) and Locke & Latham (1990a) argued that if the incentives offered do not meet employees' expectations, workers tend to perform at the same level or even lower.

Latham et al. (1978) conducted an experimental design with 132 engineers and scientists. The results of the study indicated that incentives were an important factor in performance in the goal-setting model. In a study conducted by Terborg & Miller (1978), it was found that both manipulation of performance-pay and performance-goal affected subjects' performance positively. The results also suggested that while pay-performance had a positive effect on quantity performance, it was found that goal-setting affected both the quantity and quality of performances. Finally, the results indicated that rewards and goal-setting were not dependent

upon each other and affected performances independently. Similarly, London & Oldham (1976) found that incentives and goal-setting affected performance independently. Overall, existing literature suggests that incentives can have a positive effect on performance with and without goal-setting.

2.2.6 Participatively-Set Goals versus Assigned Goals

Researchers (Locke & Latham, 1990a; Locke, 2000; Locke et al., 1981) argued that participation in goal-setting does not lead to higher performance and goal commitment. In other words, there is no difference in performance levels and goal commitment whether the goals are assigned or participatively-set. However, existing research suggests inconsistent findings on the relationship between participatively-set goals and employee performance. For example, Locke & Latham (1990a) examined prior studies including experimental and field studies, different tasks, and studies conducted by different researchers on the subject and concluded that participation in goal-setting is not a significant predictor of performance in a goal-setting model. The study conducted by Dossett et al. (1979) indicated that when the effect of goal difficulty is removed, participatively-set goals are not related to performance and goal acceptance. In an experimental design conducted by Kernan & Lord (1988), it was found that assigned goals led to higher levels of goal commitment than the participatively-set goals. The results indicated that there were no differences between assigned goals and participatively-set goals with regard to goal acceptance and performance.

Latham & Marshall (1982) found that regardless of employee age, education, position level, years as a supervisor, and time employed in the public sector, public sector employees did not show any significant differences in goal acceptance and performance among the three goal-setting conditions, which were self-set, participatively-set, and assigned goals in the goal-setting

model. An experimental study of the effect of participatively-set goals on performance (Latham & Saari, 1979) indicated that there is no significant difference between participatively-set goals and assigned goals and goal acceptance and performance. Latham & Steele (1983) examined the relationship between participation and performance in an experimental study and found that participation was not related to performance. Latham & Yukl (1976) found that there were no significant differences between assigned goal-setting and participative goal-setting on performance, goal attainment, and job satisfaction. Latham & Yukl (1976) argued that when assigned goals are reasonable and not threatening, people tend to accept such goals easily. The results suggested that individual differences in personality, education, and experience did not moderate the relationship between participation and performance in a goal-setting framework.

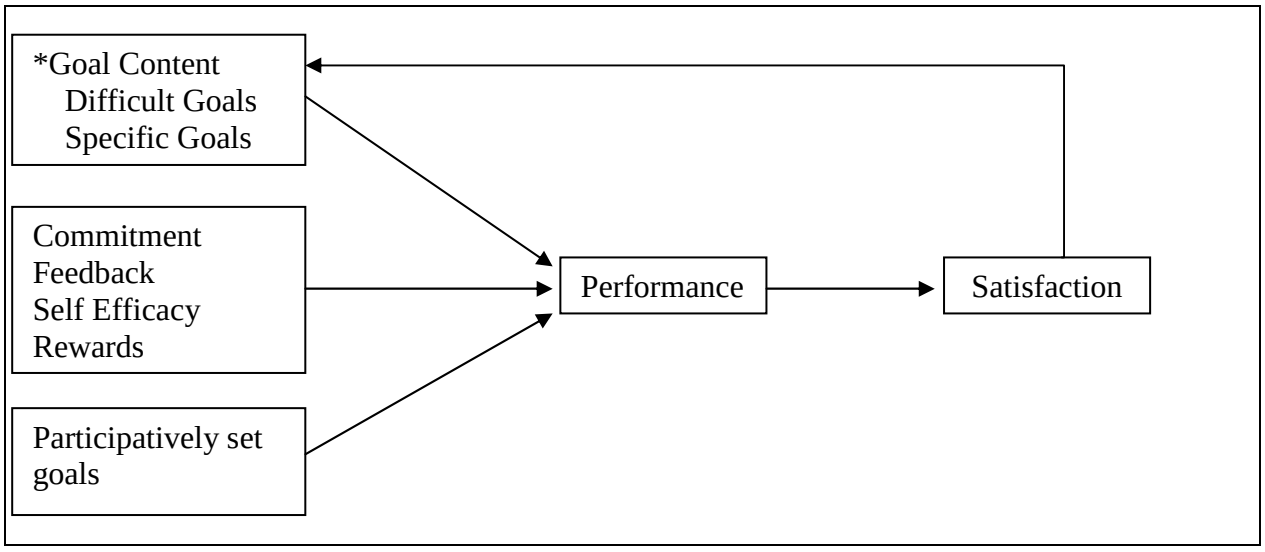
However, the positive effect of participation on performance in the goal-setting model is found by several other researchers. For example, Campbell & Gingrich (1986) found that participation affects performance significantly and positively for complex tasks in the goal-setting model. An experimental study of 96 white-collar employees indicated that participation affected performance quantity, incidental learning, goal acceptance, group commitment, and satisfaction (Erez & Arad, 1986). Erez & Earley (1987) showed that "participative strategies led higher levels of goal acceptance and performance than the assigned strategies" in a goal-setting model (p. 658). Another study conducted by Erez et al. (1985) revealed that participation affected goal acceptance and subsequent performance. Latham & Yukl (1975) found that participatively-set goals led to higher levels of performance, goal difficulty, and goal acceptance for uneducated logging crews. A longitudinal field study conducted by Pearson (1987) on railway trackmasters and trackmen showed that participation is related to performance and job satisfaction. Wagner (1994) conducted a meta-analysis based on 52 studies and found that

participation has a significant and positive effect on performance and job satisfaction. Contrary to the widely-held belief that participation is related to goal attainment, goal commitment, and performance, the existing literature suggests inconsistent findings on this issue.

2.3 Conclusion

Figure 1 shows the adapted version of high performance cycle (Locke & Latham, 1990a; Latham & Locke, 1991). It summarizes the previous paragraphs into a diagram. As Figure 1 shows, the model starts with the high challenge, specific and difficult goals. If people have commitment to goals, it leads to higher performance depending on feedback and self-efficacy. If people are satisfied with the experienced rewards, rewards also lead to higher performance. When people are allowed to participate in goal setting model, they are expected to show better performances. If people are satisfied with the outcomes of their performance, they become more committed to their organizations and ready to perform future tasks. Therefore, the cycle goes to the starting point and repeats itself.

Figure 1: The High Performance Cycle



Adapted from "A Theory of Goal Setting & Task Performance" by E. A Locke, & G. P. Latham, 1990a, p. 253.

CHAPTER 3

METHODOLOGY

This chapter presents the methodology of the study in four parts. First, the hypothesis of the study will be presented. Second, the research area and procedures will be examined. Third, the study measures will be reviewed. Fourth, the analysis will be introduced.

3.1 Research Questions

Existing literature suggests that goal context is related to job performance (Locke et al., 1981; Locke & Latham, 1990a, Klein et al., 1990). Laboratory studies (Bryan & Locke, 1967; Latham & Locke, 1975; Latham & Baldes, 1975; Brown & Latham, 2000), field studies (Andrew & Ferris, 1972; Wright, 2004), and meta-analysis (Locke et al., 1981; Locke & Latham, 1990a; Guzzo et al., 1985; Mento et al., 1987; Tubbs, 1986) have shown that goal difficulty and goal specificity are related to performance. Therefore, consistent with the previous studies, the first hypotheses are:

H1: Goal difficulty is positively related to motivation of police officers.

H2: Goal specificity is positively related to motivation of police officers.

Further, researchers (Locke & Latham, 1990a, 1990b; Locke, 2000; Locke et al., 1988) argued that without goal commitment, goal-setting does not result in performance. Although some researchers found inconsistent results in their studies of the relationship between goal commitment and performance (Donovan & Radosevich, 1998), other researchers found that goal commitment was a significant factor for employee performance (Locke et al., 1988; Pinder, 1998; Mitchell & Daniels, 2003; Erez & Zidon, 1984; McCaul et al., 1987; Locke et al., 1984; Klein, 1991; Wright, 1992). Existing literature also suggests that perceived task significance is

also related to task performance (Latham & Locke, 1991; Wright, 2004; Seijts et al., 1997). Therefore, the hypotheses of the study regarding goal commitment are:

H3: Goal commitment is positively related to motivation of police officers.

H4: Task significance is positively related to motivation of police officers.

Similar to goal commitment, Locke (2000) argued that self-efficacy has a direct and moderator effect on goal commitment and work motivation. People who have a greater sense of self-efficacy choose higher goals and show higher performance levels than people who have a lower sense of self-efficacy. Researchers showed that (Bandura & Cervone, 1983; Bandura & Wood, 1989; Stajkovich & Luthans, 1998, Barling & Beattie, 1983; Cervone et al., 1991) self-efficacy is positively related to task performance. As indicated in the abovementioned studies, the hypothesis regarding self-efficacy is:

H5: Self-efficacy is positively related to motivation of police officers.

Like goal commitment, it is suggested that feedback and goal-setting lead to higher levels of performance when they exist in a model or program together (Locke & Latham, 1990a; Latham & Locke, 1991; Locke, 2001). Existing literature found that goal-setting plus feedback is a stronger predictor of performance than a goal-setting-only or feedback-only framework for both individual level and group level (Locke & Latham, 1990a; Mento et al., 1987; Neubert, 1998; Pritchard et al., 1988). Therefore, the following hypothesis is identified for the feedback and performance relationship:

H6: Feedback is positively related to motivation of police officers.

Available research also indicates the positive relationship between rewards and performance (Bandura, 1997) in a goal-setting model (Pritchard et al., 1988; Locke et al., 1968). Researchers found that goal-setting and rewards may affect employees' performance

independently (Terborg & Miller, 1978; London & Oldham, 1976). Therefore, in accordance with the existing literature, the relationship between performance and rewards is indicated as below:

H7: Rewards are positively related to motivation of police officers.

Finally, researchers reported inconsistent findings regarding the effects of participatively-set goals versus assigned goals on job performance. Some researchers argued for (Locke & Latham, 1990a; Locke, 2000; Locke et al., 1981) and found (Dossett et al., 1979; Kernan & Lord, 1988; Latham & Marshall, 1982; Latham & Steele; 1983) an insignificant relationship between participatively-set goals and assigned goals. However, other researchers found that participatively-set goals have an effect on performance, goal acceptance, and goal commitment in a goal-setting model (Campbell & Gingrich, 1986; Erez & Arad, 1986; Erez & Earley, 1987; Erez et al., 1985). Therefore, it is hypothesized that:

H8: Participatively-set goals are positively related to motivation of police officers.

3.2 Survey Construction

A survey instrument was developed to measure work attitudes of police officers working in various departments in Istanbul. To develop the survey instrument, previously used and validated scales were used. Scale items were measured on a five-point (coded 1 through 5) strength-of-agreement scale (i.e., strongly disagree, disagree, neither disagree nor agree, agree, and strongly agree).

3.2.1 Work Motivation

A work motivation scale (Wright, 2004) was used to measure police officers' motivational behavior. The scale originally was developed on Patchen's (1970) four-item scale and Baldwin's (1984, 1987, 1990) five-item scale. Wright (2004) added another item to this

scale. These items were included to measure the direction, intensity, and persistence of police officers' motivational behaviors. The motivation scale consists of the following six items:

1. I put my best effort to get my job done regardless of the difficulties.
2. I am willing to start work early or stay late to finish a job.
3. It has been hard for me to get very involved in my current assignments. (R)
4. I usually do not work as hard as others who do the same type of work. (R)
5. I do extra work for my job that isn't really expected of me.
6. Time seems to drag while I am on the job. (R)

3.2.2 Goal Context

Goal context refers to both goal difficulty and goal specificity. To measure goal specificity and difficulty, Wright's (2004) goal specificity and goal difficulty scales, which are adapted versions of Locke & Latham's (1990a) scale, were included in the study. The goal specificity scale comprised the following five items:

1. My responsibilities at work are very clear and specific.
2. I understand fully which of my job duties are more important than others.
3. It is difficult to evaluate success or failure on my job. (R)
4. I know exactly what I am supposed to do on my job.
5. My supervisor clearly explains to me what my goals are.

Goal difficulty scale items are:

1. The work objectives in my job require a great deal of effort.
2. A high degree of skill and know-how is necessary to do my job well.
3. Jobs like mine are quite demanding day after day.
4. My work is very challenging.

5. I have new and interesting things to do in my work.

3.2.3 Goal Commitment

Police officers' behavior regarding goal commitment was measured by using Hollenbeck et al.'s (1989b) goal commitment scale. However, instead of using the originally developed nine-item scale, only five items on the scale were included, as suggested by Klein et al. (2001). An additional item from Locke & Latham (1990a) was added to the scale. Therefore, the final scale consists of six items:

1. It's hard for me to take the kinds of things I must do in my position. (R)
2. Quite frankly, I don't care if I achieve my responsibilities or not. (R)
3. I am strongly committed to pursuing assignments given to me.
4. It wouldn't take much to make me just get by assignments given to me. (R)
5. I am very committed to doing my assignments well.
6. I sometimes fail to accomplish my assignments. (R)

3.2.4 Self-Efficacy

To measure police officers' sense of self-efficacy, Wright's (2004) self-efficacy scale, developed from Sims et al. (1976), was used. The scale consists of four items. The items are:

1. I am confident that I can successfully perform any tasks assigned to me on my current job.
2. I am not as well prepared as I could be to meet all the demands of my job. (R)
3. I can't get my work done on time even when I try very hard. (R)
4. Doing my work as well as I am able to leads to high quality results.

3.2.5 Task Significance

Related to goal commitment, a task significance scale is used to measure importance of tasks. To measure task significance, Hackman & Oldham's (1980), Mottaz's (1981), and Wright's (2004) task significance scales were utilized. The adapted version of the task significance scale consists of the following seven items:

1. A lot of people will be affected by how I do my job in this department.
2. The work I do in this department is extremely meaningful to me.
3. I understand the importance of accomplishing my work objectives.
4. I work on assignments that seem useless or unnecessary. (R)
5. My assignment is really important and worthwhile.
6. Sometimes, I am not sure I completely understand the purpose of what I am doing.
7. I often wonder the importance of my assignment really is. (R)

3.2.6 Participatively-Set Goals

To test whether police officers set their goals participatively or not, Locke & Latham's (1990a) goal-setting questionnaire is used. The scale comprised two items:

1. My supervisor lets me participate in the setting of my goals.
2. My supervisor lets me have some say in deciding how I will go about implementing my goals.

3.2.7 Feedback

Police officers' perceived sense of received feedback was measured by Locke & Latham's (1990a) and Wright's (2004) four-item scale. The scale items are:

1. I get regular feedback indicating how I am performing.
2. I get coaching from my supervisor to help me do a better job.

3. I get helpful information from others about how well I am performing at my job.
4. I receive useful evaluations of my strengths and weaknesses at work.

3.2.8 Rewards

Police officers' perceived sense of work-related rewards was measured by six items adapted from Locke & Latham (1990a) and Wright (2004). The scale items are:

1. When I improve my performance, my accomplishments are recognized by my supervisors.
2. I have seen good job performance rewarded in my work unit.
3. If I accomplish my work objectives, it increases my chances to get extra monetary rewards or letter of commendation.
4. If I accomplish my work objectives, it increases my chances to choose the people I work with.
5. If I accomplish my work objectives, it increases my chances to choose the shift I work.
6. If I accomplish my work objectives, it increases my chances to be assigned a better department.

3.2.9 Department Assignment

Since the sampling in this study consisted of three departments, it could be assumed that police officers' perceived sense of department significance might vary based on their assigned departments. Existing literature on policing (Skolnick, 1975; Paoline, 2003; Goodman, 1997; Gaines et al., 2003) suggests that police officers prefer to work in crime-oriented departments rather than departments in which they engage in administrative issues. Therefore, an adapted

version of Crank's (1993) service scale was used to measure police officers' perceived level of task significance by assigned department. The scale items are:

1. Some other departments are actually more important to society than mine is.
2. I think that my assignment here is more important than any assignment in another department for society.
3. The importance of being a police officer in this department is sometimes overstressed.

3.2.10 Demographic Characteristics

Aside from the abovementioned variables and scales, this study included the demographic characteristics of the police officers. These demographic variables are age, education, department, seniority in TNP, salary, whether police officers were given monetary rewards or not during the year 2011, and whether police officers earned letters of commendation during the year 2011. The categorical control variables with more than two categories were recoded into dummy variables for the correlation and OLS regression analyses to see the differences, if any, between the categories. For example, department variables were recoded into dummy variables like 0=other vs. 1=airport, 0=other vs. 1=plain clothes, and 0=other vs. 1=public order department.

3.3 Sampling and Sampling Procedures

The study's survey was conducted through a self-administered, paper-based questionnaire. The survey was self-administrated, because there was no interaction between the data collector and respondents. Each of the subjects was given the questionnaire in their departments by their supervisors. However, a cover letter and thank-you letter as suggested by

Dillman (2007) were provided to subjects. The importance of the study and the importance of their participation in the study were explained in the cover letter.

All participants were informed about how their identities would be protected and about other ethical issues related to the study. Additionally, before police officers started to fill out the survey, a consent form, which indicated that their participation was voluntary, their responses might be recorded, and their identity would be kept confidential, was distributed at the beginning of the questionnaire. The research questions and the questionnaire were prepared based on a review of the literature. However, to improve the questionnaire and to eliminate translation mistakes, a cognitive interview was conducted before the study. The aim of the cognitive interview is "achieving the best possible questionnaire" (Dilman, 2007, p. 81). A cognitive interview can identify whether respondents understand the questions as the surveyor intended and whether there are any vague and/or confusing questions for respondents. After the survey instrument was fully developed, the survey was translated into Turkish and was translated back into English. Doing so allowed the researcher to see any possible mistakes in translation. Finally, the survey was administrated by several people prior to the data collection phase to remove any remaining problems completely.

The sampling of the study consisted of police officers who were members of the Turkish National Police. The TNP shows different characteristics from that of US police forces. TNP, along with the Turkish Gendarmerie and Coastal Security, operates across Turkey under the authority of the Ministry of Internal Affairs. However, its main jurisdiction areas are cities and border gates, including 81 cities. Its jurisdiction in rural areas, where the gendarmerie is responsible, is limited and requires permission from either the governor or the courts. TNP has a very centralized structure under the administration of a governor who is appointed by the Turkish

government. The governor is responsible for the administration of TNP across Turkey. TNP is represented by a high command called the General Directorate of Security, consisting of 25 departments.

As one of the provincial departments, Istanbul Security Directorate was chosen as the research site. Istanbul Security Directorate was chosen intentionally, since it is the biggest police department and serves the biggest population in Turkey. All departments, including stations and border gates, and all police officers are under the command of the Istanbul Security Directorate. However, to be able to see variances among police officers and their departments and to be able to increase the response rate, a purposive sampling procedure was applied. The survey was administered to the police officers who worked at Ataturk Airport, the plain clothes department, and the public order department, which were under the command of the Istanbul Security Directorate. Therefore, the sampling of the study consisted overall of 10,000 police officers working in these departments.

Subjects were given the questionnaire in their departments and asked to participate in the study. A consent form was provided to the subjects with the questionnaire. The consent form indicated who the researcher was, the aim of the study, and any possible risks to subjects; expressed appreciation for their willingness to participate; explained their rights regarding the study, such as the right to withdraw from the study at any time; and, described how their identities would be protected and how the results would be used. Each department was asked to provide a collection box in an arranged room for completed surveys. Therefore, it was expected that any possible pressure on subjects from their supervisors and the researcher would be eliminated. Finally, before conducting the study, the Michigan State University Institutional Review Boards (MSU IRB) procedure was followed to protect subjects' rights and welfare.

A total of 2,500 surveys were delivered to police officers working in these three departments. The data collection process was conducted between January 30, 2012, and February 20, 2012. The number of returned surveys was 2,132, a response rate of 85%. The response rate was in the expected range, since prior research conducted on TNP showed similar results. After the data cleaning process, however, the study sample consisted of 1,970 cases. Among those 1,970 cases, some variables had missing values. As a general rule, "variables containing missing data on 5% or fewer of the cases can be ignored" (Meyers et al., 2005, p.59) and can be included in the analyses. None of the variables had greater than 5% of missing values and were therefore included in the analyses. A mean substitution approach was used to assign a value for the missing values in these variables. Mean substitution is a process by which the researcher assigns the mean of that variable for all missing values of a variable (Meyers et al., 2005). Although there are some reservations about using mean substitution, and there are other methods for dealing with such data problems, such as multiple regression imputation and mixed models, the mean substitution is "the most common and most conservative of the imputation practices" (Meyers et al., 2005, p. 63). The mean substitution procedure was used to assign values for all variables having missing cases.

3.4 Analytical Part

Once the data was gathered, SPSS software was used to analyze the data. Factor analysis was conducted to reduce the large number of variables into scales. Reliability analysis was done to check for Cronbach's Alfa. Once scales were determined, general characteristics of the study participants were demonstrated. Further, descriptive statistics of dependent and independent variables were examined as well. After univariate level analysis, bivariate analysis was conducted through correlation analysis and one-way ANOVA analysis to find the relationship

between the variables and the variation among the police departments. Finally, to test the hypothesis of the study, ordinary least square regressions were conducted to examine the influence of predictor variables on the dependent variable.

CHAPTER 4

ANALYSES and FINDINGS

In this chapter major research findings about the police officers' attitudes towards work motivation are presented. First, descriptive statistics, demographic characteristics, and control variables are presented. Second, descriptive statistics of participants' perceptions about scale items are presented. Third, principle component analyses are conducted and scale reliabilities are controlled. Fourth, the results of the bivariate relationships between the variables are examined. Finally, the results of multivariate analyses are revealed by conducting OLS regression analysis.

4.1 Descriptive Statistics of Demographic Characteristics

Table 1 demonstrates the general characteristics of study participants. As seen in this table, the age of the police officers ranged from 20 to 55. The average age of the participants was 27, and 97.4% of the participants were male. Therefore, a gender variable was not included in the study. The education level of police officers ranged from high school diploma to baccalaureate degree. However, as can be seen in Table 16, only 3% of the police officers have only a high school education. Approximately 35% of the police officers have a two-year college degree, and 62% of have a baccalaureate degree. Among the police officers who participated in the study, 580 were airport police officers, 651 were plainclothes officers, and 739 were officers in the public order department. Officers' monthly salaries ranged from 1900 TL to 2700 TL (the exchange rate is approximately 1 US Dollar to 1.75 TL). The average salary of the police officers was 2219 TL.

Table 1. Descriptive Statistics of Demographic Characteristics

		Airport (N=580)		Plain Clothes (N=651)		Public (N=739)		All (N=1970)			
Variable Name		**N (%)**	**Mean**	**N (%)**	**Mean**	**N (%)**	**Mean**	**N (%)**	**Mean**	**Min**	**Max**
Age			26.81		27.04		27.42		27.11	20	55
Gender	1=Female	34 (5.9)	1.94	13 (2.0)	1.98	4 (.5)	1.99	51 (2.6)	1.97	1	2
	2=Male	546 (94.1)		638 (98.0)		735 (99.5)		1919 (97.4)			
Education	1=High School	13 (2.2)	2.61	16 (2.5)	2.68	31 (4.2)	2.49	60 (3.0)	2.59	1	3
	2=Two Year College	199 (34.3)		178 (27.3)		318 (43.0)		695 (35.3)			
	3=College	368 (63.4)		457 (70.2)		390 (52.8)		1215 (61.7)			
Year at TNP			4.43		3.71		5.04		4.42	1	35
Income			2251		2204		2206		2219	1900	2700
Monetary Rewards	0=No	115 (19.8)	.80	82 (12.6)	.87	224 (30.3)	.70	421 (21.4)	.41	0	1
	1=Yes	465 (80.2)		569 (87.4)		515 (69.7)		1549 (78.6)			
Letter of Commendation	0=No	496 (85.5)	.14	479 (73.6)	.26	647 (87.6)	.13	1622 (348)	.38	0	1
	1=Yes	84 (14.5)		172 (26.4)		92 (12.4)		348 (17.7)			

Seventy-eight percent of the police officers stated that they received monetary rewards during the 2011.Only 17.6% of the police officers were entitled to a letter of commendation. Monetary rewards are given to police officers who achieve exceptional results, like solving a homicide crime or capturing heroin and other substances, and to those with consistently excellent performance ratings. Generally, when a police officer solves a tough case, the other group members are also given monetary rewards. The letters of commendation are given to police officers when they participate in extra duties. However, as might be expected, police officers prefer to be rewarded with money than with letters of commendation.

Table 1 suggests variation among the departments regarding the demographic characteristics of the police officers. For example, although the percentage of the female police officers was very low for each police department, the airport had the highest percentage of female officers. Among the three police departments, the plainclothes department had the highest percentage of police officers holding a college degree. The public order department had the highest percentage of officers with seniority in TNP and the greatest percentage of older officers. The percentages indicating monetary rewards and letters of commendation awarded to police officers in 2011 were highest for the plainclothes department.

4.2 Descriptive Statistics of Police Officers' Perceptions about the Survey Items

In this section, police officers' perceptions about the survey items were presented. As mentioned in the methodology section, all scales were measured based on the five-point Likert-type scale (1=Strongly Disagree to 5=Strongly Agree). To prevent confusion, however, items phrased the opposite way around the other items' scores were reversed, such that 1=Strongly Agree and 5=Strongly Disagree. Therefore, participants who originally scored 1=Strongly

Disagree for a reverse item now got 5=Strongly Agree. The mean values of the items were also represented in this manner.

The interpretations of the scores were made by focusing on all participants. Additionally, tables presenting police officers' perceptions show only scores for the combination of Agree and Strongly Agree to make a comparison among the three police departments. However, instead of conducting a one-way ANOVA analysis for each scale item to examine possible differences among the departments statistically, one-way ANOVA analyses were conducted only for scales considering the number of scale items. Results of the one-way ANOVA analyses were presented after conducting principal component factor analyses (PCA) and examining scale reliabilities.

4.2.1 Work Motivation

The results indicated in Table 2 suggested that the majority of the police officers (84%) stated that they try to do their best for their job. Sixty percent of the police officers were willing to work early and stay late to finish their job. The results showed 73% of the police officer stated that they could engage in their current assignments easily. Three out of every four police officers claimed that they work as hard as other police officers doing similar tasks. Item five had the smallest percentage: only 53% of the police officers stated that they do extra work that isn't expected of them. Finally, 64% of the police officers indicated that time passed quickly while they were on the job.

The results shown in Table 2 indicate that aside from item five, all items' mean scores and percentages indicating the Agree/Strongly Agree (A/SA) scores were higher for the police officers working in the plainclothes department (respectively M=4.37, SD=.94 for Item 1; M=3.95, SD=1.13 for Item 2; M=4.17, SD=1.02 for Item 3; M=4.10, SD=1.15 for Item 4;

M=3.92, SD=1.16 for Item 6) than for the police officers working in the other two police departments.

Table 2. Descriptive Statistics for Police Officers' Perceptions of Motivation

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
I put my best effort to get my job done regardless of the difficulties	1660 84	4.18 1.07	485 84	4.12 1.08	579 89	4.37 .94	596 81	4.04 1.14
I am willing to start work early or stay late to finish a job	1177 60	3.53 1.23	296 51	3.29 1.25	493 76	3.95 1.13	388 53	3.36 1.22
It has been hard for me to get very involved in my current assignments (R)	1435 73	3.90 1.12	405 70	3.81 1.15	540 83	4.17 1.02	490 66	3.73 1.13
I usually do not work as hard as others who do the same type of work (R)	1490 76	4.02 1.22	431 74	3.99 1.23	514 79	4.10 1.15	545 74	3.96 1.27
I do extra work for my job that isn't really expected of me	1025 52	3.39 1.20	297 51	3.63 1.23	322 49	3.31 1.21	406 55	3.47 1.15
Time seems to drag while I am on the job (R)	1267 64	3.64 1.23	345 59	3.49 1.25	491 75	3.92 1.16	431 58	3.51 1.23
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.2 Goal Context

Table 3 shows the percentage scores for each statement. Almost 70% of the police officers stated that they had clear and specific responsibilities at work. Seventy-one percent of the police officers indicated they knew the priority order of their job duties. However, they expressed confusion about evaluating success and failure in their jobs. Only 40% of the officers disagreed with the statement in item three. Table 3indicated that 72% of the police officers knew what they were supposed to do in their jobs. Finally, 56% of the police officers stated that their supervisors explained their goals to them. Similar to the pattern in motivation, police officers working in the plainclothes department had the highest mean scores for each item (respectively M=4.01,

SD=1.06 for Item 1; M=4.07, SD=1.03 for Item 2; M=3.05, SD=1.28 for Item 3; M=3.98, SD=1.05 for Item 4; M=3.68, SD=1.14 for Item 5)

Table 3. Descriptive Statistics for Police Officers' Perceptions of Goal Specificity

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
My responsibilities at work are very clear and specific.	1364 69	3.73 1.19	390 67	3.66 1.18	511 78	4.01 1.06	463 63	3.53 1.26
I understand fully which of my job duties are more important than others	1527 78	3.92 1.11	432 74	3.85 1.12	544 84	4.07 1.03	551 75	3.83 1.16
It is difficult to evaluate success or failure on my job (R).	797 40	3.00 1.29	237 41	3.05 1.29	275 42	3.05 1.28	285 39	2.93 1.29
I know exactly what I am supposed to do on my job.	1428 72	3.83 1.13	414 71	3.81 1.14	512 79	3.98 1.05	502 68	3.72 1.16
My supervisor clearly explains to me what my goals are.	1097 56	3.37 1.23	260 45	3.12 1.24	448 69	3.68 1.14	389 53	3.30 1.25
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

As Table 4 shows, 67% of the officers perceived their work objectives to require a great deal of effort. Fifty-seven of the police officers agreed that their jobs required a high degree of skill and know-how. Fifty-four percent of the police officers stated that their jobs required more effort day after day. According to the results, 63% of the officers saw their jobs as challenging. Finally, only 51 percent of the police officers agreed with the statement that they had new and interesting things to do in their work. Table 4 suggests that item mean scores and percentages were lower for police officers working at the airport than for the other two departments (respectively M=3.37, SD=1.22 for Item 1; M=3.14, SD=1.24 for Item 2; M=3.07, SD=1.17 for Item 3; M=3.42, SD=1.26 for Item 4; M=2.88, SD=1.25 for Item 5). As might be expected, most

of the police officers working at the airport indicated their jobs were not difficult and did not offer new and interesting things.

Table 4. Descriptive Statistics for Police Officers' Perceptions of Goal Difficulty

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
The work objectives in my job require a great deal of effort.	1324 67	3.68 1.14	313 54	3.37 1.22	492 76	3.88 1.00	519 70	3.74 1.16
A high degree of skill and know-how is necessary to do my job well.	1122 57	3.40 1.18	278 48	3.14 1.24	426 65	3.62 1.05	418 57	3.41 1.21
Jobs like mine are quite demanding day after day.	1073 54	3.39 1.13	243 42	3.07 1.17	393 60	3.54 1.04	437 59	3.50 1.13
My work is very challenging.	1243 63	3.65 1.21	313 54	3.42 1.26	412 63	3.62 1.16	518 70	3.87 1.17
I have new and interesting things to do in my work	1009 51	3.29 1.21	210 36	2.88 1.25	433 67	3.69 1.08	366 50	3.25 1.17
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.3 Goal Commitment

Table 5 indicates that 72% of the police officers embraced their assigned tasks. The majority of the police officers, 80%, cared about fulfilling their responsibilities. Similarly, 84% of the officers stated that they were committed to pursuing their assignments. Fifty-seven percent disagreed that they gave up their assignments easily. The results showed that 84% of the officers stated that they were committed to doing their assignments well. Finally, 65% of the police officers disagreed that they sometimes could not complete their assignments. The descriptive results presented in Table 5 suggest that officers working at the plainclothes department had the highest mean values on all items but item three (M=4.16, SD=1.03).

Table 5. Descriptive Statistics for Police Officers' Perceptions about Commitment

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
It's hard for me to take the kinds of things I must do in my position. (R)	1409 72	3.78 1.11	418 72	3.83 1.06	498 76	3.90 1.11	493 67	3.64 1.13
Quite frankly, I don't care if I achieve my responsibilities or not. (R)	1567 80	4.16 1.20	465 80	4.20 1.13	525 81	4.22 1.24	577 78	4.08 1.22
I am strongly committed to pursuing assignments given to me	1652 84	4.15 .99	485 84	4.22 .94	557 86	4.16 1.03	610 83	4.09 1.00
It wouldn't take much to make me just get by assignments given to me. (R)	1115 57	3.34 1.34	322 56	3.27 1.36	400 61	3.44 1.38	393 53	3.29 1.29
I am very committed to doing my assignments well.	1650 84	4.24 1.04	491 85	4.27 1.02	558 86	4.31 1.02	601 81	4.14 1.07
I sometimes fail to accomplish my assignments(R)	1275 65	3.67 1.21	378 65	3.68 1.19	438 67	3.75 1.19	459 62	3.60 1.22
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.4 Self-Efficacy

Table 6 indicates that 81% of the police officers claimed they had the self-confidence to perform any task. Sixty-four percent rejected the statement about being unprepared to meet the demands of their jobs. Seventy-six percent of the police officers disagreed with the statement that they could not get their work done even when they tried hard. Finally, a majority of the police officers, 79%, stated that their performances led to high quality results. Table 6 suggests that items' scores were lower for the public order department compared to the other two police departments (respectively M=4.05, SD=1.06 for Item 1; M=3.56, SD=1.14 for Item 2; M=3.90, SD=1.13 for Item 3; M=3.88, SD=1.06 for Item 4).

Table 6. Descriptive Statistics for Police Officers' Perceptions about Self-Efficacy

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
I am confident that I can successfully perform any tasks assigned to me on my job	1602 81	4.14 1.04	478 82	4.18 .99	547 84	4.21 1.06	577 78	4.05 1.06
I am not as well prepared as I could be to meet all the demands of my job(R)	1268 64	3.66 1.14	378 65	3.63 1.18	445 68	3.80 1.10	445 60	3.56 1.14
I can't get my work done on time even when I try very hard (R)	1493 76	3.95 1.13	456 79	4.02 1.08	495 76	3.94 1.17	542 73	3.90 1.13
Doing my work as well as I am able to leads to high quality results	1552 79	3.99 1.05	464 80	3.99 1.03	542 83	4.12 1.07	546 74	3.88 1.06
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.5 Task Significance

The results show that 63% of the officers stated that how they do their jobs affects people's lives. Sixty-seven percent indicated that they found the work they did to be meaningful. A majority of the police officers, 82%, expressed an understanding of the importance of fulfilling their assigned duties. Sixty-one percent of the police officers did not agree with the statement indicating they worked on unnecessary tasks. When the same question was asked in a positive manner, 74% of the police officers agreed that their assignments were important. Forty-nine percent of the police officers indicated that they understood the purpose of their work. However, only 27% of the police officers rejected the statement that they wondered about the real importance of their assignment. A comparison of departments indicates that police officers working in the plainclothes department (M=4.07, SD=1.03) had the highest score for finding

their jobs very meaningful, with the airport police (M=3.53, SD=1.18) and those in the public order department (M=3.53, SD=1.16).

Table 7. Descriptive Statistics for Police Officers' Perceptions of Task Significance

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
A lot of people will be affected by how I do my job in this department	1234 63	3.59 1.17	381 66	3.64 1.18	403 67	3.67 1.15	420 57	3.48 1.16
The work I do in this department is extremely meaningful to me	1313 67	3.71 1.15	347 60	3.53 1.18	528 81	4.07 1.03	438 59	3.53 1.16
I understand the importance of accomplishing my work objectives	1617 82	4.10 .99	480 83	4.13 .92	555 85	4.21 .99	582 79	3.97 1.04
I work on assignments that seem useless or unnecessary (R)	1201 61	3.60 1.27	366 63	3.66 1.21	436 67	3.77 1.29	399 54	3.41 1.27
My assignment is really important and worthwhile	1461 74	3.93 1.11	411 71	3.86 1.11	505 78	4.00 1.18	545 74	3.93 1.06
Sometimes, I am not sure I completely understand the purpose of what I am doing (R)	969 49	3.26 1.34	248 43	3.08 1.33	384 59	3.54 1.30	337 46	3.17 1.35
I often wonder the importance of my assignment really is (R)	534 27	2.70 1.36	157 27	2.71 1.13	198 30	2.77 1.16	179 24	2.61 1.12
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.6 Participatively-Set Goals

The results presented in Table 8 show that only 28% of the police officers stated that their supervisors let them participate in the setting of their goals. However, 43% of the police officers indicated that their supervisors allowed them to express their ideas about how they would implement their assigned goals. The results also indicate that the mean scores were highest for

the plainclothes department (respectively M=2.92, SD=1.29 for item 1; M=3.25, SD=1.25 for item 2) compared to the other two police department.

Table 8. Descriptive Statistics for Police Officers' Perceptions of Participatively-Set Goals

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
My supervisor lets me participate in the setting of my goals.	560 28	2.63 1.25	142 24	2.48 1.22	258 40	2.92 1.29	160 22	2.50 1.19
My supervisor lets me have some say in deciding how I will go about implementing my goals.	854 43	2.99 1.28	229 39	2.89 1.29	341 52	3.25 1.25	284 38	2.84 1.27
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.7 Feedback

Table 9 shows that only 42% of the police officers believed that they got regular feedback from their supervisors about their job performance. Similarly, 45% of the police officers said that their supervisors coached them to help them do a better job. However, when the questions were asked in a more general manner, 65% of the police officers indicated that they received helpful information from others. These people could be their supervisors, team leaders, or colleagues. Again, 56% of the police officers stated that they received useful evaluations of their strengths and weaknesses at work. The results suggest that when more general questions were asked about the source of feedback, the mean scores became higher for the items. The items' mean scores were higher for the plainclothes department (respectively M=3.33, SD=1.13 for item 1; M=3.38, SD=1.20 for item 2; M=3.79, SD=1.04 for item 3; and M=3.66, SD=.99 for item 4) than the mean scores of the other two police departments.

Table 9. Descriptive Statistics for Police Officers' Perceptions about Feedback

	All (N=1970)		Airport (N=580)		Plain Clothes (N=651)		Public Order (N=739)	
Items	A/SA %	M SD	A/SA %	M SD	A/SA %	M SD	A/SA %	M SD
I get regular feedback indicating how I am performing	822 42	3.05 1.20	180 31	2.74 1.22	345 53	3.33 1.13	297 40	3.05 1.21
I get coaching from my supervisor to help me do a better job.	888 45	3.07 1.25	210 36	2.86 1.24	368 57	3.38 1.20	310 42	2.97 1.25
I get helpful information from others about how well I am performing at my job.	1280 65	3.60 1.10	334 58	3.41 1.14	476 73	3.79 1.04	470 64	3.58 1.10
I receive useful evaluations of my strengths and weaknesses at work.	1098 56	3.40 1.08	272 47	3.18 1.13	442 68	3.66 .99	384 52	3.35 1.07
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.8 Rewards

Table 10 shows that no more than 50% of the officers agreed or strongly agreed with any one of the items. Forty-five percent of the police officers indicated that their accomplishments were recognized by their supervisors when they increased their performance. Forty-nine percent of the police officers stated that they saw good job performance rewarded in their work unit. As can be seen in Table 10, 50% of the officers believed they could get monetary rewards or letters of commendation if they accomplished their work objectives. Only 19% of the police officers agreed with the statement that they could choose the shift they work if they accomplished their work objectives. Finally, 42% of the police officers believed that accomplishing their work objectives increased their chance to be assigned to a better department. According to Table 10, the mean scores of the items, except item 2, were lower for airport police (respectively M=2.70, SD=1.31 for Item 1; M=2.86, SD=1.36 for Item 3; M=2.36, SD=1.25 for Item 4; M=1.99,

SD=1.20 for Item 5; M=2.33, SD=1.33 for Item 6) than for the plainclothes department (respectively M=3.47, SD=1.25 for Item 1; M=3.63, SD=1.19 for Item 3; M=3.10, SD=1.26 for Item 4; M=2.61, SD=1.32 for Item 5; M=3.40, SD=1.29 for Item 6) and the public order department (respectively M=3.06, SD=1.29 for Item 1; M=3.01, SD=1.32 for Item 3; M=2.86, SD=1.27 for Item 4; M=2.13, SD=1.21 for Item 5; M=2.98, SD=1.33 for Item 6).

Table 10. Descriptive Statistics for Police Officers' Perceptions of Rewards

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
When I improve my performance, my accomplishments are recognized by my supervisors.	894 45	3.09 1.32	189 33	2.70 1.31	368 57	3.47 1.25	337 46	3.06 1.29
I have seen good job performance rewarded in my work unit	967 49	3.20 1.29	267 46	3.14 1.28	405 62	3.57 1.18	295 40	2.92 1.31
If I accomplish my work objectives, it increases my changes to get extra money rewards or letter of commendation.	980 50	3.17 1.33	224 39	2.86 1.36	436 67	3.63 1.19	320 43	3.01 1.32
If I accomplish my work objectives, it increases my chances to choose people I work with.	701 36	2.79 1.97	137 24	2.36 1.25	286 44	3.10 1.26	278 38	2.86 1.27
If I accomplish my work objectives, it increases my chances to choose shift I work	381 19	2.25 1.27	79 14	1.99 1.20	184 28	2.61 1.32	118 16	2.13 1.21
If I accomplish my work objectives, it increases my chances to be assigned a better department	824 42	2.93 1.38	135 23	2.33 1.33	374 57	3.40 1.29	315 43	2.98 1.33
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.2.9 Department Assignment

Table 11 shows the frequencies and mean scores of the items. Only 30% of the police officers thought that their departments were more important to society than other police departments. Forty-two percent indicated that their assignments were more important to society than any assignments in another department. Finally, 41% of the police officers rejected the statement that the importance of being a police officer in this department was sometimes overstressed. A comparison of the three police departments indicates that the mean scores of the items were lower for airport police (respectively M=2.47, SD=1.19 for Item 1; M=2.82, SD=1.12 for Item 2; M=2.97, SD=1.18 for Item 3), and higher for the plainclothes department (respectively M=2.80, SD=1.24 for Item 1; M=3.40, SD=1.09 for Item 2; M=3.14, SD=1.16 for Item 3).

Table 11. Descriptive Statistics for Police Officers' Perceptions of Department Assignment

	All (N=1970)		**Airport (N=580)**		**Plain Clothes (N=651)**		**Public Order (N=739)**	
Items	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**	**A/SA %**	**M SD**
Some other departments are actually more important to society than mine is. (R)	586 30	2.70 1.25	132 23	2.47 1.19	216 33	2.80 1.24	238 32	2.80 1.28
I think that my assignment here is more important than any assignment in another department for society.	833 42	3.18 1.15	166 29	2.82 1.12	327 50	3.40 1.09	340 46	3.26 1.15
The importance of being a police officer in this department is sometimes overstressed. (R)	807 41	3.06 1.17	222 38	2.97 1.18	286 44	3.14 1.16	299 40	3.05 1.18
A/SA= Agree/Strongly Agree; M=Mean, SD= Standard Deviation; R=Reversed item								

4.3 Scale Constructions

Since some things cannot be measured directly, researchers measure different aspects of their underlying constructs (Field, 2009). However, when the question arises about whether "these different variables [are] driven by the same underlying variable," principal component analysis (PCA) is used "to identify groups or clusters of variables" (Field, 2000, p. 628). PCA "aims to account for the variance in the observed measures rather than explain the correlations among them" (Brown, 2006, p. 22). Therefore, PCA can be used as a tool (a) to understand the structure of variables; (b) to construct a questionnaire; (c) as a data reduction technique to reduce a larger set of measures to a smaller set (Field, 2009; Brown, 2006; Raykov & Marcoulides, 2008). After conducting PCA for each scale, the scales' reliabilities were examined by Cronbach's alpha test.

4.3.1 Work Motivation Scale

A principal component analysis (PCA) was conducted on the six items with orthogonal rotation (varimax). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .73, and except for one item whose value was equal to .41, KMO values for individual items were > .72, which is well above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity, χ^2 (15) = 1297.62 $p < .001$, indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Two components had eigenvalues over Kaiser's criterion of 1 and in combination explained a total of 53% of the variance. Given the convergence of the scree plot and Kaiser's criterion on two components, these two components were retained in the final analysis. Table 12 shows the factor loadings after rotation. Based on the factor loadings, item

four and item five were excluded from the scale. The reliability of the motivation scale consisting of four items is .67.

Table 12. PCA and Cronbach's α Scores for Motivation Scale (N = 1970)

Variables	**Factor Loading**
Motivation	
I put my best effort to get my job done regardless of the difficulties	.70
I am willing to start work early or stay late to finish a job	.67
It has been hard for me to get very involved in my current assignments (R)	.74
I usually do not work as hard as others who do the same type of work (R)	.43
I do extra work for my job that isn't really expected of me	.10
Time seems to drag while I am on the job (R)	.67
Cronbach's Alpha	.67

4.3.2 Goal Context Scales

Table 13 indicates the results of the PCA analysis for the items of goal specificity.PCA results show that the Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .73, and all KMO values for individual items were > .69, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (10) =1523.03, $p < .001$, indicated that correlations between items were sufficiently large for PCA. Only one component had eigenvalues over Kaiser's criterion of 1 and explained 44% of the variance. Since only one component was extracted, there was no rotation for the scales. Based on the factor scores, item three was dropped from the scale. The reliability analysis for the scale is .71. The total scores were expected to range from 4 to 20.

Table 13 shows the PCA's results for the items of goal difficulty as well.PCA results showed that the Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .74, and all KMO values for individual items were > .72, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (10) =1490.11, p < .001, indicated that correlations between items were sufficiently large for PCA. Since only one component explaining 44% variance was extracted, there was no rotation for the scales. The factor loadings of the scale items were presented in Table 13. The reliability score for the scale is .70.

Table 13. PCA and Cronbach's α Scores for Goal Context Scales (N = 1970)

Variables	**Factor Loading**
Goal Content Specificity	
My responsibilities at work are very clear and specific.	.77
I understand fully which of my job duties are more important than others	.71
It is difficult to evaluate success or failure on my job (R).	.23
I know exactly what I am supposed to do on my job.	.79
My supervisor clearly explains to me what my goals are.	.64
Cronbach's Alpha	.71
Goal Content Difficulty	
The work objectives in my job require a great deal of effort.	.71
A high degree of skill and know-how is necessary to do my job well.	.73
Jobs like mine are quite demanding day after day.	.77
My work is very challenging.	.63
I have new and interesting things to do in my work	.44
Cronbach's Alpha	.70

4.3.3 Goal Commitment

PCA results with orthogonal rotation (varimax) showed that the Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .78, and all KMO values for individual items were > .74, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (15) =1821.38, p < .001, indicated that correlations between items were sufficiently large for PCA. Since only one component explaining 41 % variance was extracted, there was no rotation for the scales. Table 14 shows the factor loadings of items. Item four was excluded from the scale to increase scale reliability. The reliability score for the scale is .70.

Table 14. PCA and Cronbach's α Scores for Goal Commitment Scale (N = 1970)

Variables	**Factor Loading**
Goal Commitment	
It's hard for me to take the kinds of things I must do in my position. (R)	.57
Quite frankly, I don't care if I achieve my responsibilities or not. (R)	.74
I am strongly committed to pursuing assignments given to me	.69
It wouldn't take much to make me just get by assignments given to me. (R)	.50
I am very committed to doing my assignments well.	.68
I sometimes fail to accomplish my assignments(R)	.63
Cronbach's Alpha	.70

4.3.4 Task Significance

PCA result with orthogonal rotation (varimax) for the task significance scale showed that the Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .75, and all KMO values for individual items were > .57, which is equal to or above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (21) =2500.15, p < .001, indicated that correlations

between items were sufficiently large for PCA. Two components had eigenvalues over Kaiser's criterion of 1 and explained a total of 55% of the variance. Item six and item seven were excluded from the scale, since their factor scores fell below the value of .40. Additionally, item one was dropped from the scale to increase scale reliability. The task significance scale ultimately consists of four items with a .72 reliability score.

Table 15. PCA and Cronbach's α Scores for Task Significance Scale (N = 1970)

Variables	**Factor Loading**
Task Significance	
A lot of people will be affected by how I do my job in this department	.61
The work I do in this department is extremely meaningful to me	.74
I understand the importance of accomplishing my work objectives	.73
I work on assignments that seem useless or unnecessary (R)	.49
My assignment is really important and worthwhile	.70
Sometimes, I am not sure I completely understand the purpose of what I am doing	.30
I often wonder the importance of my assignment really is (R)	.26
Cronbach's Alpha	.72

4.3.5 Self-Efficacy

Table 16 shows the results of PCA with orthogonal rotation (varimax). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .69, and all KMO values for individual items were > .68, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (6) =1116.99, $p < .001$, indicated that correlations between items were sufficiently large for PCA. Since only one component explaining 50% variance was

extracted, there was no rotation for the scales. Table 16 shows the scale items' factor loadings and scale reliability score, which is .67.

Table 16. PCA and Cronbach's α Scores for Self-Efficacy Scale (N = 1970)

Variables	**Factor Loading**
Self Efficacy	
I am confident that I can successfully perform any tasks assigned to me on my current job	.71
I am not as well prepared as I could be to meet all the demands of my job(R)	.72
I can't get my work done on time even when I try very hard (R)	.74
Doing my work as well as I am able to leads to high quality results	.67
Cronbach's Alpha	.67

4.3.6 Feedback

Table 17 reveals the results of PCA analysis with orthogonal rotation (varimax). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .70, and all KMO values for individual items were > .69, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (6) =1587.75, $p < .001$, indicated that correlations between items were sufficiently large for PCA. Since only one component explaining 54% variance was extracted, there was no rotation for the scales. Item one and item two were dropped from the scales before conducting reliability analysis. These items are related to feedback from the supervisors. However, the nature of police work, especially for the public order department and the plainclothes department, prevents a constant dialogue between the supervisors and police officers. Therefore, the last two items, which ask police officers' perceived sense of received feedback in a more general sense, were retained in the scale. The reliability score for these two items was .69.

Table 17. PCA and Cronbach's α Scores for Feedback Scale (N = 1970)

Variables	**Factor Loading**
Feedback	
I get regular feedback indicating how I am performing	.69
I get coaching from my supervisor to help me do a better job.	.75
I get helpful information from others about how well I am performing at my job.	.75
I receive useful evaluations of my strengths and weaknesses at work.	.77
Cronbach's Alpha	.69

4.3.7 Participatively-Set Goals

Table 18 reveals the results of PCA with orthogonal rotation (varimax). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .50, and all KMO values for individual items were > .50, which is well above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (1) =941.51, p < .001, indicated that correlations between items were sufficiently large for PCA. Since only one component explaining 81% variance was extracted, there was no rotation for the scales. The score of the reliability analysis is equal to .76. The range of the scale was expected to range from 2 to 10. Higher values mean police officers are more likely to participate in the process of assigning tasks.

Table 18. PCA and Cronbach's α Scores for Participatively-Set Goals Scale (N = 1970)

Variables	**Factor Loading**
Participatively-Set Goals	
My supervisor lets me participate in the setting of my goals.	.90
My supervisor lets me have some say in deciding how I will go about implementing my goals.	.90
Cronbach's Alpha	.76

4.3.8 Rewards

PCA analysis with orthogonal rotation (varimax) for the police officers' perceived sense of rewards scale showed that the Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .85, and all KMO values for individual items were > .82, which is equal to or above the acceptable limit of .5. Bartlett's test of sphericity, χ^2 (15) =4371.90, p < .001, indicated that correlations between items were sufficiently large for PCA. Only one component had eigenvalues over Kaiser's criterion of 1 and explained 56% of the variance. Table 19 shows the outcomes of the items and the reliability of the scale which was equal to .84.

Table 19. PCA and Cronbach's α Scores for Rewards Scale (N = 1970)

Variables	**Factor Loading**
Rewards	
When I improve my performance, my accomplishments are recognized by my supervisors.	.76
I have seen good job performance rewarded in my work unit	.72
If I accomplish my work objectives, it increases my changes to get extra money rewards or letter of commendation.	.80
If I accomplish my work objectives, it increases my chances to choose people I work with.	.78
If I accomplish my work objectives, it increases my chances to choose shift I work	.66
If I accomplish my work objectives, it increases my chances to be assigned a better department	.76
Cronbach's Alpha	.84

4.3.9 Department Assignment

Table 20 shows the result of PCA analysis with orthogonal rotation (varimax) for the scale. Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .49, and all KMO values for individual items were > .50, which is below the acceptable limit of .5. Furthermore, the reliability analysis for the combination of item one and item three was also

very low. Therefore, instead of a creating a scale, these items were treated as single item. However, item one and item three were ignored and item two was used in the study. Item two examined police officers' perception of the importance of their assigned tasks in a given department compared to any other department.

Table 20. PCA and Cronbach's α Scores for Department Significance Scale (N = 1970)

Variables	**Factor Loading**
Department Significance	
Some other departments are actually more important to society than mine is.	.75
I think that my assignment here is more important than any assignments in another department for society.	.02
The importance of being a police officer in this department is sometimes overstressed.	.80
Cronbach's Alpha	.34

4.3.10 Descriptive Statistics of Dependent and Independent Variables

The main focus of this study is to measure police officers' attitudes towards work motivation. As mentioned earlier, a motivation scale was used to measure police officers' motivational attitudes. Table 21 reveals descriptive statistics of the scale. The total scores were expected to range from 4 to 20. Since the motivation scale was based on a 5-point Likert scale, higher values mean police officers were more motivated to perform their assigned tasks. When the scale distribution is divided into approximate thirds (4-9, 10-15, and 16-20), the mean score indicates that police officers had an upper mid- to high-level sense of task motivation towards their assigned tasks.

The results of the study indicate that the mean of the goal difficulty scale was 17.4 with a standard deviation of 3.9. The scale ranges from 5 to 25. Higher values mean the police officers perceived their assigned tasks to be difficult. Dividing the scale distribution into approximate thirds (5-11, 12-18, and 19-25) indicates that police officers had an upper mid- to high level

sense of perceived difficulty in their assigned tasks. Table 21 shows that the mean of the goal specificity scale is 14.8, with a standard deviation of 3.4. The range of the scale goes from 4 to 20. Higher values mean the officers had more specific goals. The approximate thirds of the scale (4-9, 10-15, and 16-20) indicate that the perceived goal specificity of police officers towards their assigned tasks fall into the upper mid-level range.

Table 21. Descriptive Statistics of Dependent and Independent Variables (N = 1970)

Variable Name	Mean	SD	Min	Max
Motivation Scale	15.3	3.3	4	20
Goal Difficulty Scale	17.4	3.9	5	25
Goal Specificity Scale	14.8	3.4	4	20
Commitment Scale	20.0	3.8	5	25
Task Significance Scale	15.3	3.3	4	20
Self-Efficacy Scale	15.7	3.1	4	20
Feedback Scale	7.0	1.9	2	10
Participatively Set Goals Scale	5.6	2.3	2	10
Rewards Scale	17.4	5.9	6	30
Department Significance	3.2	1.1	1	5

Another predictor of police officers' attitudes towards work motivation is commitment. The average score on the commitment scale was 20.0, with a standard deviation of3.8. The range of the scale goes from 5 to 25. Higher values mean police officers had higher levels of commitment towards their assigned tasks. The approximate third scores (5-11, 12-18, and 19-25) indicate that police officers had a higher level of commitment to their assigned tasks. The mean score of the task significance scale is15.3, with a standard deviation of 3.3. The dispersion of the scale goes from 4 to 20. Higher

values mean a higher perceived significance of assigned tasks. When divided into approximate thirds (4-9, 10-15, and 16-20), the mean score of the scale indicates that police officers had an upper mid- to high level perception of the significance of the task they were assigned.

The mean value of the self-efficacy scale, which ranges from 4 to 20, is 15.7 with a 3.1 standard deviation. Higher values mean police officers had higher levels of perceived self-efficacy. When the scale distribution is divided into approximate thirds (4-9, 10-15, and 16-20), the results indicate that police officers might have had "not strong" but rather an upper mid-level sense of self-efficacy. The feedback scale ranges from 2 to 10, with a mean of 7.0 and a standard deviation of 1.9. The mean score indicates that the police officers had a mild to strong sense of receiving feedback from the people with whom they work (approximate thirds 2-4, 5-7, and 8-10).

The mean score of the participatively-set goals scale, which is 5.6 with the standard deviation 2.3, suggests that police officers had mid-level feelings of participating in the decision making about their assigned tasks. The rewards scale ranges from 6 to 30 with a mean of 17.4 and a standard deviation of 5.9. The mean score indicates that the police officers had a mid-level sense of getting rewards (approximate thirds of6-14, 15-22, and 23-30). Finally, the mean of the department significance item is equal to 3.2, with a standard deviation of 1.1.The mean score suggests that police officers had a mid-level feeling that their assignments in a given department were important. To summarize, descriptive statistics presented general characteristics of dependent and independent variables. Furthermore, these descriptive statistics allow one to see central tendencies and dispersion of the variables.

4.4 Bivariate Analyses

4.4.1 Correlation Analysis

A correlation analysis was conducted to see if there was a relationship between the dependent and independent variables. Since the main aim of the study was to test the relationship between police officers' work motivation and independent variables, the result of correlation analysis will be explained by focusing on this main concern. Table 22 shows the results of the analyses. The results indicate that all eight variables of the goal-setting model are significantly and positively related to police officers' work motivation.

The results of the Pearson Correlation Coefficients between the motivation and these eight variables are goal difficulty ($r=.20$, $p<.001$), goal specificity ($r=.45$, $p<.001$), commitment ($r=.43$, $p<.001$), task significance ($r=.48$, $p<.001$), self-efficacy ($r=.44$, $p<.001$), feedback ($r=.29$, $p<.001$), participatively-set goals ($r=.24$, $p<.001$), and rewards ($r=.26$, $p<.001$). These scores suggest that the increase in the police officers' sense of any of these variables results in police officers having more motivation to perform their assigned tasks. For example, if the police officers feel that their assigned tasks are difficult and/or specific, they are more likely to perform better. In addition to these variables, police officers' perceived significance of task in assigned departments is also positively and significantly related to police officers' motivation. Keeping in mind the limitation of bivariate analyses, like omitting the effect of a third variable on the dependent variable, it can be concluded that these results verified all of the research hypotheses at the bivariate level.

With respect to control variables, all control variables but gender and high school versus other variables are significantly related to the motivation of police officers. Actual monetary rewards ($r=.12$, $p<.001$) and letters of commendation ($r=.06$, $p<.001$) that police officers earned

during 2011, working in the plainclothes department (r=.25, p<.001), and holding a college degree (r=.07, p<.01) were positively related to police officers' motivation, but age (r=-.05, p<.05), seniority at TNP (r=-.09, p<.001), working at the airport (r=-.11, p<.001) or in the public order department (r=-.14, p<.001), and holding a two-year college degree (r=-.06, p<.05) had a negative and significant relationship with police officers' work motivation.

The results suggest that actual rewards including money and letters of commendation police officers earned during 2011 had a positive effect on their work motivation. Furthermore, holding a college degree, as compared to other types of degrees, and working at the plainclothes department, rather than either of the other two departments, had a positive effect on motivation as well. However, as police officers age and gain seniority, they are more likely to lose their motivation to perform their assigned tasks.

Table 22 indicates relations among other variables as well. For example, the results suggest that goal difficulty (r=.13, p<.001), goal specificity (r=.36, p<.001), task significance (r=.52, p<.001), self-efficacy (r=.65, p<.001), and feedback (r=.21, p<.001) were significantly related to goal commitment. Furthermore, monetary rewards (r=.13, p<.001) and letters of commendation (r=.07, p<.01) had a positive and significant relation to goal commitment as well. The results suggest that police officers working in the plainclothes department (r=.06, p<.01) had a higher sense of goal commitment compared to those in other departments. Police officers holding a college degree (r=.13, p<.001) were more committed to their assigned tasks as well.

The results imply that feedback (r=.28, p<.001) and past experiences with monetary rewards (r=.13, p<.001) and letters of commendation (r=.08, p<.001) were related to police officers' perceived level of self-efficacy. Similar to goal commitment, the results also suggest the same patterns regarding the relationship between self-efficacy, assigned department, and

education level. Police officers working in the plainclothes department (r=.07, p<.001) had a higher sense of self-efficacy than did those in the other two departments, airport and public order. Similarly, police officers holding a college degree (r=.13, p<.001) had a higher sense of self-efficacy than did those officers with a high school degree or two-year college degree.

Finally, Table 22 reflects the relationship between the departments and independent variables. For example, while police officers working at the airport (r=-.25, p<.001) perceived their assigned goals to be less difficult than in the other two departments, police officers working in the plainclothes department (r=.17, p<.001) and public order department (r=.07, p<.01) had a sense of having more difficult goals. However, the results suggest police officers working at the airport (r=-.08, p<.001) and in the public order department (r=-.11, p<.001) perceived their assigned tasks to be less specific, compared to those officers in the plain clothes department (r=.18, p<.001).

Aside from showing the relations among the variables, Pearson correlations are a very useful tool to identify possible multicollinearity problems. Multicollinearity exists when "two predictors correlate very strongly" (Meyers et al., 2005, p. 180) and it is one of the factors that violates the assumption of OLS regression analyses. Although there is not any single suggestion for solving this potential problem, researchers (Meyerson et al., 2005; Berry & Fieldman, 1985) argued that any Pearson correlations value that is higher than .70 or .80 between two variables is an indicator of possible multicollinearity. Although there were some cases of a high Pearson correlations value like commitment and self-efficacy (r=.65, p<.001), or age and year at TNP (r=.68, p<.001), the only Pearson Correlations value that was higher than.70 was the relation between the two-year college and college variables (r=-.94, p<.001).

Table 22. Bivariate Correlations among all Variables (N = 1970)

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Motivation	1										
Goal Difficulty	.20***	1									
Goal Specificity	.45***	.25***	1								
Commitment	.43***	.13***	.36***	1							
Task Significance	.48***	.25***	.46***	.52***	1						
Self-Efficacy	.44***	.17***	.37***	.65***	.52***	1					
Feedback	.29***	.28***	.32***	.21***	.32***	.28***	1				
Participatively Set Goals	.24***	.15***	.33***	.03	.26***	.04	.36***	1			
Rewards	.26***	.16***	.35***	.02	.28***	.05*	.34***	.61***	1		
Department Significance	.17***	.22***	.17***	.01	.17***	.05*	.19***	.17***	.24***	1	
Age	-.06*	-.01	.00	.02	.05*	.00	-.01	.04	.04	-.04	1
Gender	.02	.05*	.01	-.03	.00	-.03	.02	.01	.03	.07**	.03
Year at TNP	-.09***	-.02	-.02	-.01	.01	-.00	-.02	.02	.03	-.03	.68***
Money Rewards	.12***	-.02	.08***	.13***	.14***	.13***	.06**	.02	-.02	.01	.13***
Letter of Commendation	.06**	.04	.06*	.07**	.09**	.08***	.06**	.07***	.07**	.04	.10***
Airport	-.11***	-.25***	-.08***	.03	-.03	.02	-.14***	-.07***	-.22***	-.20***	-.04
Plain Clothes	.25***	.17***	.18***	.06**	.15***	.07***	.16***	.17***	.28***	.14***	-.01
Public Order	-.14***	.07**	-.11***	-.09***	-.12***	-.09***	-.03	-.10***	-.06**	.06*	.05*
High School	-.04	.02	-.03	-.03	.00	-.04	.00	.05*	.06**	.00	.32***
Two Year College	-.06*	.01	-.05*	-.12***	-.10***	-.12***	-.01	.00	.03	.03	-.22***
College	.07**	-.01	.06**	.13***	.10***	.13***	.01	-.02	-.05*	-.03	.10***

(continued)

Table 22. (continued)

Variables	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
Motivation										
Goal Difficulty										
Goal Specificity										
Commitment										
Task Significance										
Self-Efficacy										
Feedback										
Participatively Set Goals										
Rewards										
Department Significance										
Age										
Gender	1									
Year at TNP	.02	1								
Money Rewards	.00	.01	1							
Letter of Commendation	-.02	.12***	.15***	1						
Airport	-.13***	.00	.02	-.05*	1					
Plain Clothes	.03	-.12***	.15***	.16***	-.45***	1				
Public Order	.10***	.11***	-.17***	-.11***	-.50***	-.54***	1			
High School	-.01	.35***	.01	.03	-.03	-.02	.05*	1		
Two Year College	.02	.06*	-.18***	-.01	-.01	-.12***	.13***	-.13***	1	
College	-.02	-.18***	.17***	-.01	.02	.12***	-.14***	-.22***	-.94***	1

Note: Entries are Pearson Correlation Coefficients; *p<.05, ** p<.01, *** p<.001

4.4.2 ANOVA Analysis of Demographic Characteristics

A series of one-way ANOVA analyses were carried out to test variation on control variables by department. Table 23indicates that the average age of the police officers did not differ significantly among the departments: $F(2,1967)=2.91$, at $p<.05$ level. Therefore, it can be concluded that the average age of the police officers was not significantly different among the three police departments.

Controlling possible mean differences regarding police officers' average working year at TNP by department revealed that there was a significant variation among the departments: $F(2,1967)=16.66$, $p<.001$. A Tukey's honestly significant difference (HSD) analysis indicated that police officers working in the public order department (M=5.04, SD=5.48) had higher average seniority scores than police officers working at the airport (M=4.43, SD=3.62) or in the plainclothes department (M=3.72, SD=3.05). Comparing airport police to those in the plainclothes department suggested that the average working year was significantly lower for the plainclothes department than for the airport officers.

A one-way ANOVA showed that actual monetary rewards earned by police officers in 2011 significantly varied among the three police department: $F(2,1967)= 33.98$, $p<.001$. Tukey's HSD post hoc analysis suggested that police officers working in the plainclothes department (M=.87, SD=.33) earned more monetary rewards more than police officers working at the airport (M=.80, SD=.40) or in the public order department (M=.70, SD=.46). The results indicated that the average monetary rewards were significantly higher for the airport officers than for the public order department officers.

The results of a one-way ANOVA analysis showed that the average score for letters of commendation received by police officers in 2011 varied significantly among the three police

departments: $F(2,1967)=26.76$, $p<.001$. Post hoc analysis using Tukey's HSD test indicated that police officers working in the plainclothes department (M=.26, SD=.44) had a higher average score for receiving letters of commendation than the police officers working at the airport (M=.14, SD=.35) or in the public order department (M=.12, SD=.33). The results suggested a non-significant difference between the airport and public order department.

Finally, a one-way ANOVA analysis indicated that police officers' average education level varied significantly among the departments $F(2,1967)=22.30$, $p<.001$. Tukey's HSD analysis indicated that the average education score for police officers working in the public order department (M=2.49, SD=.58) was higher than the average score of police officers working at the airport (M=2.61, SD=.53) or in the plainclothes department (M=2.68, SD=.52). However, the results indicated that the average education scores did not differ significantly between the airport and plainclothes officers.

Table 23. Summary of one-way ANOVA Analyses of Demographic Variables (N = 1970)

	Airport (N=580)		**Plain Clothes (N=651)**		**Public Order (N=739)**		
Variable Name	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	***F* Score**
Age	26.81	4.49	27.04	3.23	27.42	5.68	2.91
Year at TNP	4.43	3.62	3.72	3.05	5.04	5.48	16.66***
Monetary Rewards[a]	.80	.40	.87	.33	.70	.46	33.98***
Letter of Commendation[a]	.14	.35	.26	.44	.12	.33	26.76***
Education[b]	2.61	.53	2.68	.52	2.49	.58	22.30***
a= 0=No and 1=Yes; b= 1= High School, 2= Two Year College, 3= College							

*p<.05, ***p<.001

Table 24. Summary of Tukey's HSD analysis of Demographic Variables (N = 1970)

	Variable Name	**Age**		**Year at TNP**		**Monetary Rewards**		**Letter of Commendation**		**Education**	
Department		**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**
Airport	Plain Clothes	-.22	.26	.71**	.24	-.08**	.02	-.12***	.02	-.07	.03
	Public Order	-.61*	.26	-.62*	.24	.10***	.02	.02	.02	.12***	.03
Plain Clothes	Airport	.22	.26	-.71**	.24	.08**	.02	.12***	.02	.07	.03
	Public Order	-.39	.25	-1.33***	.23	.18***	.02	.14***	.02	.19***	.03
Public Order	Airport	.61*	.26	.62*	.24	-.10***	.02	-.02	.02	-.12***	.03
	Plain Clothes	.39	.25	1.33***	.23	-.18***	.02	-.14***	.02	-.19***	.03

*p<.05, ** p<.01, *** p<.001

4.4.3 ANOVA Analysis of Dependent and Independent Variables

A one-way ANOVA analysis was conducted to compare the relations between the police officers' working department and dependent, independent, and control variables. Since ANOVA analyses indicate whether the means differ or not but not how they differ, a post-hoc test, Tukey's honestly significant difference (HSD), was conducted. Table 25 suggests that there are significant effects of departments on the variables.

Table 25 shows that police officers working at the airport had an average motivation value of 14.71 (SD=3.18); police officers working in the plainclothes department had an average motivation score of 16.42 (SD=3.13); and, police officers working in the public order department had an average motivation value of 14.65 (SD=3.26). The results suggest that police officers' motivation varied significantly based on their assigned departments: $F(2,1967)=64.46$, $p<.001$. Post hoc analyses using Tukey's HSD for differences indicated that police officers working in the plainclothes department had a higher level of motivation for their assigned goals compared to police officers working at the airport or in the public order department. However, the results suggest that there was no difference regarding motivation towards assigned tasks between police officers working at the airport and those working in the public order department.

A one-way ANOVA was carried out to test for police officers' sense of perceived goal difficulty differences among the departments. Perceived goal difficulty differed significantly across the three departments: $F(2,1967)=71.91$, $p<.001$. Tukey's post-hoc comparisons of the three departments indicate that police officers working at in the plainclothes department (M=18.350, SD=3.13) perceived their assigned tasks to be more difficult than the police officers working at the airport (M=15.89, SD=4.13) or in the public order department (M=17.77, SD=3.73). A comparison between the airport and public order department results suggests that

police officers working in the latter perceived their assigned tasks to be more difficult than did the police officers working at the airport.

Another test utilizing one-way ANOVA results indicated that police officers' perceived level of goal specificity varied significantly among the three departments: $F(2,1967)=34.11$, $p<.001$. Tukey's HSD post hoc analysis suggests that perceived sense of goal specificity was significantly higher for police officers working in the plainclothes department (M=15.74, SD=3.10) than for the police officers working at the airport (M=14.44, SD=3.34) or in the public order department (M=14.39, SD=3.58). However, there was no significant difference between the police officers working at the airport and those in the public order department regarding perceived sense of goal specificity.

Table 25 reveals that there was a significant variation among the three police departments regarding police officers' sense of commitment to their assigned tasks: $F(2,1967)=8.26$, $p<.001$. Tukey's HSD post hoc test indicated that police officers working in the public order department (M=19.57, SD=3.72) had a lower sense of goal commitment than the police officers working at the airport (M=20.20, SD=3.66) or the plainclothes department (M=20.33, SD=3.83). Tukey's HSD scores did not suggest any differences between airport and plainclothes officers.

Another one-way ANOVA analysis showed that the police officers' perceived sense of task significance varied significantly based on police officers' assigned departments: $F(2,1967)=24.18$, $p<.001$. Post hoc analysis using Tukey's HSD criterion indicated that police officers working in the plainclothes department (M=16.05, SD=3.39) had a higher level of perceived task significance than the police officers working at the airport (M=15.18, SD=3.26) and in the public order department (M=14.84, SD=3.26).The comparison between the

departments, airport and public order, suggests that there was no significant differences between these two departments regarding police officers' perceived sense of task significance.

Controlling for possible mean differences regarding police officers' sense of self-efficacy by department revealed that there was a significant variation among the departments: $F(2,1967)=8.58$, $p<.001$. Tukey's HSD analysis indicated that police officers working at the airport (M=15.82, SD=2.94) and in the plainclothes department (M=16.07, SD=3.24) had a higher sense of self-efficacy than those working in the public order department (M=15.40, SD=3.04). However, the results showed two groups, airport and plainclothes, were not statistically significant regarding police officers' sense of self-efficacy.

With respect to feedback, there was a statistically significant difference between groups as determined by one-way ANOVA: $F(2,1967)=32.59$, $p<.001$. A Tukey's HSD post hoc test revealed that police officers working in the plainclothes department (M=7.45, SD=1.79) had a higher sense of receiving feedback in general than the two other groups, police officers working at the airport (M=6.59, SD=1.99) and officers working in the public order department (M=6.93, SD=1.86). Police officers working in the public order department had a statistically significant higher sense of receiving feedback than those officers working at the airport.

The results of a one-way ANOVA analysis showed that police officers' sense of participating in decision making regarding their assigned tasks varied significantly among the departments: $F(2,1967)=28.81$, $p<.001$. Post hoc analysis using Tukey's HSD test indicated that police officers working in the plainclothes department (M=6.17, SD=2.29) had a higher sense of participating in the decision making about their assigned tasks than the police officers working at the airport (M=5.37, SD=2.27) or in the public order department (M=5.34, SD=2.19). The results suggested a non-significant difference between the airport and public order officers.

Table 25. Summary of one-way ANOVA of Study's Scales by Department (N = 1970)

	Airport (N=580)		Plain Clothes (N=651)		Public Order (N=739)				
Variable Name	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	***F* Score**	**Min**	**Max**
Motivation	14.71	3.18	16.42	3.13	14.65	3.26	64.46***	4	20
Goal Difficulty	15.89	4.13	18.35	3.36	17.77	3.73	71.91***	5	25
Goal Specificity	14.44	3.34	15.74	3.10	14.39	3.58	34.11***	4	20
Commitment	20.20	3.66	20.33	3.83	19.57	3.72	8.26***	5	25
Task Significance	15.18	3.26	16.05	3.39	14.84	3.26	24.18***	4	20
Self-Efficacy	15.82	2.94	16.07	3.24	15.40	3.04	8.58***	4	20
Feedback	6.59	1.99	7.45	1.79	6.93	1.86	32.59***	2	10
Participatively Set Goals	5.37	2.27	6.17	2.29	5.34	2.19	28.81***	2	10
Rewards	15.39	5.83	19.77	5.39	16.96	5.69	96.69***	6	30
Department Significance	2.82	1.12	3.40	1.09	3.26	1.15	43.53***	1	5

***p<.001

With a one-way ANOVA, it was found that police officers' perceived sense of the possibility of receiving rewards based on their assigned tasks varied significantly among the three police departments: $F(2,1967)=96.69$, $p<.001$. Tukey's HSD post hoc analysis suggested that the perceived sense of the possibility of receiving rewards was significantly higher for police officers working in the plainclothes department (M=19.77, SD=5.39) than for those working at the airport (M=15.39, SD=5.83) or in the public order department (M=16.96, SD=5.69). Furthermore, police officers working in the public order department had a statistically significant greater perception than their airport peers of the possibility of receiving rewards.

Finally, a one-way ANOVA analysis indicated that police officers' perceived sense of their assigned tasks in a given department varied significantly among the departments:

F(2,1967)=43.53, p<.001. Tukey's HSD analysis indicated that police officers working in the plainclothes department (M=3.40, SD=1.09) assigned greater importance to their department tasks than did the police officers working at the airport (M=2.82, SD=1.12) or in the public order department (M=3.26, SD=1.15). Furthermore, the results indicated that two groups, airport and public order officers, differed significantly in that public order police officers gave greater importance to their department tasks than airport officers assigned to their own departmental tasks.

4.5 Multivariate Analysis

Locke (2000) suggested that (a) the more difficult the goals, the higher the performance achieved; (b) the more specific the goals, the more explicitly performance is regulated; and (c) the more specific and difficult the goals, the highest the performance achieved (p. 44-45). Therefore, in this part of the study, three main regression models were conducted: a goal difficulty model, a goal specificity model, and a combined model of goal difficulty and goal specificity. For each of the main models, four different models were utilized to see the effect of independent variables on the police officers' motivation separately. After conducting four models, the full models were carried out by department to test and see how independent and control variables worked for each of the police departments.

Table 26. Summary of Tukey's HSD analysis of Study's Scales by Department (N = 1970)

	Variable Name	**Motivation**		**Goal Difficulty**		**Goal Specificity**		**Commitment**		**Task Significance**	
Department		**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**
Airport	Plain Clothes	-1.70***	.18	-2.46***	.21	-1.30***	.19	-.13	.21	-.87***	.19
	Public Order	.06	.18	-1.88***	.21	.05	.19	.63**	.21	.33	.18
Plain Clothes	Airport	1.70***	.18	2.46***	.21	1.30***	.19	.13	.21	.87***	.19
	Public Order	1.76***	.17	.58*	.20	1.35***	.18	.76***	.20	1.21***	.18
Public Order	Airport	-.06	.18	1.88***	.21	-.05	.19	-.63**	.21	-.33	.18
	Plain Clothes	-1.76***	.17	-.58*	.20	-1.35***	.18	-.76***	.20	-1.21***	.18
	Variable Name	**Self Efficacy**		**Feedback**		**Participatively Set Goals**		**Rewards**		**Department Significance**	
Department		**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**
Airport	Plain Clothes	-.25	.18	-.85***	.11	-.80***	.13	-4.38***	.32	-.58***	.06
	Public Order	.43*	.17	-.34**	.10	.03	.12	-1.57***	.31	-.43***	.06
Plain Clothes	Airport	.25	.18	.85***	.11	.80***	.13	4.38***	.32	.58***	.06
	Public Order	.67***	.17	.51***	.10	.83***	.12	2.81***	.30	.14*	.06
Public Order	Airport	-.43*	.17	.34**	.10	-.03	.12	1.57***	.31	.43***	.06
	Plain Clothes	-.67***	.17	-.51***	.10	-.83***	.12	-2.81***	.30	-.14*	.06

*p<.05, ** p<.01, *** p<.00

4.5.1 Goal Difficulty Model

Table 27 shows the results of the multivariate OLS regression analyses that were conducted based on the theoretical model and existing literature. Four different models were examined with the ordinary least square (OLS) regression analyses. The first model included variables only from the goal-setting model. Perceived task significance by the given department was added into the second model. The third model was composed of goal-setting model variables, perceived task significance in a given department, and control variables, including police officers' seniority and the actual monetary rewards and letters of commendation police officers earned in 2011. The final model combined these variables with the departments, which were coded as other vs. plain clothes and other vs. public order.

Before interpreting the findings, OLS regression diagnostics were mentioned briefly for the full model. A regression diagnostic was performed to find influential cases, if any, in the models. Although there were some outliers, Cook's D values suggested that only one case was found that was different than the rest. The case had a Cook's D value greater than .02. Another OLS regression analysis was conducted without the case. The results suggested that there was no major change regarding the strength and significance level of the variables. Furthermore, it is suggested that cases having Cook's D values higher than 1.0 are problematic. However, none of the cases had a Cook's value greater than .02. Finally, the case was inspected carefully by the researcher and no value was found lower or more than the possible minimum and maximum values. Therefore, the case was kept for the study.

In addition to examining influential cases, possible multicollinearity problems within the study were examined. According to Weisburd & Britt (2007), a tolerance level of less than .20 indicates a serious multicollinearity problem. However, none of the models had a tolerance value

less than .20. The smallest tolerance value of each model was equal to .51. Finally, a Durbin-Watson test was conducted to see whether the study violated the assumption of independent errors. According to Field (2009), the test statistic can vary from 0 to 4. Values lower than 2 mean positive correlation, while values higher than 2 mean negative correlation between the residuals. The value 2 means no correlation between the residuals. Although there is not a clear cut point, it is suggested that values less than 1 and more than 3 are problematic (Field, 2009). However, the result of the Durbin-Watson test showed that the value was equal to 1.96, which is very close to 2 and within the acceptable limit. Therefore, it can be concluded that the study did not violate the assumption of independent errors.

According to Table 27, the *F* value is equal to 139.10, and it is significant at $p< .001$ level. Therefore, it can be concluded that 33% (R^2=.33) of the variance in police officers' work motivation was significantly explained by the first model. All independent variables, respectively goal difficulty (B=.04, p<.05), commitment (B=.16, p<.001), task significance (B=.20, p<.001), self-efficacy (B=.19, p<.001), feedback (B=.10, p<.01), participatively-set goals (B=.11, p<.001), and rewards (B=.07, p<.001), significantly and positively contributed to the model. Therefore, all hypotheses were verified by Model 1.

As shown in Model 1, when all other variables were held constant, a unit increase in police officers' sense of goal difficulty led to a .04-unit increase in police officer motivation. A one-unit increase in police officers' sense of commitment resulted in a .16-unit increase in officer motivation. Furthermore, for each additional increase in police officers' sense of task significance, police officers' motivation increased by .20 unit. One-unit increases in police officers' sense of self-efficacy led to a .19-unit increase in police officers' sense of motivation. The results also indicated that a unit increase in feedback led to a .10-unit increase in motivation.

A one-unit increase in participatively-set goals resulted in a .11-unit increase in motivation. Finally, a one-unit increase in police officers' sense of rewards led to a .07-unit increase in motivation.

It is possible to compare the effect of the independent variables on the dependent variable based on the β values of the independent variables. According to Table 27, task significance (β= .20) had the strongest effect on the dependent variable, followed by commitment (β= .18) and self-efficacy (β= .18). Police officers' sense of rewards (β= .12) had the fourth strongest effect on the dependent variable. Finally, participatively-set goals (β= .08), feedback (β= .06), and goal difficulty (β= .05) had the weakest effect on the dependent variable.

In terms of Model 2, the R^2 value (R^2=.34) indicates that 34% of the variance in police officers' sense of work motivation was significantly explained by the model (F=124.06, p<.001). Although police officers' perception of task significance in a given department was significant (B=.20, p<.001), the goal difficulty variable lost its strength and was not significant at the p<.05 level. Therefore, it can be concluded that a unit increase in police officers' sense of task significance by the given department led to a .20-unit increase in the dependent variable.

Table 27 presents that the *F* value is equal to 86.19, and it is significant at *p*< .001 level for the Model 3. Thirty-five percent of the variance (R^2=.35) was explained significantly by the model. All variables except letters of commendation and goal difficulty significantly contributed to Model 3. However, while the monetary rewards variable (B=.34, p<.05) had a positive significant effect on police officers' work motivation, seniority in TNP (B=-.07, p<.001) was significantly and negatively related to the dependent variable. Therefore, it can be suggested that police officers who earned monetary rewards in 2011 had a .34-unit greater sense of work motivation compared to police officers who did not receive monetary rewards that year.

Additionally, a unit increase in seniority in TNP led to a .07-point decrease in police officers' work motivation.

Table 27 shows the results of multivariate regression analyses for the full model. According to Table 27, the *F* value is equal to 78.65, and it is significant at $p < .001$ level. The R^2 value (R^2=.36) indicates that 36% of the variation in police officers' motivation is explained by the model. In addition to goal difficulty and letters of commendation, adding two police departments into the model caused monetary rewards to be not significant at p<.05 level. The results suggest that while working in the plainclothes department is positively and significantly related to work motivation compared to working at the airport, the public order department did not contribute significantly to the model. Therefore, it can be concluded that working in the plainclothes department led to a .94-unit increase in police officers' work motivation compared to working at the airport. These results suggest that possible variations exist among the departments. To see the variations, if any, a full model was conducted for each police department separately.

Table 28 shows the regression analyses by the departments. According to the results revealed in Table 28, all models had significant *F* values, respectively, *F*=24.94, p<.001 for the airport, *F*=25.08, p<.001 for the plainclothes department, and *F*=34.35, p<.001for the public order department. The R^2 values indicate that 35% of the variance (R^2=.35) was explained by the airport model; 32% of the variance (R^2=.32) was explained by the plain clothes model; and 36% of the variance (R^2=.36) was explained by the public order model. However, the results indicated that the effect and the strength of the independent variables on the dependent variable varied among departments.

Table 27. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation (N=1970)

Goal Difficulty Model	**Model 1**			**Model 2**			**Model 3**			**Model 4**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Constant	2.74***	.44		2.44***	.45		2.63***	.46		3.06***	.46	
Goal Difficulty	.04*	.02	.05	.03[a]	.02	.04	.03[a]	.02	.04	.02	.02	.02
Commitment	.16***	.02	.18	.17***	.02	.19	.16***	.02	.19	.17***	.02	.19
Task Significance	.20***	.02	.20	.19***	.02	.19	.19***	.02	.19	.19***	.02	.19
Self-Efficacy	.19***	.03	.18	.20***	.03	.18	.19***	.03	.18	.19***	.03	.18
Feedback	.10**	.04	.06	.09*	.04	.05	.08*	.04	.05	.07*	.04	.04
Participatively-Set Goals	.11***	.04	.08	.11***	.03	.08	.11***	.03	.08	.12***	.03	.08
Rewards	.07***	.01	.12	.06***	.01	.11	.06***	.01	.11	.04***	.01	.08
Department Importance				.20***	.06	.07	.19***	.06	.07	.17**	.06	.06
Year in TNP							-.07***	.01	-.09	-.06***	.01	-.07
Monetary Rewards							.34*	.15	.04	.22	.15	.03
Letter of Commendation							.04	.16	.01	-.11	.16	-.01
Education[b]							-.08	.13	-.01	-.16	.13	-.02
Plain Clothes										.94***	.17	.13
Public Order										.03	.15	.01
R^2	.33			.34			.35			.36		
F	139.10***			124.06***			86.19***			78.65***		

b= 0=other, 1=college degree; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Table 28 shows that while the independent variables of commitment (B=.14, p<.001), task significance (B=.22, p<.001), self-efficacy (B=.27, p<.001), feedback (B=.15, p<.05), and participatively-set goals (B=.15, p<.05) were positively and significantly related to motivation, goal difficulty (B=-.09, p<.01) was negatively and significantly related to motivation in the airport model. Police officers' sense of rewards (B=.05, p<.10), actual monetary rewards earned in 2011 (B=.53, p<.10), and education (B=-.43, p<.10) were significantly related to work motivation at p<.10 level. However, perceived sense of task significance by a given department, seniority in TNP, and letters of commendation variables did not contribute to the model significantly.

For the plainclothes department, the results suggest that goal difficulty (B=.12, p<.001), commitment (B=.15, p<.001), task significance (B=.23, p<.001), and participatively-set goals (B=.14, p<.05) had a positive and significant effect on police officers' sense of work motivation. However, seniority (B=.08, p<.05) affected dependent variables significantly and negatively. The variable of police officers' perceived sense of task significance by assigned department (B=.17, p<.10) and monetary rewards (B=.62, p<.10) contributed to the model positively at p<.10 level. The variables of self-efficacy, feedback, police officers' sense of rewards, and letters of commendation did not have a significant effect on police officers' sense of work motivation.

Table 28 reveals that while the variables of goal difficulty (B=.06, p<.05), commitment (B=.20, p<.001), task significance (B=.15, p<.001), self-efficacy (B=.28, p<.05), police officers' perceived sense of rewards (B=.06, p<.01), and perceived sense of task importance in assigned department (B=.20, p<.01) were significantly and positively related to dependent variables, seniority in TNP (B=-.06, p<.001) and education (B=-.45, p<.10) had a negative and significant effect on work motivation in the public order department. The participatively-set goal (B=.10,

p<.10) variable was positively related to work motivation at p<.10 level. However, the variables of feedback, actual monetary rewards, and letters of commendation did not affect police officers' motivation significantly.

The results showed that goal difficulty had an adverse effect on police officers' motivation in the airport model. This result is surprising and unexpected, since the goal-setting model assumes that difficult goals lead to higher performance. Therefore, a close examination was conducted to identify possible reasons for such an adverse relation between goal difficulty and motivation. The goal-setting model suggests that the level of satisfaction with rewards is related to accepting future difficult goals (see Figure 1). A comparison of the three departments regarding police officers' sense of receiving rewards (see Table 25 and Table 26) demonstrates significant variation among the departments. Police officers working at the airport had a lower sense of the possibility of receiving rewards (M=15.39, SD=5.83) than officers working in the plainclothes department (M=19.77, SD=5.39) and public order department (M=16.96, SD=5.69), even if they worked hard and accomplished their tasks. Additional one-way ANOVA analyses were carried out to examine the effects of the reward scale's items individually.

Looking at Table 29 and Table 30 suggests that police officers' sense varied significantly for each item (respectively F= 55.23, p<.001; F= 45.96, p<.001; F= 63.20, p<.001; F= 52.69, p<.001; F= 42.74, p<.001; and F= 102.88, p<.001). Further, the results show that perceived sense of receiving rewards was generally lower for airport police officers than for other police officers. In particular, Item 1 (respectively M=2.70, SD=1.32; M=3.47, SD=1.25; M=3.10, SD=1.29) and Item 6 (respectively M=2.32, SD=1.33; M=3.40, SD=1.29; M=3.10, SD=1.38) varied significantly among the departments.

Table 28. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation by Department

Goal Difficulty Model	**Airport (N=580)**			**Plain Clothes (N=651)**			**Public Order (N=739)**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β
Constant	2.82***	.87		3.83***	.85		2.03**	.76	
Goal Difficulty	-.09***	.03	-.12	.12***	.03	.12	.06*	.03	.07
Commitment	.14***	.04	.16	.15***	.04	.19	.20***	.03	.23
Task Significance	.22***	.04	.23	.23***	.04	.25	.15***	.04	.15
Self-Efficacy	.27***	.05	.25	.04	.05	.04	.28***	.04	.26
Feedback	.15*	.06	.10	.08	.07	.05	-.05	.06	-.03
Participatively-Set Goals	.15*	.06	.10	.14*	.06	.10	.10[a]	.06	.07
Rewards	.04	.03	.07	.04	.03	.06	.06**	.02	.11
Department Importance	.17	.11	.06	.17[a]	.10	.06	.20*	.09	.07
Year in TNP	-.04	.03	-.04	-.08*	.04	-.08	-.06***	.02	-.11
Monetary Rewards	.63*	.29	.08	.57[a]	.32	.06	-.18	.22	-.03
Letter of Commendation	-.05	.31	-.01	-.26	.24	-.04	.10	.30	.01
Education[b]	-.43[a]	.24	-.07	.34	.23	.05	-.45*	.20	-.07
R^2	.35			.32			.36		
F	24.94***			25.08***			34.35***		

b= 0=other, 1=college degree; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Table 29. Summary of One-Way ANOVA Analyses of Reward Scale's items by department (N = 1970)

	Airport (N=580)		**Plain Clothes (N=651)**		**Public Order (N=739)**				
Variable Name	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	***F* Score**	**Min**	**Max**
Item 1	2.70	1.32	3.47	1.25	3.10	1.29	55.23***	1	5
Item 2	3.13	1.28	3.57	1.18	2.93	1.31	45.96***	1	5
Item 3	2.86	1.36	3.63	1.19	3.01	1.32	63.20***	1	5
Item 4	2.36	1.25	3.10	1.26	2.86	1.27	52.69***	1	5
Item 5	1.99	1.20	2.61	1.32	2.13	1.21	42.74***	1	5
Item 6	2.32	1.33	3.40	1.29	3.00	1.38	102.88***	1	5

Item 1= When I improve my performance, my accomplishments are recognized by my supervisors; Item 2= I have seen good job performance rewarded in my work unit; Item 3= If I accomplish my work objectives, it increases my changes to get extra money rewards or letter of commendation; Item 4= If I accomplish my work objectives, it increases my chances to choose people I work with; Item 5= If I accomplish my work objectives, it increases my chances to choose shift I work; Item 6= If I accomplish my work objectives, it increases my chances to be assigned a better department

***p<.001

Table 30. Summary of Tukey's HSD analysis of Rewards Scale Items by Department (N = 1970)

	Variable Name	**Item 1**		**Item 2**		**Item 3**	
Department		**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**
Airport	Plain Clothes	-.77***	.07	-.43***	.07	-.77***	.07
	Public Order	-.36***	.07	.21**	.07	-.15	.07
Plain Clothes	Airport	.77***	.07	.43***	.07	.77***	.07
	Public Order	.41***	.07	.64***	.07	.62***	.07
Public Order	Airport	.36***	.07	-.21**	.07	.15	.07
	Plain Clothes	-.41***	.07	-.64***	.07	-.62***	.07
	Variable Name	**Item 4**		**Item 5**		**Item 6**	
Department		**Mean Dif.**	**SE**	**Mean Dif.**	**SE**	**Mean Dif.**	**SE**
Airport	Plain Clothes	-.73***	.07	-.61***	.07	-1.07***	.08
	Public Order	-.50***	.07	-.13	.07	-.65***	.07
Plain Clothes	Airport	.73***	.07	.61***	.07	1.07***	.08
	Public Order	.23**	.07	.48***	.07	.42***	.07
Public Order	Airport	.50***	.07	.13	.07	.65***	.07
	Plain Clothes	-.23**	.07	-.48***	.07	-.42***	.07

*p<.05, ** p<.01, *** p<.001

This is an important finding since, as a rule, the most desirable departments to work in, like narcotics and organized crime, choose their new members from the plainclothes and public order departments. However, police officers should perform consistently in the top 20% of their departments to be interviewed and chosen for these more desirable departmental assignments. Furthermore, if they do not perform satisfactorily and fall into the lowest 20% of their department's performance ranking, they are assigned to other departments where police officers do not prefer to work. Therefore, police officers perform at higher levels in order to be assigned to better departments. Since this process was implemented a couple of years ago, officers have a greater belief that if they perform well and accomplish their tasks, they are likely to be assigned to better departments. However, unless they perform very poorly or are involved in an administrative or criminal investigation, airport police officers are less likely to be assigned to a less desirable position. Similarly, they are less likely to be assigned to a better department, whatever their level of performance. Therefore, as the model suggests, since airport police officers have less job satisfaction and a lower expectation of the possibility of rewards, they are less likely to accept future difficult goals.

Therefore an additional regression analysis was conducted by including only the plainclothes department and public order department. Table 31 shows the result of the regression analyses. The results suggest that all main variables except feedback significantly and positively contributed to the goal difficulty model. The variables having an effect on the police officers' sense of motivation were goal difficulty ($B=.09$, $p<.001$), commitment ($B=.18$, $p<.001$), task significance ($B=.20$, $p<.001$), self-efficacy ($B=.16$, $p<.001$), participatively-set goals ($B=.13$, $p<.01$), and perceived sense of rewards ($B=.06$, $p<.001$). Additionally, while perceived sense of importance of task in a given department ($B=.20$, $p<.01$) is related positively and significantly,

seniority in TNP (B=-.08, p<.001) is negatively and significantly related to police officers' sense of motivation. Finally, monetary rewards, letters of commendation earned in 2011, and education did not have a significant effect on the dependent variable.

Table 31. Summary of Regression Analysis for Work Motivation by Plain Clothes Department and Public Order Department (N=1390)

Goal Difficulty Model			
Variable	B	SE B	β
Constant	2.48***	.56	
Goal Difficulty	.09***	.02	.09
Commitment	.18***	.03	.20
Task Significance	.20***	.03	.19
Self-Efficacy	.16***	.03	.15
Feedback	.03	.05	.01
Participatively-Set Goals	.13**	.04	.09
Rewards	.06***	.02	.11
Department Importance	.20**	.07	.07
Year in TNP	-.08***	.02	-.11
Monetary Rewards	.26	.18	.03
Letter of Commendation	.07	.19	.01
Education[b]	.04	.15	.01
R^2	.36		
F	63.61***		

b= 0=other, 1=college degree; *p<.05, ** p<.01, *** p<.001, [a]p<.10

As discussed previously, valance and instrumentality refer to "how individuals process and respond to incentives" (Locke & Latham, 1990a, p. 145) in a goal-setting model. Therefore, it can be concluded that police officers' attitudes differ regarding their actual and expected rewards. Finally, as the results suggest, when police officers have a sense that their performances

and accomplishments are recognized and subsequently lead to rewards, they are most likely to accept difficult goals and perform better.

Monetary rewards were significant for airport (B=63, p<.05) and plainclothes officers (B=.57, p<.10), but an independent sample t-test was conducted to examine why monetary rewards did not contribute to the model even a minimum of p<.10 for the public order officers. The results of the independent sample t-test analysis compared the effect of receiving monetary rewards (did not receive=0, received=1) in 2011 on officers' motivation. The results suggest that there was not any significant difference between the two groups regarding motivation and scale items and these two scales. Therefore, it can be argued that since the sense of being rewarded for the police officers who did not receive monetary rewards was as high as the police officers who were entitled to monetary rewards, they have a sense of motivation as high as police officers who earned monetary rewards.

Table 28 indicates that commitment (respectively B=.14, p<.001; B=.15, p<.001; B=.20, p<.001) and task significance (respectively B=.22, p<.001; B=.23, p<.001; B=.15, p<.001) significantly contributed to all three sub-models. However, while self-efficacy affected motivation in the airport (B=.27, p<.001) and public order departments (B=.28, p<.001), it did not have a significant effect on motivation in the plainclothes department. Police officers' sense of receiving feedback had a significant and positive effect on motivation only in the airport model (B=.15, p<.05). Participatively-set goals was significantly and positively related to motivation in the airport (B=15, p<.05), plainclothes (B=.14, p<.05), and public order (B=.10, p<.10) departments. Finally, police officers' perceived sense of possibility of receiving rewards significantly affected their sense of work motivation in the public order department (B=.06,

p<.01). It did not have any effect on the dependent variable in the airport and plainclothes department.

4.5.2 Goal Specificity Model

Table 32 indicates the results of the multivariate OLS regression analyses for the goal specificity model. Similar to the goal difficulty model, four models and three sub-models by department were tested. OLS regression diagnostics were also examined for the goal specificity model. The results indicated that none of the cases has a Cook's D value greater than 1. However, two cases were found to be different than the rest. The OLS regression analyses conducted without these two cases only affected R^2.05 point and the significance level of the feedback from p<.10 to p<.05 level. Close examination of these two cases suggested no reason to drop these two variables from the model. Therefore, these two cases were retained in the model. Additionally, the results suggested that the smallest tolerance value for the model is .50, which is well above the critical limit of .20. Finally, Durbin-Watson analysis showed that the value is equal to 1.82, which is close to the accepted limit of 2. Based on the regression diagnostic analyses, it can be concluded that the goal specificity model did not violate no perfect multicollinearity and independent errors assumptions.

Table 32 indicates that the *F* value is equal to 153.96, and it is significant at $p< .001$ level. Therefore, it can be concluded that 36% (R^2=.36) of the variance in police officers' work motivation was significantly explained by the first model. All independent variables, goal specificity (B=.19, p<.001), commitment (B=.14, p<.001), task significance (B=.17, p<.001), self-efficacy (B=.17, p<.001), feedback (B=.09, p<.01), participatively-set goals (B=.07, p<.001), and rewards (B=.05, p<.001), significantly and positively contributed to Model 1. Therefore, it can be concluded that Model 1 confirmed all hypotheses of the study.

As shown in Table 32, when all other variables were held constant, it can be seen that a unit increase in police officers' sense of goal specificity led to a .19unit increase in police officers' sense of motivation. A one-unit increase in police officers' sense of commitment resulted in a .14-unit increase in their motivation. Furthermore, for each additional increase in police officers' sense of task significance, police officers' motivation increased by .17 unit. A one-unit increase in police officers' sense of self-efficacy led to a .17-unit increase in police officers' sense of motivation.

The results also indicate that a unit increase in feedback led to a .09-unit increase in the dependent variable. A one-unit increase in participatively-set goals resulted in a .07-unit increase in motivation. Finally, a one-unit increase in police officers' sense of rewards led to a .05-unit increase in police officers' motivation. Comparing the effect of the independent variables based on the β values suggested that goal specificity (β= .19) had the strongest effect on the dependent variable, followed by task significance (β= .17), commitment (β= .16) and self-efficacy (β= .16). However, rewards (β= .09), participatively-set goals (β= .05), and feedback (β= .05) had the weakest effect on the dependent variable.

Regarding Model 2, The R^2 value (R^2=.36) indicated that 36% of the variance in police officers' sense of work motivation was significantly explained by the model (F=137.00, p<.001). The results suggested that police officers' sense of goal specificity held its strength and significance level in Model 2. Furthermore, none of the other variables related to the goal-setting model lost their strength and significance level, either. The results indicated that police officers' perceived sense of task significance in a given department (B=19, p<.001) was positively and significantly related to the dependent variable. Therefore, it can be concluded that a unit increase

in police officers' sense of task significance by the given department led to a .19-unit increase in the dependent variable.

Table 32 presents that the *F* value is equal to 94.66, and it is significant at $p< .001$ level for the Model 3. Thirty-seven percent of the variance ($R^2=.37$) was explained significantly by the model. Aside from the letter of commendation and education variables, all variables significantly contributed to Model 3. Similar to the goal difficulty model, while the monetary rewards variable (B=.31, p<.05) was significantly related to police officers' sense of work motivation, seniority in TNP (B=-.07, p<.001) had a significant and negative effect on the dependent variable. Therefore, it can be suggested that police officers who earned monetary rewards in 2011 had a .31-unit greater sense of work motivation than police officers who did not receive monetary rewards that year. Finally, it can be concluded that a unit increase in seniority in TNP led to a .07-point decrease in police officers' sense of work motivation.

According to Table 32, the *F* value is equal to 85.85, and it is significant at $p< .001$ level for the full model. The R^2 value ($R^2=.38$) indicated that 38% of the variation in police officers' sense of motivation was explained by the full model. Comparing the effects of two police departments on the model caused monetary rewards to become no more significant in the model and feedback to become significant at B=.06, p<.10 level. The results suggested that working in the plainclothes department (B=.92, p<.001) had a positive and significant effect on the dependent variable. Therefore, it can be concluded that working in the plainclothes department led to a .92-unit increase in the officers' sense of work motivation, as compared to working at the airport. However, the results indicated that working in the public order department was not significantly related to police officers' sense of motivation compared to working at the airport.

Table 32. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation (N=1970)

Goal Specificity Model	**Model 1**			**Model 2**			**Model 3**			**Model 4**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Constant	2.65***	.40		2.29***	.41		2.52***	.42		2.79***	.43	
Goal Specificity	.19***	.02	.19	.18***	.02	.19	.18***	.02	.19	.17***	.02	.18
Commitment	.14***	.02	.16	.14***	.02	.16	.14***	.02	.16	.14***	.02	.16
Task Significance	.17***	.02	.17	.16***	.02	.16	.16***	.02	.16	.16***	.02	.16
Self-Efficacy	.17***	.03	.16	.17***	.03	.16	.17***	.03	.16	.17***	.03	.16
Feedback	.09*	.04	.05	.08*	.04	.05	.07*	.04	.04	.06[a]	.04	.04
Participatively-Set Goals	.07*	.03	.05	.08*	.03	.05	.08*	.03	.05	.09*	.03	.06
Rewards	.05***	.01	.09	.04**	.01	.08	.05***	.01	.08	.03*	.01	.05
Department Importance				.19***	.05	.07	.18***	.05	.06	.16**	.05	.05
Year in TNP							-.07***	.01	-.09	-.06***	.01	-.07
Monetary Rewards							.31*	.15	.04	.20	.15	.03
Letter of Commendation							.06	.16	.01	-.09	.16	-.01
Education[b]							-.09	.13	-.01	-.17	.13	-.03
Plain Clothes										.92***	.16	.13
Public Order										.07	.15	.01
R^2	.36			.36			.37			.38		
F	153.96***			137.00***			94.66***			85.85***		

b= 0=other, 1= college; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Table 33 shows the results of the OLS regression analyses by department. According to the results in Table 33, all models have significant *F* values, respectively *F*=24.50, p<.001 for the airport, *F*=30.56, p<.001 for the plainclothes department, and *F*=35.56, p<.001for the public order department. The R^2 values indicated that 34% of the variance (R^2=.34) was explained by the airport model, 37% of the variance (R^2=.37) by the plain clothes model, and 37% of the variance (R^2=.37) by the public order model. However, the results indicated that the effect and the strength of the independent variables on the dependent variable varied among departments.

According to Table 33, the variables of goal specificity (B=.11, p<.01), commitment (B=.12, p<.01), task significance (B=.19, p<.001), self-efficacy (B=.24, p<.001), and monetary rewards (B=.74, p<.05) had a positive and significant effect on the police officers' sense of motivation in the airport model. Additionally, the variables of feedback (B=.11, p<.10) was significantly and positively related to the dependent variable at p<.10. However, the results indicated that participatively-set goals, rewards, police officers' sense of task importance in a given department, seniority in TNP, letters of commendation, and education were not significantly related to police officers' sense of motivation in the airport model.

Table 33 indicated that while goal specificity (B=.30, p<.001), commitment (B=.13, p<.001), and task significance (B=.19, p<.001) were positively and significantly related to the dependent variable, years in TNP (B=-.07, p<.05) affected police officers' sense of motivation negatively and significantly in the plain clothes model. Participatively-set goals (B=.10, p<.10) had a positive effect on the dependent variable at p<.10. However, the rest of the variables, including self-efficacy, feedback, rewards, police officers' sense task importance in a given department, monetary rewards, letters of commendation, and education did not have a significant effect on police officers' sense of motivation.

Regarding the public order model, Table 33 shows that goal specificity (B=.13, p<.001), commitment (B=.18, p<.001), task significance (B=.12, p<.01), self-efficacy (B=.27, p<.001), rewards (B=.05, p<.05), and task significance in a given department (B=.22, p<.05) had a positive and significant effect on the police officers' sense of motivation. However, year in TNP (B=-.05, p<.01) and education (B=-.45, p<.05) had a negative and significant effect on the dependent variable. The variables of feedback, participatively-set goals, monetary rewards, and letters of commendation were not related significantly to police officers' motivation.

Table 33 indicates that specific goals (respectively B=.11, p<.01; B=.30, p<.001; B=.13, p<.001), commitment (respectively B=.12, p<.01; B=.13, p<.001; B=.18, p<.001) and task significance (respectively B=.19, p<.001; B=.19, p<.001; B=.12, p<.01) had a positive and significant effect on the dependent variable for all models. Similar to the goal difficulty model, while self-efficacy affected motivation in airport officers (B=.24, p<.001) and public order officers (B=.27, p<.001), it was not significantly related to the dependent variable for plainclothes officers. Police officers' sense of receiving feedback was related to police officers' sense of motivation in the airport model (B=.11, p<.10) at p<.10. Similarly, participatively-set goals (B=10, p<.10) was found to be significant only in the plainclothes department at p<.10.

Police officers' sense of rewards had a positive effect on the dependent variable in the public order department (B=.05, p<.05). Police officers' sense of task significance (B=.25, p<.01) in a given department had a significant effect only in the public order department.

Table 33. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation by Department

Goal Specificity Model	**Airport (N=580)**			**Plain Clothes (N=651)**			**Public Order (N=739)**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β
Constant	1.86*	.84		4.12***	.75		2.48***	.68	
Goal Specificity	.11**	.04	.11	.30***	.04	.29	.13***	.03	.14
Commitment	.12**	.04	.14	.13***	.04	.16	.18***	.03	.20
Task Significance	.19***	.04	.20	.19***	.04	.20	.12**	.04	.12
Self-Efficacy	.24***	.05	.22	.02	.05	.02	.27***	.04	.26
Feedback	.11[a]	.06	.07	.08	.06	.04	-.04	.06	-.02
Participatively-Set Goals	.09	.06	.07	.10[a]	.06	.07	.06	.06	.04
Rewards	.04	.03	.07	.00	.02	.00	.05*	.02	.09
Department Importance	.09	.11	.03	.10	.10	.04	.22*	.09	.08
Year in TNP	-.04	.03	-.04	-.07*	.03	-.07	-.06***	.02	-.11
Monetary Rewards	.74*	.29	.09	.29	.31	.03	-.22	.21	-.03
Letter of Commendation	-.07	.31	-.01	-.18	.24	-.03	.11	.30	.01
Education[b]	-.35	.24	-.05	.19	.22	.03	-.45*	.20	-.07
R^2	.34			.37			.37		
F	24.50***			30.56***			35.56***		

b= 0=other, 1= college; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Seniority in TNP affected dependent variable negatively and significantly in the plainclothes (B =-.07, p<.05) and public order departments (B=-.05, p<.001). Monetary rewards (B=.74, p<.05) was a significant contributor only to the airport model. Education (B=-.45, p<.05) affected police officers' sense of motivation negatively in the public order department. Finally, the results indicated that letter of commendation was not related to the dependent variable in any model.

4.5.3 Combined Model

The results of the OLS regression analyses for the combined model, including both goal difficulty and goal specificity variables, are presented in Table 34. OLS regression diagnostics were carried out for the final model as well. The results suggested that only two cases had a Cook's D value greater than .02. However, these two cases had values lower than the critical point of 1. Similar to previous models, an additional OLS regression analysis was carried out to test the effect of these two variables on the final model. The results indicated that the same two cases caused the same effects on the model as mentioned for the goal specificity model. The OLS regression analyses conducted without these two cases had a .05 increase in R^2. Additionally, the feedback variable was found to be significant (B= .07, p<. 05) in the regression model. However, for the same reasons, these two cases were retained in the analyses. In addition to influential cases, the multicollinearity analyses indicated that the smallest tolerance value was equal to .50, which is above the cutoff point of .20. Finally, the Durbin-Watson value for the final model was equal to 1.81, which is close to the accepted limit of 2.

Table 34 indicates that the *F* value is equal to 135.11, and it is significant at $p< .001$ level. Therefore, it can be concluded that 36% (R^2=.36) of the variance in police officers' work motivation was significantly explained by the first model. Aside from goal difficulty, all independent variables, goal specificity (B=.18, p<.001), commitment (B=.14, p<.001), task

significance (B=.16, p<.001), self-efficacy (B=.17, p<.001), feedback (B=.08, p<.01), participatively-set goals (B=.07, p<.001), and rewards (B=.05, p<.001),had a significant and positive effect on the dependent variable in Model 1. Therefore, it can be concluded that all hypotheses except hypothesis one are confirmed by the final model.

Table 34 shows that, when all other variables were held constant, a unit increases in police officers' sense of goal specificity led to a .18-unit increase in police officers' sense of motivation. A one-unit increase in police officers' sense of commitment resulted in a .14-unit increase in the motivation of police officers. Furthermore, for each additional increase in police officers' sense of task significance, their motivation increased by .16unit. A one-unit increase in police officers' sense of self-efficacy led to a.17-unit increase in their sense of motivation. The results also indicated that a unit increase in feedback led to a .08-unit increase in the dependent variable. A one-unit increase in participatively-set goals resulted in a .07-unit increase in motivation. Finally, a one-unit increase in police officers' sense of rewards led to a .05-unit increase in their motivation. The β values indicated that the effects of independent variables on the dependent variables can be listed in order from highest to lowest as goal specificity (β= .19), task significance (β= .17), commitment (β= .16), self-efficacy (β= .16), rewards (β= .09) participatively-set goals (β= .05), and feedback (β= .05).

As shown in Table 34, the R^2 value (R^2=.36) indicated that 36% of the variance in police officers' sense of work motivation was significantly explained by the Model 2 (F=121.91, p<.001). Adding police officers' sense of task significance by the given department caused feedback to drop in strength and significance level from B=.08, p<.05 to B=.07, p<.10. However, the variable significantly and positively contributed to the model (B=.18, p<.001). Therefore, it

can be said that a one-unit increase in police officers' sense of task significance in a given department led to a .18unit increase in the dependent variable.

Regarding Model 3, Table 34 indicates that the *F* value of the model equals to *F*=87.49, which is significant at p<.001 level. Adding control variables into the model did not cause a major change in the model. The results indicated that year in TNP (B=-.07, p<.001) had a negative and significant effect on the dependent variable. However, it was found that police officers who earned monetary rewards in 2011 had a .32-unit greater sense of motivation than officers who did not receive monetary rewards. Finally, the letters of commendation and education variables were not significantly related to police officers' sense of motivation in Model 3.

As shown in Table 34, 38% (R^2=38) of the variance in police officers' sense of motivation was explained significantly by Model 4 (*F*=80.09, p<.001). In this model the effect of departments was examined. The results indicated that the major change was in the monetary rewards and feedback, which were not significantly related to the dependent variable in this model. With respect to the effect of working in a specific department, Table 34 shows that police officers' sense of motivation was .91 unit greater for police officers working in the plainclothes department, compared to those working at the airport. However, no significant difference in officers' motivation was seen between working at the airport and working in the public order department.

Table 34. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation (N=1970)

Combined Model	**Model 1**			**Model 2**			**Model 3**			**Model 4**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Constant	2.39***	.44		2.13***	.44		2.33***	.45		2.73***	.46	
Goal Difficulty	.03	.02	.03	.02	.02	.02	.02	.02	.02	.01	.02	.01
Goal Specificity	.18***	.02	.19	.18***	.02	.19	.18***	.02	.18	.17***	.02	.18
Commitment	.14***	.02	.16	.14***	.02	.16	.14***	.02	.16	.14***	.02	.16
Task Significance	.16***	.02	.17	.16***	.02	.16	.16***	.02	.16	.16***	.02	.16
Self-Efficacy	.17***	.03	.16	.17***	.03	.16	.17***	.03	.16	.17***	.03	.16
Feedback	.08*	.04	.05	.07[a]	.04	.04	.06[a]	.04	.04	.06	.04	.03
Participatively-Set Goals	.07*	.03	.05	.08*	.03	.05	.08*	.03	.05	.09*	.03	.06
Rewards	.05*	.01	.09	.04**	.01	.08	.05***	.01	.08	.03*	.01	.05
Department Importance				.18***	.06	.06	.17**	.06	.06	.15**	.06	.05
Year in TNP							-.07***	.01	-.09	-.06***	.01	-.07
Monetary Rewards							.32*	.15	.04	.20	.15	.03
Letter of Commendation							.06	.16	.01	-.09	.16	-.01
Education[b]							-.09	.13	-.01	-.17	.13	-.03
Plain Clothes										.91***	.16	.13
Public Order										.07	.15	.01
R^2	.36			.36			.37			.38		
F	135.11***			121.91***			87.49***			80.09***		

b= 0=other, 1= college; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Table 35 shows that OLS regression analysis by department indicated that all three sub-models had significant *F* values (respectively F=23.97, p<.001; F=28.66, p<.001; and F=33.25, p<.001). Therefore, it can be concluded that the variance explained in the police officers' sense of motivation by the departments was, respectively, 36% (R^2=.36 for airport), 37% (R^2=.37 for plainclothes), and 37% (R^2=.37 for public order). Regarding the airport model, the results indicated that goal specificity (B=.11, p<.01), commitment (B=.12, p<.01), task significance (B=.22, p<.001), self-efficacy (B=.24, p<.001), feedback (B=.14, p<.05), participatively-set goals (B=.13, p<.05), and monetary rewards (B=.68, p<.05) were positively and significantly related to police officers' sense of motivation. However, similar to the goal difficulty model, the results indicated a negative and significant relation between the goal difficulty (B=-.10, p<.001) and motivation. The other variables, including rewards, police officers' sense of task significance in a given department, year in TNP, letter of commendation, and education were not significantly related to police officers' sense of motivation in the airport model.

Table 35 expresses that goal difficulty (B=.07, p<.05), goal specificity (B=.28, p<.001), commitment (B=.13, p<.001), and task significance (B=.19, p<.001) had a positive and significant effect on the dependent variable. Additionally, participatively-set goals affected motivation (B=.10) at p<.10 level. However, year in TNP (B=-.07, p<.05) was related to the dependent variable negatively and significantly. The results suggested an insignificant relation between the other independent and control variables and motivation.

Table 35. Summary of Regression Analysis for Variables Predicting Police Officers' Work Motivation by Department

Combined Model	**Airport (N=580)**			**Plain Clothes (N=651)**			**Public Order (N=739)**		
Variable	B	SE B	β	B	SE B	β	B	SE B	β
Constant	2.69**	.86		3.45***	.82		1.83*	.75	
Goal Difficulty	-.10***	.03	-.13	.07*	.03	.07	.05*	.03	.06
Goal Specificity	.11**	.04	.12	.28***	.04	.28	.12***	.03	.13
Commitment	.12**	.04	.13	.13***	.04	.16	.18***	.03	.21
Task Significance	.22***	.04	.23	.19***	.04	.20	.11**	.04	.11
Self-Efficacy	.24***	.05	.22	.02	.05	.02	.27***	.04	.25
Feedback	.14*	.06	.09	.05	.06	.03	-.05	.06	-.03
Participatively-Set Goals	.13*	.06	.09	.10[a]	.06	.07	.07	.06	.04
Rewards	.03	.03	.05	.01	.02	.01	.05*	.02	.09
Department Importance	.15	.11	.05	.08	.10	.03	.20*	.09	.07
Year in TNP	-.04	.03	-.05	-.07*	.03	-.07	-.06***	.02	-.10
Monetary Rewards	.68*	.29	.09	.35	.31	.04	-.20	.21	-.03
Letter of Commendation	-.06	.31	-.01	-.19	.24	-.03	.13	.30	.01
Education[b]	-.40	.24	-.06	.20	.22	.03	-.44*	.20	-.07
R^2	.36			.37			.37		
F	23.97***			28.66***			33.25***		

b= 0=other, 1= college; *p<.05, ** p<.01, *** p<.001, [a]p<.10

Table 35 indicates that goal difficulty (B=.05, p<.05), goal specificity (B=.12, p<.001), commitment (B=.18, p<.001), task significance (B=.11, p<.01), self-efficacy (B=.27, p<.001), rewards (B=.05, p<.05), and perceived sense of task significance in a given department (B=.20, p<.01) affected the dependent variable positively and significantly in the public order model. The variables which had a significant adverse effect on the dependent variable were year in TNP (B=-.05, p<.01) and education (B=-.44, p<.05). All other variables, including feedback, participatively-set goals, monetary rewards, and letter of commendation, did not contribute to the public order model significantly.

Finally, another OLS regression analysis was conducted by excluding police officers working at the airport in order to test the theory, since the findings regarding the goal difficulty were similar to the goal difficulty model. Table 36 indicates that 38% (R^2=.38) of the variance in police officers' sense of motivation was significantly explained by the model (F=65.64, p<.001). Aside from the feedback variable, all core variables of the goal-setting model had a positive and significant effect on the dependent variable, respectively, goal difficulty (B=.07, p<.01), goal specificity (B=.20, p<.001), commitment (B=.15, p<.001), task significance (B=.14, p<.001), self-efficacy (B=.14, p<.001), participatively-set goals (B=.08, p<.05), and rewards (B=.04, p<.05). Based on the comparison of the models presented in Table 34 and Table 36, it can be concluded that the differences in the airport model altered the strength and significance level of the goal difficulty model, when the model was combined with the other two models.

Table 36. Summary of Regression Analysis for Work Motivation by Plainclothes Department and Public Order Department (N=1390)

Combined Model			
Variable	B	SE B	β
Constant	2.18***	.55	
Goal Difficulty	.07**	.02	.07
Goal Specificity	.20***	.03	.20
Commitment	.15***	.03	.18
Task Significance	.14***	.03	.14
Self-Efficacy	.14***	.03	.13
Feedback	.01	.04	.01
Participatively-Set Goals	.08*	.04	.06
Rewards	.04*	.02	.07
Department Importance	.17**	.07	.06
Year in TNP	-.07***	.02	-.10
Monetary Rewards	.18	.18	.02
Letter of Commendation	.10	.18	.01
Education[b]	-.00	.15	.00
R^2	.38		
F	65.64***		

b= 0=other, 1= college; *p<.05, *p<.05, ** p<.01, *** p<.001, [a]p<.10

CHAPTER 5

DISCUSSION and CONCLUSION

This study reviews the literature on goal-setting models and examines the predictors of police officers' sense of motivation. Although it was found that motivation and the goal-setting model have been examined extensively, the goal-setting model has received very little attention from public organizations, especially police departments. Additionally, there has been little research done regarding policing and motivation in Turkey. Therefore, the main interest of this study was to examine predictors of police officers' sense of motivation in Turkey. Based on the goal-setting model, eight hypotheses were suggested to acquire a more general picture of the motivational behaviors of police officers.

The main research question of the study was that whether goal difficulty and goal specificity influences police officers' motivation or not. Additionally, it was argued that goal-commitment, task significance, self-efficacy, feedback, rewards, and participatively-set goals have a positive effect on the police officers' motivation. Existing literature on goal-setting suggests that goal difficulty and goal specificity are not dependent to each other and effect employees' motivation independently (Locke, 2000). Therefore, three main regression models were conducted: goal difficulty model, goal specificity model, and a combined model of goal difficulty and goal specificity. By doing so, the individual effects of goal difficulty and goal specificity on the police officers' motivation were assessed. The following is a discussion of the main findings of the research, implication of the results, limitations of the study, and recommendations of future research.

5.1 Discussion

As discussed in the literature review and methodology sections, this study focused on the relationship between Turkish police officers' perceived sense of goal difficulty and goal specificity and their motivational attitudes. Existing literature on the goal-setting theory (Locke et al., 1981; Locke & Latham, 1990a) suggested that difficult goals and specific goals lead to higher performance. Based on the theoretical model, three different OLS regression analyses were conducted. These were goal difficulty, goal specificity, and a combined model of goal difficulty and goal specificity.

With the first regression model, only the effect of police officers' sense of goal difficulty on their motivation was examined. Four different OLS regression models were examined by adding additional variables and demographic characteristics of the police officers into the goal-setting model. In the first model, the goal-setting model was examined with variables including goal difficulty, commitment, task significance, self-efficacy, feedback, and participatively-set goals. The results indicated that all variables were related significantly and positively to police officers' sense of motivation. From the focus of the study, police officers' sense of goal difficulty ($B=.04$, $p<.05$) had a positive and significant effect on motivation.

In the second model, police officers' sense of task significance in a given department was added to the model. This variable was added into the model since, as mentioned earlier, police officers' motivational attitudes might differ based on their assigned department. As Table 25 and Table 26 indicated, police officers' perceptions varied on the task significance scale ($F=24.18$, $p<.001$) and task significance in a given department ($F=43.53$, $p<.001$). The tables showed that while airport police officers' sense of task significance ($M=15.18$, $SD=3.26$) differed significantly and negatively from the police officers working in the plainclothes department

(M=16.05, SD=3.39), there was no significant difference between the police officers working at the airport and police officers working in the public order department.

However, when police officers were asked whether they perceive their given task to be significant compared to any task in another department, the tables revealed that the perceived task significance in a given department was significantly lower for airport officers (M=2.82, SD=1.12) than for plainclothes (M=3.40, SD=1.09) or public order (M=3.26, SD=1.15) officers. Therefore, the variable of police officers' sense of task significance in a given department was held in the models. The variable (B=.20, p<.001) was significantly and positively related to motivation. However, adding the variable into the goal-setting model caused goal difficulty to lose its strength. It is no longer significant at p<.05 level (B=.03, p<.10).

In the third model, year in TNP, monetary rewards, letter of commendation, and education variables were added to the model. While the year in TNP model had a significant and negative effect on motivation (B=-.07, p<.001), monetary rewards affected police officers' sense of motivation positively (B=.34, p<.05). However, goal difficulty was no longer related to the police officers' sense of motivation in the model. Similarly, goal difficulty was found to be insignificant in the full model, in which the effects of departments were examined. However, the results of the full model indicated that there could be variation among the police departments, showing that goal difficulty had no effect on the police officers' sense of motivation. Therefore, another OLS regression analysis was carried out by department to test the goal difficulty model.

The OLS regression analysis for departments indicated an unexpected result (see Table 28). While goal difficulty was positively and significantly related to motivation in the models of the plainclothes department (B=.12, p<.001) and public order department (B=.06, p<.05), it affected police officers' sense of motivation negatively and significantly in the airport model

(B=-.09, p<.001). Therefore, additional analyses were conducted to examine and find possible reasons for the negative relations between the goal difficulty and motivation among airport officers.

A one-way ANOVA analysis (Table 29 and Table 30) showed that aside from item two, the scores of police officers' sense of rewards were lower for the airport than for the plainclothes and public order departments. Airport police officers had a lower sense of being recognized by their supervisors (M=2.70, SD=1.32), having a chance to choose the people they work with (M=2.36, SD=1.25), and having a chance to be assigned to a better department (M=2.32, SD=1.33). The model (see Figure 1) by Locke & Latham (1990a; 2002) suggested that satisfaction with performance and rewards are related to accepting new/future challenges. Therefore, as consistent with the model, it is argued that since airport police officers had a lower sense of being rewarded even if they accomplished their tasks and performed better, their sense of goal difficulty was negatively related to their sense of motivation. The OLS regression analysis (see Table 31) conducted by excluding airport officers indicated that goal difficulty (B=.09, p<.001) was significantly and positively related to police officers' sense of motivation.

Regarding goal specificity, Table 32 indicates that goal specificity was related to police officers' sense of motivation in all OLS regression models. Adding other independent and demographic variables into the goal-setting model did not lead to any significant change in the relation between the police officers' sense of goal specificity and their sense of motivation (respectively B=.19, p<.001 for model 1; B=.18, p<.001 for model 2; B=.18, p<.001 for model 3; and B=.17, p<.001 for model 4). Additionally, as revealed in Table 33, goal specificity had a positive and significant effect on the police officers' sense of motivation in the model that

included all police departments (respectively B=.11, p<.01 for airport; B=.30, p<.001 plain clothes department; and B=.13, p<.001 for public order department).

In the final model, the combined model of goal difficulty and goal specificity, aside from goal difficulty, all other variables, goal specificity (B=.18, p<.001), commitment (B=.14, p<.001), task significance (B=.16, p<.001), self-efficacy (B=.17, p<.001), feedback (B=.08, p<.05), participatively-set goals (B=.07, p<.05), and rewards (B=.05, p<.05), had a positive and significant effect on the police officers' sense of motivation in Model 1 (see Table 34). Adding other independent and demographic variables into the model removed the effect of feedback on the dependent variable. Feedback was no longer significant in the full model. The other variables, goal specificity (B=.17, p<.001), commitment (B=.14, p<.001), task significance (B=.16, p<.001), self-efficacy (B=.17, p<.001), participatively-set goals (B=.09, p<.05), and rewards (B=.03, p<.05), still affected the dependent variable positively and significantly in the full model.

The combined model of OLS regression was carried out for each police department separately (see Table 35). The results of the OLS regression analyses were consistent with previous models. While goal difficulty (B=-.10, p<.001) had a negative and significant effect on the police officers' sense of motivation in the airport model, it was positively and significantly related to the dependent variable in the plainclothes model (B=.07, p<.05) and public order model (B=.05, p<.05). Additionally, the goal specificity model was a significant and positive contributor in all models (respectively, B=.11, p<.01; B=.28, p<.001; and B=.12, p<.001).

Table 36 indicates that both goal difficulty (B=.07, p<.01) and goal specificity (B=.20, p<.001) affected police officers' sense of motivation positively and significantly in the model in which an OLS regression analysis was conducted by including only the plainclothes department

and public order department. Therefore, it can be concluded that consistent with the goal-setting model, if police officers believe that their performances and accomplishments are recognized by their supervisors and lead rewards, difficult goals lead to a higher sense of motivation. Additionally, when specific goals are regulated in police departments, it leads police officers to have a higher sense of motivation towards their assigned tasks.

Finally, Table 27 indicates that the explained variance in the goal difficulty model was 36% (R^2=.36, p<.001), whereas it was 38% (R^2=.38, p<.001) in the goal specificity model (see Table 32) and 38% (R^2=.38, p<.001) in the combined model, as well (see Table 34). Therefore, it could be argued that since there was no change in R^2 between goal specificity and the combined model, researchers could use only the goal specificity model instead of the combined model. However, one of the regression assumptions asserts that no relevant variable is excluded, or no irrelevant variable is included, as a cause in the regression model (Lewis-Beck, 1980).

When a relevant variable is omitted from the regression equation, the slopes of the variables in the model are unreliable, since their slopes' value would be overestimated or underestimated based on the value of the excluded relevant variable (Schroder et. al., 1986). However, including an irrelevant variable into a regression model causes an increase of the standard error and a decrease of *t* ratios of the relevant variables if the irrelevant variable is correlated with the relevant variables (Schroder et. al., 1980). To prevent the misspecification of the model for this study, the independent variables were chosen based on goal-setting theory and existing literature.

In addition to these theoretical grounds, researchers (Allen, 1997; McDaniel, 2009) argued that the contribution of an independent variable to the model can be examined by comparing the full model and a nested or restricted model through conducting an F test.

According to Allen (1997), “Nested hypotheses arise whenever we are interested in comparing two regression equations that are identical except that one contains restrictions that are not imposed on the other” (p. 113).Full model refers to a regression model in which all the variables are kept, whereas restricted/nested models refer to a regression model in which at least one independent variable is omitted from the model.

The result of the F-test analysis (McDaniel, 2009) comparing the goal specificity model (only the goal difficulty variable was omitted) and combined model indicated that there were no statistical differences between the models. However, another nested F-test analysis was performed, since the airport officer results affected the strength and significance level of the goal difficulty model adversely. This time, a nested F-test analysis was conducted including only the plainclothes and public order departments in the goal specificity and combined models. The result of the nested F-test was found to be significant between the two models ($F^{1, 1377}$=9.51, p<.05). Therefore, it can be concluded that adding goal difficulty to the model increased the explained variances significantly in the full model. Since it contributed to the full model significantly in a given set of independent variables within the multiple regression equation, it should not be dropped from the model.

Regarding other findings, consistent with the goal-setting model, commitment and task significance had a positive and significant effect on the police officers’ sense of motivation in all models and for all police departments. However, the findings suggested that while self-efficacy was a significant and positive predictor for the airport and public order departments, it was found to be insignificant for the plainclothes department. However, the goal-setting model assumes that self-efficacy has a positive, direct and moderate effect on performance. One-way ANOVA analysis (F=8.58, p<.001) suggested that police officers working in the plainclothes department

(M=16.07, SD=3.24) had higher scores on self-efficacy than police officers working at the airport (M=15.82, SD=2.94) and those working in the public order department (M=15.40, SD=3.04). Therefore, further analyses were conducted to examine possible factors that led to such an insignificant relation between the self-efficacy and motivation of the plainclothes officers.

Locke & Latham (1990a; 2002) argued that self-efficacy is highly and significantly related to goal commitment. Table 22 shows that the correlation analysis among all variables indicated a positive and strong correlation between self-efficacy and goal commitment ($r=.65$, $p<.001$). However, since the plainclothes department had the highest mean values of self-efficacy (M=16.07, SD=3.24) and goal commitment (M=20.33, SD=3.83), the correlation between self-efficacy and goal commitment should be highest for the plainclothes department. The Pearson correlation analysis indicated that goal commitment and self-efficacy were highly and significantly related to each other ($r=.72$, $p<.001$) for the plainclothes department. Further, another correlation analysis indicated that there was a positive and significant relation between self-efficacy and motivation ($r=.38$, $p<.001$) and commitment and motivation ($r=.41$, $p<.001$) in the plainclothes department.

Therefore, a close examination for a possible multicollinearity problem in the OLS regression analyses of the combined model for the plainclothes department was conducted. Multicollinearity exists “whenever an independent variable is highly correlated with one or more of the other independent variables in a multiple regression equation” (Allen, 1997, p. 176). High multicollinearity results in unstable coefficients and higher standard errors for the slope coefficients. Subsequently, the slope *t* values will decrease and the slope coefficients will be seen as less significant. The collieanarity diagnostics of the combined model for the plainclothes

department indicated that none of the independent variables had smaller tolerance values than .42, which was higher than the accepted level of .20 (Field, 2009). However, commitment and self-efficacy had the smallest tolerance values, respectively, .44 and .42. Therefore, another regression analysis was conducted by omitting the commitment variable from the model.

Table 37 shows that self-efficacy (B=.10, p<.01) had a positive and significant effect on the police officers' sense of motivation, when the variable commitment was excluded from the model. Therefore, it can be concluded that since goal commitment and self-efficacy were highly correlated, the standard error of the self-efficacy variable was inflated and became insignificant in the model. Although self-efficacy (B=.17, p<.001) and goal commitment (B=.14, p<.001) were significant in the full model of the combined model including all departments (see Table 34), the nested F-test was carried out to examine the contribution of self-efficacy to the model. The result of the nested F-test procedure suggested that adding self-efficacy to the model led to a significant increase in the explained variance for the model ($F^{1,637}$=10.72, p<.05). Therefore, it could be suggested that even self-efficacy and goal commitment were highly and significantly correlated, so both variable should be kept in the model.

Regarding feedback, participatively-set goals, and rewards, results indicated that they had a significant effect on the police officers' sense of motivation in Model 1. However, adding other variables into the model caused them to lose their strength and significance level in the model. In the full model of the combined model, while participatively-set goals (B=.09, p<.05) and rewards (B=.03, p<.05) were related to the dependent variable positively and significantly, feedback was insignificant in the full model (see Table 34). Similar to goal difficulty and self-efficacy, each of these three departments had different effects on the dependent variable in the given department model. For example, feedback (B=.14, p<.05) and participatively-set goals (B=.13, p<.05)

affected police officers' sense of motivation significantly only in the airport model. Police officers' sense of rewards (B=.05, p<.05) was found to be a significant contributor only in the public order department.

Table 37. Summary of Regression Analysis for Work Motivation by Plainclothes Department (N=651)

Combined Model			
Variable	B	SE B	β
Constant	4.02***	.81	
Goal Difficulty	.07*	.03	.08
Goal Specificity	.29***	.04	.29
Task Significance	.22***	.04	.24
Self-Efficacy	.10**	.04	.11
Feedback	.05	.07	.03
Participatively-Set Goals	.09	.06	.07
Rewards	.01	.03	.01
Department Importance	.05	.10	.02
Year in TNP	-.08*	.03	-.07
Monetary Rewards	.32	.31	.03
Letter of Commendation	-.15	.24	-.02
Education[b]	.22	.22	.03
R^2	.36		
F	29.70***		

*p<.05, ** p<.01, *** p<.001

As discussed in the literature review section, existing literature suggests inconsistent findings regarding feedback, participatively-set goals, and rewards. First, although feedback has a positive effect on performance, the effect of feedback on performance depends on the source,

the message, and the nature of the feedback. Since the nature of work varies among the police departments, police officers might get feedback differently. Subsequently, their workplace might affect how police officers evaluate feedback they get from others. For example, police officers working at the airport work within the airport perimeter. They work closely with their supervisors and their colleagues. Therefore, it was not difficult for them to get any feedback, positive or negative, from their supervisors or colleagues. However, police officers in the public order department work in their assigned city divisions as a team. It makes it difficult for police officers to be controlled or contacted by their supervisors. The plainclothes officers work alone and in plainclothes. Each group has its own working conditions and feedback process. Therefore, further analyses should be conducted on how police officers perceive the source, the message, and the nature of feedback in their assigned department.

Similar to feedback, existing research on the effect of participatively-set goals on employee motivation suggests inconsistent finding. Although participatively-set goals was found to be a significant contributor to the combined and full model (see Table 34), participatively-set goals affected police officers' sense of motivation only in the airport model. It was related to the dependent variable at $p<.10$ level in the plainclothes model and had no effect on motivation in the public order model. Similarly, additional analyses should be performed on the factors that make participatively-set goals a significant contributor to the goal-setting model.

In the literature review section, it was argued that rewards work independently from the goal-setting model. In other words, existing literature suggests that earned rewards is an important factor in performance when the employees believe the distributions fair, not too general, and routine (Doherty, 1998). Although it was found to be a significant predictor of police officers' sense of motivation in the combined model, it was an insignificant factor in the

airport and plainclothes departments. Based on the argument raised above, Pearson correlation analyses were conducted for each police department to examine the relationship between rewards and other variables.

Table 38. Summary of Pearson Correlation Analyses

Variable Name	1	2	3	4	5	6	7	8
Rewards Airport (N=580)	.14***	.16***	.25***	-.16***	.18***	-.11**	.33***	.57***
Rewards Plain Clothes (N=651)	.25***	.09*	.36***	.13***	.28***	.12**	.34***	.62***
Rewards Public Order (N=739)	.23***	.07	.35***	.05	.32***	.07	.26***	.60***
1= Motivation; 2= Goal Difficulty; 3= Goal Specificity; 4= Commitment; 5= Task Significance 6=Self-Efficacy; 7=Feedback; 8=Participatively-Set Goals								

*p<.05, ** p<.01, *** p<.001

Table 38 shows the results of the correlation analyses between rewards and other variables. According to Table 38, there was a negative correlation between rewards and commitment (r=-.16, p<.001) and rewards and self-efficacy (r=-.11, p<.01) in the airport model. As discussed earlier, the one-way ANOVA analyses (see Table 25 and Table 26) indicated that while police officers' sense of the possibility of being rewarded was lower for those working at the airport (M=15.39, SD= 5.83) than for the other two groups, it was highest for the police officers working in the plainclothes department (M=19.77, SD=5.39) comparing to the other police department (F=96.69, p<.001). The results suggest that further analyses should be conducted on police officers' perceptions of the fairness of rewards. Additionally, Table 38 also indicates that police officers' sense of rewards was correlated to other variables in the plainclothes model. Although the highest correlation score was .60, p<.001 between rewards and participatively-set goals in the plainclothes model, the correlation between the rewards and other

independent variables might cause rewards to become insignificant in the multivariate regression analyses of the plainclothes model.

Locke & Latham (1990a) argued that age is not related to goal-setting or performance. However, the result of the study indicated that age had a negative effect on the police officers' sense of motivation in the full model. The OLS regression analyses by department suggest that year at TNP affected the dependent variable in the plainclothes and public order departments. However, it was insignificant in the airport model. It can be assumed that since working in the plainclothes and public order departments requires more physical challenges, those police officers might prefer to engage in more routine and ordinary work rather than working on the streets. Further, these two groups of officers deal with people who are in trouble or involved in a crime. Therefore, working on the streets also requires more emotional strength compared to other police department jobs offering desk work.

It was found that the monetary rewards variable was a significant predictor of police officers' sense of motivation in the combined model for the airport. Additionally, monetary rewards was significantly related to police officers' sense of motivation for the plainclothes department in the difficult goal models. However, the monetary rewards variable was insignificant in all models for the public order department. The rotation of the police officers into and from the public order department occurred more frequently than in the other police departments. The independent sample *t*-test analyses showed that there were no significant differences between the police officers who earned monetary rewards and police officers who did not get any monetary rewards with respect to motivation and the possibility of being recognized and rewarded. Therefore, it was argued that, since police officers who were not

entitled to monetary rewards in 2011 had as great a sense of being rewarded as police officers given monetary rewards, they showed the same level of motivation as the other police officers.

Although the letter of commendation variable was found significant at the bivariate level, none of the models indicated that it was a significant predictor of motivation in the OLS regression analyses. Finally, it was found that police officers' attitudes might differ towards their tasks by their assigned departments. The combined model indicated that police officers' sense of task significance in a given department was a significant contributor to the model. Similarly, the contribution of the task significance by a given department varied among the departments. While it affected the dependent variable in the public order department, it was insignificant in the airport and plainclothes department. Therefore, further analyses should be conducted on the effect of task significance by a given department.

5.2 Implications of the Results

This study enhances our understanding about work motivation and its predictors in the context of Turkey. Although private policing has grown steadily during the last couple of decades (Nalla & Newman, 1990), the government still largely accommodates public policing to maintain order, protect people's lives and property, and investigate crimes. TNP also employs more than 200,000 police officers around the country. The findings of this study indicate a positive relationship between the goal-setting model and police officers' sense of motivation. Therefore, these findings can be used to develop a number of important implications for enhancing police officers' sense of motivation.

This study indicates that goal context, goal difficulty and goal specificity have a positive effect on police officers' sense of motivation. Therefore, the security directors of cities in general and supervisors of police officers use a goal-setting model in the police departments under their

command. As suggested by Locke (2001), they should make causal maps. On such a map, supervisors should show how individuals' performances lead to personal and departmental goals or outcomes. For example, police officers working in the public order and plainclothes departments know how their performances and accomplishments are recognized and rewarded. They try to place in the top 20% of their department to be rewarded or assigned to another department. This model can be extended to other police departments.

For example, a private organization responsible for airport security uses software to measure and increase the performances of airport staff. The software program shows restricted and prohibited items, which are fake items on the screen of x-ray machines. The security official who is responsible for following the screen should identify 90% of the fake images appearing on the screen. If he/she fails, he/she should be required to participate in a training program. Similarly, supervisors control the quality of the products in departments where police officers work at desk jobs. By doing so, they set a difficult goal for their subordinates which they can attain and see the results.

Regarding goal specificity, this study shows that goal specificity works in all models and all police departments. When police officers have a clear understanding of their assigned tasks, their sense of motivation increases. As mentioned earlier, specific goals regulate the performance of employees. Supervisors should explain clearly to police officers their assigned tasks. Supervisors should collect feedback from the officers about whether they have a clear understanding of their assigned tasks. Further, they should set specific goals for police officers. For example, supervisors could ask police officers to focus on certain crimes or dealing with a certain number of crimes instead of setting more abstract goals like solving all kinds of crimes and as many crimes as possible. Related to specific goals, Locke (2001) suggested that

supervisors should assign many goals to their employees. Similarly, supervisors in police departments should assign a certain number of tasks to police officers. By doing so, police officers can focus on the top one or two of their assigned tasks.

This study also indicates that goal commitment is a significant predictor of police officers' sense of motivation. Supervisors should take necessary steps to increase police officers' sense of goal commitment. Regarding goal commitment, Locke (2001) argued that goal commitment requires two steps, goal importance and self-efficacy in the first place. Similarly, the results indicated that goal commitment was related to police officers' sense of self-efficacy and task significance in the bivariate level. Therefore, supervisors augment police officers' sense of goal commitment by enhancing their sense of self-efficacy and task significance.

Supervisors should convince police officers about the importance of their tasks in two ways. First, supervisors can persuade police officers that their assigned tasks are very important from a more general perspective. For example, they can argue that their tasks and accomplishments serve the interest of TNP, people's lives, and ultimately, the whole country. Second, supervisors should assure that the results of officers' tasks and accomplishments are in the interest of the police officers themselves.

According to Locke (2001), self-efficacy can be gained through training, practice, and suitable role models. Supervisors should ensure that police officers get appropriate training based on their assigned departments. Although police officers had similar trainings and education programs in police vocational schools and police education centers, the nature of police work requires different skills and practices based on the assignments. For example, it can be argued that street work requires police officers to have physical strength, skills of self-defense, and knowledge of human psychology. However, desk jobs require police officers to have good

communication skills, good knowledge of the procedures and laws, and so on. Finally, supervisors may assign police officers who can be a role model to others as a team or group leader under their command.

According to the results, police officers' sense of the possibility of being rewarded affected work motivation positively. Supervisors can make police officers feel confident that (a) their accomplishments and performances are recognized, (b) the allocation of the rewards is fair, (c) and the allocation of rewards is dependent on the goals of the department. According to Locke (2001), any accomplishment, especially at the nonsupervisory level, should be celebrated and granted in some way, including personal notes, badges, pins, pictures (p. 53). Supervisors should recognize all accomplishments of their police officers and celebrate them. However, Locke (2001) noted that it was important to "motivate by goals but reward by performance" (p. 52).

Supervisors can ask police officers to participate in setting goals as an "information exchange device for developing task strategies" (Locke, 2001, p. 47). It would serve as a feedback mechanism between the police officers and their supervisors. Additionally, supervisors should provide feedback to police officers regarding their performances relevant to their assigned tasks and goals. However, it should be kept in mind that police officers are ready to accept feedback based on who provides the feedback and how and when feedback is presented. Therefore, supervisors also may consider participating in in-service training in which human psychology and communication skills are presented.

Existing literature on policing indicates that police officers' attitudes differ towards their assigned departments. This study indicated that police officers' sense of task significance in a given department had a significant effect on the police officers' sense of motivation. Although it

could be very difficult in practice, supervisors can consider police officers' opinions about their assignment at the very beginning. Additionally, they can work to make police officers proud of their assigned department. Finally, the results indicated negative relations between age and work motivation. As discussed earlier, street work requires physical and emotional strengths. Therefore, when police officers become older, they may lose their motivation for their assigned tasks, especially those who work on the streets. Therefore, older police officers can be assigned to departments where police officers engage in routine work.

5.3 Limitations and Future Research

Similar to any scientific study, this study also has several limitations. One of the limitations is related to research in that translated scales were used in the study. The scales that were included in the study were translated from English into Turkish. Although a cognitive interview was conducted before the study, several problems could remain regarding the use of translated questionnaires and scales. For example, cultural differences and linguistic differences between the populations may cause problems. Second, OLS regression analyses were conducted to examine the relations between the dependent and independent variables. OLS regression analysis examines the relations between the variables in an additive manner. However, the Pearson correlation analysis and the model indicated relations among the independent variables. Therefore, it can be assumed that independent variables might have moderating effects on the dependent variable as well. Therefore, additional analyses and statistical techniques can be used. Third, the police officers' motivation was measured by the motivation scale rather than by their actual performances. Although a principal component analysis and reliability analyses were conducted for the motivation scale, the motivation scale represents police officers' own perceptions, which were subject to bias.

Finally, since this study was conducted on police officers working in three departments, the generalizability of the study is limited for several reasons. First, it is obvious that there could be differences among these three departments and other police departments like police stations, or the public order, counter-terrorism, and intelligence departments. Regarding the sampling strategy, it could be argued that there could be variation among the cities as well. Second, the mean scores of the police officers' age (M=27.11, SD=4.63) and year at TNP (M=4.42, SD=4.30) indicated that participants of the study consisted of relatively new police officers. Therefore, the results cannot be generalized to police officers who are older. Finally, since the gender variable was omitted from the study because of the low number of women police officers (N=51), the findings cannot be generalized to women police officers in TNP. Finally, the study used a purposive sampling strategy. Although the researchers' intentions were explained earlier, it should be noted that a purposive sampling strategy is not free from sampling bias.

The limitations and results of this study suggest some recommendations for future research. First, researchers may use and measure police officers' actual performances. Further, an experimental research design which includes a comparison group can be used to examine the goal-setting model in policing. Second, further analyses and statistical techniques can be carried out to examine the direct and moderating effects of independent variables on the dependent variables. Third, researchers may include other cities and police departments in their studies to examine possible variations among them. Regarding sampling strategy, researchers can use a purposive sampling strategy to collect information about the women police officers' work motivation behaviors. Fourth, a qualitative research design can be conducted to get a better picture and greater depth of understanding about the predictors of work motivation. Since police officers answered what they were asked in this study, some possible explanations and

understandings might have been missed. However, with a qualitative study, students may explain what they think and provide different information on the study topic.

Finally, the results indicated variations among the police departments. For example, police officers working in the plain clothes department had the highest motivation, followed by public order department, and airport. It can be speculated that police officers' motivational behaviors might be related to their specific work environment and work conditions. The variation among the departments like being rewarded or punished, working alone or with groups, wearing uniform or not might affect their attitudes. Therefore, researchers may combine the goal-setting model with other theoretical frameworks like organizational culture to examine the possible reasons that caused variation among the police departments. Furthermore, the Hawthorne effect referring to "subjects' knowledge that they are in an experiment modifies their behavior from what it would have been without the knowledge" (Adair, 1984, p. 334) might affect police officers' behaviors as well. In other words, police officers might have thought that the way they answer the question might affect their situations or future. To prevent such problems, participants were informed that although their responses might be recorded their identity would be kept confidential at the beginning of the study. Further, they filled out the questionnaires on their own and returned and returned completed surveys to collection box in an arranged room. Therefore, any possible pressure on subjects from their supervisors and the researcher was eliminated. However, researchers may consider using other possible steps to remove the Hawthorne effect to a greater extent in future research on this subject.

5.4 Conclusions

This study enhanced our understanding of police officers' behaviors on work motivation by examining existing literature and empirical evidence and analyzing the relationship between

the dependent and independent variables. Goal-setting theory was used in this study to examine predictors of work motivation. The results of the study were mainly consistent with the goal-setting model. The results indicated that goal difficulty, goal specificity, task significance, commitment, self-efficacy, and rewards were related to police officers' sense of motivation. However, the results indicated variations among police departments. Further analyses were conducted to examine possible factors that might lead to variations among the police departments.

Additionally, although the results indicate that police officers' sense of work motivation was explained by goal-setting model variables, it should be noted that the quality of the results mostly depends on the ability of the police officers. Police officers' motivational behaviors influence the quality of their performance to some degree. To reach the best product and performance, police officers' abilities and motivational behaviors should be improved. This study helps researchers to understand work motivation better. Further, this study offers policy implications to increase police officers' sense of motivation, goal commitment, self-efficacy, and task significance.

APPENDICES

APPENDIX A: Consent Form

ASESSING POLICE OFFICERS' MOTIVATIONAL BEHAVIOURS

Thank you for participating in this research study. The aim of this research study is to broaden the scope of existing knowledge regarding a range of police officers' attitudes and behaviors about work motivation. The survey administrators do not know the names of the respondents who choose to participate in the research study nor do the surveys have any identification marks. All responses are completely anonymous and will not be used in any way that may identify the participant. Your privacy will be protected to the maximum extent allowable by law.

Participation in this survey is voluntary. This paper based survey will take about 25 minutes to complete. If you have agreed to respond to the survey, you may refuse to participate in certain procedures, answer certain questions, or discontinue your participation at any time without penalty or loss of benefits. You indicate your voluntary agreement to participate by completing and returning this questionnaire. We do not foresee any identifiable risks or benefits to you for responding to this survey.

APPENDIX B: Survey Instrument

Section I. In the following sections we would like your views about some issues. Please answer the following questions by placing an "X" in the corresponding box that best expresses your personal view: SD (Strongly disagree-1), D (Disagree - 2), C (Not sure or Unclear - 3) A (Agree - 4), and SA (Strongly Agree - 5).

1 2 3 4 5

1. Work Motivation

1.1 I put my best effort to get my job done regardless of the difficulties

1.2 I am willing to start work early or stay late to finish a job

1.3 It has been hard for me to get very involved in my current assignments (R)

1.4 I usually do not work as hard as others who do the same type of work (R)

1.5 I do extra work for my job that isn't really expected of me

1.6 Time seems to drag while I am on the job (R)

2. Goal Content Specificity

2.1 My responsibilities at work are very clear and specific.

2.2 I understand fully which of my job duties are more important than others

2.3 It is difficult to evaluate success or failure on my job (R).

2.4 I know exactly what I am supposed to do on my job.

2.5 My supervisor clearly explains to me what my goals are.

3. Goal Content Difficulty

3.1 The work objectives in my job require a great deal of effort.

3.2 A high degree of skill and know-how is necessary to do my job well.

3.3 Jobs like mine are quite demanding day after day.

3.4 My work is very challenging.

3.5 I have new and interesting things to do in my work

4. Goal Commitment

4.1 It's hard for me to take the kinds of things I must do in my position. (R)

4.2 Quite frankly, I don't care if I achieve my responsibilities or not. (R)

4.3 I am strongly committed to pursuing assignments given to me

4.4 It wouldn't take much to make me just get by assignments given to me. (R)

4.5 I am very committed to doing my assignments well.

4.6 I sometimes fail to accomplish my assignments

5. Task Significance

5.1 A lot of people will be affected by how I do my job in this department

5.2 The work I do in this department is extremely meaningful to me

5.3 I understand the importance of accomplishing my work objectives

5.4 I work on assignments that seem useless or unnecessary (R)

5.5 My assignment is really important and worthwhile

5.6 Sometimes, I am not sure I completely understand the purpose of what I am doing

5.7 I often wonder the importance of my assignment really is

6. Self Efficacy

6.1 I am confident that I can successfully perform any tasks assigned to me on my current job.

6.2 I am not as well prepared as I could be to meet all the demands of my job (R).

6.3 I can't get my work done on time even when I try very hard (R).

6.4 Doing my work as well as I am able to leads to high quality results.

7. Feedback

7.1 I get regular feedback indicating how I am performing

7.2 I get coaching from my supervisor to help me do a better job.

7.3 I get helpful information from others about how well I am performing at my job.

7.4 I receive useful evaluations of my strengths and weaknesses at work.

8. Participatively-Set Goals

8.1 My supervisor lets me participate in the setting of my goals.

8.2 My supervisor lets me have some say in deciding how I will go about implementing my goals.

9. Rewards

9.1 When I improve my performance, my accomplishments are recognized by my supervisors.

9.2 I have seen good job performance rewarded in my work unit

9.3 If I accomplish my work objectives, it increases my changes to get extra money rewards or letter of commendation.

9.4 If I accomplish my work objectives, it increases my chances to choose people I work with.

9.5 If I accomplish my work objectives, it increases my chances to choose shift I work

9.6 If I accomplish my work objectives, it increases my chances to be assigned a better department

15. Public Service

15.1 Some other departments are actually more important to society than mine is.

15.2 I think that my assignments here are more important than any assignments in another department for society.

15.3 The importance of being a police officer in this department is sometimes overstressed.

Section II. Background Information

1. How old you are on January 1st 2012 _____old

2. Gender A. Female B. Male

3. Your highest education:

A. High School B. Two Year College C. College Degree and above

4. What is the best estimate of your monthly salary?

TL _____

5. How many years have you worked? (If you work less than one year in your current department and current position, please indicate how many months have you worked in your current department and position?)

in Turkish National Police _____years

in Istanbul _____years

in your current department _____years _____months

in your current position _____years _____months

6. Before being assigned to your current position, have you worked in public order departments (including police stations, public order department, and riot police department, and etc).

A. Yes B. No

7. Please name top three departments where you would like to be assigned including your current position

1_____ 2_____ 3_____

8. Did you get monetary rewards during 2011?

A. Yes B. No

If you received, how many times _____times

9. Did you get letter of commendation during 2011?

A. Yes B. No

If you received, how many times _____times

THANK YOU FOR YOUR TIME AND CONTRIBUTION TO THIS RESEARCH

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