

ENGAGEMENT, ORGANIZATIONAL COMMITMENT, AND INCREMENTAL
VARIANCE IN THE MEASUREMENT OF JOB SATISFACTION, PERFORMANCE
AND TURNOVER INTENT WITHIN THE CANADIAN FORCES

by

Peter Beatty

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Abstract

Employee engagement has been garnering significant attention in both the popular and scientific literature, but despite its growing popularity, questions still remain as to whether it is empirically distinct from other constructs. To address research shortfalls, a cross-sectional correlational study using a military sample (N=275) examined the different effects of employee engagement and organizational commitment (at the level of their subscales) on job satisfaction, job performance, and turnover intent.

The results of this study did not support the three-dimensional model of employee engagement as described by Schaufeli et al. (2002). Rather, all items for the three subscales of vigor, dedication, and absorption loaded on a single, higher-order component of *engagement*. Results supported the hypothesis that employee engagement would be positively correlated with job satisfaction and performance but negatively correlated with turnover intentions. Finally, employee engagement was found to be empirically distinct from organizational commitment and accounted for more incremental variance when predicting job satisfaction, performance, and turnover intentions than did organizational commitment alone. In summary, employee engagement has much to offer organizations wishing to remain competitive in terms of decreased turnover (maximizing return on investment) and in obtaining employee buy-in in working with the organization toward achieving the organization's aims.

Dedication

In loving memory of my parents Bill and Lois Beatty without whom, I would not be here.

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Defence.

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Engagement, Organizational Commitment, and Incremental Variance in the Measurement of Job Satisfaction, Performance, and Turnover Intent within the Canadian Forces

INTRODUCTION

In today's highly competitive global market, the effective management of human resources is vital for the growth and profitability of organizations. Faced with high turnover rates and the inevitable costs associated with attracting, selecting, and training new employees, human resource management remains both a major focus and a major challenge for many employers and businesses. Consequently, organizations concerned with growth and profitability are, more than ever, devoting considerable resources toward better understanding employee behaviour and promoting the welfare of individuals in the workplace. The purpose of the present research was to examine one aspect of positive human resource strategies, specifically the impact of employee engagement and organizational commitment on employee job satisfaction, work performance and intentions to stay with, or leave, the organization.

Employee Engagement

Leading Definitions of Employee Engagement

Engagement has been defined as the quality that employees display in order to reflect their attachment to their work roles, wherein they become physically, cognitively, and emotionally involved with their work roles (Kahn, 1990). Harter, Schmidt, and Keyes (2003) further suggest that employee engagement is the employee's enthusiasm for his or her work, whereas Schaufeli, Salanova, González-Romá, and Bakker (2002) defined work engagement as an optimistic, rewarding, work-related mindset that is characterised by vigor, dedication, and absorption. In this sense, work engagement is viewed as being

distinct from workaholism. That is, engaged employees tend to be very energetic, dedicated, and absorbed at work, primarily because they enjoy their role, which ultimately tends to improve their well-being. By contrast, workaholic individuals often feel a sense of obligation to achieve and are unable to disengage from their work, ruminating over their role almost incessantly, which in turn, can damage their well-being. (Bakker, Schaufeli, Leiter, & Taris, 2008). At the core of all definitions of employee engagement is a sense that engaged employees are passionate about their work, have a deep connection with the organization, and want to contribute to the organization's advancement (Crabtree, 2004). Further, the belief that engaged employees are more productive, exhibit ethical and responsible behaviours, are committed to quality and growth, and tend to stay with their organizations longer is not disputed in the literature. As increased productivity ultimately impacts return on investments (ROIs), employee engagement is viewed as a desirable condition (Macey & Schneider, 2008).

Cusack (2009) noted the inverse of engagement for employees who cannot leave the organization due to the financial and psychological consequences of exiting. Instead of being engaged, Cusack postulates that a state of passive endurance could exist wherein employees who cannot physically remove themselves from the organization yet who are unhappy, distance themselves from their work roles and withdraw in the said areas. Although the employees may show up to work, there is negligible vigor in terms of their participation. Indeed, the more disengaged an employee becomes, the more likely his or her performance will decline and he or she will plan on changing jobs (Cusack, 2009). Kahn (1990) describes disengaged employees as those who display their unhappiness at

work and who tend to undermine the accomplishments of engaged coworkers on a daily basis.

According to a relatively recent Gallup report (Crabtree, 2004) from the *Gallup Management Journal's* semi-annual Employee Engagement Index, only 29% of a random sample of employees in the United States are considered to be engaged or “truly active” in their jobs (p. 1). These employees were described as being passionate about their work, having a deep connection with the organization, and contributing to the organization’s overall advancement. In contrast, 54% of the surveyed employees are considered to be in the ‘not engaged’ category. Non-engaged employees are characterized as being “checked out” (p. 1) and while they do contribute time, they lacked energy and passion. The report also revealed that 17% of the employees surveyed were “actively disengaged” (p.2). Unlike their non-engaged counterparts, actively disengaged employees are described as being unhappy, visibly displaying their unhappiness at work, and undermining the accomplishments of engaged coworkers on a daily basis (Crabtree). In total, 71% of the respondents were found to be not positively engaged with their organization. The vast difference between the number of the engaged and the disengaged employees suggests that this is a significant area of study.

Since its emergence in the popular literature of the mid 1980s (Macey & Schneider, 2008), the concept of employee engagement has been readily embraced by for-profit and not-for-profit organizations; indeed numerous consultancy and research firms (e.g., Mercer Human Resource Consulting, Development Dimensions International) have invested heavily in designing and marketing tools to assess employee engagement. In fact, the human resource management consulting firm of Hewitt Associates asserts that they "have

established a conclusive, compelling relationship between engagement and profitability through higher productivity, sales, customer satisfaction, and employee retention"

(Macey & Schneider, 2008, p. 3).

Despite its popularity in the human resource literature, there has been inconsistency in the operationalisation of the construct of engagement. For example, researchers have used the term synonymously with various well-established constructs such as job involvement, organizational citizenship behaviour, organizational commitment, and job satisfaction (Bakker, Schaufeli, Leiter, & Taris, 2008; Hakanen, Bakker & Demerouti, 2005; Maslach, Schaufeli & Leiter, 2001). Moreover, according to Bakker et al. (2008), scholars offer differing views as to what actually constitutes employee engagement (i.e., as state, a trait, or a behaviour). Further, measuring engagement using an amalgam of related constructs has made it difficult to separate engagement from other attitudes, resulting in confusion as to the meaning and impact of engagement. Hence it is important for researchers to discriminate between employee engagement and the related, but potentially distinct, constructs of organizational commitment and job involvement among others. In order to do this, it is necessary to fully understand the components of employee engagement and to situate it as a unique construct.

The concept of engagement was popularized by Kahn (1990), who related this concept to the notion of psychological presence. According to his definition, engagement refers to the state in which individuals express their entire self - physically, cognitively, and emotionally - in their work role. Kahn conducted two exploratory theory-generating studies characterizing work conditions that encourage individuals to either engage or disengage, and he identified three psychological conditions that he asserted determine

whether individuals are engaged or disengaged. The three psychological conditions that arose from this research were: (a) meaningfulness – an employee’s feeling that his or her work role is worthwhile, useful, and valuable; (b) safety – employees experience a sense of safety when they trust others in their workplace and are able to function without fear of negative consequences; and (c) availability – an employee’s feeling that all physical, emotional, and psychological resources are available to them (Kahn 1990).

Meaningfulness was defined as the “sense of return on investments of self in role performance” (Kahn 1990, p. 705). This is a psychological condition that is visible with employees feeling worthwhile, that they are valued, valuable, and able to give and receive from work and others in the course of work. Influences on this psychological condition include work elements that provided incentives for self-investments. It is important to have significant tasks, roles, and work interactions that are positive for the employees.

Safety was described as the “sense of being able to show and employ one’s self without fear of negative consequences to self-image, status, or career” (Kahn 1990, p. 705). Safety can be observed through situations of trustworthiness, security, predictability, and clarity in terms of behavioural consequences, is influenced by predictability, consistency and non-threatening social systems, and is encouraged by interpersonal relationships, group and intergroup dynamics, management styles and processes and organizational norms.

Finally, availability was described as the “sense of possessing the physical, emotional, and psychological resources necessary for investing self in role performances” (Kahn 1990, p. 705), which is reflected by the employees’ feelings of physical, intellectual, and emotional energy in their role performance. According to Kahn (1990), availability is affected by physical energies, emotional energies, insecurity, and outside life.

Kahn (1990) illustrated the complex influences of personal engagement and disengagement in specific moments of role performances. However, the research was limited when it came to developing a dynamic process model that would explain how the combinations of meaningfulness, safety, and availability produce moments of engagement. The research did not discuss how these factors worked together to provide positive engagement. Furthermore, there was a need to consider how personality and individual differences among employees also affect their performance. In addition, Kahn provides little information regarding the physical, cognitive and emotional paths wherein people engage and disengage.

Maslach and Leiter (1997), in contrast, conceptualized engagement as the opposite of burnout. In particular, burnout comprises three key dimensions: a feeling of mental exhaustion, a cynicism about the future, and a sense of limited efficacy in professional settings. They contend that when individuals experience the feeling of burnout “energy turns into exhaustion, involvement turns into cynicism and efficacy turns into ineffectiveness” (p. 24). In contrast, if work is meaningful, this exhaustion is superseded by energy, cynicism is superseded by involvement, and limited efficacy is superseded by elevated efficacy. Thus, the model advocated by Maslach and Leiter assumes that engagement represents energy, involvement, and efficacy. In accordance with this conceptualization, engagement is identified by the reverse pattern of scores on exhaustion and cynicism and high scores on professional efficacy are interpreted to be indicators of engagement.

Schaufeli et al. (2002) challenged Maslach and Leiter’s perspective. They argued that individuals might not feel at all exhausted, but will not necessarily experience

energy. Hence, burnout and engagement, although inversely correlated, might represent independent constructs. Schaufeli et al. (2002) postulate that engaged employees are seen to have an energetic and effective connection with their work, whereas employees experiencing job burnout exhibit exhaustion, cynicism, and reduced professional efficiency (Schaufeli et al., 2002; Bakker et al., 2008). Simply stated, instead of perceiving their work as being stressful and demanding, engaged employees tend to look upon their work as being challenging (Bakker et. al, 2008). They further criticized Maslach and Leiter's (1997) conceptualization of work engagement stating that their conceptualization proscribes an examination of the relationship between burnout and engagement since both constructs are viewed and assessed with the same instrument; the Maslach Burnout Inventory Scale (MBI-GS) (Schaufeli et al., 2002).

As such, Schaufeli and his colleagues (2002) define work engagement as a "positive, fulfilling work related state of mind that is characterised by vigor, dedication and absorption" (p. 74). In defining these dimensions, Schaufeli et al. (2002) use the term *vigor* to reflect the readiness to devote effort in one's work, an exhibition of high levels of energy while working, and the tendency to remain resolute in the face of task difficulty or failure. An employee is characterised as engaged if he or she demonstrates these characteristics. The second dimension, *dedication*, refers to a strong identification with one's work and encompasses feelings of enthusiasm, inspiration, pride, and challenge. Schaufeli and his colleagues (2002) make an important distinction between job involvement, which refers to an employee's identification with his or her job (Kanungo, 1982), and dedication, which is going above and beyond the typical level of identification

an individual would have with one's job and includes both an affective dimension and a cognitive or belief state.

The third dimension of engagement, *absorption*, is characterised by being happily engrossed in one's work, in a manner that time appears to pass rapidly and one finds it difficult to disengage oneself from work. The authors argued that the concept of absorption should not be confused with Csikszentmihalyi's (1990) concept of *flow*, which in contrast to engagement, is characterised by momentary heightened experiences directed toward a specific situation, person, object, or behaviour. In other words, engagement is conceptualized as more of a long-term pervasive affective and cognitive experience, which is not concentrated on a particular event, object, person, or behaviour (Bakker et al., 2008; Schaufeli, et al., 2002).

Although Kahn (1990) was the first to advance the concept of engagement as a state in which individuals "... employ and express themselves physically, cognitively, emotionally and mentally during role performances" (p. 694), and whose seminal work has provided the conceptual foundation on which the vast majority of subsequent studies on engagement have drawn (Christians, Garza, & Slaughter, 2011), his definition has limited utility given the more recent advances in the field. Whereas one school of thought contends that a continuum exists with burnout and engagement as two opposite poles (e.g., Maslach & Leiter, 1997), a second and more recent school of thought operationalizes engagement in its own right (e.g., Schaufeli et al., 2002). Given recent advancements in the field, the definition provided by Schaufeli et al. is considered to be somewhat better than earlier definitions. Unlike Maslach and Leiter, the definition offered by Schaufeli et al (2002) separates work engagement from the related concept of

burnout and as a result, establishes it as an independent construct, which is important in its own right. Second, this definition encompasses both the affective and cognitive aspects of work engagement, which implies that in addition to cognitions, engagement also involves an active use of emotions and feelings (Schaufeli & Salanova, 2007). Although Kahn's definition does include an affective component, he provides little information regarding the cognitive and emotional paths wherein individuals engage or disengage. Third, the definition of Schaufeli et al splits engagement into the three separate dimensions of vigor, dedication, and absorption; each of which may be analyzed independently and can, in turn, allow for a more accurate indication as to where strengths and deficiencies exist in terms of each facet of work engagement (Freney & Tiernan, 2006). While Kahn (1990) also identified three separate dimensions, he does not provide a model that would explain how they produce moments of engagement. Finally, the three dimensions of work engagement specified by Schaufeli et al. (2002) can be empirically measured using the Utrecht Work Engagement Scale (UWES; e.g., Schaufeli et al., 2002; Schaufeli & Bakker, 2004), a psychometrically valid scale, rather than an *ad hoc* measure, so that researchers can directly compare and contrast findings from a range of studies.

Research Deficits in Employee Engagement

Since the work on engagement by Schaufeli et al. (2002), there has been a consistent flow of academic research on engagement conducted in The Netherlands, Spain, Sweden, Finland, South Africa, and Japan (Hallberg & Schaufeli, 2006). However, published academic research on employee engagement seems to be more limited in North America (i.e., the United States). Although there have been an increasing number of

European studies of employee engagement, there still remains considerable deficits in this line of research. Whereas related studies have looked at job performance, job involvement, and other factors that promote engagement, they have not been able to demonstrate a direct relation between engagement and organizational commitment. Furthermore, a comprehensive literature review has been unable to identify any studies that explain how the theoretical effect of employee engagement on organizational commitment influences job satisfaction, job performance, or employee turnover. Therefore, as a fairly new concept, employee engagement warrants serious academic investigation in conjunction with established constructs.

Job Satisfaction, Job Performance, and Turnover Intent.

Building on Kahn's (1990) seminal work, McCashland (1999) explored the associations between employee engagement, manager talent, customer satisfaction, retention, and revenue. He found that manager talent and customer satisfaction were associated with employee performance. On the other hand, retention and revenue could be considered as factors of turnover. While this research described the association between engagement and employee performance, there was insufficient evidence provided when it came to its relation to organizational commitment, as signified by small turnover rates. While this research had been significant in indirectly describing the effect of engagement on performance and turnover, there is still a need to directly address the complex associations of employee engagement, organizational commitment, job satisfaction, performance, and employee turnover.

Although McCashland's (1999) study was a solid step in understanding how management practices influence the level of employee engagement, there was still no

evidence to show that engagement itself was directly correlated to organizational commitment. Other researchers have demonstrated a positive impact of behaviour of employees and engagement on the overall environment of the workplace (Harter, Schmidt, Keyes, 2002; Harter et al., 2003); however, the focus of these studies has been on employee satisfaction rather than employee performance. While satisfaction can be hypothesized as a factor for performance (Harter et al., 2002), the relation between these constructs was not the focus of the studies mentioned. Even if studies had shown the relation between employee performance and engagement, there remains a significant gap in terms of recognizing how performance and employee engagement directly impact organizational commitment.

In 2004, May, Gilson, and Harter revisited Kahn's (1990) initial work to examine what determines and mediates the effects of the three psychological conditions of meaningfulness, safety, and availability on employee engagement. Although this study focused on what contributes to employee engagement, it did not examine the actual impact of engagement on the performance of the employees. May et al. (2004) reported findings that the three psychological conditions of meaningfulness, safety, and availability had a positive relation with engagement wherein meaningfulness served as the strongest predictor of engagement, and was positively linked to job enrichment and work role enhancement influences (May et al., 2004). While the study by May et al. provided the ideal factors that could promote engagement, it did not reveal how engagement influenced employees in terms of job performance and employee turnover.

In 2002, Harter, Schmidt, and Hayes conducted a meta-analysis in which the relations among employee engagement, employee satisfaction, and business outcomes (e.g., customer satisfaction, profit, employee turnover, and productivity) at the business-

unit level were investigated. Generalizable relations large enough to have substantial practical value were found between unit-level employee satisfaction, engagement and these business-unit outcomes. However, and similar to McCashland (1999), Harter et al. (2002) did not directly study the impact of employee engagement and how it affected levels of performance or turnover. Rather, they focused on the how the behaviour of the employees was affected based on their relation with the organization. While the study by Harter et al. did demonstrate that an individual's relationship with the organization affected job performance and turnover, a research gap may be identified in that their study did not reveal what impact engagement had in the process.

Based on the studies reviewed, the complex construct of engagement failed to provide an understanding within a psychological context in terms of the states and behaviours in the workplace. Engagement and organizational commitment have not been analysed in a related context. There is an evident research gap in studying the impact of the relation of engagement with organizational commitment. Instead, research has been focusing on the relation between employee engagement and job satisfaction. Past studies also indicate that researchers have not examined the direct impact of the relation between these variables in relation to performance and turnover intent.

Job Involvement.

Both Blau (1985) and Kanungo (1982) posited that job involvement is the psychological identification that an employee has with his or her job. Simply stated, it is the belief employees hold about their current job and the extent to which that job can satisfy their needs. In a meta-analytic review of job involvement, Brown (1996) contends that Kanungo and Blau's definition of job involvement is the one most accepted by

researchers. Brown further asserts that a highly involved employee is more likely to be effective and productive in his or her job, through which there would be a contribution to his or her organization's growth and competitive edge (Brown, 1996).

As noted earlier, when compared with job involvement, Schaufeli et al (2002) argued that dedication, a dimension of engagement, is not job involvement and that these two are actually distinct constructs (Hallberg & Schaufeli, 2006; Harter, Schmidt, Keyes, 2003; Schaufeli et al., 2002). Even though there are some similarities between the dedication component of engagement and overall job involvement (Hallberg & Schaufeli, 2006; Harter, Schmidt, Keyes, 2003; Schaufeli et al., 2002), Schaufeli et al. argue that dedication in the sphere of employee engagement involves a level of identification above and beyond the typical level of identification an employee would have with the specific job. In a qualitative sense, dedication involves a wider scope that not only refers to particular cognitive states but includes the affective dimension as well.

In 2006, Hallberg and Schaufeli investigated the discriminant validity of work engagement with job involvement and organizational commitment. Through the inspection of inter-correlations between constructs, confirmatory factor analyses, as well as patterns of correlations with constructs such as health complaints, personal factors, and turnover intentions, they concluded that work engagement was empirically separate from job involvement as well as organizational commitment. Furthermore, while job involvement, organizational commitment, and engagement represent a sense of identification with work, only engagement is underpinned by positive affective states and correlates strongly with well-being and health (Hallberg & Schaufeli, 2006).

The most important research gap discovered from the literature review is the deficit in terms of the evidence for employee engagement and organizational commitment. While job involvement was found to be related to organizational commitment, Hallberg and Schaufeli (2006) did not provide evidence of a relation between employee engagement and organizational commitment. While employee engagement has been mistaken for concepts such as job involvement, studies have shown that they are different. The present study provided the opportunity to address research gaps in the scientific literature by investigating the nature of the relation between engagement and organizational commitment, and by further examining the impact of this hypothesized positive relation on job satisfaction, performance, and turnover intent.

Understanding Organizational Commitment

Organizational commitment is generally defined as the strong desire to remain a member of the organization whereas engagement is understood as the state of emotional and intellectual dedication to the organization (Armstrong, 2006). Because the association between employment engagement and organizational commitment remains unclear, it is important to understand what organizational commitment is and how it should relate, at least theoretically, to employee engagement. In their seminal work, Allen and Meyer (1990) define organizational commitment as the psychological state that characterizes an employee's relation with his or her organization. While earlier research tended to view organizational commitment as a uni-dimensional concept (Porter, Steers, Mowday, & Boulian, 1974), Meyer and Allen (1997) found that organizational

commitment was composed of three distinct dimensions: affective, continuance, and normative commitment.

Affective Commitment

Affective commitment corresponds to an employee's emotional attachment to, personal involvement in and identification with an organization resulting in a strong belief in the organization's goals and values (Allen & Meyer, 1990; Meyer & Allen, 1997; Meyer & Herscovitch, 2001). Employees high in affective commitment feel a strong sense of belonging with the organization. In essence, they stay with an organization because they 'want to'.

Normative Commitment

Normative commitment suggests that employees exhibit behaviours solely because they believe it is the right and moral thing to do. These beliefs may be derived from many sources, including feelings of obligation towards an organization for the investment of resources in training an employee (Prior, 1982), or it may also reflect an internalized norm, developed before the person joins an organization through family or other socialization processes, that one should be loyal to one's organization. Employees with strong normative commitment stay with the organization because they believe they 'ought to' (Allen & Meyer, 1990; Meyer & Allen, 1997; Meyer & Herscovitch, 2001).

Continuance Commitment

Continuance commitment is the tendency to engage in consistent lines of activity based on the individual's recognition of the perceived cost associated with discontinuing the activity including both economic costs (e.g., pension accruals, stock options) and social costs (friendship ties with co-workers) that would be incurred. Employees high in

continuance commitment do not necessarily enjoy being a member of the organization, but rather remain because they feel they have to (Allen & Meyer, 1990; Meyer & Allen, 1997; Meyer & Herscovitch, 2001).

According to a meta-analysis conducted by Meyer, Stanley, Herscovitch, and Topolnytsky (2002), both affective commitment and normative commitment are positively influenced by such factors as organizational support, role clarity, age, absence of role conflict, and the perceived presence of procedural, distributive, and interactional justice in the workplace. Furthermore, both affective and normative commitment are positively correlated with job satisfaction, job involvement, and occupational commitment, which in turn have been associated with positive employee behaviours such as decreased employee absenteeism and increased job performance (Meyer et al., 2002). Because organizational commitment has been consistently associated with such behaviours as employee absenteeism, job performance, and employee attrition (Allen & Meyer, 1990; Meyer et al., 2002), organizations often try to foster commitment in their employees in order to achieve stability and to reduce costly turnover (Paré, Tremblay, & Lalonde, 2001).

As previously stated, organizational commitment is viewed as the strong desire to remain a member of the organization while engagement is understood to be a state of emotional and intellectual dedication to the organization (Allen & Meyer, 1990; Meyer & Allen, 1991; 1997, Mowday, 1998). A comparison between the two constructs would show that commitment was something that is deeply imbedded into a person's identity, which tends to take time and experience to develop whereas by contrast, engagement involves positive perspectives and performance in the context of the organization. The

difference lies in the fact that commitment is regarded as a state of psychological attachment (Macey & Schneider, 2008; O'Reilly & Chatman, 1986) between an individual and the organizations involving strong beliefs (i.e., the condition of holding a thing to be true) which can be difficult to eliminate. Conversely, engagement pertains to attitudes (i.e., the degree of like or dislike for something) that can be changed, by a change of perspective and environment. Engagement, in comparison to organizational commitment, involves components of satisfaction such as why employees like working for the organization, how much they want to be there and how much they want to do to achieve results for the organization. Whereas commitment involves having a strong belief and acceptance, and association with the identity, core values, and the goals of the organization (Meyer & Allen, 1991; 1997; Meyer, Becker, & Vandenberghe, 2004; Mowday, 1998), engagement does not go as far as experiencing the organization's values to be embedded in the employee's own value system. Rather, it is only about a positive view of those values. Organizational commitment calls for an internal change in the employee, because of one's involvement in the organization, whereas engagement is about positive perceptions that provide the motivation to perform well. There is also a readiness for an individual with organizational commitment to exert effort on behalf of the organization; however, engagement requires motivational approaches in order for one to exert the same kind of actions (Armstrong, 2006). Thus, these differences could imply that different approaches are necessary in order to promote organizational commitment and engagement, although it does not make one less important than the other.

Organizational commitment increases retention, loyalty, and the dedication of the employees and engagement enables them to work harder and better (Armstrong, 2006). It

shows that implementation of strategies that involve both organizational commitment and employee engagement approaches are needed in order to impact job performance and turnover in a significant manner.

Allen and Meyer (1990) suggest that the lightest commitment level is normative as it entails employees only exhibiting behaviours because they feel it is the right thing to do (Meyer & Allen, 1997; Meyer & Herscovitch, 2001). Employee engagement's influence for motivating the employee could go as far as encouraging the employee to work because it was something they found enjoyment in. On another level, continuance commitment is the tendency to engage because of the perceived cost of failing to do so. In this level, employee engagement could be interpreted in terms of providing the positive consequences for performing well, instead of the negative consequences for bad performances. Finally, in terms of affective commitment, the employee is already attached on a personal level and identifies with the organization's goals and values (Allen & Meyer, 1990; Meyer & Allen, 1997; Meyer & Herscovitch, 2001). This is the ideal level of commitment sought in an employee, and which can be obtained by starting with the positive perception associated with group membership and the positive effects of good performance.

Given that there are different types of commitment for an organization, engagement may have different levels of influence over the commitment types of the employees. As such, employee engagement could bring about positive performance based on positive perception of the company, at a minimum level. Further, given that employee engagement is considered to have a strong influence on job performance and employee retention, it is necessary to explore what is meant by these constructs and how

organizational commitment and employee engagement could possibly affect these variables.

Job Satisfaction

The advent of the human relations movement in the 20th century accentuated the importance of workplace attitudes. Among these attitudes, job satisfaction is arguably the most extensively researched construct in industrial and organizational psychology (Judge, Parker, Colbert, Heller, & Ilies, 2001). It is defined as the attitudes an employee attributes toward his or her job experiences in reference to past work experiences, current expectations, or existing alternatives (Balzer, Kihm, Smith, Irwin, Bachiochi, & Robie, 2000). To date, it has been studied as a predictor, correlate, and criterion of other job-related variables for example, job performance (Judge, Thoresen, Bono, & Patton, 2001); fit perceptions (Kristof-Brown, Jansen, & Colbert, 2002); and turnover intentions (Morrison, 2004).

Job Performance

Campbell (1990) defines job performance as a behaviour; that is, something done by the employee, with positive job performance leading to the completion or achievement of organizational goals (Judge et al., 2001; MacIntyre, 2001). Indeed, positive job performance is viewed as an essential outcome affecting an organization's growth and profitability, and has been shown to be both a correlate and a criterion of other job-related variables including job satisfaction (Judge, Thoresen, Bono & Patton, 2001; Sarmiento, Beale & Knowles, 2007), confidence in leadership (Brown, 2004), organizational justice (Konovsky & Cropanzano, 1991), communications (Grégoire & Riley, 2001), person-organization fit (Hoffman and Woehr, 2006), turnover intentions (Morrison, 2004;

Thoresen, Bono, & Patton, 2001), job involvement (Thoresen et al., 2001), cohesion (Liefvooghe, Jonsson, Conway, Morgan, & Dewe, 2003; Manning, 1991), and organizational commitment (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). Decker and Borgen (1993) also reviewed negative factors such as role stress, which have been shown to inhibit job performance (Decker & Borgen, 1993).

According to Morgan (2004), employees who are most engaged perform 20% better and are 87% less likely to leave the organization as compared to employees who are the least engaged. The highly engaged also tend to outperform those with average levels of engagement, demonstrating that job performance and job turnover is highly related to engagement (Morgan, 2004). However, there was still a need to find the direct correlation for this and to understand why and how this impact was brought about by employee engagement. In their analysis of the relation between Human Resource Practices, engagement, and firm performance, Bagnato and Paolini (2009) found engagement to be a mediator in the link between HR practices and performance. They also found that when considering the relation between work engagement and performance, it emerged that business performance increased by 34% with one-standard deviation increase in work engagement (Bagnato and Paolini, 2009).

Turnover Intent

According to Ajzen's (1991) theory of planned behaviour, individual intentions are postulated as being the driving force behind a willingness to engage in a particular behaviour. In essence, individuals are more likely to perform certain actions because they form an intention to carry out the action. Also, the potency of the behavioural intention is hypothesized to increase the likelihood that the behaviour will be performed,

but only if the behaviour in question is under voluntary control (Ajzen, 1991). Similar to Azjen's theory of planned behaviour, Brough and Frame (2004) contend that turnover intentions relate to the attitudes that employees entertain about leaving an organization, which in turn, often results in actual turnover. In their meta-analysis, Griffeth, Hom, and Gaertner (2000) reviewed 500 correlations from 42 studies and evaluated actual turnover using predictor variables at the individual level of analysis. Among the predictors of turnover, intentions to leave the organization was the strongest antecedent to actual turnover ($r = .35$). More contemporary research (Brough & Frame, 2004; Teixeira-Salmela, Devaraj & Olney, 2007) has also shown support for the contention that turnover intention is the strongest predictor of actual turnover.

In their meta-analysis, Griffeth et al (2000) also found that organizational commitment was negatively correlated with actual turnover. ($r = -.18$). Therefore, as there have been findings that have shown the impact of organizational commitment and engagement on turnover intent apart from each other, it would be important to discover if there was a significant effect of the impact of employee engagement on turnover intention once the effect of organizational commitment on turnover intention has already been taken into account.

Purpose of the Study

The purpose of the present study was to explore the association of employee engagement and organizational commitment and whether each of these constructs has unique influence on job satisfaction, employee performance, and intention to remain with an organization. It was expected that employee engagement would have a strong independent influence on job satisfaction, performance, and turnover intent, over and

above the influence of organizational commitment, thus demonstrating not only the uniqueness of the construct, but also its importance for understanding human behaviour in organizations.

Hypotheses

Hypothesis 1: Each of the three factors of employee engagement (Vigor, Dedication, and Absorption) will be positively correlated with job satisfaction and self-reported performance and negatively correlated with turnover intent.

Hypothesis 2: The affective and normative components of organizational commitment will be positively correlated with job satisfaction and self-reported performance, and negatively correlated with turnover intention.

Hypothesis 3: The three components of employee engagement will explain additional variance in self-reported performance above and beyond the variance explained by all three facets of organizational commitment.

Hypothesis 4: The three components of employee engagement will explain additional variance in job satisfaction above and beyond the variance explained by the facets of organizational commitment.

Hypothesis 5: The components of employee engagement will explain additional variance in turnover intent above and beyond the variance explained by the organizational commitment facets.

METHOD

Participants

The current research used archival data taken from a larger survey administered to members of the Canadian Forces (CF) logistical branch in 2008 by Director Military

Personnel Operational Research and Analysis (DMPORA). A total of 291 Regular Force (permanent, full-time), Reserve Force (non-permanent, part-time), and Department of National Defence civilian employee (full-time) personnel responded to an electronic version of the Unit Morale Profile survey - a commonly used instrument in the CF used to assess employee opinions (864 emails sent; response rate = 31.7%). Demographic information pertaining to gender was not collected.

While unique relative to many civilian organizations, this population can be compared to similar large government bureaucracies, such as the Royal Canadian Mounted Police, the Canadian Coast Guard, and other large security and law enforcement agencies wherein employees typically undergo a rigorous recruitment and selection process. Likewise, members of these groups accept a degree of personal sacrifice and risk to personal safety that sets this population apart from many civilian organizations.

At the same time, the Canadian Forces is similar to many civilian organizations in terms of high employee turnover. While retention in the CF will likely always be a challenge due to the nature of the work that demands strenuous physical labour, hazardous and stressful working conditions, and personal sacrifice, the results of this research may be generalized across other organizations where employee retention or performance may be issues of concern.

Procedure

The present study used measures of job satisfaction, performance perceptions, work engagement, career intentions (intentions to turnover), and organizational commitment that were included as part of the larger Unit Morale Profile survey, which is a measure of organizational climate applicable to military units in garrison. The Unit

Morale Profile is also a diagnostic instrument that provides unit leadership with insight into the strengths and potential limitations of their units through the opinions, perceptions, and beliefs of their members (Tremblay, 2009).

The Unit Morale Profile used for this study consisted of 266 questions and although there is no established time limit for this survey, the questionnaire takes approximately 30 minutes to complete. In addition to completing measures of various psychological constructs, participants are asked to answer a limited number of items related to certain demographic characteristics.

The Operational Effectiveness and Leadership section of the Director General Military Personnel Research and Analysis is responsible for coordinating all personnel research within the Canadian Forces. A Commanding Officer wishing to have a Unit Morale Profile administered to his/her unit submits a research request directly to the Operational Effectiveness and Leadership section. Once approved, electronic versions of the survey are made available to all unit members *via* the Defence Wide Access Network, and for which all potential respondents are individually provided with an email link. As the Defence Wide Access Network is an *intranet* system, all surveys are completed in the workplace.

Prior to completing the questionnaire, participants were provided with the information/consent sheet, which indicated that participation was voluntary. Furthermore, participants were advised that they were free to withdraw participation at any time while filling out the questionnaire. Participants were informed of steps taken to ensure anonymity and were advised of their rights to access copies of reports and data held in federal government files under the *Access to Information Act*. Completion of the survey

was taken as an indication of their consent. The information/consent sheet that was provided offered sufficient information as to eliminate the requirement for a debriefing. A copy of the information/consent sheet containing the Social Science Research Review Board (Ethics committee) authorization number is shown in Appendix A. Copies of the scales are in Appendix B.

Measures

Employee Engagement

Engagement was measured using the short version of the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2006). The index consists of nine questions overall with three questions in each of the three subscales: Vigor, Dedication, and Absorption. Responses were measured on 5-point Likert-type scales ranging from one (never) to five (frequently, if not always) to questions such as “At my work, I feel bursting with energy” (Vigor), “I am enthusiastic about my job” (Dedication), and “I get carried away when I’m working” (Absorption). Past research (Schaufeli et al., 2006) found that the internal consistency for the three subscales range from $\alpha = .75$ to $\alpha = .91$. The reliability for the total Utrecht Work Engagement Scale (9 items) in the present study was $\alpha = .89$, which indicated strong internal consistency. The 3-item vigor subscale and the 3-item dedication subscale had the strongest reliability of all three sub-scales with Cronbach’s alphas of .86 for both subscales. Internal consistency for the 3-item absorption subscale was $\alpha = .65$. A copy of the Utrecht Work Engagement Scale is shown in Appendix B.

Organizational Commitment

Organizational commitment was measured using the Three-Component Model (TCM) of commitment (Allen & Meyer, 1990; Meyer & Allen, 1991; 1997); the items were modified slightly to reflect the Canadian Forces/Department of National Defence taxonomy. The reliability for the Three-Component Model of commitment scale (18 items) in the present study was $\alpha = .79$, which indicated adequate internal consistency. See Appendix B for the full scale.

In order to gauge an individual's emotional attachment to the Canadian Forces, the six-item affective commitment scale by Meyer and Allen (1997) was used. Items were measured on 5-point Likert-type scales ranging from one (strongly disagree) to five (strongly agree) on questions such as "I really feel as if the CF/DND's problems are my own". Previous research has found this scale to be valid and reliable ($\alpha = .85$; Meyer & Allen, 1997). The reliability for the affective commitment scale (6 items) in the present study was $\alpha = .72$

In order to assess commitment that arises from an internalised normative pressure (i.e., moral duty), the six-item normative commitment scale devised by Meyer and Allen (1997) was used. Items were measured on 5-point Likert-type scales ranging from one (strongly disagree) to five (strongly agree) on questions such as "I would feel guilty if I left the CF/DND now". Previous research has found this scale to be valid and reliable ($\alpha = .73$; Meyer, & Allen, 1997). The reliability for the normative commitment scale (6 items) in the present study was $\alpha = .79$

To measure an individual's commitment based on their recognition of the perceived 'cost' of leaving the Canadian Forces (e.g., pension), the six-item continuance

commitment scale devised by Meyer and Allen (1997) was used. Items were measured on 5-point Likert-type scales ranging from one (strongly disagree) to five (strongly agree) on questions such as “It would be very hard for me to leave the CF/DND right now, even if I wanted to.” Previous research has found this scale to be valid and reliable ($\alpha = .73$; Meyer & Allen, 1997). The present study found similar subscale reliabilities of $\alpha = .72$. Reliabilities for the organizational commitment subscales are presented in Table 4.

Job Satisfaction

The Job Satisfaction Scale currently used in the Unit Morale Profile is derived from two different scales: the revised 9-sub-dimensions 32-item Bernard Job Satisfaction Scale (Bernard, 2004) and the 3-item Job in General Scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989). Items were measured on 5-point Likert-type scales ranging from one (completely disagree) to five (completely agree) on questions such as “All in all I am satisfied with my job” and “I feel a sense of pride in doing my job”. Previous psychometric evaluation has reported strong internal consistency for the entire scale, $\alpha = .87$. The reliability for the total job satisfaction in the present study was $\alpha = .91$.

Job Performance

Self-appraisal of job performance was initially viewed by personnel researchers as a potential means of improving the performance appraisal process by supplementing existing methods (Somers & Birnbaum, 1991). This view is supported by Mabe and West (1982), who, in their review of the 55 studies in which self-evaluations of ability were compared with measures of performance, found that under certain measurement conditions, self-evaluations can indeed predict performance outcomes.

Research into self-appraisal of job performance as a proxy measure for actual performance has since received considerable attention as evident by a recent study by Teixeira-Salmela, Devaraj, and Olney (2007). In their study of stroke patients, they found that the Human Activity Profile (HAP), a self-report instrument, was a valid measure of actual demonstrated performance in both stroke ($r = .89$) and control subjects ($r = .99$). In another recent study, similar results were obtained by Young and Dulewicz (2007) involving 261 Officers and Ratings in the Royal Navy. In their study investigating the relations between emotional and congruent self-awareness and performance, Young and Delewicz (2007) found that self-evaluation of own performance was significantly correlated with appraised (actual) performance ($r = .66$). It is therefore suggested that self-assessments of performance are an appropriate method of assessing actual performance.

Performance perceptions were measured using a scale developed internally by the Canadian Forces. The scale consists of six items that measure perceptions of section and unit performance, while also providing respondents with a self-evaluation of individual performance. Items were measured on 5-point Likert-type scales ranging from one (completely disagree) to five (completely agree) on questions such as “I consider myself productive” and “I consider myself hard working”. Previous psychometric evaluation has suggested fairly good internal reliability for each of the three sub-scales with $\alpha = .85$ (individual performance), $\alpha = .82$ (section performance), and $\alpha = .70$ (unit performance) (Tremblay, 2009). In the present study only the individual performance sub-scale was used as this was deemed most appropriate for the construct being measured. Internal reliability for this scale was consistent with previous research with $\alpha = .90$. A copy of the

Performance Perception Scale is in Appendix B.

Turnover Intent

Contemporary research, which have included several meta-analyses, have consistently demonstrated a strong link between intentions to turnover and actual turnover (Brough & Frame, 2004; Griffeth et al, 2000; Tett & Meyer, 1993; Teixeira-Salmela, Devaraj & Olney, 2007). Given the strong evidence in support of using intent as a proxy measure for predicting actual turnover, it was considered appropriate to use this methodology in the current study.

Turnover intentions were measured using the five-item Career Intentions Scale developed internally by the Canadian Forces to capture the intentions of members and Defence employees to leave either the Canadian Forces or the Department of National Defence. Items were measured on 5-point Likert-type scales ranging from one (completely disagree) to five (completely agree) on questions such as “I intend to stay with the CF as long as I can.” Previous psychometric evaluation has suggested fairly good internal reliability for both respondent populations with $\alpha = .82$ (military) and $\alpha = .62$ (civilian) (Tremblay, 2009). As two items were specific to either military or civilian respondents, the scale was reduced to three items that were applicable to either population. In the present study, internal consistency for the 3-item turnover intent scale was $\alpha = .74$.

RESULTS

Prior to testing the hypotheses, the data were examined for both univariate and multivariate outliers, non-random missing data, and violation of the assumptions for the subsequent analyses (i.e., factor analysis, regression analysis, and ANOVA)

including non-linearity, non-normality, multicollinearity, and heteroskedasticity. Using Mahalanobis distance ($\chi^2(5) = 20.525, p < .001$), 16 cases were identified as multivariate outliers and were subsequently removed as recommended by Tabachnick and Fidell (2007), leaving 275 cases for analysis. Normality, linearity, and homoscedasticity were assessed using a combination of visual verification of graphs (i.e., bivariate scatterplots) and analyses of skewness and kurtosis. All scatterplots other than performance perceptions were oval-shaped, indicating that the variables of interest were normally distributed and linearly related. For the variable performance perceptions, the assumption of linearity was found to have been violated – likely as the result of the high mean score ($M = 4.33, SD = .57$; 5 point Likert-type scale). All attempts to transform the scores were unsuccessful resulting in the variable scores being used without modification. Although factor analysis and regression analysis are generally robust to violations of this assumption (Pedhazur, 1997; Tabachnick & Fidell, 2007), caution is nonetheless advised with regard to the generalizability of the results. Multicollinearity was assessed using collinearity diagnostics produced in SPSS output. Aside from linearity on the performance perception variable, no other serious violations of assumptions were identified.

While there are no firm guidelines for how much missing data can be tolerated for a sample of a given size, Tabachnick and Fidell (2007) assert almost any procedure for handling missing values yields similar results if only a few data points (i.e., less than 5%) are missing in a random pattern from a large data set. As it was determined that fewer than 5% of the data points were missing in a random pattern from both the variables of interest and the entire data set (<3%), missing values were replaced using

mean substitution. The mean substitution technique calculates means from available data which are then used to replace missing values prior to analysis. This method was chosen over alternate methods for the purpose of retaining statistical power.

Preliminary Analyses – Age, Status, and Years of Service

As Meyer et al. (2002) found that both affective and normative commitment were positively influenced by age, demographic variables including age cohort, years of service, and status (military vs. civilian) were examined in order to determine whether or not they exerted any influence on either the predictor variables (employee engagement and organizational commitment) or the criteria variables (job satisfaction, job performance, and turnover intentions). Gender differences were not assessed as this demographic information was not collected. Contrary to Meyer et al. (2002), an analysis of variance found that only affective commitment was affected by age $F(5, 245) = 2.30, p < .05$ and then only between the 26-30 years of age and the 41-50 years of age cohorts. Analysis of variance also demonstrated that all three aspects of engagement were influenced by years of service: vigor, $F(5, 242) = 5.57, p < .001$; dedication, $F(5, 242) = 3.70, p < .01$; absorption, $F(5, 242) = 2.21, p < .05$. Although age and years of service affected predictor variables, no effect was observed on the outcome variables. Therefore, there was no requirement to control for demographics in the subsequent analyses.

Components of Engagement

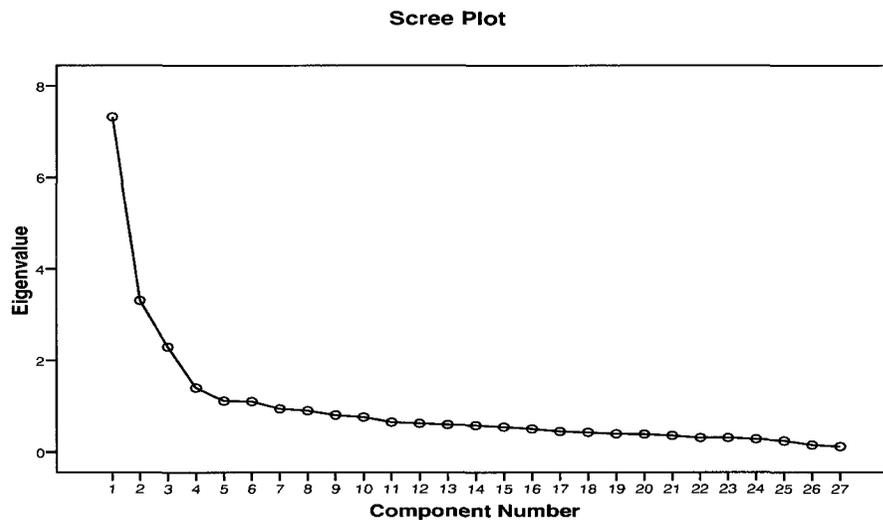
A principal components analysis with principal axis factoring with varimax rotation was conducted to examine the three factors (i.e., vigor, dedication, and absorption) of the Utrecht Work Engagement Scale and the three factors (i.e., affective, normative, and

continuance commitment) of the Three Component Model of Organizational Commitment to determine whether the two constructs were indeed distinct. Principle components analysis was used because the primary purpose of this analysis was to identify the components underlying the short version of the Utrecht Work Engagement Scale and the Three Component Model of Organizational Commitment. Varimax rotation was used in each analysis in order to improve the interpretability of the solution by minimizing complexity of components by maximizing variance of loadings on each component (Tabachnick & Fidell, 2007). The minimum amount of data for principal components analysis was satisfied (Comrey & Lee, 1992), with a final sample size of 275. The Kaiser-Meyer-Olkin measure of sampling adequacy was .84, well above the recommended value of .6, and Bartlett's test of sphericity was significant ($\chi^2(36) = 1458.42, p < .00$) suggesting equality of variance. Finally, the communalities were all above .3 further confirming that each item shared some common variance with other items. Given these overall indicators, a principal components analysis was conducted with all 27 items. The cut-off for inclusion of a variable in interpretation of a component was conservatively set at .45 (Tabachnick & Fidell, 2007).

The scree plot presented in Figure 1 shows that a very strong first component emerged as well as strong second and third components. Three additional components with Eigenvalues greater than one also emerged accounting for 61.4% of the variance in total.

Figure 1.

Scree plot for 9 Utrecht Work Engagement Scale (UWES) items and 18 Organizational Commitment (TCM) scale items



From the principal component loading matrix (Table 1), it can be seen that the three components of engagement (i.e., vigor, dedication, and absorption) did not extract as theoretically expected, but rather loaded onto the first component with only one absorption item (“I get carried away when I am working”) cross loading onto the first and sixth component. Similarly, the three components of commitment (i.e., affective, normative, and continuance) did not extract as theoretically expected, but rather loaded on five components with no cross loading. While these results may be attributed to the relatively small and homogeneous sample used in the current study ($N = 275$) in relation to the relatively large and heterogeneous sample used by Schaufeli et al. (2006) ($N = 14,521$), caution is nonetheless advised in interpreting results wherein the three subcomponents are used

separately. Notwithstanding, given the fact that neither engagement nor commitment loaded on the same component, and as there was minimal cross loading between components, it is suggested that employee engagement and organizational commitment are in fact distinct constructs.

Table 1.

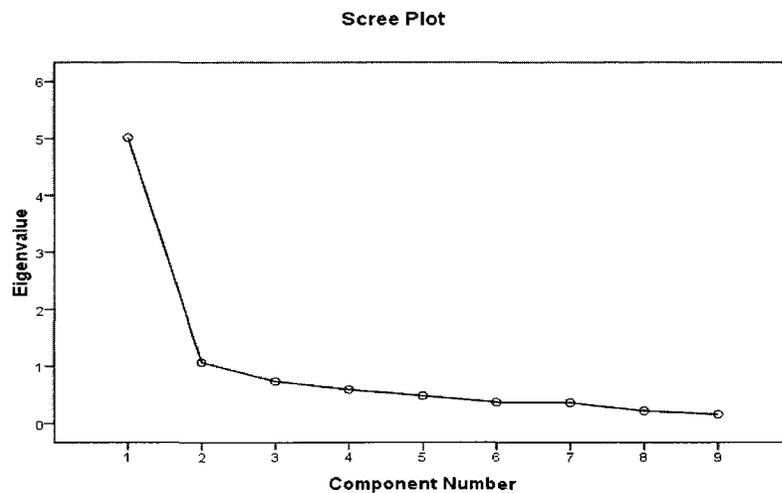
Principal Component Loadings of Employee Engagement and Organizational Commitment Items (Varimax Rotation)

Components	1	2	3	4	5	6
<i>Vigor</i>						
<i>Vig1</i>	.76	.29	-.04	.13	-.02	.04
<i>Vig2</i>	.79	.30	-.04	.04	-.12	-.03
<i>Vig3</i>	.71	.34	-.06	.18	.13	-.03
<i>Dedication</i>						
<i>Ded1</i>	.83	.19	-.04	.09	.24	-.07
<i>Ded2</i>	.79	.13	-.05	.12	.23	-.05
<i>Ded3</i>	.72	-.04	.00	.18	.16	.07
<i>Absorption</i>						
<i>Abs1</i>	.66	.03	-.06	.08	-.02	.10
<i>Abs2</i>	.70	-.21	.04	.10	.07	.30
<i>Abs3</i>	.47	-.19	-.00	-.07	.08	.59
<i>Affective Commitment</i>						
<i>AC1</i>	.32	.33	.18	.34	.24	-.25
<i>AC2</i>	.03	.37	.02	.03	-.02	.75
<i>AC3</i>	.34	.30	-.05	.64	.02	-.25
<i>AC4</i>	.09	.29	.03	.62	.20	.12
<i>AC5</i>	.20	.67	.02	.34	.13	.07
<i>AC6</i>	.20	.20	-.07	.70	.19	-.01
<i>Normative Commitment</i>						
<i>NC1</i>	.20	.13	-.04	.15	.77	-.15
<i>NC2</i>	.17	.31	.34	.10	.57	.14
<i>NC3</i>	.05	.51	.15	.03	.54	.29
<i>NC4</i>	.20	.75	.05	.04	.15	.02
<i>NC5</i>	.08	.62	.09	.00	.45	.13
<i>NC6</i>	.10	.75	.07	.18	.02	-.01
<i>Continuance Commitment</i>						
<i>CC1</i>	.18	.01	.68	-.02	.29	-.03
<i>CC2</i>	-.04	.08	.68	.14	.28	.11
<i>CC3</i>	-.15	-.06	.69	-.04	-.24	.19
<i>CC4</i>	-.08	.03	.70	-.32	.00	-.05
<i>CC5</i>	-.10	.14	.65	-.09	-.05	-.14
<i>CC6</i>	-.08	.11	.21	-.58	.11	-.03
<i>Eigenvalue</i>	7.33	3.31	2.30	1.41	1.12	1.10
<i>Variance Explained</i>	27.13	12.28	8.52	5.21	4.15	4.10

A second principle components analysis was then conducted to examine the three factors (vigor, dedication, and absorption) of the Utrecht Work Engagement Scale to see whether all three dimensions would emerge as described by Schaufeli et al. (2006) when no other items were included in the analysis. Again, varimax rotation was used in order to improve the interpretability of the solution by minimizing complexity of factors by maximizing variance of loadings on each factor (Tabachnick & Fidell, 2007). However, in the current study, the findings of Schaufeli et al. (2006) were not replicated as theoretically expected in that only two factors emerged as demonstrated by the scree plot presented in Figure 2. The initial Eigenvalues showed that the first factor explained 56% of the variance and the second factor explained 12% of the variance. The remaining seven components had Eigenvalues less than one.

Figure 2.

Scree plot for 9 Utrecht Work Engagement Scale (UWES) items



From the principal component loading matrix (Table 2), it can be seen that vigor and dedication are not separate constructs, but rather load on a single component. Again,

this may be attributed to the relatively small and homogeneous sample used in the current study ($N = 275$) in relation to the relatively large and heterogeneous sample used by Schaufeli et al. (2006) ($N = 14,521$). However, as the reliabilities for the subscales were within limits ($\alpha = .65 - .85$), the decision to use all subscales in subsequent analyses was made in order to remain consistent with previous research in the area. Again, caution is nonetheless advised in interpreting results wherein the three subcomponents are used separately.

Table 2.

Principal Component Loadings of Employee Engagement Items (Varimax Rotation)

Components	1	2
<i>Vigor</i>		
<i>Vig1</i>	.86	.15
<i>Vig2</i>	.87	.11
<i>Vig3</i>	.80	.22
<i>Dedication</i>		
<i>Ded1</i>	.80	.37
<i>Ded2</i>	.74	.38
<i>Ded3</i>	.50	.59
<i>Absorption</i>		
<i>Abs1</i>	.51	.38
<i>Abs2</i>	.33	.78
<i>Abs3</i>	.05	.82
<i>Variance Explained</i>	56.05	11.80
<i>Eigenvalue</i>	5.05	1.06

Components of Organizational Commitment

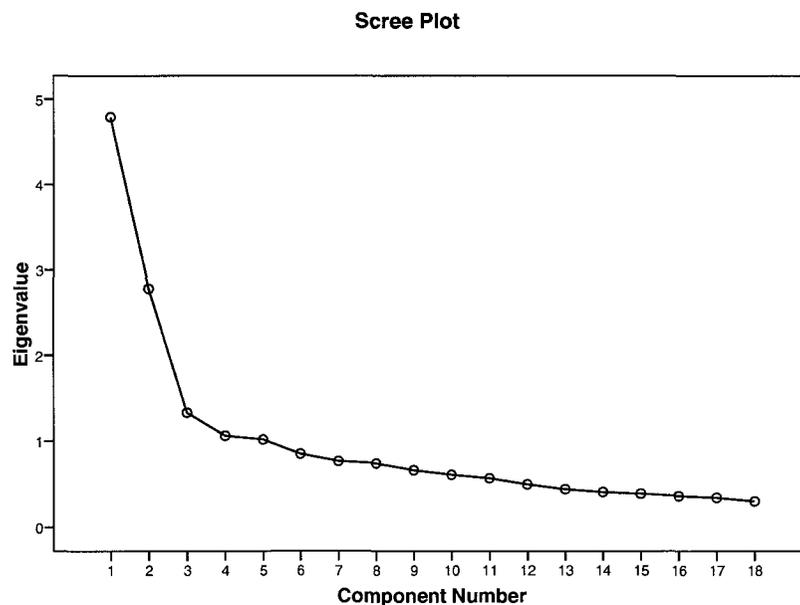
A third principle components analysis was conducted to examine whether the three components (i.e., affective, normative, continuance) of the Three Component Model of Organizational Commitment would emerge as hypothesized. Once again, varimax rotation was used in order to improve the interpretability of the solution by minimizing

complexity of factors by maximizing variance of loadings on each factor (Tabachnick & Fidell, 2007).

The scree plot (Figure 3) shows three strong factors accounting for 61.1% of the variance. As can be seen in the principle component loading matrix (Table 3), continuance commitment loaded relatively well on a single component, however affective and normative commitment loaded across four components with no identifiable pattern. Even though the commitment items did not load in the expected pattern, given that this scale is the most commonly used measure of commitment, and given that reliabilities for the three subscales had acceptable internal consistency ($\alpha = .72 - .80$), it was decided to retain the original component structure as per Meyer et al. (2002).

Figure 3.

Scree plot for 18 Three Component Model of Organizational Commitment Scale (TCM) items



Association of Engagement and Organizational Commitment with Employment Outcomes

Correlation analyses were conducted to assess the relations between the predictor variables (employee engagement, organizational commitment) and the employment-related criteria variables (job satisfaction, job performance, turnover intentions). The scales and subscales of each construct were examined to obtain comprehensive information about the directionality (positive or negative) and strength of their association with other constructs.

*Table 3.**Principal Component Loadings of Organizational Commitment Items (Varimax Rotation)*

Components	1	2	3	4	5
<i>Affective Commitment</i>					
<i>AC1</i>	.41	.13	.28	.42	-.24
<i>AC2</i>	.23	.02	.06	.03	.83
<i>AC3</i>	.38	-.08	.03	.70	-.21
<i>AC4</i>	.29	.00	.20	.58	.17
<i>AC5</i>	.74	.05	.11	.34	.10
<i>AC6</i>	.24	-.12	.22	.69	-.05
<i>Normative Commitment</i>					
<i>NC1</i>	.21	-.17	.72	.14	-.24
<i>NC2</i>	.22	.24	.71	.13	.17
<i>NC3</i>	.37	.08	.61	.04	.40
<i>NC4</i>	.80	.02	.20	.05	.04
<i>NC5</i>	.61	.04	.44	-.01	.21
<i>NC6</i>	.72	.05	.09	.18	.12
<i>Continuance Commitment</i>					
<i>CC1</i>	.03	.60	.45	.02	-.13
<i>CC2</i>	-.04	.62	.44	.13	.16
<i>CC3</i>	-.15	.71	-.08	-.06	.18
<i>CC4</i>	.05	.70	.05	-.32	-.05
<i>CC5</i>	..22	.70	-.09	-.09	-.09
<i>CC6</i>	.18	.19	.12	-.63	-.14
<i>Variance Explained</i>	26.62	15.46	7.43	5.94	5.70
<i>Eigenvalue</i>	4.79	2.78	1.34	1.07	1.02

As per Hypothesis 1, there were positive relations between the three factors of employee engagement (vigor, dedication, absorption) and job satisfaction (Table 4). Although the correlations were moderate ($r = .35$ to $.55$), the positive direction suggests that as employees' level of engagement increases, so does their level of job satisfaction. The strongest relations were found between job satisfaction and both vigor and dedication, $r = .55, p < .01$ respectively. Further, there were positive relations between the three factors of employee engagement and self-reported job performance ($r = .27$ to $.39$) indicating that as employees' level of engagement increases, so does their level of job performance. The strongest relation was between absorption and performance, $r = .39, p < .01$. Further, the three factors of employee engagement were negatively correlated with turnover intent ($r = -.40$ to $-.16$) suggesting that as levels of engagement increase, turnover intent decreases. Hence, Hypothesis 1 was supported as all three factors of engagement were associated with higher levels of job satisfaction, higher levels of self-reported performance, and lower levels of intent to leave.

Based on Hypothesis 2, it was expected that there would be positive relations between the affective and normative components of organizational commitment and both job satisfaction and self-reported job performance. Job satisfaction was found to be positively correlated with both affective ($r = .48, p < .01$) and normative ($r = .43, p < .01$) commitment. The affective component of organizational commitment was found to be positively correlated with self-reported job performance ($r = .14, p < .05$). No significant relation was found with normative commitment and job performance. All three components of organizational commitment demonstrated negative relations with turnover

intent; affective ($r = -.45, p < .01$), normative ($r = -.48, p < .01$), and continuance ($r = -.17, p < .01$) indicating that as levels of commitment increase, an employee's intent to leave the organization decreases. Hence, the second hypothesis was partially supported.

Table 4.

Correlation Matrix for Engagement, Organizational Commitment, Job Satisfaction, Performance Perceptions, and Turnover Intentions

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Engagement	3.49	.67	(.89)										
2. Vigor	3.26	.82	.33**	(.86)									
3. Dedication	3.62	.81	.92**	.74**	(.86)								
4. Absorption	3.58	.67	.81**	.54**	.64**	(.65)							
5. Commitment	3.09	.51	.33**	.33**	.36**	.14*	(.79)						
6. Aff Com	3.34	.68	.46**	.46**	.47**	.24**	.24**	(.72)					
7. Norm Com	2.98	.75	.36**	.39**	.37**	.13*	.13*	.61**	(.79)				
8. Cont Com	2.94	.71	-.11	-.14*	-.08*	-.06	-.06	-.01	.23**	(.72)			
9. Job Sat	3.46	.52	.56**	.55**	.55**	.35**	.35**	.48**	.43**	-.13*	(.90)		
10. Performance	4.33	.57	.38**	.27**	.36**	.39**	.39**	.14*	.02	-.19**	.19**	(.90)	
11. Turnover Intent	2.30	.97	-.36**	-.35**	-.40*	-.16**	-.16**	-.45**	-.48**	-.17**	-.51**	-.13*	(.74)

** $p < .01$, * $p < .05$. $N = 275$

Predicting Job Satisfaction, Performance, and Turnover Intent

Hierarchical regression analyses were conducted to test Hypothesis 3 (Table 5), which posited that employee engagement (as measured by the three factors of the Utrecht Work Engagement Scale) would predict job satisfaction over and above the variance accounted for by organizational commitment alone. The three factors of organizational commitment (affective, normative, continuance) were entered in the first step of the hierarchical regression equation; the three factors of employee engagement were added in the second step, $F(6, 268) = 31.12, p < .001, R^2 = .42$. The components of employee engagement accounted for an additional 13% variance in job satisfaction over and above the components of organizational commitment. The strongest effect was on the dedication component, $\beta = .23, p = .003$, followed by vigor $\beta = .20, p = .006$. Counter to expectations, absorption did not contribute significantly to the model. Therefore, the hypothesis was only partially supported.

Hierarchical regression analysis were also conducted to test Hypothesis 4, which posited that employee engagement (as measured by the three factors of the Utrecht Work Engagement Scale) would predict the job performance over and above the variance accounted for by organizational commitment alone, $F(6, 268) = 11.04, p < .001, R^2 = .20$ (Table 6). Again, when employee engagement was entered into the model, the components of employee engagement accounted for an additional 14% variance in job performance over and above the components of organizational commitment. The strongest effect was observed on the absorption component ($\beta = .26, p < .001$) followed by dedication ($\beta = .21, p < .05$). However, because vigor did not contribute to the model, the hypothesis was only partially supported.

Table 5.

Summary of Hierarchical Regression Analyses for Organizational Commitment and Employee Engagement Predicting Job Satisfaction (N = 275)

Variable	<i>B</i>	<i>SE B</i>	β	ΔR^2
Step 1				.29***
Affective Commitment	.23	.05	.29***	
Normative Commitment	.21	.05	.29***	
Continuance Commitment	-.14	.04	-.19***	
Step 2				.13***
Affective Commitment	.11	.05	.14***	
Normative Commitment	.14	.05	.20**	
Continuance Commitment	-.09	.04	-.13*	
Vigor	.13	.05	.20**	
Dedication	.15	.05	.23**	
Absorption	.02	.05	.03	

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

Table 6.

Summary of Hierarchical Regression Analyses for Organizational Commitment and Employee Engagement Predicting Job Performance (N = 275)

Variable	B	SE B	β	ΔR^2
Step 1				.05**
Affective Commitment	.13	.06	.15*	
Normative Commitment	-.02	.06	-.03	
Continuance Commitment	-.14	.05	-.18**	
Step 2				.14***
Affective Commitment	.02	.06	.03	
Normative Commitment	-.05	.06	-.06	
Continuance Commitment	-.12	.05	-.15*	
Vigor	-.03	.06	-.04	
Dedication	.15	.06	.21*	
Absorption	.22	.06	.26***	

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

Finally, a hierarchical regression analysis was conducted to test Hypothesis 5, which posited that employee engagement (as measured by the three factors of the Utrecht Work Engagement Scale) would predict turnover intent over and above the variance accounted for by organizational commitment alone, $F(6, 268) = 21.31, p < .001, R^2 = .32$ (Table 7). When the components of employee engagement were entered into the model they accounted for only an additional 4% variance in turnover intent over and above that accounted for by the components of organizational commitment alone. Only the

dedication component of engagement contributed to the predictive qualities of the model.

As neither vigor nor absorption were significant, the hypothesis was only partially supported.

Table 7.

Summary of Hierarchical Regression Analyses for Organizational Commitment and Employee Engagement Predicting Turnover Intentions (N = 275)

Variable	B	SE B	β	ΔR^2
Step 1				.28***
Affective Commitment	-.40	.09	-.28***	
Normative Commitment	-.37	.09	-.28***	
Continuance Commitment	-.15	.07	-.11*	
Step 2				.04***
Affective Commitment	-.28	.09	-.20**	
Normative Commitment	-.29	.09	-.22**	
Continuance Commitment	-.20	.07	-.14**	
Vigor	-.08	.09	-.07	
Dedication	-.29	.10	-.25**	
Absorption	.14	.10	.10	

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

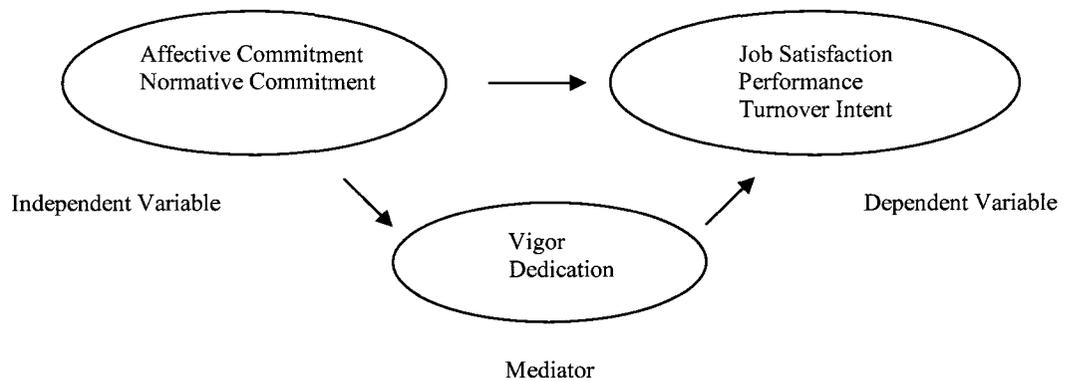
The Role of Engagement as Mediator

It was considered possible that engagement mediates the effect of commitment on job satisfaction, performance, and turnover intent. Prior to conducting the tests of mediation, the correlations between the components of organizational commitment, the components of work engagement (the mediating variables), job satisfaction, performance perceptions, and turnover intent were examined (see Table 4). As the correlation between

normative commitment and performance perceptions was not significant ($r = -.02$), it did not satisfy the criteria for mediation (Baron & Kenny, 1986) and was therefore excluded from further analysis. To test the possibility of mediation, 10 mediation analyses were conducted, one for each case where it was demonstrated through the regression analyses that a component of engagement had a direct effect on an outcome variable. The heuristic mediation model is shown in Figure 4.

Figure 4.

Heuristic Mediation Model



The mediation models were assessed using the bootstrap technique (Preacher & Hayes, 2010), which is a nonparametric procedure wherein a random sample of cases is taken from the total data set, and an estimate of the indirect effect, or point estimate (in this case, the estimate of the magnitude of effectiveness of the mediator) is obtained from that sample. This process is repeated a large number of times (resampling) until confidence intervals for the distribution of the point estimates are generated (Wood, 2005). A significant indirect effect can be concluded if the confidence interval for that effect does not contain zero. Because this method relies on fewer inferential tests than the causal steps approach (Baron & Kenny, 1986), or the Sobel test, it has the advantage of

having greater power and lower probability of Type I errors (Preacher & Hayes, 2010). In addition, given the small sample size in the present study, it was considered more appropriate than the more commonly reported and conservative Sobel test.

The results of the bootstrapping technique indicated that vigor and dedication mediated the effects of components of commitment on each of the outcomes (See Tables 1 through 10 in Appendix D). Specifically, affective commitment had a direct and an indirect effect through vigor on job satisfaction (C.I. .09 - .21), on performance (C.I. .09-.21), and on turnover intent (C.I. -.22 - -.03). Similarly, affective commitment had both a direct and an indirect effect through dedication on job satisfaction (C.I. .09 - .22), on performance (C.I. .09-.21), and on turnover intent (C.I. -.25 - -.07). Results of the analyses further indicated that normative commitment had a direct and an indirect effect through vigor on job satisfaction (C.I. .08 - .17), and on turnover intent (C.I. -.16 - -.03). Similarly, normative commitment had both a direct and an indirect effect through dedication on job satisfaction (C.I. .07 - .16), and on turnover intent (C.I. -.19 - -.06).

DISCUSSION

The purpose of the present research was to explore whether employee engagement, defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002), is different from organizational commitment, described as an employee's psychological attachment to an organization (Meyer & Allen, 1997). Further, if employee engagement and organizational commitment were found to be different, to what extent does engagement contribute to positive employee outcomes, particularly at the level of the subscales? Based on a sample of 275 enrolled military members and civilians working for the Canadian Forces, it was

found that employee engagement and organizational commitment were in fact separate and distinct constructs. It was also found that in general, employee engagement was a strong predictor of self-rated performance, job satisfaction, and intention to remain with the organization, all of which are important outcomes for any organization. Thus, employee engagement is an important construct to consider when examining work-related attitudes.

Structure of Employee Engagement

Although the three subscales of the Utrecht Work Engagement Scale (vigor, dedication, absorption) were shown to have high internal consistency based on the Cronbach's alphas in the present study, the principal components analysis did not support the expected three-component model of employee engagement. Rather, the items for each of the theorized factors of vigor, dedication, and absorption loaded on a single, higher-order component of *engagement*, which was distinct from the components on which the organizational commitment items loaded. Thus, the principal components analysis results indicated 1) that engagement may be a unidimensional construct, and 2) that engagement is a distinct construct relative to organizational commitment. These findings were supported by the correlations between organizational commitment and the overall scales and subscales of both engagement and commitment, which were all .48 or lower. Although these correlations were moderate to high, the shared variance among each of the engagement and commitment subscales was no more than 23%, indicating that although these constructs are related, they are clearly not the same.

A review of the academic literature reveals that the Utrecht Work Engagement Scale is the most widely used measure of employee engagement to date. The scale was originally validated with a sample size of more than 300 students and 600 employees in

Spain (Schaufeli et al, 2002) while the short version of the scale (as used in this study) was validated with a sample size of 14,521 from across 10 European countries (Schaufeli & Bakker, 2006). Therefore, as larger sample sizes generally lead to more accurate parameter estimates, which in turn lead to a greater confidence in obtained results (Cohen, 1992), it is possible that the difference in both sample size and workforce population between Schaufeli's research and the present study may offer a partial explanation for the inconsistent factor structure of the scale found in the present study. Further, the scale has been used widely in Europe and in a few studies in the United States (e.g., Rich, 2006), but there are currently no published studies using this measure with a Canadian sample. The present study is also believed to be the first study to use the scale with a military population. The present study findings of a uni-dimensional structure as opposed to the three-component structure suggest that there may need to be additional research examining this scale and its use in a variety of populations. Although the components of engagement did not partition as expected, they were retained in the present study in order to be consistent with, and comparable to, past research in the area.

The Role of Employee Engagement

The subscales of employee engagement, as measured by the Utrecht Work Engagement Scale, accounted for incremental variance in job satisfaction, performance perceptions, and turnover intention over and above the subscales of organizational commitment. The present study found that the level of unique variance explained by the components of engagement ranged from 4% to 14%, clearly indicating that engagement is an important variable in explaining employee work-related attitudes.

Further, it was found that depending on the outcome variable, the pattern of

engagement components that contributed to the model varied. Both vigor and dedication contributed to predicting job satisfaction, whereas absorption did not, which suggests that while employees may at times be happily engrossed in the task at hand, they may not actually be happy or satisfied with their job *per se*. Similarly, whereas both dedication and absorption contributed to predicting performance, vigor did not. Thus, simply putting energy and effort into one's work does not necessarily produce desirable results, rather, results may be more dependent on employee dedication to, and absorption in, their work. In considering the predictive validity of engagement on turnover intent, it was found that only dedication contributed to the model, which suggests that no matter how engrossed employees might be in their work, or how much effort they apply to the task at hand, such characteristics or behaviours alone are not necessarily indicative of an employee's intent to remain with the organization. Indeed, only dedication, which refers to such feelings and cognitions such as inspiration, pride, and challenge in one's work (Schaufeli et al, 2002), and which involves going above and beyond the typical level of identification an individual would have with one's job (i.e., job involvement, affective commitment), was found to be useful in predicting turnover intent. It was clear through this research that engagement, as a construct, is different from organizational commitment and is important to consider, over and above commitment.

Limitations and Suggestions for Future Research

While the present research does contribute to the scientific literature, as with any study, there are limitations that need to be considered not only in the interpretation of results, but for future research as well. The limitations include problems arising from the sample, sampling technique, and the generalizability of the results.

Sample

Because this research was based on archival data, there was no ability to control which demographic data were collected. There was representation from both English and French speaking respondents in this study, but there was no demographic information pertaining to gender or race. Thus, the ability to make comparisons across these demographics was precluded. This is problematic in that there is no way to tell whether or not the sample was representative of the organizational membership – either at the logistical function level, within the Navy, or within the Canadian Forces as a whole.

As with all cross-sectional research, the present study provides only a ‘snapshot in time’. As such, responses provided in the survey only reflect the respondents’ attitudes and beliefs at the time of survey completion and may be influenced by various factors that can, and do, change over time (e.g., policies/procedures, leadership, political climate, etc). At the time that this survey was administered, the Canadian Forces was very operationally focused, with its maritime forces operating at a very high tempo. In order to keep pace and support operational requirements, the logistical branch within Maritime Pacific/Joint Task Force Pacific would also have been functioning at an equally high rate. A longitudinal study design would be useful in examining attitudes and beliefs during

periods of both high and low operational tempo and also to determine the long term effects of engagement on actual performance and turnover.

The difference in sample size between the present study and those of Schaufeli et al. (2002, 2006), may offer a partial explanation for the inconsistent component structure of the Utrecht Work Engagement Scale. As such, future researchers are encouraged to replicate the present study with a larger sample size. In addition, any expansion of the present study should also include random sampling, thus controlling for selection bias.

Although similar to many other organizations in terms of high employee turnover (8-9% annually), these survey respondents also belong to an organization in which they accept a degree of personal sacrifice and risk to personal safety that sets this population apart from many civilian organizations. Although Canadian Forces employees and personnel are likely similar to those in other large organizations, the nature of military service may have an impact on some attitudes and behaviours which in turn may limit the ability to generalize the results of this research across other organizations and/or outside of a military context.

Social Desirability and Self-Report Bias

One of the more prevalent biases in applied research is social desirability (Fisher, 1993), which is the phenomenon of individuals' desire to respond in a favourable manner, perceiving that it is the socially acceptable thing to do (Thompson & Phua, 2005). In their meta-analysis, Moorman and Podsakoff (1992) found that social desirability was related to several commonly used constructs in organizational behaviour research such as general job satisfaction, role conflict, role ambiguity, and organizational commitment. As responses in the present study to the survey items were based on self-report, they may

therefore be subject to the influence of social desirability. For instance, because the survey invitation was sent to employees using the Defence Wide Access Network, respondents may have answered in a favourable manner to portray a good image of the organization because they may have believed that it was an organization-sponsored survey rather than a request by their Commanding Officer in order to improve issues within his/her locus of control.

Similarly, self-report bias is particularly likely in organizational behaviour research because employees often believe there is at least a remote possibility that their employer could gain access to their responses. Thus, they tend to under-report behaviours deemed inappropriate by researchers or other observers and they tend to over-report behaviours viewed as appropriate (Donaldson & Grant-Vallone, 2002). Borman (1991) reported that on average, peer and supervisor performance ratings were more accurate than self-ratings because of differential leniency effects in self-reports. Despite more recent research supporting the use of self-report measures (Teixeora-Salmela, Devaraj, & Olney, 2007; Young & Dulewicz, 2007), the high mean score attained for performance perceptions in the present study may be attributable to self-report bias. Future research may wish to examine measures of actual performance as compared to measures of performance perceptions.

Common Method Variance

The problem of self-report bias is compounded by the fact that when all variables in an organizational behaviour study are based on one method of measurement, substantive findings may be contaminated by shared method variance (Donaldson & Grant-Vallone, 2002). Because all variables in the present study were measured using a single method (self-report), it is possible that the relations found among the variables may

be inflated by common method variance. Although researchers generally agree that common method variance has the potential to affect the results of a single-method study, no consensus exists about the seriousness of such biases. For example, Spector (1987) found from a re-analysis of previously published studies that a consideration of method effects did not seriously undermine the validity of the past studies. In contrast, Williams, Cote, and Buckley (1989) showed that about one-quarter of the variance in the measures examined in the past literature was attributable to method effects, indicating that method biases are more serious than what was initially suggested by Spector (1987). Crampton and Wagner (1994) later found from their meta-analysis that although self-report methods caused biases in some cases, method effects do not have the serious and pervasive consequences that critics have alleged. Nonetheless, the possibility that common method variance may be present in this research should be considered.

Further Examination of the Utrecht Work Engagement Scale

While it has been widely used in Europe, there has not been any known testing of the convergent and discriminant validity of the Utrecht Work Engagement scale in Canada. As the data collected in the present study demonstrated that the three components of engagement loaded on a single, higher-order factor of engagement and did not fit a three-factor model as reported by Schaufeli et al. (2002; 2006), it is suggested that the factorial validity of the instrument be further evaluated using Canadian respondents. Further, as the present study is believed to be the first to use the measure with a military sample, further testing of the scales' psychometric properties with other military samples is warranted.

Expansion of the Conceptual Framework

The results of this study successfully illustrated that as a construct, employee engagement was a separate from organizational commitment, and that it had a distinct effect on outcome measures of job satisfaction, performance, and turnover intent. As the research in this area continues to expand, future research could incorporate and explore the relationships between employee engagement and such additional constructs as trust, confidence in leadership, cohesion, and employee empowerment and in doing so, continue to expand the scientific literature in this area.

Implications of Findings

Although commitment is important to organizations, the present study has demonstrated that employee engagement is also important. Indeed, the results of this study showed that with increased levels of engagement there is an associated increase in both job satisfaction and performance while conversely, decreased levels of engagement are associated with a greater propensity among employees to want to leave the organization.

The potential implications of the current findings for the Canadian Forces, and ostensibly the workforce in general, relate to what many organizations see as the bottom line. As posited by Kahn (1990), when individuals expend physical, cognitive, or emotional energy and can feel that what they did was meaningful and valuable, they view it as receiving a return on their own investment. The more employees are given the opportunity to invest themselves in their work the more productive they can be, thereby ultimately resulting in organizational success. As such, organizations wishing to remain competitive and cutting

edge in their industry need to focus on the single-most factor fundamental to their success; that is, their employees (Branson, 2010; D'Anna, 2007).

Return on Investment

As discussed earlier, today's organizations are challenged by a myriad of factors such as increased competition, selecting, recruiting and retaining talented employees, outsourcing, mergers and acquisitions, and globalization. These factors have threatened the existence of some organizations and are forcing others to re-evaluate the ways in which they conduct business. Consequently, the investment that organizations make on recruiting, selecting, training, and retaining the most talented employees is paramount (Edmans, 2010). The results of the present study demonstrated that engaged employees were more likely to report better performance and were less inclined to leave the organization thus allowing the Canadian Forces to realize a heightened return on the monies invested in attracting, selecting, and training them. Although the current study was limited to a military sample, the results can be extrapolated and realistically applied to most civilian organizations.

Work/Life Balance and Retention

Today's work environment is marked by the fast pace of change, intense pressure, constant deadlines, changing demographics, increased use of technology and the co-existing virtual workplace. Juxtaposed with this, the increase in average income and rise in living standards have individuals striving for better work atmosphere and improved family and personal life (Klun, 2008). As employers endeavour to keep up with the latest technology and business trends, they must also be cognizant of the changing workforce and their associated work attitudes (i.e., how they feel about their work) and

work values (i.e., what they want out of work and their work preferences) which, as suggested by Lockwood (2007), is important for engagement. As engaged employees are less likely to leave their organization, the value of having an engaged workforce contributes to an organization being able to retain talented employees and deal with the ever-changing environment. Again, results of the present research demonstrated that engaged employees are less likely to leave the organization thus supporting this supposition. Accordingly, it is in an organizations' best interest to invest the time and resources in finding out what would keep their employees engaged, and more importantly, to create avenues to meet their expectations. Notwithstanding, as the academic research on employee engagement continues to expand, future researchers may wish to investigate which factors might keep one generation of employees engaged as compared to what keeps other generations of employees engaged. Further, future research designs may find it enlightening to determine whether these factors change over time across age cohorts, and what impact this might have on their levels of engagement.

Workplace Policies and Procedures

While many successful organizations have adopted an employee-centric philosophy, others still struggle with the realities of creating a culture that places people at the core of its values. One step in creating such culture is to pay close attention when developing workplace policies and procedures (Kossek, 2003). It has been suggested that employees are more likely to be engaged when there is open and honest communication between management and staff, mutual trust, respect, and continuous learning (Harter et al., 2002). If employees are expected to give of themselves and become engaged in their work, they must be able to do so in an environment where they feel safe. Moreover, Kahn (1990)

argued that people will personally engage when they feel safe in situations that are non-threatening, and they can function without being fearful of negative consequences.

It is important that an organization's policies and procedures are flexible and employees can adapt easily without perceiving it as unfair and rigid. Permitting employees to be resourceful may result in higher levels of engagement, involvement, satisfaction, and commitment, which would eventually decrease turnover and retain talented employees. As reported by Lockwood (2007), a recent employee study conducted worldwide found that there are fewer turnovers in organizations perceived as "talent-friendly" (p. 8) and forward looking.

CONCLUSION

To date, the Utrecht Work Engagement Scale is the most frequently used measure of work engagement in academic research. Although this instrument has been used in South Africa, The Netherlands, Spain, Japan, and Sweden, this is the first known study to validate the tool in Canada and the first known study to use a military sample. As such, the present study expands on past research by Schaufeli, Salanova, et al. (2002), Hallberg and Schaufeli (2006), and Schaufeli and Bakker (2006).

The evolution of employee engagement stems from previous research on job involvement, job motivation, and organizational commitment. In the popular literature, employee engagement has been used interchangeably with these constructs, coupled with job satisfaction and organizational citizenship behaviour. As discussed earlier, the present study successfully distinguished employee engagement from organizational commitment. However, expansion of the present research could incorporate and explore the relations among employee engagement and additional constructs that are important to organizations

such as confidence in leadership, organizational support, and cohesion.

As a construct, it is clear that engagement has much to offer organizations desiring to remain competitive. By understanding what engages their employees, organizations can better foster employee-centric policies and procedures which will actively include and involve employees in working with the organization toward achieving success in terms of the organization's core purpose or mission.

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Appendix A

Information/Consent Sheet with Ethics Approval

2008/2009***AIM:***

The purpose of this survey is to provide UNIT X with information pertaining to morale and leadership of the civilian, Regular and Reserve military members of the xxx. Your responses will allow UNIT X to recognize strengths and identify areas that require attention. This is your opportunity to speak out and be heard.

PARTICIPATION:

Participation is voluntary – You do not have to complete this survey. However, in order to provide UNIT X with an accurate picture of the state of morale and leadership in the Logistics domain within, maximum participation is crucial. Should you decide to participate, please complete all sections of this survey fully and honestly.

CONFIDENTIALITY:

Under the Access to Information Act, Canadian citizens are entitled to obtain copies of reports and data held in federal government files - This includes information from this survey. Similarly, under the Privacy Act, Canadian citizens are entitled to copies of all information concerning them that is held in federal government files. However, prior to releasing the requested information, the Director of Access to Information and Privacy (DAIP) screens the data to ensure that individual identities are not disclosed. The results from this survey administration will only be released in combined form to ensure that the anonymity of all participants is protected. In other words, your individual responses will not be provided to UNIT X, and you will not be identified in any way.

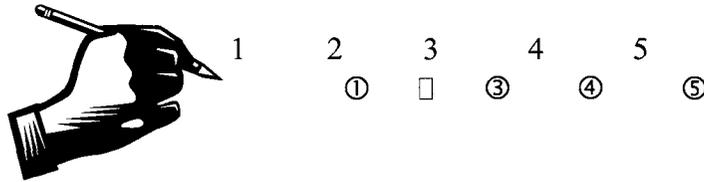
Thank you for your participation!



Director Military Personnel Operational Research and Analysis authorizes the administration of this survey within DND/CF in accordance with 198/08 CMP 084/08 271214Z Oct 08. Authorization number: 715/08.

Please read the following instructions carefully before filling out the survey

- Each section of this survey has its own instructions. Please read each set of instructions carefully prior to completing each section.
- Please respond to the questions by darkening the number corresponding to your response.



If you change your mind about your response, please put an **X** through your initial answer and darken the desired response.



- To further safeguard your anonymity and privacy, you should not record your name, service number or personal record identifier anywhere on this survey.
- Ensure that any written comments you offer are general so that you cannot be identified as the author.
- This is not a test - There are no right or wrong answers to any of the survey questions.
- There is no time limit. It may take approximately 30-45 minutes to complete.
- Please submit **all pages** of the survey when you are finished.

Appendix B

Scales

Work Engagement

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, select 1, if you have had this feeling, indicate how often you feel it by selecting the appropriate number (2 to 5) that best describes how frequently you feel that way.

5-point Likert-type scale: 1 (never); 2 (rarely); 3 (sometimes); 4 (fairly often); 5 (frequently, if not always)

Vigor

1. At work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. When I get up in the morning, I feel like going to work.

Dedication

1. I am enthusiastic about my job.
2. My job inspires me.
3. I am proud of the work that I do.

Absorption

1. I feel happy when I am working intensely.
2. I am immersed in my work.
3. I get carried away when I'm working.

Organizational Commitment

Commitment can affect your desire to stay with the CF/DND. Using the 5-point scale below, please indicate your level of agreement with each of the following statements.

5-point Likert-type scale: 1 (completely disagree); 2 (disagree); 3 (neither agree nor disagree); 4 (agree); 5 (completely agree)

Affective Commitment

1. I would be very happy to spend the rest of my career in the CF/DND.
2. I really feel as if the CF/DND's problems are my own.
3. I do not feel a strong sense of belonging to the CF/DND.
4. I do not feel "emotionally attached" to the CF/DND. (R)

5. I do not feel like “part of the family” in the CF/DND. (R)
6. The CF/DND has a great deal of personal meaning for me.

Normative Commitment

1. I do not feel any obligation to remain with my current employer. (R)
2. Even if it was to my advantage, I do not feel it would be right to leave the CF/DND now.
3. I would feel guilty if I left the CF/DND now.
4. The CF/DND deserves my loyalty.
5. I would not leave the CF/DND right now because I have a sense of obligation to people in it.
6. I owe a great deal to the CF/DND.

Continuance Commitment

1. It would be very hard for me to leave the CF/DND right now, even if I wanted to.
2. Too much of my life would be disrupted if I decided I wanted to leave the CF/DND now.
3. Right now, staying with the CF/DND is a matter of necessity as much as desire.
4. I believe that I have too few options to consider leaving the CF/DND.
5. One of the few negative consequences of leaving the CF/DND would be the scarcity of available alternatives.
6. If I had not already put so much of myself into the CF/DND, I might consider working elsewhere.

Job Satisfaction

There are positive and negative aspects to every job. Together, they determine our satisfaction with the work we do. Using the 5-point scale below, please indicate your level of agreement with each of the following statements.

Nature of Work

1. I feel my work is important.
2. I sometimes feel my job is meaningless. (R)
3. I feel a sense of pride in doing my job.
4. I am satisfied with the contribution my work makes to the CF/DND.

Promotion

1. There is really too little chance for promotion in my occupation.
2. People get ahead as fast here as they do in other places.
3. I am satisfied with my chances for promotion
4. Those who do well on the job stand a fair chance of being promoted.

Work Limitation

1. Many of our rules and procedures make doing a good job difficult. (R)
2. I have too much to do at work. (R)
3. I have too much paperwork. (R)
4. My efforts to do a good job are seldom blocked by red tape.

General Satisfaction

1. All in all I am satisfied with my job.
2. In general, I don't like my job. (R)
3. In general, I like working here.

Job Security

1. I am satisfied with the amount of job security I have.
2. I am satisfied with how secure things look for me in the future in the CF/DND.
3. I am satisfied with the economic security I have in the CF/DND.

Equipment

1. I am satisfied with the condition of the equipment I use at work.
2. I am satisfied with the availability of necessary supplies to do my work.
3. I have opportunities to use up-to-date equipment.

Compensation

1. The benefits I receive are as good as those that most other organizations offer.
2. Pay increments are satisfactory.
3. The benefit package I have is equitable
4. I am satisfied with my pay compared to what I could make in another organization.

Training

1. My training adequately prepared me for my current job.
2. I have the opportunity to use my training in my work
3. I am satisfied with the training received in order to perform my current job.

Recognition

1. I feel my efforts are rewarded appropriately.
2. There are few rewards for those who work here. (R)
3. Time is taken to recognize my achievements.
4. I feel that the work I do is appreciated.

Flexibility

1. I am satisfied with my work schedule.
2. I like the flexibility of my work schedule.
3. I have the opportunity to vary my work methods.

Performance Perceptions

This section asks you to rate aspects of your own performance, your section/work group's performance, the logistics chain's performance. Using the 5-point scale below, please indicate your level of agreement with each of the following statements.

5-point Likert-type scale: 1 (completely disagree); 2 (disagree); 3 (neither agree nor disagree); 4 (agree); 5 (completely agree)

1. The people in the logistics chain work more efficiently than most other units.
2. The people who I work with in my section are competent.
3. The people who I work with in my section are hard working.
- 4.* I consider myself hard working.
- 5.* I consider myself productive.
6. I consider the logistics chain effective in terms of attaining its objectives.

* Only individual performance items used in present study.

Career Intentions

This section asks you to describe your CF/DND career intentions. Using the 5-point scale below, please indicate your level of agreement with each of the following statements.

5-point Likert-type scale: 1 (completely disagree); 2 (disagree); 3 (neither agree nor disagree); 4 (agree); 5 (completely agree)

- 1.* I intend to stay with the Canadian Forces/DND as long as I can.
2. I intend to leave the Canadian Forces as soon as I finish my current Terms of Service.
- 3.* I intend to leave the Canadian Forces/DND as soon as a civilian job becomes available.
- 4.* I intend to leave the Canadian Forces/DND as soon as I qualify for a pension.
5. I intend to leave the Canadian Forces within the next two years.

* Only career intention items used in present study.

Appendix C

Demographic Information

The following questions are helpful in identifying trends that are specific to certain groups, such as possible differences between rank, or differences based on years of service. The information you provide will NOT be used to identify you. Please answer all of the following questions by darkening the circle that best represents you.

<p>What is your status?</p> <p><input type="radio"/> Regular Force</p> <p><input type="radio"/> Reserve Force</p> <p><input type="radio"/> Civilian Employee</p> <p>To which sub-unit do you belong?</p> <p><input type="radio"/></p> <p>How long have you been with your unit?</p> <p><input type="radio"/> Less than 1 year <input type="radio"/> 3-4 years</p> <p><input type="radio"/> 1-2 years <input type="radio"/> More than 4 years</p> <p>How many times have you been operationally deployed in the last 5 years?</p> <p><input type="radio"/> None <input type="radio"/> 3</p> <p><input type="radio"/> 1 <input type="radio"/> 4 or more</p> <p><input type="radio"/> 2 <input type="radio"/> N/A</p>	<p>What is your rank?</p> <p><input type="radio"/> Pte/OS-MCpl/MS <input type="radio"/> OCdt-Maj</p> <p><input type="radio"/> Sgt/PO2-CWO/CPO1 <input type="radio"/> Maj-LCol</p> <p>How many years of CF/DND service have you completed?</p> <p><input type="radio"/> 5 years or less <input type="radio"/> 16-20 years</p> <p><input type="radio"/> 6-10 years <input type="radio"/> 21-25 years</p> <p><input type="radio"/> 11-15 years <input type="radio"/> 26 years or more</p> <p>What is your age?</p> <p><input type="radio"/> 18-25 years <input type="radio"/> 36-40 years</p> <p><input type="radio"/> 26-30 years <input type="radio"/> 41-50 years</p> <p><input type="radio"/> 31-35 years <input type="radio"/> 51 years and older</p> <p>Military Personnel Only</p> <p>What is your MOC?</p> <p><input type="radio"/> Logistics Officer <input type="radio"/> Cook</p> <p><input type="radio"/> RMS Clk <input type="radio"/> Steward</p> <p><input type="radio"/> Supply Tech <input type="radio"/> Traffic Tech</p> <p><input type="radio"/> MSE Op</p> <p>Civilian Personnel Only</p> <p>What is your classification?</p> <p><input type="radio"/> AS <input type="radio"/> GSST</p> <p><input type="radio"/> CR <input type="radio"/> GLWOW</p> <p><input type="radio"/> GT <input type="radio"/> GLMDO</p> <p><input type="radio"/> PG <input type="radio"/> FI</p> <p><input type="radio"/> STS <input type="radio"/> GLELE</p> <p>In the past 2 years, how many months have you been absent from your home because of work (e.g., tours, courses, TD)?</p> <p><input type="radio"/> 3 months or less <input type="radio"/> 7-12 months</p> <p><input type="radio"/> 4-6 months <input type="radio"/> More than 12 months.</p>
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Appendix D
Bootstrap Analyses

Table 1.

Direct and Indirect Effects of Affective Commitment (through Vigor) on Job Satisfaction

	Coefficient	SE	t
Direct Effect	.37	.04	8.89***
Indirect Effect (through Vigor)	.15	.03	5.65***

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

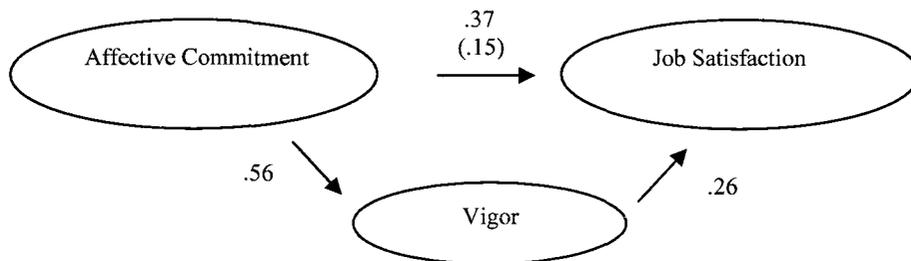


Table 2.

Direct and Indirect Effects of Affective Commitment (through Dedication) on Job Satisfaction

	Coefficient	SE	t
Direct Effect	.37	.04	8.89***
Indirect Effect (through Dedication)	.15	.03	5.73***

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

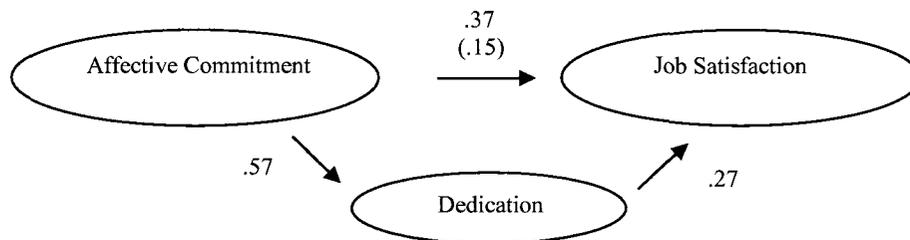


Table 3.

Direct and Indirect Effects of Normative Commitment (through Vigor) on Job Satisfaction

	Coefficient	SE	t
Direct Effect	.30	.04	7.79***
Indirect Effect (through Vigor)	.12	.02	5.34***

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

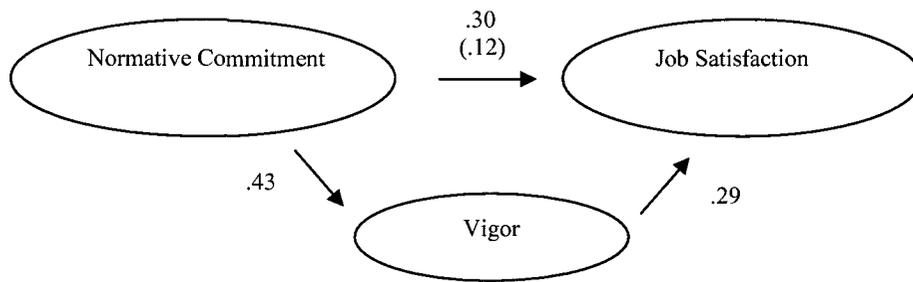


Table 4.

Direct and Indirect Effects of Normative Commitment (through Dedication) on Job Satisfaction

	Coefficient	SE	t
Direct Effect	.30	.04	7.80***
Indirect Effect (through Dedication)	.12	.02	5.23***

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

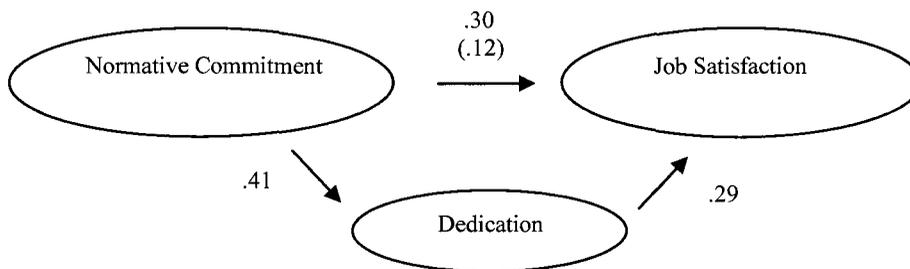


Table 5.

Direct and Indirect Effects of Affective Commitment (through Vigor) on Performance

	Coefficient	SE	T
Direct Effect	.12	.05	2.29*
Indirect Effect (through Vigor)	.10	.03	3.60***

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

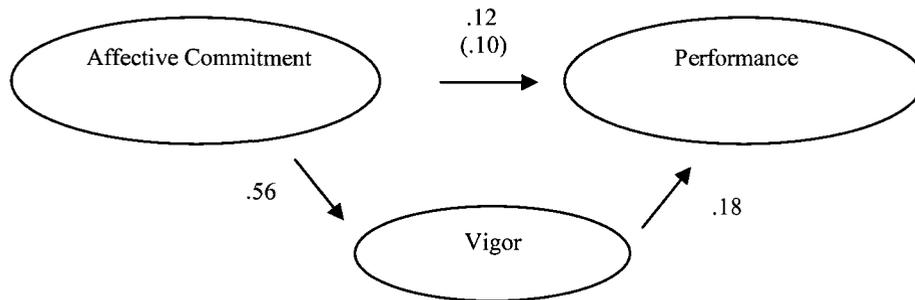


Table 6.

Direct and Indirect Effects of Affective Commitment (through Dedication) on Performance

	Coefficient	SE	T
Direct Effect	.12	.05	2.29*
Indirect Effect (through Dedication)	.15	.04	4.79***

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

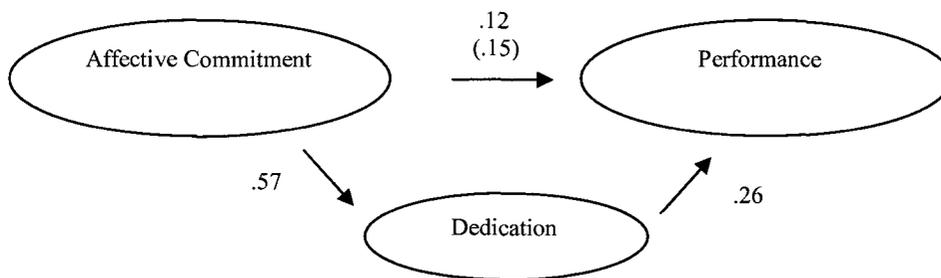


Table 7.

Direct and Indirect Effects of Affective Commitment (through Vigor) on Turnover Intent

	Coefficient	SE	T
Direct Effect	-.65	.08	-8.29***
Indirect Effect (through Vigor)	-.12	.04	-2.80**

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

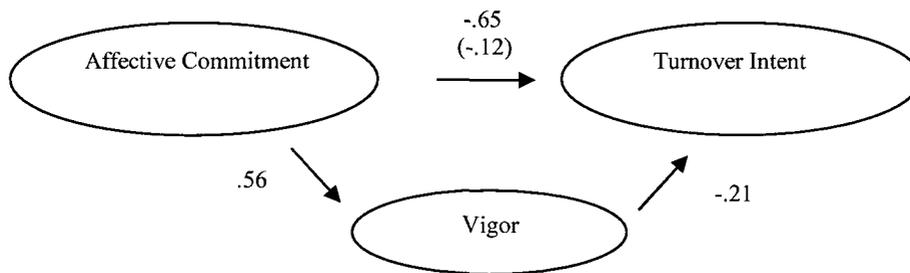


Table 8.

Direct and Indirect Effects of Affective Commitment (through Dedication) on Turnover Intent

	Coefficient	SE	T
Direct Effect	-.65	.08	-8.29***
Indirect Effect (through Dedication)	-.16	.05	-.353***

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

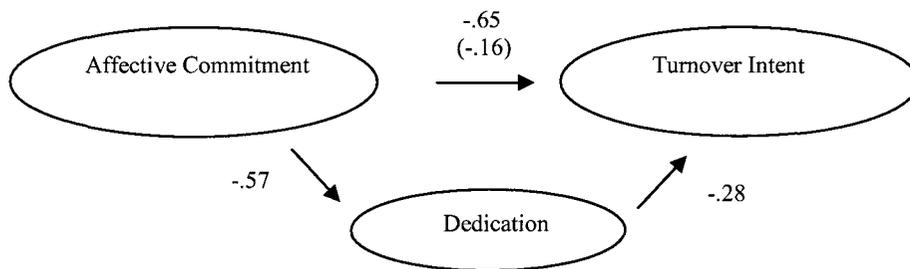


Table 9.

Direct and Indirect Effects of Normative Commitment (through Vigor) on Turnover Intent

	Coefficient	SE	T
Direct Effect	-.62	.07	-8.93***
Indirect Effect (through Vigor)	-.10	.04	-3.00**

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

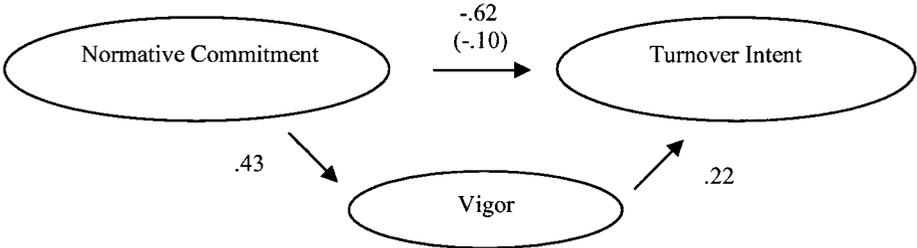


Table 10.

Direct and Indirect Effects of Normative Commitment (through Dedication) on Turnover Intent

	Coefficient	SE	T
Direct Effect	-.62	.07	-8.93***
Indirect Effect (through Dedication)	-.12	.03	-3.70***

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

