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WORK EXPERIENCES OF CCTV SURVEILLANCE OPERATORS

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2009

A research project submitted in partial fulfillment of the requirements for the degree of MA by coursework and Research Report in the field of Industrial Psychology in the Faculty of Humanities, University of the Witwatersrand, Johannesburg, 23 October 2009.

DECLARATION

I declare that this research report is my own, unaided work. It has not been submitted before for any other degree or examination at this or any other university.

Word Count: 37 763

Salisha Singh

23 October 2009

ACKNOWLEDGEMENTS

I would like to thank a number of people who have assisted me during the course of this research process:

Fiona Donald, for her constant support, advice and encouragement. Her patience and understanding is a virtue that is admirable. Thank you!

My parents and grandparents for their continuous love, support and understanding which has guided me not only during this research report but throughout my studying career.

My brother, Salesh Singh for his continuous support and assistance especially when there were technological problems.

My friends, Amrish Singh, Trisha Mithal and Gillian Griffith for their support, understanding, encouragement and unconditional assistance.

ABSTRACT

The present research focused on the work experiences of CCTV operators. The rationale for this study was due to the fact that there has been a dearth of research regarding the 'human element' behind the actual operation of the CCTV surveillance system. Consequently, the aim of this study was to investigate the job design and characteristics of CCTV operators, and the factors perceived to influence job satisfaction and employee engagement. The design of this study was qualitative in nature and semi-structured interviews were conducted with ten CCTV operators who monitor cameras in shopping malls. The findings indicated that there are various activities that CCTV operators engage in, however, monitoring the cameras is the main activity. Other factors contributing to the operators' job satisfaction and employee engagement was the relationships with supervisors, managers, co-workers and interactions with the public. In addition autonomy, fairness with regards to pay and hours, high workload, their own safety as well as the fact that their work has a significant impact on the lives of others were all found to add to their job satisfaction and employee engagement.

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Chapter 1: Introduction

Crime levels in South Africa have increased over the past ten years and as a result there has been an increase in the public's fear of lack of safety (Minnaar, 2007). Declining service delivery from the police as a result of shortages in funding, manpower shortages and lack of resources have led many people and organisations in South Africa to use other resources offered by the private security industry in the fight against crime (Minnaar, 2007). CCTV (Closed Circuit Television) surveillance systems form part of this private security (Minnaar, 2007).

CCTV cameras have become an important crime prevention tool throughout the world. The camera obtains pictures which are transferred to a monitor-recording device in which the images can be viewed, recorded and stored (Gill & Spriggs, 2005). These cameras are usually located in a high visibility location in order to cover the area involved. However, the transferred pictures are viewed in a security control room in a location different to where the camera is located (Harris, Jones, Hillier & Turner, 1998).

CCTV systems were first introduced in London in 1961 in an underground train station with the purpose of checking if carriage doors were clear before train drivers would move off (Keval & Sasse, 2006). However, there has been an expansion of CCTV surveillance around the world with many various uses such as the reduction of crime; the detection of anti-social offences; increase in the public's perceptions of safety; air traffic control and much more (Harris *et al*., 1998). Some of the reasons that South Africa uses CCTV surveillance is to assist city management in traffic control, fire detection, emergency service alerts, and even refuse collection (by identifying refuse pile ups in streets) in addition to the reduction of crime (Minnaar, 2007). CCTV surveillance in South Africa and worldwide is also used in casinos, banks, airports, hospitals, schools, transport facilities, city streets, shopping centres, commercial and industrial organisations and many other locations (Austrin & West, 2005; Gill & Spriggs, 2005; Norris, McCahill & Wood, 2004; Wells, Allard & Wilson, 2006). As a result there has been a substantial amount of research regarding CCTV surveillance. Most of this research focuses on the technical aspects of CCTV systems, public perceptions of their effectiveness, and crime reduction levels (Gill & Spriggs, 2005; Harris *et al*., 1998; Nieto, 1997; Wells *et al*.,

2006). There are studies that examined the public's attitude regarding the introduction of CCTV surveillance systems (Gill & Spriggs, 2005; Wells *et al*., 2006) as well as studies that examine the control room in which operators work and the related technological difficulties that arise (Keval, 2006; Keval & Sasse, 2006; Smith, 2004). However, the "human element" behind the actual operation of the system is largely overlooked as many writers do not take into account the fact that in order for the CCTV surveillance to be effective, it requires continuous monitoring and control by people (Smith, 2004). Thus, there are extremely few studies that examine the human factors involved in CCTV surveillance. Consequently, the aim of this study is to investigate the work experiences of CCTV surveillance operators, hereafter referred to as operators.

When Smith (2004) conducted a study on CCTV surveillance in response to recognising the dearth of research in this area, he identified an important factor called the "boredom factor". This boredom factor is a result of 'monotonous viewing of hours of routinized, uneventful televisual images' (Smith, 2004, p. 388). This could be due to the fact that these operators' work involves continuous monitoring of multiple video streams that can be repetitive, tiring and can result in errors especially when no significant events occur for long stretches of time (Surette, 2005). As a result these operators have to remain vigilant when monitoring cameras often in environments that are routine and have few detectable events or incidents (Donald, 2005).

The concept of vigilance (which refers to sustained attention) plays an important role in this field of research. As a result, in this study the concept of vigilance will provide the theoretical framework in which to understand the work experiences of these operators since much of the work experiences are a result of maintaining vigilant in the control room.

As mentioned previously, the "boredom factor" discovered by Smith (2004) highlights the important psychological implications that these control rooms may have on the operators and this can have detrimental consequences as this may impact their work in the control rooms. Therefore this study will examine the work experiences of these operators but will focus more specifically on the operators' job design and characteristics as well as the concepts of job satisfaction and employee engagement that forms part of their work experiences. This is in response to the major

shortcoming in this field which is the lack of research regarding the human factors in CCTV surveillance.

As a result, this study will firstly discuss the concept of vigilance and its application to the field of CCTV surveillance. This will then be followed by an explanation of the job design and characteristics of the operators' work. The concept of job satisfaction and the factors that are perceived to influence the operators' job satisfaction will then be examined. The various theories of job satisfaction will be reviewed; however the Job Characteristics Model by Hackman and Oldham (1976) will be used in this study as a basis for the analysis. Lastly the concept of employee engagement and the factors that are perceived to influence the operators' employee engagement will be investigated. Previous research regarding this concept will be examined however, the theoretical model of employee engagement adopted for this study will be that of Kahn's (1990) psychological conditions associated with engagement and disengagement at work.

It has been noted that most of the academic research on CCTV has been conducted by criminologists in order to investigate government and police claims regarding the effectiveness of the cameras in reducing crime and the 'fear of crime' among the public (Smith, 2004, p.380). Consequently the research is primarily quantitative and evaluative in nature (Smith, 2004). There have been a limited number of qualitative studies conducted in CCTV surveillance research and on the human factors that impact on CCTV operator performance (Donald & Donald, 2008). In response to the lack of rich data in this field of research, this study is qualitative in nature in order to obtain rich, meaningful data regarding the work experiences of CCV surveillance operators.

Chapter 2: Theoretical and Conceptual Background

Vigilance

There are various definitions of vigilance. The father of vigilance research defined vigilance as "a state of readiness to detect and respond to certain specified small changes occurring at random intervals in the environment" (Mackworth, 1969, p. 18). Others have referred to vigilance as a state of maximum physiological efficiency while other researchers define vigilance as synonymous with "sustained attention" (Davies & Parasuraman, 1982). Thus there are two broad conceptions of vigilance. The first focuses on the physiological mechanisms related to activation and alertness and the other relates to the cognitive processes in one's ability to maintain sustained attention in a task (Straussberger, 2006). The definition adopted for the context of this study is defined by Donald (2001) as "a capacity to sustain effective attention when monitoring a situation or display for critical signals, conditions or events to which the observer must respond" (p. 36). This definition was a used in the context of CCTV operators and would thus be appropriate for use in this context.

Many cognitive activities demand sustained attention if they are to be performed successfully. It is relatively easy to maintain attention to a single source of information for an unbroken amount of time if the activity is interesting or it is carried out in a rich environment such as solving challenging problems or watching an absorbing play (Parasuraman, 1984). However, it is much more difficult to remain attentive if the problem resists solution or if the play is dull. Furthermore, it is difficult when attention has to be maintained on a source for the occurrence of infrequent but critical events (Parasuraman, 1984). In such situations, the quality of attention can become fragile and can decline over time (Parasuraman, Warm & See, 1998) and can therefore lead to a vigilance decrement especially among operators who are required to monitor cameras continuously especially when no significant events occur for long stretches of time.

Two conclusions emerge from the analysis of operators' performance in the vigilance situation. Firstly, the steady-state of vigilance performance is known as the vigilance level. Operators often display vigilance levels that are lower than the desired level (Wickens & Hollands, 2000).

Secondly, the vigilance level sometimes decreases steeply during the first half hour or so of the watch which is known as the vigilance decrement (Wickens & Hollands, 2000).

The vigilance decrement refers to "a reduction in the probability that a signal will be detected, or in the speed of response, or a change in both these measures" (Mackworth, 1969, p. 16). In vigilance tasks, an observer's confirmation of weather a signal is present depends not only upon perceptual factors but also upon decision factors involved in the observer's detection goals, expectations about the nature of the stimuli, and the anticipated consequences of correct and incorrect responses (Parasuraman *et al.*, 1998). The signal detection theory views these factors as consisting of the observer's response criterion or willingness to engage in a detection response (Parauraman *et al*., 1998). It has been shown repeatedly that the vigilance decrement can be due to either a decline in sensitivity or as a shift to a more conservative criterion (Wickens & Hollands, 2000). With regards to a sensitivity decrement, it is usually restricted to demanding tasks that involve event rates that are fast with a memory load and low signal salience (Parasuraman *et al.*, 1998). A shift to a more conservative response could be due to the observer's experience with the task which allows him/her to develop a more rational expectation of the actual (generally low) signal probability (Parasuraman *et al.*, 1998).

Theories of vigilance

Wickens and Hollands (2000) discuss three theories of vigilance. The first theory accounts for sensitivity loss and the others account for criterion shifts. With regards to sensitivity loss, in many instances that have used visual signals, a sensitivity decrement usually occurs (Wickens & Hollands, 2000). A sensitivity loss would refer to an instance whereby a person becomes unresponsive or unaware of a signal that had occurred. To account for the decrement, it was proposed that sustained attention to visual tasks takes a toll in fatigue (Wickens & Hollands, 2000). As a consequence of the fatigue, the observer looks away and blinks more often as the watch progresses and thus the signals are missed (Wickens & Hollands, 2000). A vigilance task that imposes a sustained load on an observer's working memory such as having to recall what the target signal looks or sounds like can be mentally demanding. This mental demand may be as

fatiguing as the sustained demand to keep one's eye open and fixated. As a result, the eventual toil of fatigue will lead to a loss in sensitivity (Wickens & Hollands, 2000).

Therefore in situations where "the target is difficult to detect, when there is uncertainty about where or when the target will occur, when the event rate is fast, when the observer has to remember what the target looks or sounds like, when the target is not familiar", there will be an increase in fatigue and this may lead to a lower vigilance level (Wickens & Hollands, 2000, p. 38). It is also expected that over time these types of situations will lead to a greater sustained demand of the task and this will lead to greater sensitivity decrements. As a result the sustained demand theory proposes that sustained demand over time leads to the sensitivity decrement and that factors that may lead to an increase in mental demand will lower sensitivity levels (Wickens & Hollands, 2000). Forming part of this theory is the finding that when observers detect the target automatically with little effort, the sensitivity level is higher and the sensitivity decrement is eliminated (Wickens & Hollands, 2000).

Decrements in performance are not usually a result of a 'true' decline in vigilance but due to strategic changes in that a person's tendency to respond to a signal may decrease after some time of performing a task (Smit, Eling & Coenen, 2004). This changing tendency to respond is called a shift in response criterion (Smit *et al*., 2004). Theories explaining the criterion shifts are that of expectancy theory and arousal theory. With regards to expectancy theory, it is proposed that the vigilance decrement is attributed to a response criterion shift to a reduction in the perceived frequency and thus expectancy of target events (Wickens & Hollands, 2000). If a signal is missed for any reason, subjective probability is reduced because the observer believes that one less signal has occurred. This perceived reduction thus increases the likelihood of a miss (Wickens & Hollands, 2000). It is also proposed that the observer's expectancy depends on the course of the stimulus event that he/she had previously experienced with the task (Davies & Tune, 1970). The observer's level of vigilance and level of detection is thus determined by the expectancy of that signal. Therefore as long as the signal frequency remains low, the expectancy of that signal occurring is low and if the signal frequency is raised, the expectancy of that signal occurring increases (Davies & Tune, 1970).

It is proposed that external stimuli generate neural activity in the brain. Thus there will be neural or sensory evidence in the brain when a signal is present (Wickens & Hollands, 2000). This neural evidence, X, is referred to as the evidence variable. According to the arousal theory, it is proposed that in a prolonged low-event environment, the evidence variable X shrinks (Wickens & Hollands, 2000). This shrinking is a result of an overall loss in total activity (both in signal and noise) in the nervous system with a decrease in arousal. This effect will decrease the hit rate and the false alarm rate (Wickens & Hollands, 2000). A hit rate refers to when a signal is correctly identified as present and a false alarm rate refers to when a signal is incorrectly identified as present (Jacko & Sears, 2003).

Factors influencing vigilance performance

The theories mentioned above indicate several factors that may influence vigilance performance or the vigilance decrement. However, there are many other factors that are related to vigilance performance. Many of these factors were researched from around 1965 to 1985, with the result that the references appear out of date. However, less research has been conducted on vigilance in the work context in the last few decades. Some of the factors influencing vigilance performance includes signal characteristics such as the duration of the signal in which the longer the signal persists the greater the likelihood of it being detected and the less the performance decrement occurs (Davies & Tune, 1970). An increase in signal frequency is accompanied by an increase in signal detection. However, there are suggestions that the detection may have a U-shaped function in which very low or very high incidences produce poor performance with an optimum somewhere in between (Davies & Tune, 1970). The more regularly a signal occurs, the greater the likelihood of it being detected. If there is an increase in variability in the occurrence of a signal, a decrease in performance occurs over time (Davies & Tune, 1970).

Task variables also influence vigilance performance. For example, observers who are expecting a long watch indicate a rapid decrease in performance almost immediately after the task has begun. However, it has been found that if the end of the task is known to be approaching then performance temporarily improves (Davies & Tune, 1970). Rest pauses in vigilance tasks of as

little as five or ten minutes seem to allow some recovery in performance. Short breaks have been shown to alleviate fatigue and increase employee satisfaction (Weinger & Smith, 1997). It is also proposed that more than one operator increases the level of performance as oppose to a single man operating alone (Davies & Tune, 1970). However, if the other operators demonstrate a vigilance decrement as well, this may also be problematic. Financial rewards, a supervisory figure as well as feedback help to increase performance (Davies & Tune, 1970).

Many environmental aspects affect vigilance performance as well. Some of these include factors such as temperature in that temperatures that leads to general fatigue, decreases performance (Weinger & Smith, 1997). Mental fatigue is said to impair performance (Davies & Tune, 1970). Fatigue caused by hours of continuous work or boredom will result in exhaustion and psychological aversion to further work (Weinger & Smith, 1997). Sleep deprivation also appears to affect performance by increasing the amount of decrement. Research shows that sleep deprivation and circadian rhythm disturbances can dramatically impair performance on monitoring tasks (Weinger & Smith, 1997). The time of day seems to have an effect on performance as well with the afternoon allowing for the best performance (Davies & Tune, 1970). It has also been documented that altering shift schedules have an effect on circadian processes and that the efficiency of permanent night shift workers is at least 10% less than day shift workers (Weinger & Smith, 1997). Poor equipment design can be a factor affecting performance in that it can be frustrating and difficult to work with such equipment (Weigner & Smith, 1997).

It should be noted however, that the research on vigilance illustrates that considerable variation exists among performance scores achieved by different people (Davies & Parasuraman, 1982). Such differences in performance have been found with regards to different personality types with the finding that extroverts show greater decrement in sustained attention than introverts (Davies & Tune, 1970). Individuals also differ in their subjective reactions to vigilance situations and the attitudes that they develop towards the task. Individuals differing in boredom and distractibility have shown to differ in their performance levels in monotonous work situations (Davies & Parasuraman, 1982). However, even though most people performing a vigilance task will become bored at some stage, their attitude towards the task may differ in that some may feel

neutral towards the tasks, others may dislike it and others may regard the task as a challenge and adopt a positive attitude towards it (Davies & Parasuraman, 1982). With regards to age differences, there are many different findings regarding its relation to vigilance performance thus making it difficult to come up to a conclusion. This aspect needs more exploration as it is not clear how and to what degree the performance of older and younger people differ (Davies & Tune, 1970). There appears to be no relation between gender and vigilance performance and this applies to the aspect of intelligence as well. Studies found no relation between intelligence test scores and vigilance performance except in cases with brain-damaged individuals (Davies & Tune, 1970).

Vigilance in the context of the CCTV operator

The vigilance decrement seems to arise due to the necessity of attending to a relatively infrequent signal for a prolonged length of time (Weinger & Smith, 1997). These vigilance decrements can have detrimental consequences especially in the context of the CCTV operator who is responsible for detecting events such as crime incidents for a prolonged period of time. For example, Surette (2005) explains that people may find monitoring the screens to be extremely boring which may result in significant events being missed as a result of inattention. Watching the CCTV screens where most of the time nothing interesting occurs leads to an increase in the likelihood that an incident such as theft which may only take seconds to occur, will be missed (Surette, 2005).

Operators may also focus too much on certain aspects of a vigilance task which can result in the failure to notice obvious clues to criminal activity (Scott-Brown & Cronin, 2008). As a result and as mentioned previously, the vigilance levels of operators are likely to be below optimum. However, this study will not be measuring the vigilance performance of the operators. Instead, the literature discussed above will allow one to understand the work experiences of the operators in greater depth as vigilance in itself or the implications of vigilance may lead to negative work experiences. The discussion will now move on to the job design and characteristics of operators which will provide a more in-depth description of the activities that operators engage in on a

daily basis allowing for the link between the operators' work and that of vigilance to be understood in more depth.

Job Design and Characteristics of CCTV Operators

The CCTV system consists of a number of cameras, monitoring systems, recording systems, and control room operations whereby operators are required to control and monitor these cameras for certain events and incidents (Donald, 2005). These events or incidents could include "the presence or behaviour of people, changes in process, anomalies in expected conditions, verification of standard operating conditions or protocols, or the detection of specific threats or circumstances" (Donald, 2005, p.3). Therefore, in general, the work of most CCTV operators includes monitoring and controlling incidents, detection, recognition and identification (Keval & Sasse, 2006). They are responsible for detecting and responding to incidents or signals that endanger the lives of people or may threaten the safety of property (Donald, 2005).

However the range of tasks that these operators perform varies for different jobs and operators may perform tasks in addition to those described above. For example, some operators respond to radio, email and telephone calls from the local police units and council groups for maintenance problems and issues. They may also be responsible for making copies of tapes, labelling and storing backup surveillance video as well as documenting and reporting the details of incidents observed (Keval & Sasse, 2006). Part of the operator's job design is that many of them work shifts as the cameras need to be monitored continuously on a 24-hour basis but the duration of these shifts vary for different organisations. Some operators are employed to control and monitor the cameras for eight hours (Smith, 2004). Others may have to monitor the cameras for a longer or shorter period.

As mentioned previously, Smith (2004) identified a 'boredom factor' in the CCTV surveillance operator context. Surette (2005) also recognised that continuous monitoring of multiple video streams can be repetitive, tiring and can result in errors especially when no significant events occur for long stretches of time. People thus find monitoring these video streams boring and miss significant events as result of inattention or because they cannot process the visual information

correctly (Surrette, 2005). Many other researchers have also equated monotonous and repetitive work with boredom (for example, Drory, 1982; Kass, Vodanovich, & Callender, 2001; Pattyn, Neyt, Henderickx & Soetens, 2008; Vodanovich, 2003). Boredom can be defined as a unique psychophysical state caused by prolonged exposure to a monotonous stimulation (Vodanovich, 2003). However this definition does not take into account individuals' subjective perceptions. According to Pattyn *et al.* (2008), the subjective experience of boredom has a cognitive and affective component. The operator's perception of the demands imposed by the task is seen as the cognitive component. If operators perceive the task as repetitive, having no meaning, and lacking challenge, it may give rise to boredom (Pattyn *et al*., 2008). The affective component is described as the operator's interpretation of the imposed demands. This has been related to feelings of monotony, frustration, distraction, daydreaming, dissatisfaction and satisfaction, a lack of interest and fatigue (Pattyn *et al*., 2008). It should also be noted that the effect of boredom is not uniform for all individuals but rather depends on individual differences (Drory, 1982).

Smith (2004) then noted that as a result of this type of work that operators engage in, there is little job motivation or satisfaction for them and little chance of job flexibility. This will be related to the job characteristics model later in this discussion. Kass *et al*. (2001) found in their study that high levels of job boredom significantly relate to lower job satisfaction scores. Melamed, Ben-Avi, Luz and Green (1995) conducted a study on work conditions such as repetitive work, monotony and job satisfaction and found that job satisfaction is mainly related to subjective monotony. Thus it becomes important to investigate the factors that are perceived to influence the job satisfaction of CCTV operators as these factors can have important implications for performance and job design.

Job Satisfaction

Job satisfaction is defined as the "pleasurable emotional state resulting from the appraisal of one's job or job experiences (Colquitt, Lepine & Wesson, 2009). In other words, it indicates how one feels and what one thinks about their job. Employees with high job satisfaction experience

positive feelings when they think about their work duties or carry out these activities at work. Employees with low job satisfaction experience negative feelings when thinking about their work or engaging in their work (Colquitt *et al*., 2009). Job satisfaction can be differentiated into two aspects. The first aspect referring to facet satisfaction in which an employee can be more or less satisfied with various facets of the job (Johns & Saks, 2005). The second aspect refers to overall satisfaction which describes a person's overall attitude towards his/her job that cuts across the various facets (Johns & Saks, 2005). Job satisfaction is probably the most researched construct in organisational behaviour literature and is an important concept in the corporate world as job satisfaction experienced by employees will affect the quality of service they render (Crossman & Abou-Zaki, 2003).

Theories of job satisfaction

There are many theories explaining this construct. Some of these include, need fulfilment, cognitive, facet and value theory (Johnson & Holdaway, 1994). Need fulfilment theory views job satisfaction as changing as soon as individual's needs are satisfied (Schafferr, 1953). Cognitive theories see satisfaction as a result of individual thought processes and include discrepancy theories, equity theories and valence-instrumentality-expectancy (VIE) theory (Johnson & Holdaway, 1994). Discrepancy theory proposes that satisfaction is determined by the differences between the actual outcomes a person receives and some other outcome level. These outcome levels could refer to what the person expects to receive or what the person feels he/she should receive (Lawler, 1994). Equity theory is similar to discrepancy theory in that it maintains that workers compare the inputs they invest in their work and the outcomes they receive for this against the inputs and outcomes of another person or group. The perceived equity of this input-outcome balance determines satisfaction (Lawler, 1994). VIE theory assumes that people have preferences regarding certain outcomes or states of nature (Vroom, 1964). People refer to the level of satisfaction that they *expect* to receive from this outcome and not the real value the person actually receives from them (valence) (Pinder, 1991). These outcomes are believed to be instrumental in achieving other positive outcomes (instrumentality). The person's belief that the

particular outcome is possible (expectancy) is also an important aspect of the VIE theory (Pinder, 1991).

Facet satisfaction theory was established from Lawler's work and it is an extension of cognitive theory as it takes into account the differences between overall job satisfaction and facet satisfaction (Lawler, 1994). As mentioned previously, job satisfaction can be considered as a global feeling about the job or as attitudes regarding various aspects or facets of the job (Spector, 1997). The global approach is used when overall attitude is of interest and the facet approach refers to which parts of the job produce satisfaction or dissatisfaction (Spector, 1997). There has been a lot of research conducted to determine the job satisfaction facets and Spector (1997) notes that these are separated into four areas; rewards, other people, nature of the work and organisational context. Value theory was adopted by Locke (1976) who suggested that the values which workers hold were the main determinants of facet and overall job satisfaction.

It should be noted, however, that job satisfaction levels vary for different people. Spector (1997) illustrated that there are cultural and demographic differences in job satisfaction. Research shows that relationships between age and job satisfaction have been found and that gender differences can also occur in levels of job satisfaction. It was found that there are differences in job satisfaction and in patterns of facet satisfaction across countries (Spector, 1997). Racial differences in job satisfaction have also been found in the U.S population (Spector, 1997).

It has been argued that one way of increasing employee satisfaction is to 'enrich' the employee's job. Job enrichment seeks to improve employees' satisfaction by redesigning jobs with the intent of making it more satisfying to the employee (Loher, Noe, Moeller & Fitzgerald, 1985). According to Sims, Szilagyi and Keller (1976), many of the recent efforts to develop job enrichment and job enlargement programs are directed toward redesigning jobs in an effort to reduce the problems of boredom and alienation in the workplace. There are several approaches to work design. Some of these theories will be reviewed now.

Herzberg's two-factor theory of satisfaction and motivation suggests that there are two areas that are linked to work, namely those that are related to the activities one conducts at work, these are

also referred to as intrinsic factors and the other area is related to the environment in which individuals conduct their work, also referred to as extrinsic factors (Herzberg, Mausner & Snyderman, 1959). The theory proposes that determinants of employee satisfaction are factors intrinsic to the work such as recognition, achievement, responsibility, advancement, and personal growth in competence. These factors are called 'motivators' because they are believed to be effective in motivating employees (Parker & Wall, 1998). The extrinsic factors, labelled as 'hygiene factors', include company policy and administration, technical and interpersonal supervision, working conditions and salary (Herzberg *et al*. 1959). These factors lead to dissatisfaction and therefore a job will enhance work motivation and job satisfaction only if the intrinsic factors are designed into the work itself (Hackman & Oldham, 1976). There have been many difficulties with this theory. According to Hackman and Oldham (1976), a number of researchers have been unable to provide empirical support for the major tenets of the theory itself. It was also suggested that the division of the intrinsic and extrinsic factors may have been a function of methodological artifact and thus the conceptual basis of the theory must be considered uncertain. The theory also does not account for individual differences (Hackman & Oldham, 1976).

The socio-technical systems theory regarding work redesign provides insight into the interactions between technical aspects of the work itself and the social context in which the work is done in that employees and organisations would benefit (Hackman & Oldham, 1976). This theory also developed the notion of the 'autonomous work group' in which group members should be able to decide on their own methods with regards to the planning and execution of the work and should be responsible for handling as many of the problems that they encounter (Parker & Wall, 1998). However, according to Hackman and Oldham (1976), this theory provides few clear specifications of how the work itself and the social surroundings affect one another. This approach does not provide ways to diagnose a work system prior to change and provides little specific guidance about how to go about carrying out work redesign activities (Hackman & Oldham, 1976).

The above discussion regarding the different theories of job satisfaction, provided insight into the many different theories found in the literature regarding this aspect as well as the numerous

factors that have been found to influence job satisfaction. This research however, focuses mainly on the work context of CCTV operators and the nature of the work that the operators engage in. Therefore this study will adopt a theory that focuses on the objective characteristics of jobs specifically Hackman and Oldham's Job Characteristics Model. Hackman and Oldham (1976) were pioneers in the field and this study will be examining their work from a historical perspective. This model however, is still relevant and influential today. The evidence behind this will be revealed later in this discussion.

The job characteristics model

Research on work design that focuses on the objective characteristics of jobs originated from the work of Turner and Lawrence (1965). These researchers developed six measures of 'Requisite Task Attributes' that were predicted to relate positively to employee satisfaction and attendance (Hackman & Oldham, 1976). Hackman and Lawler then provided evidence that job characteristics can affect employee attitudes and behavior at work and that workers should react positively to four 'core' dimensions (variety, task identity, autonomy, and feedback) which were adapted from Turner and Lawrence (1965). These researchers then proposed that individuals who have a desire for growth at work should respond to jobs high on core dimensions (Hackman & Oldham, 1976). This then gave rise to the Job Characteristics Model (JCM) which has become the theoretical basis for many current enrichment efforts. Thus the job satisfaction theory adopted for this study is that of Hackman and Oldham's (1976) JCM as this study is more concerned with the tasks that CCTV surveillance operators engage in, which are characterised by monotony, boredom and vigilance as discussed earlier and the factors that may influence job satisfaction.

According to this model, five core job dimensions lead to three critical psychological states which in turn have been linked to outcome variables such as job satisfaction (see figure 1) (Hackman & Oldham, 1976).

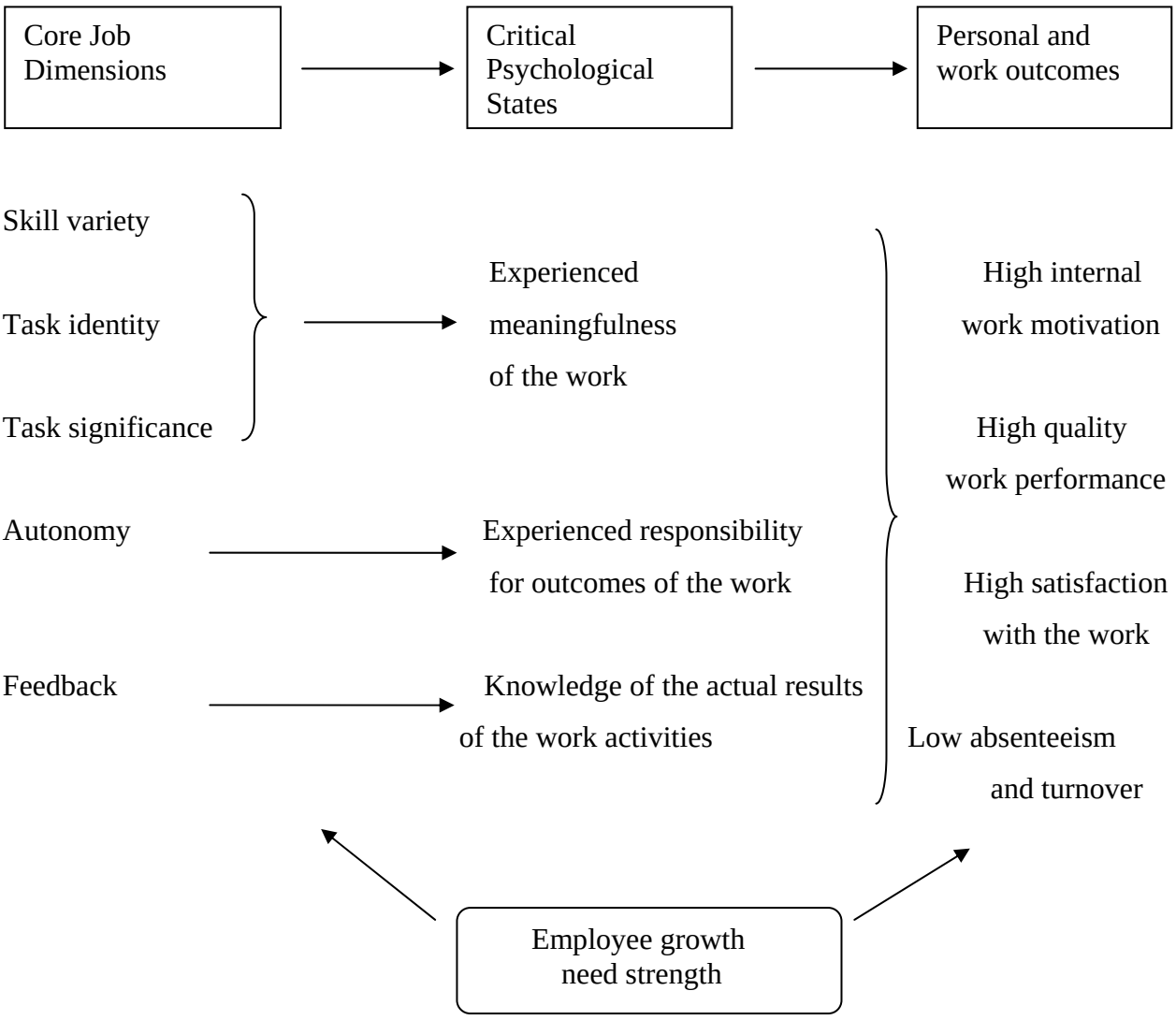


Figure 1: The Job Characteristics Model (Hackman, 1991, p. 425).

The three critical psychological states that are critical in affecting a person's motivation and satisfaction on the job are experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of results of the outcomes of the tasks at work (Hackman, 1991). It was postulated that individual's would experience positive affect as one is able to learn (knowledge of results) and one is able to personally perform well on a task (experienced responsibility) that he/she cares about (experienced meaningfulness) (Hackman & Oldham, 1976). This positive affect is seen as reinforcement for the individual, as an incentive that motivates the individual to do well in the future. When these three psychological states are

present, it can result in self-generated motivation and this self-generated motivation should be highest when all psychological states are present (Hackman & Oldham, 1979).

Experienced meaningfulness of the work has been defined as the degree to which the individual experiences the job as important, worthwhile and valuable (Hackman, 1991). Tasks that are trivial tend to be less satisfying than tasks that make employees feel like they are contributing to the organisation in some meaningful way (Colquitt *et al*., 2009). Experienced responsibility for work outcomes refers to the degree to which the individual feels as if he or she is accountable or responsible for the outcomes of her or his work tasks (Hackman & Oldham, 1979). Knowledge of results refers to the extent to which the individual knows and understands on a regular basis, how effectively he/she is performing their work activities (Hackman & Oldham, 1979).

The core dimensions in the JCM create the above mentioned psychological states. These core dimensions are skills variety, task identity, task significance, autonomy and feedback. The first three job dimensions contribute to experienced meaningfulness. Autonomy contributes to experienced responsibility and feedback contributes to knowledge of results (Hackman & Oldham, 1979).

Skill variety refers to a job that requires a variety of different tasks and thus requiring a variety of skills from the person. When a task provides an individual with challenges or allows a person to stretch their skills and abilities, this will lead to experienced meaningfulness of the work. For example, many people love to engage themselves in puzzles, and recreational activities they feel as if it tests their intellectual or motor abilities (Hackman & Oldham, 1979). When there is a high level of variety, almost everyday is different is some way and employees rarely feel like the job is monotonous or repetitive. There could be jobs that have a variety of boring tasks but such jobs do not involve a number of different skills and talents (Colquitt *et al*., 2009).

Task identity refers to a job that involves tasks that are completed from the beginning to the end so that the end product or the outcome is visible (Hackman & Oldham, 1976). It is proposed that if an employee assembles a complete product or provides a complete unit or service, he/she should find their work to be more meaningful (Hackman, 1991).

Task significance involves a job that has a substantial impact on the lives or work of other people which could be within the organisation in which they work or in the external environment. Therefore when individuals feel as if their work has had a significant impact on others, they will experience increased meaningfulness of their work (Hackman & Oldham, 1976). Any job can be important if it helps to put food on the table or helps to send children to college. The aspect of task significance goes beyond that in that it is an individual's belief that his/her job really matters and that society would be worse if the job was taken away (Colquitt *et al*., 2009). CCTV surveillance operators may feel increased meaningfulness of their work if they understand that their work has significant safety implications for many people.

Autonomy refers to the degree to which the job provides control and discretion over the scheduling and procedures of the work in that the individual can use his or her own effort and initiative on aspects of the task instead of merely taking instructions from the boss (Hackman & Oldham, 1976). Thus, the individual experiences feelings of responsibility for the success and failures relating to the job (Hackman, 1991). The last core job dimension, feedback, refers to the "degree to which carrying out the work activities required by the job provides the individual with direct and clear information about the effectiveness of his or her performance" (Johns & Saks, 2005, p. 181).

According to this model, the potential of a job to bring about internal work motivation to an employee should be highest when the job is high on at least one of the three job dimensions that contribute to meaningfulness; the job is high on autonomy as well as on feedback (Hackman & Oldham. 1976). The motivating potential score is a measure of the degree to which the above conditions are met. This score can be obtained by combining the scores of jobs on the five dimensions using the following formula:

Motivating Potential Score (MPS) =

$$\left[\frac{\text{Skill variety + Task identity + Task significance}}{3}\right] \times \text{Autonomy} \times \text{Feedback}$$

From the above equation, it is evident that a job with a score that reaches zero for autonomy and feedback will reduce the overall MP score to near-zero whereby a near-zero score on one of the dimensions that contribute to meaningfulness cannot by itself, do so. The higher the MPS score or the scope of the job, the more motivating and satisfying it will be (Hackman & Oldham. 1976).

The JCM included a personality variable in the theory. It was suggested that employees would react positively to these core dimensions and especially individuals who have a desire for growth at work should respond to jobs high on core dimensions since individuals are likely to value the kinds of opportunities that complex jobs offer (Hackman & Oldham, 1976). As shown in figure 1, the first linkage between the core job dimensions and the critical psychological states, indicate that individuals who are high in growth need strength are better able to experience the psychological states when their job is enriched. The second linkage between the critical psychological states and the personal and work outcomes, indicate that individuals who are high in growth need strength will respond more positively to the psychological states when they are present (Hackman, 1991).Therefore growth need strength was hypothesised to be a moderator of the effects of the core dimensions. The growth need strength variable reflects an individual's need for fulfillment of higher order needs such as autonomy or personal growth (Spector, 1997). Therefore individuals who have this higher need will respond more positively to a job high in motivating people than people with low growth need strength (Hackman & Oldham, 1976).

Figure 1 also indicates several outcomes experienced by workers. It is predicted that a job high in motivating potential will have a positive effect on all of these outcomes. This study however, is particularly interested in job satisfaction as an outcome of the core job dimensions and the critical psychological states.

There has been much research to determine if the core job characteristics in the JCM relate to job satisfaction (for example, Loher *et al*., 1985; Kelly, 1992; Champoux, 1991). Some of these studies provide little support for this model while others provide general support for the JCM. Some studies such as those by Fox and Feldman (1988) (as cited in Judge, Parker, Colbert, Heller & Ilies, 2001) indicate no mediating support while other studies by Barabe and Burns

(1994) (as cited in Judge *et al*., 2001) provide support for the model and its moderating properties. Based on research conducted in the U.S.A, the job characteristics have been found to be the most consistent predictor of job satisfaction (Judge *et al*., 2001). There are also international studies that supported the relationship between job characteristics and job satisfaction (Judge *et al*., 2001). Many of these studies that have used the JCM in their research are relatively recent indicating that the model is still relevant and still in use.

Evidence regarding the applicability of the five core dimensions in the model to the operator context will now be discussed. Smith (2004) found that in the context of CCTV operators, there is little scope for autonomy, spontaneity or diversity in their work. Even though Smith (2004) did not use the JCM as a theoretical framework and did not relate his findings to this model, it can be seen that these aspects can be related to the JCM (Smith, 2004). The monotonous work found in jobs using visual display terminals relate to skill variety in the JCM and have been found to result in job dissatisfaction (Smith, 1997). Research in other occupations suggest that human factor techniques with the intention of reducing boredom or monotony by increasing certain job characteristics such as autonomy and skill variety may be effective in improving various work outcomes (Kass *et al*., 2001). Shikdar and Das (2003) found that in a repetitive industrial task, the provision of feedback improved worker satisfaction significantly. Hitchcock, Dember, Warm, Moroney and See (1999) also suggest that the well-known motivational effects of Knowledge of Results (i.e. feedback) by promoting greater engagement and interest in the task could be used to reduce the monotony in vigilant tasks. The jobs of operators could be designed differently across various organisations, this study will assess the job characteristics of operators in shopping malls, and compare these with Smith's findings.

Kahn (1992) makes an important point regarding the JCM. He maintains that people with high growth needs are more likely to be psychologically present when they perform their tasks at work. He suggests that this psychological presence which includes being attentive, connected, integrated, and focused allows workers to bring in more of who they are when carrying out their daily activities (Kahn, 1992). It is also noted that jobs that do not allow employees to use their own discretion, to use the different skills they experience as their own and important, to make important contributions, as well as to learn, provide no incentive to employees to become present

in their roles (Kahn, 1992). This concept of psychological presence refers to employee engagement (Kahn, 1990).

From the discussions above, it is also evident that CCTV operators are involved in work that requires vigilance and it is quite clear that maintaining attention in the role of the CCTV operator is crucial. Attention is an important component of employee engagement whereby engagement is believed to occur when one is cognitively vigilant and/or emotionally connected to others (Luthans & Peterson, 2002). Although it would be more important for CCTV operators to be cognitively vigilant, they may also have the opportunity to emotionally connect with others.

It thus becomes important to investigate employee engagement in the context of CCTV surveillance. Therefore the concept of employee engagement will now be discussed which will be followed by a discussion on the different theories of employee engagement. The potential factors influencing employee engagement will then be discussed in more depth as this study will be exploring the factors that are perceived to influence CCTV operators' engagement at work.

Employee Engagement

Employee engagement was conceptualised by Kahn (1990) and was defined as 'the harnessing of organization members' selves to their work roles' (p. 694). Kahn (1990) proposed that engaged employees are cognitively, emotionally and physically present in their work roles. Kahn (1990) also defined personal disengagement as 'the uncoupling of selves from work roles' in which people remove themselves cognitively, emotionally and physically from their work (p .694). Kahn (1990) presents a theoretical model of psychological presence and does not propose an operationalisation of the construct. Thus, Maslach, Schaufeli and Leiter (2001) defined engagement as being characterised by energy, involvement and efficacy which are considered the direct opposites of the three burnout dimensions exhaustion, cynicism, and lack of professional efficacy, respectively. With this definition, engagement and burnout are considered to be opposite poles of a continuum that is covered by one single instrument (Maslach *et al*., 2001). Schaufeli, Salanova, Gonz'alez-Roma and Bakker (2002) take a different perspective by considering burnout and engagement as separate constructs that should be measured

independently using different instruments. Thus Schaufeli *et al*. (2002) define engagement as 'a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and adsorption' (p. 74). Schaufeli *et al*. (2002) thus suggest that engagement refers to an affective-cognitive state which is not focused on a particular object, event, individual or behaviour but rather a specific state. For the purposes of this study the definition proposed by Kahn (1990) will be adopted since the measurement of this construct is not the aim of the study but rather the potential factors influencing employee engagement of CCTV surveillance operators.

Theoretical foundations of employee engagement

According to Saks (2006), there are two approaches to employee engagement, Kahn's (1990) psychological conditions associated with engagement or disengagement at work and Maslach *et al.*'s (2001) literature on burnout. However, it is noted that Kahn (1990) and Maslach *et al*. (2001) describe the antecedents that are necessary for employee engagement and do not explain why people engage in varying degrees of engagement (Saks, 2006). Thus, Saks (2006) uses the social exchange theory (SET) as a stronger rationale for explaining employee engagement. Maslach *et al*., Schaufeli *et al*. and Sak's work will first be discussed briefly following a more in-depth discussion of Kahn's (1990) theoretical approach to employee engagement since this will form the theoretical basis for employee engagement in this study.

The rationale behind adopting Kahn's (1990) approach is that he employed job design research such as Hackman and Oldham's (1976) theory. This was achieved in order to understand the psychological experience of work that drives people's attitudes and behaviours as well as other individual, group and organisational factors that may simultaneously influence these experiences. This study is interested in the work context of CCTV surveillance operators and the factors that are perceived to influence employee engagement and Kahn (1990) assumed that work contexts mediated by people's perceptions create the conditions in which people engage at work. However, the different theories are discussed in order to provide a clearer understanding of the different approaches to employee engagement and how these may differ from the theory adopted for this study.

According to Maslach *et al*. (2001), engagement is associated with six areas of job-person fit.

These include workload, feelings of choice and control, appropriate recognition and reward, a supportive work community, fairness and justice, and meaningful and valued work (Maslach *et al*., 2001). Feelings of choice and control can be related to the autonomy dimension of the JCM. Meaningful and valued work can relate to the task significance dimension of the JCM. They propose that burnout and engagement are inversely related to these six domains which can be assessed by positive and negative scores on the Maslach Burnout Inventory. Schaufeli *et al*. (2002) however, took a different approach by referring to engagement as an independent dimension characterised by vigour, dedication and absorption (Schaufeli *et al*., 2002). Vigour refers to high energy levels and mental resilience while working with the willingness to invest in one's work even in difficult situations (Salanova & Schaufeli, 2008). Dedication refers to a strong involvement and identification with one's work which is accompanied by feelings of enthusiasm and significance, and by a sense of pride and inspiration (Salanova & Schaufeli, 2008). Absorption refers to total immersion in one's work in which time passes quickly and one is unable to detach himself/herself from their job (Salanova & Schaufeli, 2008).

'A basic tenet of SET is that relationships evolve over time into trusting, loyal, and mutual commitments as long as the parties abide by certain "rules" of exchange' (Saks, 2006, p. 603). Rules of exchange occur in the form of reciprocity or repayment rules in which the actions of one party result in a response or actions by the other party (Saks, 2006). Thus when employees receive these resources from their organisation they feel obligated to repay their organisation through their level of engagement. Their level of engagement will vary in relation to the economic and socioemotional resources they receive from their organisation (Saks, 2006).

Kahn's (1990) premise was that people employ or express their preferred selves on the basis of their psychological experiences in their work roles. This is similar to Hackman and Oldham's (1976) conceptualisation that there are three critical psychological states that influence people's internal work motivation. According to Kahn (1990), people vary their personal engagement according to how they perceive the meaningfulness and safety of their environment. Their personal engagement also varies according to their perceptions of the amount of resources they have available (Kahn, 1990). The characteristics of situations that shape participants' experiences of themselves, their roles and the relations between the two are thus explained in

three psychological conditions which are meaningfulness, safety and availability (Kahn, 1990).

Meaningfulness refers to a feeling that one is receiving a return on investments of one's self in a currency of physical, cognitive or emotional energy due to role performance (Kahn, 1990). People experience such meaningfulness when they feel worthwhile, useful, and valuable as if they are making a difference. They feel as if they are able to give to others and to the work role (Kahn, 1990). Thus meaningfulness can be defined as a value of a work goal or purpose which is judged in relation to a person's own principles or values (May, Gilson & Harter, 2004). According to May *et al*. (2004), a lack of meaningfulness can lead to disengagement.

Psychological safety is referred to as the experience of being able to show and employ oneself without being afraid of negative consequences to their self-image, status or career (Kahn, 1990). Individuals feel 'safe' when they believe that they can express their true selves at work without suffering for it (May *et al*., 2004). Thus, people who experience psychological safety feel a sense of trustworthiness and security in situations which are clear, predictable and non-threatening and thus understand the boundaries of acceptable behaviour (Kahn, 1990; May *et al*., 2004). As a result, in situations that are unclear, unpredictable and threatening, personal engagement is seen as unsafe or too risky (Kahn, 1990). Psychological availability refers to having the physical, emotional or psychological resources to personally engage in role performances (Kahn, 1990). It assesses the readiness and confidence that one experiences when engaging in work, given that people are engaged in other life activities as well (May *et al*., 2004).

<u>Potential factors influencing employee engagement</u>

From Kahn's (1990) study, one can identify a number of potential factors that may influence employee engagement. According to Kahn (1990), task characteristics, role characteristics and work interactions influence psychological meaningfulness. Kahn (1990) proposed that with regard to task characteristics, work that is creative, challenging, varied, clearly defined and autonomous can lead individuals to experience more psychological meaning in the workplace. Kahn (1990) found two components of work roles that influence experienced meaningfulness. The first was that roles carried certain identities and individuals could like or dislike those identities depending on how the role fitted with how they saw or wanted to see themselves

(Kahn, 1990). Secondly, roles also carry status and influence and it was found that when individuals were able to be influential, gain desirable status and occupy valuable positions, they experienced a sense of meaningfulness (Kahn, 1990). May *et al*. (2004) also suggests that individuals whose work roles are aligned with their self-concept will experience more meaning in their work. Rothbard (2001) also noted that identification with a role can be a reason for a person becoming psychologically present. The characteristics discussed above can also be linked with the Job Characteristics Model by Hackman and Oldham (1974) showing that three job characteristics namely skill variety, task identity and task significance contribute to the experienced meaningfulness of the job (Hackman & Oldham, 1974). May *et al*. (2004) also suggest that enrichment in jobs in the five core job dimensions in the Job Characteristics Model can influence meaningfulness experienced by individuals.

With regard to work interactions, Kahn (1990) found that individuals experience meaningfulness when their work involves interpersonal interactions with co-workers and clients. However, these work interactions are only experienced as meaningful when they feel appreciated and valued by others (May *et al*., 2004). In Kahn's (1990) study, when individuals felt that their interactions with clients communicated a lack of respect, care or appreciation for their work, their experienced meaningfulness diminished. Thus task, and role characteristics as well as work interactions are an invaluable source of meaning in people's lives (Kahn, 1990). Other researchers such as Stairs (2005) also highlight the importance of meaningful work in contributing to engagement.

Kahn (1990) proposes that interpersonal relationships, management style and process, group and intergroup dynamics and organisational norms influence psychological safety. Interpersonal relationships promote safety when they are supportive, trusting and non-threatening. Kahn (1990) found in his study that individuals felt safe in environments in which they were not afraid to make mistakes and in which criticisms were seen as constructive rather than destructive. May *et al.* (2004) also found a significant relationship between co-worker relations and psychological safety. Relationships with the management are also seen as an important factor influencing employee engagement as a supportive, trustworthy and competent management style and process has been found to increase psychological safety (Kahn, 1990). Kahn (1990) found that workers

felt safe when supportive managerial environments allowed workers to try without being afraid to fail. He also found that workers felt safe when they had some control over their work and that if managers did not want to let go of some of the control, employees felt that they were not trusted (Kahn, 1990). At times, the tone of management also affected the worker's safety (Kahn, 1990). May *et al*. (2004) also found that supportive supervisor relations had a positive relationship with feelings of psychological safety.

Relations between and within organisation groups can also create varying degrees of incentives and room for people to be fully present in work roles (Kahn, 1992). For example, members that belong to social systems are cast into unconscious roles partly on the basis of the groups they represent. Organisations consist of many types of these organisational groups such as departmental, functional, hierarchical, and identity groups (Kahn, 1992). With intergroup theory, the relations between groups that people represent shape the behavior and experiences of individuals. This suggests that individuals who belong to relatively powerless groups in a system may be cast into informal "characters" that are more restricted to allowable behaviors, thoughts, and feelings especially when interacting with members of relatively more powerful groups (Kahn, 1992). When members representing less powerful groups are reinforced for conforming to these circumscribed roles, they are less likely to be fully present psychologically. They are also seen as being reinforced for not expressing dimensions of their selves in their work roles (Kahn, 1992). This forms an important aspect of group and intergroup dynamics. Therefore employees with different authority and power roles will affect the level of safety in which a person will engage depending on how much respect and authority those roles receive (Kahn, 1990). Finally with regard to psychological safety, Kahn (1990) found that organisational norms also relate to psychological safety. For example, a person will feel safer if they stayed within the general appropriate ways of working and behaving as oppose to going outside of the protective boundaries (Kahn, 1990).

Researchers also found other aspects relating to psychological safety. For example, May *et al.* (2004) found that co-worker norms are negatively related to safety in that when employees feel as if they must follow rules and have no flexibility in their behaviors, this leads to feelings of less psychological safety. According to Saks (2006), the safety dimension also involves predictable

and consistent situations and in organisations, it is important to be predictable and consistent in terms of the distribution of rewards as well as the procedures used to allocate them. Saks (2006) refers to the SET in which it is proposed that when employees perceive the resources they receive from their organisation to be fair, they are more likely to feel obliged to repay the organisation with higher levels of engagement. According to Saks (2006), an important aspect of safety stems from the employees' perceptions of how much support and care they receive from the organisation and the supervisor. Thus a potential antecedent to employee engagement is perceived organisational and supervisor support whereby it promotes psychological safety. Maslach *et al*.'s (2001) model also associates social support with engagement. Saks (2006) proposed that this could be related to SET in which employees could believe that their organisation cares about them and are likely to respond by fulfilling their obligations by becoming more engaged. Social support also forms part of the resources aspect of the Job Demands-Resources Model and it was found that a lack of resources is associated with disengagement (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

Psychological availability involves having the physical, emotional or psychological resources to personally engage (Kahn, 1990). It measures the readiness in which people are able to engage given the distractions that people experience in their lives (Kahn, 1990). Kahn's (1990) study found that four distractions influence psychological availability. These include depletion of physical energy, depletion of emotional energy, individual insecurity and outside lives. Kahn (1990) found that personal engagement demands certain levels of physical energy, strength and readiness since individuals could not engage in tasks because they were simply worn out. With regards to emotional energy, when people engage in tasks, it requires emotional labour which involves a certain amount of emotionality and Kahn (1990) found in his study that people need emotional resources to meet the demands of personal engagement. The other distraction found by Kahn (1990) that corresponded with psychological availability is insecurity. He found that insecurities distracted people from engaging in their work as it generated anxiety which occupied energies that could have been used for personal engagement (Kahn, 1990).

Kahn (1990) discovered a few dimensions of insecurity that affected psychological availability. The first was a lack of self-confidence that affected people's availability. It was also suggested

that a heightened self-consciousness whereby employees would focus on how others perceived and judged them even if they were not being judged, would cause them to become too distracted to personally engage (Kahn, 1990). The third dimension of insecurity was people's ambivalence about their fit with the organisation. This ambivalence preoccupied individuals and they did not have the energy or desire to engage themselves in their work performances (Kahn, 1990).

Individual's outside lives have the ability to take them psychologically away from their work and thus affecting their psychological availability (Kahn, 1990). May *et al*. (2004) also found a significant, negative relationship between outside activities and psychological availability. However, Kahn (1990) also found that at other times, people's outside lives can allow them to exert more energy in their work (Kahn, 1990). A study by Rothbard (2001) found that family engagement can have positive effects on work engagement for women.

Saks (2006) studied some of the above mentioned antecedents of employee engagement and found that job characteristics and organisational support predicted employee engagement. May *et al*. (2004) also suggests that all three psychological conditions (meaningfulness, safety and availability) are important in determining one's engagement at work. A South African study on a multinational oil company also found that psychological meaningfulness and psychological availability were significant predictors of work engagement with psychological meaningfulness as the strongest positive relationship with engagement (Olivier & Rothmann, 2007). These studies confirmed the theoretical framework provided by Kahn (1990) however, it is not certain if these factors also influence employee engagement in the context of CCTV surveillance operators. Therefore, this study will determine if the above mentioned antecedents of employee engagement or if other factors will influence employee engagement of CCTV surveillance operators.

In the literature it seems as if there is a relationship between job satisfaction and employee engagement. Some of the job dimensions and critical psychological states in the Job Characteristics Model such as meaningfulness relate to employee engagement (May *et al*., 2004). This may in turn be related to job satisfaction (Hackman & Oldham, 1976). Macy and Schneider (2008) illustrate that employee engagement can be related to job satisfaction. They suggest that

the nature of work (such as challenge and variety) is the conditions that interest us most and that work has direct effects on engagement. Thus the relevance of satisfaction is clear in that people invest more time in roles they find enjoyable (Macy & Schneider, 2008). Vance (2006) also states that when employers typically assess their employees' engagement levels, they use job satisfaction surveys as this is related to engagement. According to Vance (2006), "findings show that managers who provide enriched work (jobs that are high in meaningfulness, variety, autonomy and co-worker trust) stimulate engagement and enthusiasm in their employees" (p. 11). Vance (2006) suggests that these challenges inspire people to be innovative and to solve problems and thus, job enrichment promotes engagement in prescribed and voluntary work activities. Therefore this study will be investigating how job characteristics, job satisfaction and employee engagement are perceived to be related in CCTV surveillance?

From the above discussion, it is evident that job characteristics, job satisfaction and employee engagement have been extensively researched in certain occupations but hardly any research has been focused on CCTV surveillance operators with regards to these variables. Only one study found in the United Kingdom focused on CCTV operators (Smith, 2004). Therefore the aim of this study is to determine the job characteristics of CCTV surveillance operators and the factors that are perceived to influence CCTV operators' job satisfaction and employee engagement. This gives rise to four research questions which will be examined in this study. The four research questions are:

Research Questions

1. How do CCTV surveillance operators describe the characteristics of their job?
2. What factors are perceived to influence the job satisfaction of CCTV surveillance operators?
3. What factors are perceived to influence CCTV surveillance operators' engagement?
4. How are job characteristics, job satisfaction and employee engagement perceived to be related in CCTV surveillance?

Chapter 3: Methodology

Research Design

The design of this study is qualitative in nature, exploratory and cross-sectional. The rationale for choosing a qualitative approach as oppose to a quantitative is due to the nature of the sample. The fact that there are many different home languages in South Africa may lead to a misunderstanding of questionnaires. Interviews conducted during qualitative research allow one to rephrase and verify understanding which can facilitate the reduction of language barriers.

By employing a quantitative approach where participants ideas are restricted to pre-set categories, it would not allow the richness of the subjective work experiences to emerge. Therefore with qualitative research, participants are not seen as objects with given properties such as attitudes, norms and so on that can be measured, rather qualitative studies allow for the richness and detail of participants' experience to materialise (Allen, 1991). Therefore the rationale for choosing the qualitative paradigm was based on the premise that obtaining rich, meaningful data would be more appropriate to this sample than data collected from questionnaires. As mentioned previously there have been a limited number of qualitative studies conducted in CCTV surveillance research. Therefore this also forms part of the rationale for using the qualitative approach.

However, it is important to recognise that there are also disadvantages regarding qualitative research. An important disadvantage to mention is that the researcher makes subjective interpretations of the data and this can lead to individual biases which may influence the study. Therefore findings need to be treated with caution (Denscombe, 1998).

Sample

The sample size for qualitative studies tends to be small. However, an appropriate sample size depends on its ability to answer the research questions. For research questions that are simple or for very detailed studies, the sample size might be in single figures. However, for complex

questions, a large sample size may be necessary (Marshall, 1996). It is noted that in practice, the number of required participants becomes obvious as the study progresses as new categories or themes stop emerging from the data and the data becomes saturated (Marshall, 1996).

Therefore the sample for this study consisted of ten participants who were CCTV surveillance operators and monitored cameras in shopping malls. The reason for this sample size was due to the observation that no new themes were emerging from the interviews. A larger sample size than ten was desired in order to confirm this observation and to obtain richer, meaningful data regarding the various themes that have already emerged. However, for time and resources limitations, this was not possible. The confidential aspect of security in shopping malls also made it more difficult to obtain a larger sample. The reason is that the managers of the mall feared that the name of the mall and the information given by the security staff would not remain confidential even though this confidentiality was guaranteed to them. Therefore only four malls agreed to participate in this study. Four other malls were approached however, two malls did not grant permission and time constraints did not permit the remaining two malls to be included in the sample. In total, eight malls (organisations) were approached and thus there was a fifty percent response rate.

Due to confidentiality reasons, there are no access letters provided in this report as this was promised to the shopping malls' management as they insisted that the names of the malls did not appear anywhere in the report. Some malls did not even provide access letters for this same reason.

The biographical information (Appendix C) was gathered during the interviews in order to describe the sample (Table 1). Table 2 provides a summary of the biographical information provided in Table 1. Percentages are omitted from table 2 since there were only 10 participants.

Table 1: Each participants' biographical details

Participant	Gender	Age in years	Home Language	Marital Status	Number of children	Qualifications	Tenure in current job	Tenure in security industry
1	Female	25	Afrikaans	Single	1	Grade 10	2 years	2 years
2	Female	23	English	Co-habiting partner	0	Matric	8 months	2 years
3	Male	37	Zulu	Married	1	Matric	8 years	8 years
4	Male	27	Sepedi	Married	1	Grade 10	11 months	7 years
5	Male	28	Zulu	Single	0	Grade 10	3 years	3 years
6	Male	44	Zulu	Co-habiting partner	3	Grade 10	2 years	13 years
7	Male	38	Zulu	Married	1	Grade 10	2 years	6 years
8	Male	32	Tsonga	Married	1	Matric	2 years	2 years
9	Male	22	Setswana	Single	1	Grade 10	9 months	9 months
10	Male	36	Afrikaans	Single	5	Matric	8 months	14 years

Table 2: Summary of biographical information of participants (N = number of participants).

Characteristic	Category	N
Gender	Males	8
	Female	2
Ages	20-30 years old	5
	31-40 years old	4
	> 40 years old	1
Home Language	English	1
	Afrikaans	2
	Setswana	1
	Zulu	4
	Tsonga	1
	Sepedi	1
Marital Status	Single/Never married	4
	Married	4
	Co-habiting partner	2
Children	Yes	8
	No	2
Qualifications	Grade 10	6
	Matric	4
Tenure in current job	0-1 year	4
	2 - 5 years	5
	6 -10 years	1
Tenure in industry	0-1 year	1
	2 - 5 years	4
	5 -10 years	3
	11- 15 years	2

From the table above, it is evident that the majority of the participants in the sample is male and is younger than 40 years of age. Only one participant speaks English as his/her home language. Four of the participants are married and eight of the operators in the sample have children. Majority of the participants have completed Grade 10 in high school and have two to five years of experience in their current job. The ,ajority of the participants have between two and five years of experience in the security industry.

Procedure

The convenience sampling method was employed in this study. This sampling procedure involves the selection of the most accessible participants (Marshall, 1996). The advantage of this method is that it is less costly in terms of time, money and effort (Marshall, 1996). The disadvantage of this method is that it may result in poor quality data (Marshall, 1996).

The General Managers (GM) of various shopping malls were contacted telephonically in order to obtain permission to conduct the study at the mall. The purpose and nature of the research was explained as well as aspects regarding confidentiality and feedback. It was explained to the GM that the study would involve interviewing the CCTV operators for approximately 30 minutes and that the data collection would involve tape recording the interviews which would then be transcribed. In some cases, the researcher approached the GM personally at the mall to explain the purpose and nature of the study. When the GM was not available, information regarding the study and the contact details were left for the GM. The researcher then followed up by contacting the GM telephonically to determine if permission was granted. Once given permission, the researcher referred to the security manager of the mall or the CCTV operators' supervisor in order to arrange the dates and times of the interviews that were convenient to the operators and the mall.

At the interviews, the researcher provided participants with the participant information letter (Appendix A) and explained the purpose and nature of the study. Participants were also informed that their responses would be recorded in order to ensure accurate recording of the interviewee's responses. It was clearly expressed that confidentiality would be ensured and that feedback would be given should they have any interest. When the participants agreed to partake in the study, they were asked to complete the biographical form as well as to sign the consent forms (see Appendix B). The interviews then took place which lasted between 30 minutes to 45 minutes due to time constraints given by management. All participants agreed to participate in the study.

Data Collection

The interview process was chosen as a means for gathering data for this study as interviews allow for participants to provide insights into the thinking of the individual. Their experiences and reasoning can be described to the researcher in a way that allows the researcher to understand their point of view (Denscombe, 1998). One-on-one interviews were conducted with each participant as opposed to using focus groups as focus groups could restrict participants' willingness to talk about certain aspects and may increase social desirability.
The interview took a semi-structured form that allowed for flexibility. This allowed for probing to occur regarding certain aspects and to explore and probe issues as they arose. The interview schedule can be viewed in Appendix D.

Data Analysis

The taped interviews were transcribed into a text form in order to analyse the data. The transcripts have not been included in order to ensure confidentiality of the participants. The thematic content analysis method of data analysis was used to analyse the data. This method was chosen as it is a useful method for "identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (Braun & Clarke, 2006, p. 79).

The data was analysed using Braun & Clarke's (2006) step-by- step guide. Therefore the analysis took the following form. Initially, the data was transcribed into a text form which involved reading and re-reading the data noting down initial ideas (Braun & Clarke, 2006). Initial codes were the created from the data which identified features of the data that appeared interesting and relevant. This allowed for emerging themes to be identified from the data. The next stage involved sorting the different codes into potential themes, and collating all the relevant coded data extracts within the identified themes (Braun & Clarke, 2006). The themes were then reviewed to determine if they really are themes, or if they overlap with other themes or even if some themes should be broken down into separate themes. The next step involved clearly defining what the themes are and what they are not and providing names for each theme (Braun

& Clarke, 2006). Lastly, a final analysis of the selected extracts was conducted relating it back to the research questions and literature and thereby producing a scholarly report of the analysis (Braun & Clarke, 2006). A colleague was consulted in order to check if the data was in the appropriate themes and if the themes were grouped appropriately. This was conducted in order to ensure inter-rater consistency. There was one disagreement with regards to categorising a specific concept and so the researcher decided to create a new theme instead of grouping the particular aspect into one of the previous themes created.

Ethical Considerations

The participants were given a letter inviting them to participate. They were told the following:

- The name and position of the researcher;
- The fact that the research is being conducted in partial fulfilment of a Masters degree in Organisational Psychology at the University of Witwatersrand;
- The aims and purpose of the research;
- That an invitation for them to participate in the research is extended;
- That participation in the study is entirely voluntary;
- That they will not be advantaged or disadvantaged for participating or choosing not to do so;
- That participation will involve partaking in a 30 minute interview;
- That anonymity cannot be guaranteed because of the use of audio tapes but confidentiality is ensured;

In qualitative studies there are some important limitations regarding confidentiality as the interviewees' responses are taped recorded and there is a small sample therefore the biographical information may be able to identify certain participants. However, a great deal of care was taken in this study to ensure that confidentiality was maintained. Participants were assured that no individual names would be mentioned in the final report. Participants were also assured that trends would be identified and reported on across participants rather than reporting on individual responses. In addition, participants were given consent forms to sign which communicated this confidentiality assurance (see Appendix B).

The researcher and her supervisor were the only people who had access to the interview data and did not know who the respondents were when analysing the data thus ensuring confidentiality. On completion of the research, the audio tapes were destroyed and interview transcripts were stored by the department of Psychology.

Chapter 4: Results

The dominant themes for each research question will be presented first followed by the second most dominant theme and so on. If all participants spoke about a certain theme, this theme was considered to be a dominant theme and this order follows according to the number of participants who discussed a specific theme. In order to qualitatively explore and illustrate the results obtained, actual quotes as cited by participants during the interviews, are provided. A brief discussion and/or comments will then be provided to explain these quotes further. A summary will be provided after each research question. The themes that will be presented are job design and characteristics, work relationships, work related aspects, personal aspects and the South African context.

Research Question 1: How do CCTV surveillance operators describe the characteristics of their job?

Theme 1: Job Design and Characteristics

This section refers to the various activities that CCTV operators are involved in on a day-to-day basis. These activities have been broken down into various sub themes. These include monitoring; administration work; communication; allocation of posts and equipment to staff; arrests and patrolling. The dominant themes are presented first.

Monitoring

When participants were asked what their work involved on a daily basis, all indicated that they monitor the cameras. These are indicated in the following comments:

> "Just by watching on a camera, like criminals who's going in that shop and want to steal something or things like that."

> "Every single day I'm just busy with the cameras, that's the only [main] thing that I do. My colleague, the guy that I'm working with, he basically watches inside, I watch outside but that's not the only thing that we do."

The operators' job design requires them to complete various activities other than monitoring. Therefore, in the above comment, the participant does not mean that monitoring is the only that he/she does but rather a main activity that he/she engages in. Other comments regarding monitoring were:

> "The only big tasks that we have is monitoring the cameras, securing everything so that everything is fine, everything is going accordingly, the business is running accordingly everyday without any problems encountered."

> "I can say that everyday we look for anything suspicious especially the people who are coming to buy at the mall, which they have a problem which they are not happy about, which something that causes damages or whatever, losing property or some stuff, so that they are not being mugged by the people, so that they are not being robbed by the people, so that they are happy when they are here in the mall when they come to buy, so which means we must give them the good service."

From the above quote, it can be seen that the operator views monitoring as playing an important social and service role. He/she sees the role as meaningful and significant and feels like he is making a contribution to people' lives and shopping experiences. The following two quotes are also related to the monitoring aspect of the operators' work.

> "Because we've got a lot of something that's taking place around the centre, as you know some people may found that there is shoplifting or either I'm just patrolling I'm helping the guards to patrol, what's going on around the centre…..I'm watching the cameras and waiting for the phone."

> "As a CCTV controller, what the guys on the floor don't see, we pick it up, me I pick up and what I can't see they give to me. Specifically mine as a controller, I tell them check that side, go there, do that….. So I go to a specific area, say lets go for the car park. I go for each parking, I go in the car park with my PKZ system, I scroll the whole of that car park, check the cars, movement in the car park, people that are isolated, anything suspicious they report to us. How I pick up during my observation in the car park, I call the specific person that's working in that area, I say, check for me that, check for me that. So that's the car park. And on the floor its here, on the floor, upper level, lower level, check back for suspicious people, bag snatchers, phone snatchers, all those things and people are sitting especially where the restaurants here, their bags, hang them over the chair, send the guys to go there and ask the customer to be more aware, that she must keep her bag with her."

This participant views him/herself and the cameras as central to the coordination of activities of the security staff and to the security industry. The participant seems to be highly engaged but it is uncertain if this active approach is maintained during his/her shift.

One of the operators indicated that he/she monitors the guards in addition to the cameras:

> "The guards supposed to do their job, I'm there to watch them. So I'll just look around again and see what are they doing then I just have to shout them again because they not doing their job. I'll just go to the monitor and just check them."

From the above quote, it appears as if the participant sees his/her role as a powerful one that has some control over others' actions. This may be linked to some sort of satisfaction regarding his/her autonomy on the job.

It can be seen that these operators are required to monitor the cameras for certain events and incidents. On average, when participants were probed regarding the frequency at which the incidents occurred, most indicated that incidents occurred often with nearly twenty people being

arrested in a week. However, some did indicate that incidents occurred seldom. This can be seen in the following responses:

> "In a week, for nightshift, I can estimate nearly twenty people."

> "It [incidents] happens often."

> "Not a lot [of incidents occur]"

> "Some of the incidents, we don't have to write them down but there are those that are serious. Sometimes you find that if it is a busy week, you have a lot of incidents whereby you even get frustrated when it comes to write them down but sometimes you find that it is quiet like today, it's not that busy where you find that we only have less than five or ten incidents."

> "There's always something, because the floor is moving, the people moving, the car parks, check the car parks, the cars standing."

When observing the operators in one of the control rooms for about twenty minutes, it was also evident that there are many suspicious people who enter the mall and these operators in correspondence with the guards follow the suspicious people on a regular basis to ensure that no incidents occur. The participants referred to criminal activities as incidents. This may be high compared to other studies however the increased crime rate in South Africa may explain for this. It should also be noted that some of these interviews took place at a time that was approaching the festive season and this time is specifically known for an increase in theft and other criminal activities.

From the responses above, it is evident that these operators spend much of their time monitoring the cameras. As a result, many indicated that their eyes burn and that breaks in between allow them to relieve this feeling. Some of these responses are presented below.

> "Like for us, we get two [breaks] that's like maybe in the morning and then our lunch time but if there is a time when I need to go out and rest, I just go out for a walk because I can't keep my eyes only on the camera, it's not good."

> "Sometimes I feel like my eyes are not coping well but when I feel like I want to take a break, I just call another guy."

> "I don't think that's difficult as long as you get breaks in between…… These things, they kill your eyes. So you just have to be exposed outside sometimes, get some fresh air."

> "I make sure that I just ask someone just to be with me to stand there and then you just get outside….. it helps me a lot because when I come back I feel that I'm strong."

> "Go out for a couple of minutes. Go bathroom, wash my face, without wiping it, go out."

Administration work

A very common aspect of operators work includes administration work as all participants discussed this when they were probed for other activities that they engage in. This includes various different activities some of which are described as below:

“I write incidents down in an ob [occurrence book] book, I have to write it down incase the police comes and they want to see what happens that day and all of that.”

“Lets say for example, now it’s twelve o’ clock and there’s a robbery, I’ve got to write that down. I have to because at the end of the day that’s going to the management. They want a monthly report of what happened the whole month so after every hour from six o’ clock when we come to work we have to write a report so if nothing happened then we just write that nothing happened and everything is fine.”

“We also have to keep records of everything that is happening. We’ve got a big book, the occurrence book, everything that happens should be in that book. Be it minor or major, it should be in that book……I can only write it down if the guy does something wrong and he’s arrested. But if he is just someone who is suspicious walking around the mall, we just monitor him on the cameras and make it a point that he goes out of the mall and doesn’t commit a crime.”

“The books which are there, most of them we are recording everything which is happening in the mall. What is being found, what is being lost, what happened in the mall, or whatever information which we are supposed to have, we store it there. Especially important information which we need, some of it we have to write down and keep it for someone, maybe our seniors or whatever.”

“Sometimes they came here maybe find that customers they came here for footage, they ask for footage, we also do that and then an ob [occurrence book] entry must be made.”

“If I can see that maybe no you didn’t check that the camera were all working, maybe discovered problem and then the customer may ask for a footage, you find that the

camera was not working, the complain will come to me because I didn't check…… if they not working, I must make an ob [occurrence book] entry."

"There is a lot of things I have to do like I have to write their names down like the cleaners who are here and to make sure that I check my cameras, that they are all working, that they are perfect and don't have any problems. Then if there is a problem with some of the cameras I have to report them, just like that."

"Sometimes we do switch off the lights for the mall, then I have to write down for each and every land that ok, from this place to that place, we switched off the lights and then from this and that just like that, thereafter I have to write them in my ob [occurrence book] so that the management will see that we have done all the things. Thereafter we also switch off the air conditioners, no, it's a lot of things, I have to write them down by the time."

"Other paperwork what we do is compiling of our paperwork, attendance registers and then radio registers. Yes all daily stuff we are working with, we are compiling it on the computer."

"You just have to sign out the radios, book all the guards on duty, who are coming on duty, make sure that they are in fully form everything. You have to fill in the situation report after every hour on what is happening."

A common responsibility that all participants are involved in is that of administration work. The range of tasks involved in this segment of their job varies widely. However, the most common feature that all participants highlighted was that they are required to compose reports on an hourly basis which needs to be documented in an occurrence book. Incidents that have occurred

need to be documented in this book. Even if there were no incidents that had occurred in an hour, a report on the mall's situation still needs to be documented. In addition to this hourly report of the mall's situation and the incidents that occur, the operators are required to document various other activities. These include documenting situations where a camera was not functioning correctly or a customer requested to observe camera footage. Where radios are distributed and staff report in for their duties, these need to be documented by the operators as well. Other activities such as switching off the lights and air conditioners in the mall also need to be documented by the operators.

The above administration tasks carried out by the operators are performed simultaneously whilst monitoring the cameras. This may have effects on vigilance as attention and gaze will not be directed at the displays on a continuous basis.

Communication

When the operators were asked about any other activities that they might be involved in, all of the participants referred to communication with the guards, the customers, the management and many other people as a central aspect of their job. These are illustrated in the following responses:

> "I respond to the radios like when the guards call me in, I have to answer them on the radio. When there is a problem, I have to be there in front and solve the problem and all that."

From the above quote, the participant indicates the importance of communication in his/her job but one could see that he/she also views his/her role as that of a leadership one displaying a sense of power and importance.

> "Basically we just communicate, if there is a problem and you need back-up, we the ones there, they got to get to us first because we the ones that send back-up, and in order for us to speak, I mean look at it, that's the radio, we all have only one radio so everybody can't be speaking on the radio at the same time because then we never going to get to hear what they saying. So if they want to speak on the radio, they got to ask us first for permission. That's how it is basically…….We got codes so that nobody can understand what we saying."

From the above quote, it can be seen that once again, some of the participants view their role as central and important to the security of the mall. Their role is also viewed as that of a coordinating one.

> "We got three radio's here. Three radios and a phone. The other radio is for our office. The other one is for maintenance and inter park and for those people working with air conditioners. The other one is for us, for the staff who is working here. So all these radios are monitored with one person who is in the control room."

In the quote above, the participant also views his/her role as that of a coordinating one by managing the different radios found in the control room.

> "I tell the security guard who is nearby and the supervisors as well for backup because I know if I call one person, he won't stand for it alone. I call even the election officers, they came there and they can escort. I remember I saw someone who was begging money inside the centre, I did call them over the radio, I can see someone is begging money and I did describe him, the clothes he wears and then they arrested him to the control room."

In the above quote, the participant refers to the role of communication with his/her colleagues when an incident occurs in the mall.

> "If they phone me at control and they say there is some suspicious people and then from there if I see there is a need to call the police, I call the police."

The role of communication can also be seen from the quote above when the operator needs to respond to the guards calling in to inform them of any suspicious people in the mall. They also then need to communicate with the police if necessary. Some form of autonomy can also be seen from the above quote as the participant will use his/her discretion when deciding to involve the police.

> "Just like an accident, I call the ambulance to come to fetch when maybe he's got a problem or someone is stealing at the shop, I call the police to come to fetch that guy."

An operator may also be required to communicate with an ambulance incase a customer has been injured in the mall which may not necessarily be as a result of a criminal offence taking place.

> "I also communicate with my management if they need some help and if customers call me looking for help, I help them."

In the above quote, this participant refers to the fact that in some instances they may interact with the customers with regards to viewing some of the camera footage and so on. For example, a customer may want to view the camera footage if his/her belongings have been stolen.

> "When I arrive by quarter to six I make sure that I check my staff letter, the list of the people that are on duty and make sure that all of them are here and they have signed and then therefore I just report to the head office, just tell them how many people I do have on my shift."

> "If maybe something can happen outside there, they suppose to report to me. They receive a complain, or maybe they can see any construction and they came here to work

> or something like that, they report on me and then I phone the management and ask if maybe they have an arrangement with the construction guy to come and work because some other people sometimes they came here with a truck."

In the quote above, the participant refers to instances where they are supposed to be aware of any construction workers and vehicles on the mall's premises as criminals can use this as a way of committing a criminal offence. As a result, they need to be informed by the guards if there are such workers and vehicles on the premises and their attendance is then confirmed by the mall management.

> "We've got problems like on the centre, drainage blockage, electricity, our maintenance guys are here, so if they not here, we call the people out, phone them."

From the above quote, it can also be seen that the operators may be required to communicate with various other people with regards to the maintenance of the mall.

An extremely critical aspect of their job is to communicate with the guards. The operators may identify suspicious people on the cameras and will then communicate with the guards in directing them towards suspicious persons or criminal activities that may be taking place. The operators also assist the guards in identifying suspicious people or criminals by giving a detailed description of that person. The guards may even identify a suspicious person or a criminal and will then communicate with the operators to inform them of the suspicious person and to call the police or some form of back-up if necessary. The operators communicate with their supervisors as well in order to provide back-up if a problem arises. They are also in constant communication with their management with regards to various aspects. The operators make telephone calls for maintenance of the mall as well and this could be in relation to electricity, drainage blockage and so on.

Allocation of posts and equipment to staff

It can be seen that the operators' work involves communication with other staff members. Part of this communication also involves distributing equipment and allocating posts to the guards according to their supervisors' instructions. They would collect the equipment from the night shift and then distribute it to the day shift and vice versa. Three of the participants indicated this in their interview:

> "You just have to sign out the radios, book all the guards on duty, who are coming on duty."

> "I take all the radios we are working with, all the equipment, I take it out and I prepare for the day shift when they are coming to work. I take it from night shift controllers and supervisors and I relieve them to go home."

> "First of all in the morning we get our stuff ready, our radios, the two way radios out..…. get the guys posted according to the supervisors, get them in order, not just to grab the radio and talk on the radio, no. Keep them in line and ask permissions one at a time, even management they ask permission to use the radio."

Arrests

Suspicious people or people who have committed a crime are arrested to the control room by the security guards. The responses below indicate the procedures that the operators may be involved in when a person is arrested:

> "I'm not always there because at times when there's maybe ladies that has stolen then I'm going out to go lock them up taking whatever things I need to take with me and then I go and come back."

The operator in the above quote refers to situations in which she would be involved in arresting criminals especially if these criminals are women.

> "If he is like other people, they apologise. Sometimes we arrest the good people. We find that he can see that he was wrong and then we forgive him, he's just trespassing, we chase him out of our area. Other people, they are rude, if they fighting, I call the police and then they came immediately and arrest him to the station."

In the above quote, the participant refers to fact that in some instances the person who was arrested to the control room was not involved in a serious offence and will therefore be allowed to leave the control room and is requested to leave the premises of the mall. Here, the person may just be begging for money and will apologise and cooperate with the operators. In other cases, the people arrested the to the control room may be involved in more serious offences and may then even retaliate in a negative way when caught. The police are then called by the operators to escort these people to the police station. Once again, there is a sense of autonomy where the operators are given some power and control by allowing them to use their discretion when people are arrested to the control room.

Patrolling

Two operators indicated that they patrol the mall in addition to the above mentioned responsibilities. This is indicated by the following responses:

> "When I'm relieved, I go out, I patrol the area, patrol almost the whole mall; going around checking if everything is fine; customers are doing their regular shopping; there's no problem at the packings; there's no smashing of glasses; or sometimes you help the guards in their posts, you assist them, there are a lot of customers who will be asking this and that, give directions, help them out. Any problems regarding packing loads and all that stuff from customers."

> "So from there, we will be relieving each other after two hours. From there, when we are out there, it's where we will be patrolling those places where there is no one working there. Even the officers, even these people we are working with them, we normally go to there, we even check there. All around in the mall, even those places that they are not going to, we are from the control, we have to go to those places to check each and every corner in the mall here. Because you can be working but you find that on the other corners there are something which are happening in those corners. So for us, we normally check those places. Each and every corner we must check, it's our supervisor and one of the controllers who is out there. The other one is inside the control room monitoring the cameras."

In some malls, part of the operators' responsibility would be to patrol in the mall as well. In this case, the operators are relieved after two hours of monitoring the cameras and are then required to patrol the entire mall for another two hours. This involves assisting the guards at their posts and examining the entire mall as well as areas where there are no guards posted, in order to ensure that everything is in order.

It appears that many of the above mentioned responsibilities often need to be completed at the same time. Some of the participants indicated this in the interviews:

> "You see, focusing on the cameras, it affects the eyes; paperwork; answering on the radio. You find that maybe you are busy on the phone, guys that are calling, you find that I am alone here. I have say, excuse me over the telephone and then I tell the guy who's stand by over the radio, because you find that maybe the guy is reporting something serious and this side you find that I'm busy on the line, maybe you need direction or whatsoever, it's not necessary than the guy who is reporting over the radio."

> "Immediately when I arrive by quarter to, I have to do this thing at a same time….. I have to do it at once. It should be cameras immediately. I make sure that my people have signed registers so shows that I was busy sorting out my paperwork."

> “I’m watching the cameras and waiting for the phone. While busy patrolling, the phone are coming in and the radios also, my guards are busy calling me to report that there is this and that whereby some of the things I have to write them down in my ob and then if it’s like there is an armed robbery or an incident that is really serious I have to make sure that I come here on this computer and make sure that I have to play the footage and make sure that I check what’s happening and when was that and all that.”

The above quotes indicate that the participants engage in all of the above activities at the same time. As mentioned previously, this may have an impact on the detection performance as it may become more challenging for the operators to perform their tasks simultaneously. This will be explained further in the discussion section at a later stage.

Section summary

Theme one indicates the various activities that operators are engaged in on a daily basis. The operators have described the characteristics of their job as being mainly involved with the monitoring of the cameras for criminals or suspicious people that may enter the malls and for incidents that may threaten the lives of others, lead to theft of people’s belongings or cause damage to any property. They monitor the guards as well. Most of the participants indicated that incidents occur often in the mall. An important aspect that emerged from the interviews is that the operators’ eyes burn due to continuous monitoring of the cameras and many found that breaks in-between the monitoring relieves this burning sensation and is very helpful. The operators are also involved in administration work with the most common task of being required to compose reports on an hourly basis of the mall’s situation.

Communication is a central characteristic of the operators’ work as they are required to be in constant communication with the guards, the management, the supervisor and many others. As part of the responsibilities, some of the operators also mentioned that they are required to distribute the radio equipment to the guards. Some operators indicated that part of their

responsibilities is to make a decision when people are arrested to the control room. They need to use their discretion and decide if a certain individual should be escorted by the police or if he/she is allowed to leave the mall without any legal action against him/her. In some malls, part of the operators' responsibility would be to patrol in the mall as well. It has been indicated by the operators that many of the above mentioned activities need to be completed at the same time which may have serious effects on detection performance.

Research Question 2 and 3: What factors are perceived to influence the job satisfaction and employee engagement of CCTV surveillance operators?

The interview data indicate several factors that may influence the job satisfaction and employee engagement of CCTV operators. These factors fall under four themes which are work relationships, work-related aspects, personal aspects and the South African context and are thus presented accordingly. These findings relate both to job satisfaction and employee engagement. Therefore it seems appropriate to present the results of the second and third research questions concurrently.

Theme 2: Work Relationships

It can be seen that operators are in contact with many different people and have thus formed many different relationships with these various people. These relationships seem to have a significant impact on their jobs. Three sub-themes were identified under this theme namely; relationships with the supervisors and management, interaction with the public, and relationships with work colleagues.

Relationships with supervisors and management

All the participants indicated that their relationship with their supervisor and manager plays an important role in their job and has an impact on the satisfaction with their job.

Some of the participants' responses regarding their supervisors will be presented first followed by quotes illustrating the operators' relationship with their management. The negative aspects of supervisory relations with be presented first followed by positive aspects.

Negative Aspects

> "Find sometimes, maybe sometimes you feel sick, and then there's some other sickness which means that sometimes maybe you feel some pains in your stomach, or maybe a headache, at least sometimes you can just go and buy a panado. Maybe it started you in the board room and the time is something past four and half past four you must be on duty. Maybe its just to say that no, I'm not feeling alright. The only solution or proof that I was sick is a docter's letter. If I go and buy a panado I can't get a doctor's letter. If I come back to explain that, no, it was only my headache, they will say that, no, you are not sick. And they don't have the letter that I wasn't sick, something which is another problem."

With the above quote, the participant is referring to an example whereby his/her supervisor is not understanding and supportive. The participant explains that the only way in which he/she can be excused is if he/she has a doctor's letter and in a case of a headache or stomach ache, it may not be necessary to go and see a doctor. Thus obtaining a doctor's letter may be difficult. It can be noticed that there is some form of dissatisfaction with the supervisor and the effects that this may have on the operator can be serious.

> "It [a good relationship with the supervisor] is important because my supervisor is always directing me to do this. I want him to direct me in a good manner. Not to direct me as if he is just demanding. He must tell me in a reasonable manner so that I can understand. Even if I don't really understand, I can even ask him two times to explain to me what does it mean."

In the above quote, this participant was a little hesitant to comment on his/her relationship with his/her supervisor and thus gave a reason why a good relationship with the supervisor is

important. He/she feels that it is important for supervisors to be understanding and should speak to him/her in a good manner and not demand certain expectations of him/her. The supervisor should be willing to explain himself/herself more than once to the operator if need be. It is not certain if this specific participant felt that his/her supervisor is unsupportive in the above way.

Positive aspects

> "You see, if you have supervisors who are there to protect you or maybe to assist you, all the things they become easier. If someone is next to me, lets say maybe I'm busy on the radio or maybe I'm busy on the telephone and you find that maybe they are calling me, they support, maybe they answer the radio, they can think maybe H****'s busy on the phone, let me just answer the radio ….. It's what I'm happy with, I can see our guys are supportive."

> "You know as a supervisor you need to be rude or stubborn or something like that but the way they communicate with our guys and me too, its good because they keep on showing or advising them what to do. They [supervisors] know that if they [operators] are here, they [operators] are here to work. They [supervisors] don't push them and they don't tell them what to do. They know, they [supervisors] only attend if there is a serious problem but they [supervisors] always around not to come and harass you or whatsoever. So that's why you see our guys [operators] we always communicating well with them [supervisors]."

From the above quote, it can be seen that good relations with the supervisor are important to the operators. Autonomy is also important as operators would like to be given freedom in their work and not to be instructed continuously. This can be related to the autonomy dimension of the JCM.

> "He [supervisor] is really reliable. I have worked with him for a long time. He is really reliable, he has never let me down. It's just when he's fair, he really can stand his grounds. When it gets to a stage, a stage whereby we have to stand our grounds, he is

> really supportive. We can really stand our ground with him ……. It makes things easier for you. Even if you want to perform an arrest, you know that he'll always be there to back-up you or to help you do these things. Sometimes you find the suspects are so much aggressive and all that stuff so he's really supportive."

Operators find it important to have supervisors that are supportive especially when it comes to making arrests as some supervisors are there to assist the operators in making an arrest.

> "my supervisor's is like my brothers, we are doing the same job and then most of the thing is they don't know what I'm doing there, they don't interfere with my job…… The supervisors, they motivate me, it helps me."

Again in the above quote, it seems as if the operators prefer to have some freedom and control over their work and not to be instructed by their supervisors all the time. This relates to the autonomy dimension of the JCM. It is also important for operators to be encouraged by their supervisors.

> "Supervisor's excellent. It's excellent. We understand each other, I give them ideas, share experience with them, conduct it like this, conduct it like that."

The participant in the above quote seems to enjoy being given guidance and support from his/her supervisor. This may become important in certain situations such as performing arrests and dealing with crime. The participant also likes the fact that he/she has the opportunity to share some of his/her ideas with the supervisor in relation to performing his/her work.

The next set of responses indicates the relationships between the operators and the management. The negative aspects are present first followed by the positive aspects.

Negative aspects

"I don't like the swearing from management because everybody is not perfect like I said so at times there is things that's going to go a bad way but it always comes back to security. As far as they [management] concerned we have to always be perfect no matter what. Okay I can't exactly say that we get swearing but I mean they don't come straight to us maybe at times. There's meetings that the manager goes to and they point it out to him and then he'll come back to us."

In the above quote, the participant refers to the negative feedback that the operators receive from the management of the mall. He/she is unhappy with the fact that the management is not understanding during problematic times and the management does not communicate directly to them but via their security manager.

"Maybe if they could try and spend more time with us, encourage us and also speak to us and hear what problems we faced with. They don't do it, especially the management."

"You see, it has got great impact that really having a good relationship with the management will really make things good at all times because even if they don't have a problem, you can still talk but if he comes to me when he's got a problem or he needs something to be done, he needs it done there and there, you know we all human beings, we also feel the pressure."

In the above quote, the participant indicates that he/she would like the management to communicate with him/her all the time and not only when there is a problem.

Positive aspects

"The manager is the best, I won't lie to you, really he's the best! He understands but when there's times that you really play around that's when he reprimands you but he

understands. Even if you got a problem and you need to go home or something, you just go to him, you tell him your problem and you can go. That's how he is."

"It is very important, it is very important because once I make a mistake and if somebody comes in and find that mistake and say okay, we understand that you did a mistake but next time you mustn't do this, you have to do this, so that in my mind I say okay …… If I make a mistake there, once I know that even if I made a mistake but even if it's little but my manager is going to understand."

"It's very very important just because those are the people who are first, they are next to me, so I must communicate with them. Our job is all about communication. Without communication really we cannot make it."

"You know what I can tell you, this one of controllers, I can say my manager is somebody who is really friendly and then he can't even tell you what to do because actually they know that you know your job. Yes he's not after me, definitely, he's not after me. Instance, if I've got a problem I will call and then to come and solve my problem but usually definitely, I'm always free."

This participant likes to have a relationship with his/her manager whereby he/she has some control and freedom in his/her work, and that he/she is not always instructed by the manager. This may be related to the autonomy dimension of the JCM.

One participant when probed, indicated that feedback from the manager can be both positive and negative. This is her comment:

"Sometimes, like maybe when they tell us bad stuff then it makes me think twice about the job and then again when good things come to me, then I just feel like I'm doing a good job."

Signs of appreciation for one's work also forms part of these work relationships and is an important factor that has a great impact on the operators' work. Nine of the participants indicated this. Some of these are expressed in the following comments. The negative aspects are presented first followed by the positive aspects.

Negative aspects

"Some of those people [management], you know people have different character, they don't have the same character so some of them when you meet them outside, they [management] talk to you, greet you, ask you whether everything is fine. You see, you also feel that these people are appreciating me, they can talk to me. But there are some of these people [management] of which sometimes you do not blame them, that's how they are. If they don't need anything they don't talk to you. They only talk to you when they need something…..It really has a great impact on the job because at the end of the day, when I'm talking to that person who doesn't even consider me when he doesn't have a problem. I also have a negative attitude that he is looking for me just because now he's got a problem….. When there's things to blame, that's when they come but when there's something to say thank you to, they don't…..everyone will really want to be acknowledged wherever he is."

"To be fair, in most cases I can say when you have done something good, they cant talk more about it, but if you have done something wrong ……. when it comes to the mall management, when you've done something wrong they shout a lot but when you've done something best they don't appreciate. They can't come to you and say oh, well done."

> "If we do something right. They don't come here, guys you did a wonderful job, something like that. They don't do that. They just say no, job well done to our managers and its all about that. And you see maybe if they come to the parade and call all the staff and say guys last night you did the right job; what you did you just keep it up. You see that they giving encourage to other guys even tomorrow they can do the right thing… you see it's painful because sometimes you find that you risk your life for example and they don't appreciate."

In the above quote, it is important to note that some operators feel as if they are risking their lives for others yet they do not feel appreciated for this. This can have a huge impact on their satisfaction with their job.

> "If I do something wrong, they tell me, you did something wrong. If there's something right, that's impossible, that they say you did something right."

Positive aspects

> "Someone comes and says oh, you guys, thanks a lot, what you have done, it's great, you have saved my car. I'm very much glad, you see that he's happy."

> "The customers normally phone and say somebody helps me on such a day so that gives us that energy. Others they normally send them to our offices that someone they help me, officer so and so, help me on such a day."

When one the participants were asked if his/her manager informs him/her when they are doing a good job, the participant responded in the following way:

> "Yes. I find it helpful. It makes me to come back the following day."

In the quote below, the participant mentioned in the interview at an earlier stage about being happy when people appreciate his/her work. The researcher then asked the participant if he/she enjoyed his/her work more because of this. The following was the participant's response:

> "Yes definitely because it encourages me, it shows that what I'm doing, it means I'm at the right track, we are doing better, what we are doing is best, so it keeps me, you know, encouraged."

Interaction with the public

Interacting with the people is an important aspect that has a great impact on the operators' job. This sub-theme had emerged in seven of the interviews. The negative aspects are presented first followed by the positive aspects. These are expressed in the following comments:

Negative aspects

> "By going to the people that's got complaints and all that, complaining by the guards and this and that, that is very, very, very difficult. Because they like to complain and then you must tell them; I'm sorry m'am, this and that, all that."

> "What I don't like, sometimes it is the way I am being treated by the people when I'm protecting them. Sometimes just to explain something to them, they turn you around, but you talk the way she wont like it, and then that one is going to affect you. But never mind if it does affect me, sometimes I just ignore it, because I know what I am here for."

In the above quote, the participant explains that in some instances, when explaining something to the customer, the customer may turn the operator's words around to mean something that he/she did not say. Again it is highlighted that some operators dislike the fact that they are helping others and protecting others but are not given any appreciation for that.

> "In my job I am dealing with people who are difficult to deal with. I am dealing with people who are always breaking the law. People who don't want to be associated with the other people. People who want to do things which are negative towards the other people."

With the above quote, the participant feels uneasy at the fact that he/she is putting himself/herself under risk when dealing with criminals. The operators have a difficult task of dealing with criminals and this can have a huge impact on their satisfaction with their job.

Positive aspects

> "What I like about my job, I think meeting new people and yes, like meeting new people cause I actually know a lot of the shop owners here and they know me and all that."

> "You get to meet different people everyday and you get to deal with different people everyday. Some of them you find that somebody doesn't want to understand but you really have to make that person understand so you really have to try and find a way of making that person understand……Some of them are customers, some of them are tenants, some of them are the people who I work with like the guards. I am their senior, they'll come bringing their problems or maybe they'll come complaining about something when they not treated right or something else, or maybe something is not going right at all. So just have to solve the situation at all times……Basically it's full of challenges and you really get to meet people, interact, hear what people say. So as a security, everybody will always trust you. It's nice."

With the above participant, the subject of being a senior was probed further but the participant did not find this to be important but rather found the challenges that he/she has to face, more important. He/she enjoys the challenges of solving different problems and thus likes the responsibility and accountability aspects of his/her job. This can be related to the autonomy dimension of the JCM. This participant also seems to find his job important as many need to trust

him/her and he/she enjoys this power and importance of the job. This importance can be related to the task significance dimension of the JCM.

> "What I like is that, it makes me, my mind actually, I'm always up to date in fact especially I'm always talking English with people and then it helps me and I'm always busy writing, it encourages me a lot to continue to learn."

In the above quote, the participant enjoys interacting with the public as he/she finds this as an opportunity to learn and improve his English. This is specific to the South African context in that many of the operators do not speak English as their first language and are thus learning to improve it.

Relationships with work colleagues

A fundamental work relationship is that of relationships with work colleagues. This factor seems to have an important effect on the operators' work as six participants discussed this aspect in the interviews.

> "I'm enjoying the way I'm working with my team mates. The way they communicate. They don't give me a problem and they always with me for help. You see, if you got a problem, I know, like now you see, I need to call one guy to come and relieve me, they all do that stuff. Like if maybe I'm not feeling well. Sometimes you see, you can come to work while good but after some few minutes you find that you get bored or something. I don't have a problem and our guys, they are happy with the way I'm working with them."

> "When I'm working with the people who are committed, even the people who is on the floor there, if I call somebody once, you find that he is there for me, that makes me to be happy."

"You have to work where you are happy, can't work by a place where you unhappy. Unhappy by means of, I don't understand with that one, office politics."

"This the only way that makes me happy because for having a good relationship with my colleagues it makes my job easier, it's easy to tell them what to do and what not to do in a good way."

"They really understanding and supportive, it's like we work as a team…..The more you work as a team, the job is properly done but if you guys are not a team when somebody is doing his own thing there. At the end of the day, you find he sleeps at every corner. When somebody suppose to give you a backup, you find that somebody does not backup you just because you and him, you do not click, you don't have a good relationship."

"The guy that I work with, we understand each other, we always there for each other and if he needs to go out, I'm there. If he gets sick, I don't mind, he can go, I'm always there."

In the above comments, it is quite evident that the operators like to have a sense of support, understanding, cooperation and team work with their colleagues at work. This interaction with colleagues helps them to cope with the constant monitoring in that they are not just alone and isolated the entire time. It seems as if a sense of belongingness may be important to some operators.

Section Summary

It can be seen that the operators' relationships with their supervisors and managers are important to them. These relationships provide more satisfaction to the operators when they are understanding, supportive, reliable, fair, encouraging and provide the operators some control

over their work. Appreciation plays an important role in which operators like to be acknowledged when they have performed well as it encourages them. They also seem to be affected by the fact that they risk their lives for others who do not appreciate what they do for them. The operators like interacting and meeting new people but find dealing with certain people such as criminals to be difficult. The operators also enjoy working with their colleagues and find them very supportive, committed, cooperative and understanding. The various work relationships discussed above has an impact on the operators' satisfaction and dissatisfaction with their job. These relationships can also influence their employee engagement. The linkage of these work relationships to these constructs will be explained in more depth in the discussion chapter.

Theme 3: Work-related Aspects

From the data gathered from the interviews, there are many work-related aspects that have an influence on job satisfaction and employee engagement of the operators. There are several sub-themes within this theme namely, autonomy, task significance, working conditions and rewards, familiarity, boredom, workload, and operators' safety.

Autonomy

Nine of the participants indicated that having some autonomy in their work is an important aspect of their job. However, there are different forms of autonomy that may interest the operators.

In the two responses below, the form of autonomy that the participants are referring to is a sense of power and control over other staff members and over certain procedures.

> "I have to look after the guards, see are they doing their job, if they are not doing their job then I have to shout at them. Tell them, listen here you must do your job."

From the above quote, it can be seen that the participant views his/her role as being powerful with some control over certain aspects. The job is also viewed as important. This can be related to the autonomy dimension and the task significance dimension of the JCM.

> "We the head, we give the orders. In the morning when we come here we have to make sure that all the guards are on post, we have to make sure that the books are in order, that the cameras are in order, that the cameras are moving the whole day. We have to make sure that the paperwork is done, that everybody is here, that the radios is booked out ……but then at times if something goes wrong then they have to come back to us and that's a bit bad because I mean if a guard does wrong and we told him that that's not what he suppose to do, at the end of the day it comes back to us."

A strong sense of power and control can be seen in the above quote which very clearly related to the autonomy dimension of the JCM.

In the following five responses, the participants refer to a form of autonomy in which they can use their discretion when performing certain duties and do not always have to take instructions from a boss.

> "We can go where and where we want to as long as we do our job at the end of the day."

> "I don't want to be pushed, I don't want to be instructed or maybe to be told of what to do because I know what to do."

> "I give them ideas, share experience with them, conduct it like this, conduct it like that …. And they listen and we conduct it and we practice and it's working."

In the above quote, the participant refers to the fact that he/she has the opportunity to share ideas with his/her supervisor and that they listen to his/her ideas and implement them.

"There is a procedure but you can change it as long as if it's working for the good thing."

"I've got a say. Like now as I'm doing night shift, I did ask my manager, that for now until this period, it will be fine for me if you can put me night shift so, I'm ok."

With the two responses below, it is clear that these two operators are not happy about the fact that they do not have the authority to change certain aspects of their job.

"Some of the things you find them there, you find them there and you are been told that these things have been there for a long time. So you cannot change these things, you can only follow these things."

The participant in the above quote finds his/her job a little too structured for him/her which may lead him/her to feel a sense of helplessness in that he/she is unable to change certain aspects of the job.

"You are given that on these days you have to be on duty, and these days you have to be off."

Task Significance

Eight of the operators interviewed in this study have indicated that their job is of great importance. Many believe that their work has a significant impact on the lives of those shopping at the mall as well as those who are shop owners. Some of the quotes expressing this have been extracted from the interview data and are presented below.

"Our job is like we looking after the mall. You life is in our hands basically because we watching your'll twenty-four seven."

> "You see I'm the one, the controller is the backbone of the mall……. if I'm not here some of the people can be in danger…..we protect customers, all the shops……we save the mall."

With the above quote, it is visible that the operator believes that his/her job is central to the security of the mall which plays a critical role in protecting peoples' lives.

> "Without security, really people won't be able to survive. Crime is very high these days and everyone is always thinking about crime so with security, somebody has to consider security first before he thinks about committing a crime. So it's really of great importance…… it also influences how much I like my job because when I do it, I know that I am helping people."

In the above quote, the participant emphasises the importance of his/her job by explaining that the mall would be in a worse condition if he/she did not perform his/her duties. Thus the participant has a sense that he/she is contributing to society. The operator also highlights the importance by explaining that the criminals would first have to evaluate the security of the mall before attempting to commit a crime.

> "Our job is very important and we are doing our job with all our heart …..We normally think about it almost everyday because we are here to protect our customers, our property and everything, so that is why we have to commit ourselves on this job. Even if you are not happy but forget about happiness, put the life before."

The participant in the above response, indicates his/her passion and commitment to the job as he/she would choose to forget about his/her own happiness in order to help someone else.

> "Because we are really saving most of the people's life here and we are really helping a lot of our citizens, so I'm very much glad."

"I can say I like to help other people. If somebody maybe needs some help. And then I like to protect people. If I see something that is maybe dangerous, I like to advise somebody that maybe they don't do that or they don't go there or stay away from certain places."

Working conditions and rewards

Eight of the participants felt that fairness with regards to pay and working hours has an impact on their satisfaction with their job.

The three responses below describe the dissatisfaction that the operators feel towards their pay. However, in the fourth quote, one participant is satisfied with the pay. A possible reason for this could relate to the unemployment conditions in South Africa where he/she would be happy just because he/she has a job.

"It doesn't pay much."

"Maybe if we were getting enough money, we going to enjoy the job…..there is no money in this industry."

"This is the only problem that I do have about this job because really, I'm enjoying my job and I know that I've got a lot of challenges on it, but when it comes to my salary, you know when it comes to month end, I think about all this. I've done a lot of work, I've done a lot of things for the company, but when it comes to pay, it's definitely peanuts."

> “Don’t know about the other people, but me I’m fine, I’m happy, because it’s not for me, it’s for my children. I’m supporting my babies, I don’t worry about myself.”

The four responses below highlight the operators’ dissatisfaction with the long working hours.

> “I think even this more hours, you know for twelve hours, I think it’s not fair for us because our mind, we have to concentrate late a lot and twelve hours is a long time so I think if they should do something to reduce these hours, to come to normal hours, so that we’ll concentrate and able to do our job perfect. Now we lose concentration because sometimes I’m tired.”

With the above response, it is indicated by the participant that the long hours can affect their concentration. This can have detrimental effects to their detection performance in which their vigilance level could be decreased due to their fatigue.

> “The shifts are too long.”

> “That’s hard, that I won’t lie is hard cause I mean its seven days a week Sunday to Sunday. Okay but you do get your days off, one day off in the week. It’s a bit bad but I guess that’s a security job. For me, I like it but on the other side it’s a bit bad because I don’t get to see my family so much.”

It is evident from the response above that family plays an important part for some of these operators and the long working hours does not provide them with sufficient time to spend with their families.

> "The job itself is not fair enough sometimes considering that you also have to work a long shift of twelve hours. You know how it's like working for twelve hours. You also have to work a very long shift of twelve hours and at the same time, those challenges which come along, they are so much huge for twelve hours for you to enjoy. So sometimes you just have to face them but it's difficult for twelve hours and then coming to a sense of saying maybe currently outside we only have thirty minutes lunch. You see, if you could give someone thirty minutes lunch and you expect that person to go to a shop, buy his food, eat, and go back and work for the other six hours which are remaining, really it's ridiculous. It's too small."

In the above quote, the participant explains that he/she likes the challenges that he/she is faced with but because they work twelve hours, the challenges become too much for it to be enjoyable.

Familiarity

An important aspect that emerged from the interviews was concerned with familiarity with the job. Seven participants indicated that familiarity with the job has an influence on their satisfaction with the job. Here participants were asked what they liked about their job or what aspects they found easy about their job. It was interesting to note that most of the participants liked the fact that they know how to perform their job because they have experience and are thus familiar with the work procedure. These were some of their responses:

> "That I'm used to it, it's not the first time I'm doing it."

> "Before when I started working as a controller, ay there was a problem because you see, communication, you keep on answering the radio for the guys outside. Telephone, you see, you got two telephones there, paper work and I suppose to focus on the camera. You see, a lot of job at the same time for one person…..Now I don't have a problem. It's not stressful at all because now I'm committed and I know, I know what to do."

"I know the system very well. So getting to pick up people from the system and getting to make follow-ups on where this person went and getting the person in time."

"Quite some time I'm working in this control room so everything it's easy for me. I have done it easy."

"I don't have a problem because I'm used to it."

"I'm in this industry, for very long, since 1990, that's 18 years, so I love what I'm doing, security and I like to work with the people, with the customers, because I was also in the retail for quite some time, long time. Being site managers, previous companies, so I know how to work with the guards also, I understand how to communicate with them, how to give them instruction, how to attend to the problem….. Nothing is difficult, as long as you know what to do, you know when to do it, you know who to approach for that and that. As long as you know exactly what is happening in your office, can't be difficult. I'm outside, they say check on cameras, so I check on cameras, you must know exactly where……..If there's incidents, you know how to attack it, who to approach, which numbers to dial, which people to dial."

This aspect of familiarity could result in operators' increased employee engagement because their work becomes clear and autonomous since they have mastered the skills involved.

Boredom

During the interviews two participants indicated that their job was boring.

> "It's tiring because I'm just sitting here. It's like boring man……. because you just sit one way, checking at the monitors, that's all…… I don't find it exciting."

The context is very different for the participant with the above comment as he/she is isolated from other members of the security staff. Thus there is not much interaction and communication with colleagues except for communication with the guards which is strictly business and does not allow for relationships to develop.

> "It's interesting yes, and sometimes its boring……..I say it's boring because always you have to be serious, you don't have any time to have a joke. Don't have any time just to have some fun with some other people who are there, never mind you know them. Even if you know somebody, you maybe stay away. Even if he want to speak to you, just give them two seconds. That's why sometimes it's boring."

In the above quote, the participant refers to the aspect of monitoring as boring. Whist in the control room, the researcher observed the active role that this operator takes whereby he/she monitors every suspicious person in the mall recognised either by himself/herself or by the guards. As a result, there were many suspicious people to monitor and thus these operators are constantly busy. Therefore the participant refers to these busy times whereby he/she does not have much time to joke or laugh with the other staff members and this then becomes boring as all he is doing is monitoring the screens.

> "Sometimes you get bored because you watching the same thing and you get tired……you just have to keep up those two hours and when you go outside, you make sure that you get as much fresh air as you can."

The following three responses is an indication of why some operators do not perceive their job to be boring.

> "At times it is boring but it's what we make of it because we don't let it be boring. We always make exciting things……We laugh, we make jokes. Never mind we security officers and we always have to be serious but you can't always be serious. We can't always be serious, we can't always be sour. So we just laugh and we joke, sometimes even on the radio when it's not that busy. We go on for ourselves especially there in the control room, it's not that bad….. not always am I watching outside, we swop. So sometimes he'll be outside and I'll be inside."

> "Sometimes, I used to be with my manager. I know from six to twelve o' clock, I know that my manager he finish on the job and then he come to the control room, at least we can be able to communicate. Just to speak, just for two or three hours…… then there is too much paperwork to do because if let say day shift, they did record maybe ten reports and I'm suppose to write all the overnight casts in the book and then the incident report, everything. I'm the one who's in charge. For now on, I don't do paperwork, I'm busy with the camera because you see, it's busy now until we lock the centre around past twelve. From past twelve, I start my paperwork that's why I don't get time to be bored."

In the above two quotes, the participants indicate the importance of having good working relationships where they are able to interact with each other in order to help overcome boredom at work.

> "Just because there will be the phone ringing, the radios will be calling, they will be making noise, so you can't get bored."

In the above quote, it can be seen that the workload that these operators have as well as task variety also help alleviate the boredom.

Workload

This sub-theme had emerged from the interview data as four of the participants discussed workload in their interviews. These are expressed in the following responses:

> "Because I am the one who is looking after the cameras, also writing in the ob book, sometimes also answering the radios. Sometimes you see, it becomes too much for me especially if it's a busy day."

> "It's not easy. You see, focusing on the cameras, it affects the eyes; paperwork; answering on the radio. You find that maybe you are busy on the phone, guys that are calling, you find that I am alone here. I have say, excuse me over the telephone and then I tell the guy who's stand by over the radio, because you find that maybe the guy is reporting something serious and this side you find that I'm busy on the line, maybe you need direction or whatsoever, it's not necessary than the guy who is reporting over the radio…….it's not easy. You see telephone, radio communication, focusing on the camera. If lets say sometimes you receive panic alarm, they activate here in the control room and then I'm suppose to call the guys. I must send them where the alarm is activated and then I must put the camera on that portion so that I can focus to see any movement. You see, the lift they stuck, the escalator they stuck, I'm the one who is in charge. I'm the one who suppose to organise the people to come and fix all the stuff and the management as well need to be informed about all the stuff."

> "What I hate a lot is where you find that it is very busy, like there is a lot of incidents….. I have to write down everything and I have to concentrate and I have to watch the cameras and I have to watch my colleagues and also the phone here. It's hectic."

From the above few quotes, it is evident that these operators have many responsibilities that need to be completed at the same time. Thus these operators need to switch tasks, and prioritise throughout the shift. As mentioned previously, there can also be effects on detection performance as a result of this and this can have implications for employee engagement. This can also place some amount of stress on the operator which can lead to dissatisfaction. There also seems to be some role conflict between tasks that need to be performed simultaneously as many find that performing these different activities simultaneously is not very easy.

> "I like my job because I'm not working so hard."

The above response is the only one that is different from the rest in that he/she finds his/her job to be easy and not challenging. He/she particularly enjoys the fact that there is not much work to do and that it is not difficult to perform. This particular operator is a night shift worker with perhaps less responsibilities than the day shift operator however, other night shift operators also found their job to be challenging and difficult. This particular operator does not find his/her job to be that important and meaningful and this may contribute to reason why he/she finds his/her job to be so easy.

Operators' safety

Four of the participants had indicated that their job is very dangerous and this can have an impact on their satisfaction with their job. These are expressed in the following comments which are all responses that had emerged during the interviews:

> "Sometimes you see, it's risky…. Maybe the easiest part of it is that you see here at control room, for me it's secure….. When I'm here I feel safe. If I want to I can just lock the door and even when someone comes in, I can see on the screen that there is someone there."

"The danger, the risk, it's quite risky especially in a mall."

"There is nothing that's good of this industry because you are the enemy for the people who are arrested. We normally arrest each and every day in the mall here. So out there, you are an enemy……..It's risky for us. When you are out there these people who you used to arrest them here, they are watching you. So it's risky….. For us, I don't think that everyone who is here, they like to be here, because we are working under risk. Even in the mall here, robbers they can come in the mall. The only person that is a target is a security, the first person. They normally start from you. They think you have got a gun, even though you don't have a gun. So they'll have to shoot it before they can rob that place. So we know we are under risk."

"I find it easy because I'm not scared of coming to work. Sometimes you get that feeling, what's going to happen today no. You come with a positive mind, a positive refreshed brain."

In the above quote, the participant has a strong belief that with a positive mind and attitude, one is able to overcome anything. Therefore he/she believes that even when he/she gets the feeling of uncertainty in that danger can occur at any time, his/her positive mind and attitude helps him/her to overcome that fear and thus he/she does become scared.

Section summary

The findings indicate that autonomy has a significant impact on the satisfaction of the operators' work. Here, the operators like to be given some control over certain tasks so that they are able to use their own discretion and do not always have to be instructed on what to do. Many of the operators believe that their work has a huge impact on the safety of others in the mall. Most of them enjoy serving and protecting the customers and shop owners of the mall and thus find some satisfaction from doing so. This can also be related to a previous comment by the operator when

talking about the aspect of monitoring. Without effective monitoring, the operators will not be able to provide a good service role to the shoppers in the mall. The operator thus saw his/her role as playing an important service role which is meaningful and significant because of the significant contribution that he/she makes to people' lives and shopping experiences. The aspect of communication can also be related here in that the operators would be able to protect the lives of those shopping at the mall if they are unable to communicate efficiently to the guards, the management and so on. Thus their communication has a significant impact on the safety of those shopping in the mall. The pay and long hours is not satisfactory. Many like the fact that they know how to perform their duties and have some experience in that regard. Many keep themselves from becoming bored by interacting with colleagues or in some cases, it becomes too busy to be bored. Where one participant was bored, it was evident that he/she did not have much people around to interact with. It was found that interacting with colleagues at work helps to alleviate the boredom. The workload that the operators have to complete also prevents them from becoming bored. Many operators feel that their work is very risky and dangerous and this can have an impact on their dissatisfaction.

Theme 4: Personal Aspects

From the data gathered from the interviews, there are many personal aspects that have an influence on job satisfaction and employee engagement of the operators. There are several sub-themes within this theme namely, identity, outside lives, energy, self-esteem, and motivation.

Identity

The concept of identity appeared in Kahn's (1990) employee engagement model and thus questions relating to this construct were probed for in interviews in order to determine if these aspects are applicable to the operators and if it may have an impact on the operators' engagement at work. When participants were asked if they would tell their friends and family about their work and what they do, these were some of their responses:

"I always tell them that I am a security."

> "Yes. But most of them they don't understand what controller is all about, so it depends to whom am I talking to."

> "I tell them that I'm the control of a security company. That's what I tell them."

From the above quotes, it can be seen that the operators are proud to inform others about their work indicating that they not have a problem with their identity as an operator which could add more meaning to their lives and thus be more engaged in their work .

An aspect that also forms part of an individuals' identity could depend on how they saw or wanted to see themselves. Therefore participants were asked about their career aspirations in order to determine if their work is aligned with their self concept. These were some their responses:

> "Marketing is my thing….. I think I have all the qualities for it. I think I can really convince someone…… It will really be challenging, it's not like here in the security industry."

> "Because now I'm old, I don't know. I don't have any dream job now…..When I was young I didn't think I could make it as a security, or even as a police. It's just that things happened to be like this because I didn't have enough money to go to school. According to me, when I was young, I wanted to be something like a doctor. If I failed to be a doctor, I wanted to be a lawyer. Those were my two aims."

> "Ok for me, if I had money I was going to be a farmer, so even now I'm fighting to be a farmer…… It's only that I grew up in the rural areas, so I know there are opportunities out there…….I will be a boss for myself. So here, somebody is telling me what we have

> to do, so I think on my own business I will be minding my own business so no one will be telling me what we have to do or what we don't have to do." Are these 2 quotes (this one and next one) from same person? If so, present as one quote.

> "I want to be a farmer…… I like farming. I grew up in the rural areas whereby my parents know their ploughing and they got cattles…. I'll be able to help my country, my people, because things are expensive and if I'm able to produce, some like vegetables and all that stuff, it will help a lot and also to assist my people to get a job because I prefer that if I do this, agricultural manager, I'll know how to start my own business to become a farmer whereby I'll be able to employ people to do the job."

In the above two quotes, these were two participants who both wanted to become a farmer in the future.

> "Security is the one because first I want to be a police, but when I see the police is suffering too much, that's why now I want to be a security."

> "I always wanted to be a traffic cop. While I was at school I said I wanted to be a traffic cop…. You see the department I like that, it's a despatch, you get the call, you send them out, same like the police it's the same, traffic cop or police, the dispatching."

From the above responses, most of the participants except for one, did not initially want to be an operator. A possible reason for them still remaining in the industry could be due to unemployment and lack of education. Thus for some of the participants, the role of an operator does not fit with how they wanted to see themselves and this could lead to a decrease in experienced meaningfulness of the job and thus a decrease in employee engagement.

Physical energy

When participants were asked about their energy levels and the nature of their source of energy, these were some of the responses:

"We have to, we have to because it's our job."

"Because it's my job. If I don't put all my effort that means that I'm not doing it 100%.... Because that is what I am employed to do."

"You feel tired sometimes but you just have to follow the roster, you should go to work so you go to work especially sometimes you find yourself that you are tired, you've been sitting, you've been patrolling….., it really does affect your work cause sometimes when you are tired, you cannot perform up to the required level that satisfies you and that is required as well."

"If I'm knocking off I feel tired, but in the morning when I wake up I feel that I am ready to work, I don't feel tired. I just go to work because I need the job. If I go to work I need those rewards, because those rewards are the one's which are important to me. Those motivate me. Even if I'm tired, once I come to work, I feel alright."

"Not to repeat what I said that I'm used to it. I mean twelve hours is nothing. Before you think now look it's to eleven."

With the above quote, the participant does not feel tired because he/she is used to working those hours and because he/she feels like time goes by very quickly.

> "I feel alright, especially the people who are around me, they really encourage me a lot" because you can see as I told you earlier on that my manager is a good guy and that even the supervisors, they motivate me, it helps me. So even when I comes to work, I don't feel depression, I don't have any problem with it. I feel free that I'm going to work now and this makes me to concentrate and do my best."

With the above quote, the participant feels that his/her manager encourages him/her and finds this helpful for increasing his/her energy levels.

> "You see, I got a supervisor and a night manager. If I feel tired, sometimes I used to call him and then I get one hour just to relax but I can even go out and parole inside the centre just to refresh my eyes."

The participant in the above quote also feels that his/her interactions with the supervisor and managers help to alleviate the fatigue that he/she experiences.

Outside lives

Participants were asked if they got distracted by anything from their lives outside of work in order to determine if this aspect takes them away from their work and thus affecting their engagement. Five of the participants responded in the following way:

> "No it doesn't. You see I work everyday, six to six, every single day so I'll just talk to my supervisor and tell him that my child is sick, I need to take off or something and then I'll take off for that day and he'll be here."

In the above quote, again it becomes clear that a manager who is understanding and supportive is very important. Here the context is different in that this supportive relationship allows the participant to prevent his/her outside life to distract him/her from his/her work.

"No, because now they know. Before, when I was alone, I wasn't married. So from the start I told her that her that you know, I'm a security officer. I sometimes being at work so you must bother all about that because a job is a job. If I don't work, obvious, we going to starve..... I know that they are safe. Even if I came here to work, no they don't have a problem, they are happy about it."

"When I get here, when I step in this door, I just forget everything. I just concentrate on my job because even if there are problems out there, I don't have to think about it because I'm here. There can be so many things that can be happening, find that I'm not concentrating just because of the problem that I do have. I normally concentrate."

"It's difficult. Every time when you left home I say I'm going to work and the child says, no Papa I just want to go with you, you feel that he want to be with me every time and then to leave him, sometimes it's hard……I just take it easy and say no it's time for work I have to forget everything…… I just forget about the things of my place. At home I've done this, there's this and that, I forget about all those things and concentrate on my duty."

"No. Your mind is set on your work, on what you do here in front of you. Leave your girlfriend, leave your wife, we are here by the workplace. When my girlfriend phones me I say I'll phone you back. She sends me a message I ignore, I check it on my time"

With the responses above, the participants did not show any indication that their lives outside of work distracts them at work.

Self-esteem

With regards to this theme, participants were asked about aspects relating to being judged by others as this may cause them to become too distracted to personally engage. These were their responses:

> "You know, I can say to be a controller is not an easy job. You need to patient because sometimes you find that you are working with people who can call you whatever they like. You find that you control them, they keep on telling you whatever they like but because I do have a backup from the management and the supervisors, I don't have a problem with that. I know that I'm protected."

In the above quote, the importance of having a supportive and understanding relationship with the supervisor and management is highlighted once again. This participant does not worry about being judged by anyone as long as his/her supervisor and manager supports him/her.

> "At one time, I think when you dealing with public, you just have to do what you supposed to do. You don't have to wait for someone to judge you or listen to someone's judgment because the moment you start concentrating on that person's judgment, you might find that one time it's a judgment but at the end of the day it's jeopardizing your job."

> "Sometimes we do mind just because people they are undermining us. If they can see a security, they see nothing. It's only that on their mind it's like they know that this is not a job. People only undermine us, they way we are working. But when it comes to the problem, if that person has a problem, it's where they know that there is a security, they can help us, but even if it's a minor thing they will call security….. it makes us to even to lose that dignity. I understand there are people who like this job. Their future it's here. They will die on this job, but the people make them to undermine themselves. To see

themself that they are not working, that they don't have job, even if they do have a job….. As I'm here, I'm proud of my job but it's not a job that I can go out there and sing and tell people that I'm working…….soon as you tell somebody that I am working as a security, he or she will just keep quiet even if he was going to keep on asking, but he cannot ask you. He cannot continue to ask you about your job, because he knew that this is not a job."

In the above quote, the participant does mind when others judge him/her and focuses on the point that others undermine what they do. Again it is highlighted issue of performing an important job and providing an important service role to others whilst the others undermine their work and do not respect them. This may have an impact on his/her engagement at work as he/she may become too distracted with how others perceive him/her.

"I don't care what people say, I like what I do because I know what I do."

Motivation

When participants were asked about the aspects that motivate them in their job, these were some of the responses:

"You know if you don't come to work for example, you going to starve because security it's like a contract. If you don't come to work, they don't pay you…. If I don't do the right thing, even the management, they won't be interested and I put my company on risk but if I do the right thing, I put a good image on my company."

"I can only enjoy because we are getting something at the end of the day….. We are getting that money, even though it is not enough. Maybe if we were getting enough money, we going to enjoy the job"

> "I just think of my kids. The kids are telling you, daddy I'm hungry. As a man you must stand up, that's my belief. A man works for his children and his wife. It makes me to come to my work to make my job easier for me"

> "I feel alright, especially the people who are around me, they really encourage me a lot because you can see as I told you earlier on that my manager is a good guy and that even the supervisors, they motivate me, it helps me. So even when I comes to work, I don't feel depression, I don't have any problem with it. I feel free that I'm going to work now and this makes me to concentrate and do my best"

For some of the participants, it appears that the aspect of remuneration motivates them to perform their job. A strong sense of identity with the company also seems to motivate some to perform well whereas others find that their managers and supervisors motivate and encourage them.

Section Summary

With regards to identity, the operators are proud of their work however, many of them did not want to pursue the career as an operator but had possibly because unemployment and lack of education. Thus their work role is not aligned with their self-concept. With regards to energy levels, one participant felt tired and indicated that this can affect his work. This has obvious implications for vigilance performance. Other operators find other means of alleviating the fatigue such as motivating themselves with regards to remuneration at month-end. Interacting with colleagues also seem to alleviate the fatigue. The operators' outside lives do not appear to affect their concentration at work and this could be due to good supervisory relations as the supervisors excuse them if there are personal matters that need to be taken care of. Some are able to also focus their attention and work rather than on their outside lives. Supervisory support also appears to be helpful in alleviating the fear of being judged by others. However, some participants do seem to be affected by the judgment of others especially with regards to the belief

that others undermine what they do. With regards to motivation, for most operators, the aspect of remuneration motivates them. A strong sense of identity with the company also seems to motivate some to perform well whereas others find that their managers and supervisors motivate and encourage them.

Theme 5: South African Context

The responses from the participants to the above themes highlighted the important role that the South African context plays in the job satisfaction and employee engagement of CCTV operators. When participants were referring to the aspects of the job that they liked and that they found easy, these were some of the aspects that emerged from their responses.

> "But overall it's not that bad. It's not like staying at home and saying there is no job."

> "Sometimes you do it just because you need a job…you just need a job and you just need to get paid."

> "The only thing which is important is that I got a job."

> "We only work because we don't have a job."

> "As you see that here in South Africa there is no jobs. I don't think too much about it, I just sometimes, not always think about the money and such things, just sometimes."

> “I respect my job. In this job maybe all of us don’t think the same, it might be secure but we can’t find another one outside.”

An important aspect that emerged from the above is that job satisfaction may be influenced merely by the fact that these operators have a job. They are happy and grateful that they are not part of the many South Africans who are unemployed. The lack of education and money among many other aspects contribute significantly to this high unemployment rate in South Africa. Therefore, this needs to be taken into account when considering the facets that appear to contribute to the job satisfaction of these operators.

Chapter 5: Discussion

The current study aimed to explore the work experiences of CCTV surveillance operators. More specifically it aimed to explore the job characteristics of CCTV operators and the factors that are perceived to influence CCTV operators' job satisfaction and employee engagement. This gives rise to four research questions. The discussion will be presented according to these four research questions highlighting the themes identified in the results section. Where relevant, the findings will be linked to and substantiated by the literature discussed in the theoretical and conceptual background of this report specifically the job characteristics model (JCM) and Kahn's (1990) employee engagement model as these were the theories adopted in this study. The findings from other studies that have examined similar constructs will also be included in the discussion. Limitations of the study, the implications of the current research and recommendations for future research will follow the discussion of the findings.

Research Question 1: How do CCTV Surveillance Operators describe the Characteristics of their Job?

According to the literature CCTV operators are required to control and monitor the cameras for certain events and incidents (Donald, 2005). The range of tasks that these operators perform varies for different jobs and operators may perform tasks in addition to that just mentioned. From the results obtained during the interviews, it appears that there is a link between the results obtained from this study and the literature. The results indicated that the operators are involved in various activities which include monitoring; administration work; communication; allocation of posts and equipment to staff; arrests and patrolling.

Monitoring

With regards to monitoring, there are definitely some similarities regarding the literature and the description of the activities given by the operators in this study. Kevel and Sasse (2006) in addition to Donald (2005) highlight the central role of monitoring the cameras and detecting specific threats and circumstances in CCTV operators' work. The participants in this study also

indicated that these cameras need to be monitored continuously on a 24-hour basis and this coincides with Smith (2004) who highlighted this feature in his study. The breaks that the participants in this study found to be helpful is in accordance with the literature which indicates that short breaks have been shown to alleviate fatigue and increase employee satisfaction (Weinger & Smith, 1997). The task of monitoring seems to create much meaning in the operators' lives as some indicate that monitoring is critical in order to provide a good service to the customers and to provide them with safety and happiness. This can be clearly related to the task significance dimension of the JCM. Some operators also viewed their monitoring task as having some sort of autonomy. They may have some control and power when monitoring the guards whereby they need to observe if the guards are doing their job and when they are not performing their duties, the guards are then reprimanded by the operators. This form of autonomy can be related to the JCM.

Administration

It was found that the most common administration work for these operators is to document the mall's situation and the incidents that occur in an occurrence book. This particular characteristic of their job has also been found in other studies where it has been indicated that part of the operators' responsibilities is to document and report the details of incidents observed (Keval & Sasse, 2006).

Communication

A central characteristic of the operators' work involves communication with various people as seen from the results section. Some of these responsibilities are in accordance to the work of CCTV operators in other countries as Keval and Sasse (2006) report that some operators respond to radio, email and telephone calls from the local police units and council groups for maintenance problems and issues. In some cases, this aspect of communication was viewed as extremely important to the security of the mall. This can be related to the aspect of task significance from the JCM as the security of the mall and the customers in the mall is dependent on good communication between the operators and the rest of the security staff.

Allocation of posts and equipment to staff, arrests and patrolling

Other characteristics of the operators work include the distribution of the radio equipment to the guards and the allocation of posts. When suspicious people or criminals are arrested to the control room, they also use their discretion to determine if the individual has committed a serious enough offence to be escorted to the police station. Some form of autonomy is used in this case which can be related to the JCM. The dimension, task identity from the JCM is also an important aspect with regard to these arrests as the operators are involved in a complete piece of work from beginning to end i.e. monitoring suspicious people when they enter the mall to witnessing their arrest. This may impact on their satisfaction with their job. In some malls, part of the operators' responsibility would be to patrol in the mall as well. Previous studies on CCTV operators have not indicated if the distribution of equipment, allocation of posts, arrests and patrolling form part of the operators' responsibilities.

Some of the operators have indicated that many of the above mentioned responsibilities need to be completed at the same time. Therefore operators have to complete their administration work while monitoring the cameras. At times, there may be telephones that need to be answered and at the same time a guard is waiting for a response from the operator. With regards to the skill variety dimension of the JCM, it is perceived by some of the operators that their work involves using many of their skills and talents such as communication, interacting with people and criminals, performing arrests and so on and this may contribute to their satisfaction at work. However, some perceive their work as having to only utilise security skills and thus there is not much skill variety in their work and this could contribute to their job dissatisfaction.

Many occupations have some task variety as part of the responsibilities. However, in the case of CCTV operators, this task variety can have detrimental consequences to detection of incidents. As mentioned in the literature review, vigilance is an important aspect in CCTV operators' work and vigilance decrements can occur as a result of various reasons (Wickens & Hollands, 2000). In this case, the vigilance of the operator is further compromised by the fact that they are given many other responsibilities that may deter them from providing their complete attention to the cameras. This can therefore result in critical incidents being missed. If a signal is missed for any

reason, subjective probability is reduced because the observer believes that one less signal has occurred (Wickens & Hollands, 2000). This perceived reduction further increases the likelihood of a miss (Wickens & Hollands, 2000). This can be related to the theories of criterion shifts whereby vigilance decrements can be due to strategic changes in a person's tendency to respond to a signal after some time of performing a task (Smit, Eling & Coenen, 2004). As a result, this can have detrimental consequences to detection of incidents.

The above discussion provides an in depth description of the job design and characteristics of the operators' in this study with specific reference to control room operators of shopping malls. The effect that these responsibilities have on their satisfaction and engagement will now be discussed.

Research Question 2 and 3: What factors are perceived to influence the job satisfaction and employee engagement of CCTV surveillance operators?

The results indicate several factors that may influence job satisfaction and employee engagement of CCTV operators. These factors fall under four themes which are work relationships, work-related aspects, personal aspects and the South African context and are discussed according to the findings presented in the results chapter. These findings relate both to job satisfaction and employee engagement. Therefore it seems appropriate to discuss the second and third research questions concurrently.

Work relationships

The above discussion indicates that the operators are in constant contact with many different people and have thus formed many different relationships with these various people. The effect that these work relationships have on the CCTV operators will now be discussed.

Some of the findings from this study relate to the psychological safety dimension of Kahn's (1990) employee engagement model. Many of the participants indicated the importance of having a supportive and understanding supervisor as well as manager. The findings indicate that the operators' work becomes easier and more enjoyable if their supervisors are supportive and

trustworthy. This finding relates to Khan's (1990) model which indicates that relationships with the management are seen as an important factor influencing employee engagement as a supportive, trustworthy and competent management style and process has been found to increase psychological safety (Kahn, 1990). Saks (2006) also notes that an important aspect of safety stems from the employees' perceptions of how much support and care they receive from the organisation and the supervisor. In one case, the participant indicated that his/her supervisor does not understand when he/she feels ill. This can lead to job disengagement and can have adverse consequences in that a vigilance decrement can arise if an operator is monitoring the cameras when he/she is feeling ill.

Another finding from the current study that also relates to psychological safety is that with supportive and understanding managers, operators are not afraid to make any mistakes. This can be related to Khan's (1990) model as he found that workers felt safe when supportive managerial environments allowed workers to try without being afraid to fail. The concept of feedback also relates to psychological safety as one participant indicated that feedback from their manager can be positive and negative. When positive feedback is provided, she feels satisfied however, when negative feedback is provided, the participant becomes dissatisfied. This can be related to Kahn's (1990) model as he found in his study that individuals felt safe in environments in which criticisms were seen as constructive rather than destructive. The concept of feedback also relates to the JCM as it found that feedback contributes to job satisfaction (Hackman & Oldham, 1976). However, the type of feedback is important as negative feedback can be discouraging and can lead to dissatisfaction.

It was also indicated by some of the participants that they enjoy the fact that their supervisors do not continuously instruct them on how to perform their work, that they can be "free" and that they can have an opportunity to exercise some discretion on the work procedures. This could be related to Kahn's (1990) study where found that workers felt safe when they had some control over their work and that if managers did not want to let go of some of the control, employees felt that they were not trusted. May *et al.*'s (2004) also found that when employees feel as if they must follow rules and have no flexibility in their behaviors, this leads to feelings of less psychological safety. This can also be related to psychological meaningfulness dimension of

employee engagement in that work that is autonomous can lead individuals to experience more psychological meaning in the workplace (Kahn, 1990). The autonomy dimension from the JCM can also be applied in this case whereby employees feel satisfied when the job provides control and discretion over work procedures instead of just taking instruction from the boss (Hackman & Oldham, 1976).

There were some operators in this study however, who liked some guidance in performing their job but it was stated that this guidance should be provided in an understanding and supportive manner and that their supervisor should not be demanding when doing so. This seems to concur with Kahn's (1990) model of employee engagement where Kahn had found that at times, the tone of management also affected the worker's safety (Kahn, 1990).

There were relations between the findings in this study and the psychological meaningfulness dimension of Kahn's (1990) employee engagement model. An important aspect that was found with regards to the work relationships was that of recognition and appreciation. Nine of the participants in this study indicated that being recognised for their work and receiving some kind of verbal appreciation for their work has a huge impact on their job. Some find that receiving some form of appreciation for their work is helpful and encouraging and provides them with that energy to perform their job. However it is important to note that some of these participants feel a sense of personal risk when performing this job yet they do not feel appreciated by what they do. In Kahn's (1990) study, when there was a lack of appreciation from clients, their experienced meaningfulness diminished. May *et al*. (2004) illustrated that work interactions are only experienced as meaningful when they are felt appreciated and valued by others. Roberts and Davenport (2002) also found that one of the key drivers of employee engagement is when employees receive recognition for their contributions to a job well done.

The psychological meaningfulness dimension of the employee engagement model can also be linked to another important aspect that emerged from the interview data, which was that seven of the participants enjoyed that part of their job which involves meeting and interacting with different people everyday. They enjoyed interacting with the customers at the mall as well as the shop tenants in the mall. The participants also indicated that working with their colleagues is a

very enjoyable part of their job. They are satisfied with the fact that their co-workers are understanding, supportive and committed. This clearly relates to Kahn's (1990) study where he found that individuals experience meaningfulness when their work involves interpersonal interactions with co-workers and clients. However, many participants found that dealing with certain people can be very difficult and challenging. These operators extremely disliked the fact that some of the customers have many complaints and can be rude and difficult to deal with especially when dealing with those people who have no respect for the law and other people. Kahn (1990) found that when individuals felt that their interactions with clients communicated a lack of respect and care or appreciation for their work, their experienced meaningfulness diminished. Therefore, it appears that positive comments from the public and the managers become particularly important for them.

From the above discussion, it is evident that work relationships have a substantial effect on the work of CCTV operators. This also concurs with the literature which indicates that such relationships have an impact on the meaningfulness and psychological safety of individuals which in turn influences their personal engagement (Kahn, 1990).

Work-related Aspects

Many different aspects of the operators' job seem to have an impact on their job satisfaction and engagement. The discussion will follow the order as presented in the results section. The most dominant sub-theme found in this theme was that of autonomy.

The core dimension, autonomy, from the JCM refers to the degree to the job provides control and discretion over the scheduling and procedures of the work in that the individual can use his or her own effort and initiative on aspects of the task instead of merely taking instructions from the boss (Hackman & Oldham, 1976). This dimension can be related to the interview data where nine of the participants indicated that exercising some form autonomy on the job is important and enjoyable. Some of the operators indicated that they enjoy giving ideas, using their discretion when performing certain activities and others indicated that they dislike being instructed as they are aware of how to perform their job. This can also be related to employee

engagement as Kahn (1990) found that when employees had some control over their work, they felt safe and thus more engaged; and that if managers did not want to let go of some of the control, employees felt that they were not trusted. The operators may also feel as if they are accountable or responsible for the outcomes of her or his work tasks and this will lead to satisfaction. However, this is not always true as one of the participants indicated that they enjoy the responsibilities that they are given but at the same time do not like the repercussions that they have to face when something goes wrong. Some of the participants also viewed their role as powerful and influential over others whereby they can give certain orders and monitor certain staff members. This may influence their level of engagement as Kahn (1992) found that different authority and power roles will affect the level of safety in which a person will engage in depending on how much respect and authority those roles receive.

Eight of the participants indicated that their job has a significant impact on the lives of others as their work involves protecting the lives of others in the mall. Most operators indicate that this leads to satisfaction. This is in conjunction with Kahn's (1990) model of employee engagement in which he found that people experience meaningfulness in their work when they feel worthwhile, useful, and valuable as if they are making a difference. This aspect of the operators' work can also be linked to one of the core dimensions from Hackman and Oldham's (1976) job characteristic model which is task significance. Hackman and Oldham (1976) propose that when individuals feel as if their work has had a significant impact on others, they will experience increased meaningfulness of their work and this will lead to job satisfaction. However, one participant indicated that although he is unhappy with his work, he still performs his job with all of his "heart". Therefore for some of these operators, they are engaged in their work even though they are unhappy with their job. It should also be noted though that social desirability and fear could be influencing comments on engagement and performance as few people would admit that they are not engaged. There is also some relation to what was mentioned in the previous theme in that the operators' feel that even though they have a significant impact on the lives of others, other people do not appreciate them and respect them and this can lead to dissatisfaction.

Eight of the participants felt that fairness with regards to pay and working hours has an impact on their satisfaction with their job. Almost all of the participants indicated that they were

unhappy with their salary and the working hours. They felt that they deserve more money and that the hours are too long thus leading to dissatisfaction with this aspect of their job. This also relates to the issue mentioned earlier whereby operators are dissatisfied with the fact that they do not receive appreciation and respect yet they have to endure these tough working conditions and low pay. The JCM does not explain this dissatisfaction with pay and long hours however, the discrepancy theory of job satisfaction may be able to account for this. Herzberg's two-factor theory of satisfaction may also be able to explain this as it proposes that extrinsic factors such as salary can lead to dissatisfaction (Parker & Wall, 1998). Kahn's model of employee engagement also does not explain this aspect of the job, however, the social exchange theory does in that it proposes that when employees perceive the resources they receive from their organisation to be fair, they are more likely to feel obliged to repay the organisation with higher levels of engagement. Therefore the perceived injustice with regards to pay and working hours may have adverse implications with regards to the operators' level of engagement Maslach *et al*. (2001) also notes that there is an association between fairness and justice, and with engagement.

An important aspect emerged from the interview data as seven of the participants indicate that familiarity with the job leads to job satisfaction. Many indicate that they are happy with the job and that it is easy because they know "what to do". This aspect can however, relate to Kahn's (1990) model in that people who experience psychological safety feel a sense of trustworthiness and security in situations which are clear and predictable and this in turn influences their engagement. This aspect of familiarity could also result in operators' increased employee engagement because their work becomes clear and they can function more autonomously since they have mastered the skills involved. The familiarity may also increase their self-confidence with regards to their work and this may also lead to an increase in employee engagement since self-confidence affects people's psychological availability by allowing them to be become more present and thus personally engaged (Kahn, 1990).

Two of the participants felt that their job is boring. This is in accordance with Smith's (2004) study where he discovered the 'boredom factor' as a result of monotonous viewing of uneventful images. However, only two participants experienced boredom as it was found that work interactions and relationships with others play an important role in alleviating boredom. The skill

variety and perceived heavy workload also appears to relieve some of this boredom as the participants become too busy to experience boredom. The literature also suggests that employees' attitude towards a vigilance task may differ in that some may feel neutral towards the tasks, others may dislike it and others may regard the task as a challenge and adopt a positive attitude towards it (Davies & Parasuraman, 1982). This may also account for the different attitudes towards boredom as some of the participants dislike their job, while others love their job and have a positive attitude towards it.

The workload aspect of the operators' job had emerged from the interview data as an important factor to consider with regards job satisfaction and employee engagement. Some of the participants indicated that the high workload is a difficult aspect of their job and that they dislike the fact that there is so much to do at the same time. One participant also highlighted that he likes his job because he sees his work as not having much to do. Smith (1997) indicates that high job demands such as heavy workload and work pressure produces stress in video display terminal work which can be related in this case as CCTV operators perform similar work. Research has indicated that when individuals experience stress, this manifests in negative feelings about the job (job dissatisfaction) (Williams *et al*., 2001). Thus, inferring that individuals in jobs with high workload leads to stress and thus job dissatisfaction which is in accordance to the findings in this study whereby operators are dissatisfied with the perceived high workload aspect of their job. As mentioned previously in one of the earlier themes discussed, these operators have many responsibilities that need to be completed at the same time and thus operators need to switch tasks, and prioritise throughout the shift. This may then lead to vigilant decrements as the operators need to divert their attention away from monitoring the cameras. As a result there will be a decrease in vigilance performance and thus many incidents can be missed as a result of this.

The operators' physical safety in the workplace may have an impact on the satisfaction with their job. The perception that their job is risky and dangerous can have a major impact on the dissatisfaction with their work. The JCM does not account for the dissatisfaction of the above two aspects of the operators' work especially considering dissatisfaction with their pay. This may be related to the other themes where it was found that operators dislike the fact that they risk their lives for others but do not receive appreciation and respect in return. However, Herzberg's

two factor theory could account for the dissatisfaction with high workload and safety aspects in that it explains that working conditions could lead to dissatisfaction. However, it is uncertain if the workload and safety aspects can be categorised under working conditions.

Personal Aspects

Kahn (1990) found that work roles carry certain identities and individuals could like or dislike those identities depending on how the role fitted with how they saw or wanted to see themselves (Kahn, 1990). Roles also carry status and influence and it was found that when individuals were able to be influential, gain desirable status and occupy valuable positions, they experienced a sense of meaningfulness (Kahn, 1990).

From the data gathered from the interviews, some of the participants were proud of their job and had no problem with the identity attached to their work as they would tell friends and family about it. Therefore they believe that their role has a desirable status as they are proud of it. This may increase their sense of meaningfulness and thus engagement. However, when participants were asked about their career aspirations, only one participant from six participants indicated that he would still like to remain as a control operator. Therefore the majority of the participants did not see themselves associated with being an operator and thus the identity of being an operator does not seem to fit in with how they wanted to see themselves and this could affect their engagement. Although most of the operators are proud of their current job as they have indicated its importance in the earlier sections of this discussion, this was not how they wanted to see themselves in the future. If the operators feel strongly about the fact that their role does not fit with how they see themselves, this could have negative consequences for their engagement level. However, it appears from previous discussions that the operators seem to be more proud of their job than concerned of the fact that their role as an operator does not concur with their self-concept. This could also be due to the fact that the operators are just happy and grateful that they have a job as many are not able to pursue their career aspirations as a result of a lack of funds and education. This is related to the last theme that will be discussed under this research question.

With regards to the sub-theme, physical energy, some of the participants indicated that they would feel tired when performing their duties. This is in accordance to Wickens and Hollands (2000) who proposed that sustained attention to visual tasks takes a toll in fatigue. The participants further explained that even though they felt tired, they had to work because that is what they are employed to do and because they need the rewards at the end of the day. This can have an effect on their engagement levels as Kahn (1990) found that because personal engagement demands certain levels of physical energy, strength and readiness, individuals could not engage in tasks because they were simply worn out. Others indicated that they are not affected by the fatigue as they are used to working the long hours. This is also due to the fact that their interactions with their supervisors and managers would relieve some of the fatigue and thus this would help in engaging with their tasks. Again the theme on work relationships is relevant here as good working relationships help alleviate the fatigue. The theme discussed with regards to familiarity is also related here as operators find that being experienced in this job helps to alleviate the fatigue.

Kahn (1990) found that individual's outside lives have the ability to take them psychologically away from their work and thus affect their levels of engagement. However, in this study none of the participants indicated that their outside lives had an effect on their engagement at work. It was also suggested in the literature that a heightened self-consciousness whereby employees would focus on how others perceived and judged them even if they were not being judged, would cause them to become too distracted to personally engage (Kahn, 1990). It was noted in previous discussions above that some operators dislike the fact that others do not respect them. However, some of the participants indicated that while they may be judged by others, they do not allow that factor to interfere with their engagement at work. One participant did indicate that the fact that others undermine his job, affects his self-esteem. Even though this seems to affect him personally, he still seems to be proud of his job and engages in his work by performing his job "with all of his heart". A possible reason why the operators are not distracted by their outside lives and others' judgment is that they need to perform their best and may thus lose their job if they do not. They also need the money that is rewarded to them for performing their jobs and thus do not allow these factors to jeopardise this form of income. This is in relation to the theme discussed later, the South African context.

When participants were probed about the aspects that motivate them in their job, two of the participants indicated that the pay motivates them. This is a very common type of motivator as wages is viewed as a universal form of inducement for individuals to perform work (Vroom, 1964). One participant indicated that his manager and supervisor motivate him at work indicating once again the importance of this work relationship in CCTV operators' jobs.

The South African context

In South Africa, because of the prevalence of unemployment, many employees may be fairly satisfied with their job because of the mere fact that they possess a job. Six of the operators indicated this in their interviews and thus the South African context and the unemployment rate has a major impact on their satisfaction with their jobs. As mentioned earlier, the operators' do not allow any distractions to affect their work and this may be related to the unemployment rates in South Africa as it may be extremely difficult to find another if they are dismissed from their job for not performing at their best. These operators also do not have money and higher education or opportunities for higher education to pursue their career aspirations and will thus affect the type of jobs they are in.

Research Question 4: How are job characteristics, job satisfaction and employee engagement perceived to be related in CCTV surveillance?

There seems to be a relationship between the CCTV operator's job characteristics, job satisfaction and employee engagement. An important aspect of the operators' work is to provide protection to the people and property of the malls. Therefore their work has a significant impact on the lives of others leading to job satisfaction. The meaningfulness obtained from providing such a service may encourage them to become more engaged in their work. However, this is not always true as one participant highlighted that even though he is unhappy in his work, he still performs his job with all of his heart. This indicates that job satisfaction and employee engagement may not be related in all cases. However, one should also consider the aspect of

social desirability as some people would not admit that they are not engaged in their work. Another important concept that influenced satisfaction was that of autonomy. Some operators' work allows them to use their own discretion and control in performing their job while in other operators' work, many aspects are standardised and out of their control. This aspect also relates to engagement as Kahn (1990) found that when employees had some control over their work, they felt safe and thus more engaged.

There also appears to be a link between work relationships as most of the operators find their relationships with their colleagues, supervisors, managers and customers to be extremely satisfying. This aspect also contributes to employee engagement as individuals experience meaningfulness when their work involves interpersonal actions with co-workers and clients (Kahn, 1990). Operators' work are characterised by long working hours. This can be related to employee engagement as operators may become too tired and worn out the engage in their tasks. This also relates to dissatisfaction as most operators dislike the long working hours that they have to endure. The operators work is also perceived to have a high workload. This can be related to employee engagement as it will affect their level of engagement as they are unable to concentrate on their main task which is monitoring. Some of them extremely dislike the fact that they have so many tasks to complete and thus the relation to job dissatisfaction is also clear here. The operators work involves a safety risk and this relates to the construct of job satisfaction as many indicate that they dislike the fact that their work is dangerous and that they risk their lives for others.

Macy and Schneider (2008) illustrate that job satisfaction can be related to employee engagement and conclude that people invest more time in roles they find enjoyable. However, in the context of CCTV operators in South Africa, employees may not necessarily be happy with certain aspects of their job yet they still are engaged in their work and perform their job to the best of their ability. This could be due to the South African context in which the unemployment rates are considerably high and the poverty conditions are alarming. Thus these operators need to perform their best because if they do not, they would not have a job at the end of the day and would not have any money to take home to their families.

It should be noted that there are some aspects in the literature review that did not emerge in the interviews. Firstly this includes the aspect of growth need strength from the JCM. This aspect was not measured in this study and the data from the interviews did not provide sufficient information to make any conclusions regarding this aspect. The aspect of depletion of emotional energy from the psychological availability construct of employee engagement also did not emerge from the interview data. Kahn's (1990) model indicates that organisational norms relate to employee engagement, however, this did not emerge in the interview data. Other aspects from the core job dimensions of the JCM such as task identity and feedback did emerge from the interview data but on only one occasion.

Limitations of the study

As with all research there are limitations regarding this study. One of main limitations in this study is the sample size. There were only 10 participants and thus the analyses of these results are not sufficient to make any conclusive evaluations or generalisations. The fact that the data could be biased due to the fact that the sample is not representative the population is another limitation of this study (Neuman, 1994). This was due to the fact that the sampling method of the current study was non-probability sampling method. This is a researcher bias as not all CCTV operators in Johannesburg had an equal chance of being included in the sample. With this sampling method, there is no way to estimate the probability of each person being included in the sample (Marshall, 1996).

Only one participant spoke English as their home language. This implication of this is that the nine participants who did speak English as their home language may not have understood the questions correctly or may not have known how to respond in manner in which the researcher would understand. This could account for the reason why many of the participants did not go into much detail when asked broad questions such as “what do you like about your job”. Even when they were probed regarding certain aspects participants would still not go into much detail. This led the researcher to ask many closed ended questions thus yielding very little and not rich data. Another possible reason for the lack of rich data obtained could be that the participants were conscious of tape recorder being present and may have been afraid that the researcher would report to their manager or supervisor even though the aspect of confidentiality was clearly expressed to all participants at the beginning of the interview. Time was limited to conduct interview as operators could not be relieved for a longer period time and this may also account for the lack of rich data. The aspect of culture may have also had an impact on the poor data quality as some older men are not comfortable with discussing personal issues regarding their thoughts and feelings about their work. The participants could have the attitude that ‘work is work’ and there is not much more to it and this could also be a possible explanation for the lack of rich data obtained in this study.

Other limitations of the study could include the aspect of social desirability in that many of the participants would want make a good impression. Some of them may also not admit that they are not engaged in their work. Therefore they would want to appear productive and as a result provide the researcher with false information. Some participants were also contradictory in their responses and this could affect the results. There are also limitations on behalf of the researcher as a certain degree of subjectivity exists in interpreting the experiences articulated by the research participants (Neuman, 1994). It should also be noted that this study did not measure the growth need strength from the JCM as there was insufficient data to make any conclusions regarding this aspect.

Implications of current research

The current study provided insight into the work of CCTV operators and the factors that are perceived to influence their job satisfaction and employee engagement. Thus this research is original and unique in that it contributed to the dearth of research available on the 'human element' of CCTV surveillance. Many studies evaluate the effectiveness of CCTV surveillance yet many writers do not take into account the fact that in order for the CCTV surveillance to be effective, it requires continuous monitoring and control by people. This study highlighted the different factors that influence job satisfaction and employee engagement of CCTV operators which can be used to redesign the work of operators so that they become more satisfied and engaged and thus become more effective in their work. This study can also be used to change or formulate organisational policies allowing for operators to become more engaged in their work and more satisfied.

Some of the implications for the redesign of work and creation of organisational policies will now be followed. Firstly, it should be kept in mind that their main responsibility is to monitor the cameras and by delegating other tasks to complete whilst monitoring the cameras and by creating work overload, this may affect their level of engagement and would lead to dissatisfaction and stress. This can also have serious consequences for vigilance performance. Work relationships also have a huge impact on their engagement and satisfaction and thus organisations should note this when designing their work, as operators like to be in contact with their co-workers and interact with their colleagues even though they are required to work in a control room. Supportive management and supervisory styles were found to be extremely important for the operators and this should be taken seriously within the organisational structures.

The working hours and remuneration seems to have a huge impact on the operators' satisfaction and engagement levels. The long working hours can also have a negative effect on the operators' vigilance levels and performance. Therefore this needs to be taken into account when formulating organisational policies. Organisations should also include social activities as these operators need to be able to work effectively together as a team. Thus exercises should be created which should highlight the importance of trust, cooperation, communication,

commitment and teamwork. Organisations should also consider planning awards ceremonies for these operators as rewards and recognition are important aspects for them and these need to be taken into account in order to increase their satisfaction. The aspect of autonomy should also be noted when designing the work of operators as they enjoy being given responsibility and the opportunity to use their own discretion when completing their work.

Recommendations for future research

A significant limitation of this study is the small sample size and lack of rich data. Obtaining a large sample size and conducting interviews in English is extremely difficult as many shopping malls are strict with regards to conducting studies on the CCTV operators as they may fear that these studies may be a risk to their security system, and many operators also do not speak English as their first language. Future researchers in this field need to be aware of these potential obstacles and should thus try to overcome them. Therefore, an important recommendation for future research is to increase the sample size and to conduct interviews that are of a longer duration. In future translators could be used in order to accommodate for those participants whose home language is not English. There could be disadvantages however, with the use of a translator as some words in other South African languages cannot be translated into English and vice versa. Future researchers should try to avoid the use of tape recorders as this may deter participants in discussing various aspects of their work. The impact of culture should also be examined in order to determine if this may have an effect on the responses given by the participant to the researcher.

The interpretation of qualitative research is largely subjective and recommendations for future research could include the use of quantitative methods in conjunction with qualitative methods in order to gain a better understanding of the factors that influence CCTV operators' job satisfaction and employee engagement. However, education levels could be a drawback thus questionnaires should be translated into the various South African languages so that the participants have a clear understanding of the questions. Future research should also examine other variables that may impact on job satisfaction and employee engagement such as age, gender, tenure and so on. Further research should be conducted on the relationship between job satisfaction and employee engagement as one participant indicated he may still be engaged in his work even though he is unhappy with his job. This should be investigated to determine if many of the other operators share this same sentiment or if this was just an outcome of social desirability.

The prevalence of unemployment is South Africa has a major impact on employees' perceptions of job satisfaction. The mere fact that they have a job contributes to job satisfaction. Thus more research on this aspect should be conducted in the field of CCTV surveillance to determine its exact influence on job satisfaction. Participants in this study highlighted that their familiarity with the job influences their job satisfaction. More research should be conducted to determine if this aspect is universal among all CCTV operators in South Africa and possible job satisfaction theories that may explain this.

Chapter 6: Conclusion

The current study focused on the work experiences of CCTV operators and aimed to explore four research questions. The first research question examined the job characteristics of the operators work. The findings indicated that operators' work involves performing various duties in addition to monitoring the cameras and ensuring the safety of others in shopping malls. Some of these responsibilities involved completing various types of administration work as well as allocating equipment and duties to staff members. Communication is an essential feature of their job which includes interacting with co-workers, supervisors and managers, the maintenance of the mall as well as the police. In some malls, the operators are involved in the arrests of the criminals and in other malls, part of the operators' responsibilities include patrolling the mall.

The second and third research questions investigated the factors that are perceived to influence the job satisfaction and employee engagement of CCTV operators. There were many factors that contributed their satisfaction and engagement and these were categorised into three aspects; work relationships, work-related aspects, personal aspects and the South African context. Relationships with supervisors, managers, co-workers and interactions with the public appear to be an integral factor influencing their engagement and satisfaction. With regards to thework-related aspects, autonomy seemed to be an important contributor to satisfaction and engagement. The fact that the operators' work has a significant impact on the lives of others was also a dominant factor. Other aspects such as fairness with regards to pay and hours, familiarity, high workload and their own safety influence their job satisfaction and engagement. There were also various personal aspects that influenced satisfaction and engagement and these included aspects such as job identity, and energy. The South African context plays an important role in job satisfaction and employee engagement of CCTV operators. It should be noted that the results vary for different operators as some factors are important contributors to satisfaction and engagement while others do not perceive them to be important.

With regards to the last research question, there seems to be an association between job characteristics, job satisfaction and employee engagement. Task significance and autonomy are evident in the job design, the operators' satisfaction and engagement levels. The operators' work

are also characterised by heavy workload and long working hours and this relates to job satisfaction and employee engagement.

It should be noted that this study has major limitations and thus these results should be taken in light of these limitations. There are important implications of this research of which organisations need to consider when designing the operators' work and formulating policies and social events. There are also critical aspects to consider when conducting future research. For example, more research should be focused on CCTV surveillance in South Africa specifically examining the work experiences of the operators as they form an integral aspect of the effective functioning of the CCTV surveillance system. These studies should combine the use of qualitative and quantitative methods and should account for the language differences among operators.

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Appendix A – Participant information letter

School of Human & Community Development
Psychology
School of Human & Community Development
Private Bag 3, Wits 2050, South Africa. Telephone: +27 11-717-4500/2/3/4. Fax: +27-11-717-4559

Good day!

My name is Salisha Singh and I am currently conducting a study as part of my Masters degree in Organisational Psychology at the University of the Witwatersrand. My research investigates how the type of work CCTV surveillance operators do, influences how they feel about their job and how involved they get in their work.

CCTV surveillance is recognised as difficult work, but very little research has looked at its effects on operators. I would therefore like to invite you to participate in this study so that insight into your work can be obtained.

Participation in this research involves being interviewed by me for approximately 30 minutes. Participation is completely voluntary and you have the right to withdraw at any time. You will not be advantaged or disadvantaged in any way by participating or choosing not to participate. The responses will only be seen by myself and will be looked at in relation to all other responses in order to establish general trends. Therefore your responses will be treated with the strictest of confidence and any data which could identify you specifically, will **not** be reported. With your consent, an audio recording of the interview will be made, as this will save time and avoid the distraction of hand-written notes. The final results will be available on request.

Thank you for taking the time to read this letter and if you decide to participate in this study, your involvement will be highly appreciated. If you would like to participate, please leave your name and contact number with your security manager and I will contact you in order to make the necessary interview arrangements.

Should you have any queries, please do not hesitate to contact myself or my supervisor, Mrs. Fiona Donald.

Yours sincerely

Salisha Singh
Organisational Psychology Masters student
072 455 8365
Salisha.singh@students.wits.ac.za

Fiona Donald
Supervisor
011 717 4507

Appendix B – Consent forms

INTERVIEW CONSENT FORM

I, _____, hereby give consent to participate in the present research. I understand that the purpose of the study is primarily academic, serving to add to knowledge in the research areas of employee engagement and job satisfaction. I also understand that individual results will not be reported but rather major trends and those results may be published in a journal article or conference paper. I further understand that I will be required to take part in an interview with the researcher and that I may withdraw at any stage. I am aware that anonymity will not be guaranteed but that confidentiality will be.

Participant's signature : _____ Date: _____

Researcher's signature : _____ Date: _____

CONSENT FOR AUDIO RECORDING OF INTERVIEW

I, _____, hereby give consent for my interview responses to be tape-recorded by the researcher. I understand that the purpose of the recording is to facilitate the interview process and ensure accurate recording of interviewee responses.

Participant's signature : _____ Date: _____

Researcher's signature : _____ Date: _____

Appendix C – Biographical Blank

Please answer the following questions and tick the appropriate box where necessary. These details are used merely to give a general description of the operators in the research.

1. Gender:

Male	Female

2. Age: _____

3. Home Language: _____

4. Marital Status:

Never married/ Single	Married	Divorced	Widowed	Co-habiting Partner

5. Number of children (if any) living at home:

0	1	2	3	4 or more

6. Ages of children: _____

7. Qualifications:

Grade 10	Matric	Diploma	Bachelors Degree

8. Job Title: _____

8. Years of experience in current job: _____

9. Years of experience in industry: _____

10. Security and CCTV training courses completed:

_____

_____

_____

_____

Appendix D – Interview Schedule

1. What tasks do you do everyday?
2. How much time do you spend monitoring the cameras?
3. What do you like about your job?

   Probe: autonomy, task significance, interpersonal dynamics, management style
4. What do you dislike about your job?

   Probe: group dynamics, security at work, identity and status, feedback, rewards and procedures
5. How many incidents do you pick up?
6. What aspects are easy?
7. What aspects are difficult?

   Probe: monitoring the cameras for so long
8. What do you do to make it easier?
9. What sort of training did you complete?