

**THE EFFECT OF ORGANISATIONAL VALUES ON
EMPLOYEE THEFT: A STUDY OF SUPERMARKETS IN
RIYADH, SAUDI ARABIA**

**Thesis submitted for the degree of Doctor of Philosophy
At the University of Leicester**

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ABSTRACT

THE EFFECT OF ORGANISATIONAL VALUES ON EMPLOYEE THEFT: A STUDY OF SUPERMARKETS IN RIYADH, SAUDI ARABIA

By

Saleh Abdullah Dabil

The primary purpose of this study is to explore empirically the relationship between staff perceptions about organisational values and employee theft, with the intention of showing that the perception of strong organisational values in the workplace by employees minimises the occurrence of employee theft. The study focuses on a chain of supermarkets in Riyadh, Saudi Arabia.

A total of 429 employees from the chosen supermarkets company have answered the questionnaire. Eight top executive staff including the chairman of the targeted company and 15 store managers were interviewed.

Among the findings are that organisational values have been classified into six dimensions as a result of factor analysis and, generally, there are statistically significant relationships between these dimensions and employee theft. The general findings support the main hypotheses of the thesis. The findings also support the hypothesis that employee theft is affected by the level of economic and community pressures as controlling variables for organisational values.

This thesis has contributed to both the field of employee theft and the field of retail security theoretically and methodologically as one of the few studies which has been done in Saudi Arabia. Theoretically this study has investigated the relationships between organisational values and employee theft and methodologically by developing both organisational values and employee theft scales. These scales can be utilised for future research. More suggestions for future research and further studies in employee theft in Saudi Arabia are recommended.

DEDICATION

**To my parents:
Abdullah and Norah**

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INTRODUCTION TO THE PROBLEM

The primary purpose of this study is to explore empirically the relationship between staff perceptions about organisational values and employee theft with the intention of showing that the perception of strong organisational values in the workplace by employees minimises the occurrence of employee theft. The study focuses on a chain of company supermarkets in Riyadh, Saudi Arabia. Employee theft is defined as any act of theft or fraud by a worker in the workplace may cause an employer a financial loss.

Importance of the study

The study of theft and, particularly, the issue of employee theft have drawn little empirical investigation in Saudi Arabia despite their practical significance. Although elements of theft have been explored in general terms (see: Alnabhan 1980; Alearq 1989; Altowaijry 1993), no systematic research has been conducted on the specific causes of, or explanations for, employee theft in the Kingdom of Saudi Arabia. The limited number of studies in this field makes a study of employee theft in Saudi Arabia important and, since it has a large number of supermarkets, Riyadh is an appropriate location for studying the phenomenon.

Furthermore, the study of the relationship between organisational values and employee theft in the supermarkets in Riyadh is significant and important for at least four reasons. First, it helps fill the gap in employee theft research in Saudi Arabia by testing organisational values as predictors of theft occurrence in the workplace. Second, it contributes to an understanding of organisational culture in supermarket organisations by explaining human behaviour in actual organisational contexts. Third, the introduction of qualitative and quantitative measurement to supermarket

culture research invites comparisons between managerial and general employee levels in relation to organisational values, and a more accurate assessment of their influence. Finally, this study may hopefully establish a validated measurement of organisational values in Saudi Arabia which could form the basis of future research in management and criminology.

Peculiarity of the current research

This study departs from previous research in that it is, at the time of writing, the first endeavour to explore the relationship between organisational values and employee theft. Moreover, it may be the first attempt to apply such research propositions, particularly in supermarkets, outside the original arenas of the western cultures.

Furthermore, this study could be the first attempt, at least in the supermarket field, to investigate the relationship between a number of internally consistent organisational values and internal theft in the workplace. Thus, the researcher anticipates that such a departure will make a positive contribution to the field of criminology and retail security.

As stated above, this study was conducted in supermarkets in Riyadh, Saudi Arabia, and thus it was felt useful to provide a brief context to the country, its population, area and the crime statistics in Riyadh and Saudi Arabia. These contextual backgrounds will be addressed in Chapter 1 in the statistical background section.

Theoretical perspectives

A theoretical perspective of this research is a collection of elements of different theories culminating in a new theoretical model. Three theories have been reviewed in order to borrow the most relevant elements concerning employee theft. These

theories are: organisational climate theory, economic pressure theory and community pressure theory.

The relationship between organisational values and employee theft is tested via organisational climate theory (Greenberg and Barling 1996; Boye and Jones 1997), which is one of the workplace theories. The basic premise of organisational climate theory is that people steal from their employers because they interact in a social setting in which conditions make social influences regarding theft possible and in which various social influences trigger employee theft (Kamp and Brooks 1991; Greenberg and Barling 1996; Boye and Jones 1997). This theory indicates that lower employee theft levels will be obtained by altering the organisational climate to address employee motivations and perceptions than by merely decreasing employee opportunities to engage in employee theft. This theory considers the modification of organisational factors and employee reactions to these factors to reduce theft (Boye and Jones 1997).

The economic pressure theory postulates that when economic pressures become great, people may turn to illegitimate means to achieve socially acceptable goals (Hollinger and Clark 1983a). The economic situation within the community in which the individual lives and works could affect that person's financial viability and hence influence his or her decision to become involved in employee theft.¹

Community pressure theory (Hollinger and Clark 1983b; Robinson and Bennett 1997; Niehoff and Paul 2000) suggests that the incidence of employee theft in a company is a direct reflection of the rate of non-violent larceny found in the larger

¹ See: Hollinger and Clark 1983; Greenberg and Barling 1996; Ziegenfuss 1996; Boye and Jones 1997; Greenberg 1997; Robinson and Bennett 1997; Nelson and Perrone 2000.

community. The basic theoretical assumption is based upon the idea that if a company hires indigenous employees from that community, their aggregate theft behaviour while at work may correspond to the level of theft present in the community (Hollinger and Clark 1983b). One plausible reason for this might include the individual's criminal background. According to Greenberg and Barling (1996), individual deviant background indicates that the person with a positive attitude to steal will continue to steal in the workplace. Boye and Jones (1997) present an alternate view by stating that pressures resulting from the workgroup in the organisation contribute to the higher probability of workplace theft. Internal pressures include the effect of work group norms (Hawkins 1984) and collaboration with other employees to steal from employers (Horning 1963; 1968; Mars 1983).

The perception of organisational values by employees is the primary independent variable in this study and it will be related to employee theft as the dependent variable. Economic pressures and community pressures are the main control variables mediating between organisational values and employee theft.

Supermarkets and theft in Saudi Arabia

In recent years, the retail trade in Saudi Arabia has undergone rapid transformation from small grocery stores and traditional wholesale businesses to Western-style retail outlets, such as supermarkets. This is due to an overall modernisation of many social and economic aspects in Saudi Arabia, including the retail sector, with the largest expansion occurring in supermarkets (Al-Sudairy and Tang 1999). Saudi buying and eating habits have changed significantly since the introduction of these Western-style supermarkets and restaurants in the late 1970s. Built initially to cater for Western expatriates, modern Western-style supermarkets are popular with the Saudis and

continue to increase in number in the major urban areas of the Kingdom: Riyadh (Central Province), Jeddah (Western Province), and Dammam, Al-Khobar, and Dhahran (Eastern Province) (Mousa 2002).

According to the U.S. Department of State Post Reports (2003), the number of supermarkets, commercial malls and other self-service outlets is on the rise throughout Saudi Arabia. It is not just the growth of these supermarkets that is noticeable but also the quality of products and the wide range of services provided. Additionally, supermarkets have become a main attraction for customers, not only for buying goods but also as places of amusement, where people go in their leisure time. A supermarket outing is now a major form of family entertainment with many having large play areas for the children.²

The growth in the supermarket system offers greater in-store choice for Saudi consumers and maximises a competitive environment in the provision of services. This, in turn, can help supermarkets increase their profitability by encouraging them to open new branches in the major cities and towns within the Kingdom (Yavas 1994). According to Novelli (2001) there are 250 large modern supermarket companies in Saudi Arabia. Despite the growth in numbers, there is still a huge opportunity to replace existing grocery stores and traditional wholesale outlets. The new supermarkets' rapid growth in Saudi Arabia demands that the supermarket companies look at all aspects of their business in order to control loss, which is a major threat to the sector.

² http://foia.state.gov/MMS/post rpt/pr_view_all.asp?CntryID=127, 7/1/2005.

Extent of loss

Businesses, institutions, and organisations such as supermarkets can suffer extensive direct and indirect losses. Direct losses can result from a variety of ways: shoplifting, employee theft, error (Bamfield 2003), burglary, and supplier fraud (Budden, Miller and Griffin 1996). Direct losses, however, are immediate and obvious, while indirect losses are prolonged and often hidden (Purpura 1984). Indirect losses include coming to work late or leaving early, purposely wasting time on the job (Kamp and Brooks 1991), poor customer service, taking unauthorised long lunch breaks, misuse of sick leave, use of alcohol or drugs in the workplace, industrial espionage and disclosure of confidential information (Taylor 1986). Indeed, indirect losses can be devastating and often surpass direct losses.

Despite other causes of loss such as shoplifting, burglary, and supplier fraud (Budden et al., 1996), employee theft remains the main economic threat to supermarkets (Ash 1976; Purpura 1991; Purpura 1998; Niehoff and Paul 2000; Ones and Viswesvaran 2001; Purpura 2002)³. Employee theft stands out as one of the most costly causes of loss (Wimbush and Dalton 1997; Greenberg 1998). It surpasses non-theft causes such as unpremeditated damage of goods, expired items and paper error (Oliphant and Oliphant 2001; Hollinger 2002; Purpura 2002). The magnitude of loss from employee theft, however, is still ambiguous compared to non-theft loss which can be detected and measured more easily (Greenberg and Barling 1996). The ambiguity of the extent of loss attributed to employee theft (Tonglet and Bamfield 1997) makes it

³ http://www.ifpo.org/articlebank/employee_theft.htm, 1/12/2004.

worthwhile to focus on employee theft as a productive theme of study in Saudi Arabia.

Employee theft will be investigated in Riyadh for it contains a large percentage of the theft cases in Saudi Arabia. One retail company, the Al-Othaim Commercial Group OCG, was chosen as the research setting. This company has agreed to reveal its identity throughout the research process and in the subsequent publication of the thesis (See Appendix A). The external validity of the results of this research will be limited to case studies of this company. This particular company was chosen for the following reasons: first, it already has 15 supermarkets and eight small grocery stores called 'corners' located throughout Riyadh city, and the number is growing. Second, it has a sufficient number of Saudis, as well as expatriates employees, to form a basis for comparison. Third, this company is highly organised and has had a very good record-keeping system and database from 1999 to 2003 which covers the study period. Moreover, the company has provided access to all its recent inventory statistics and information. Finally, it is the only company among the three large supermarket companies contacted that gave unlimited support to the research and easy access to employees and data. See Appendix B.

Organisation of the thesis

After this introduction a brief outline of the remaining four chapters will follow. The first chapter is in three parts. The first part of Chapter 1 deals with official statistics and the results from research centres on the phenomenon of employee theft in different parts of the world. It begins with statistical reports about employee theft in the USA, the UK and other countries and ends with a full description of the available

official statistics about crime and theft in Saudi Arabia in general and in Riyadh in particular.

The second part of Chapter One gives a review of the most relevant literature concerned with the employee theft phenomenon. The related literature is extensively reviewed and Weberian thoughts about values as well as white-collar crime as a historical step toward the study of employee theft are addressed. Before studying employee theft in particular, however, it is necessary to consider the meaning of the concepts of employee theft, organisational values, economic pressures and community pressures. This part of Chapter 1 initially considers these and related concepts such as culture, inventory shrinkage, direct and indirect loss and counterproductive behaviours.

The third part of Chapter One gives a critique of most theories which are concerned with the employee theft phenomenon. These background theories are reviewed and verified. The focus is on two groups of theories, person-based theory and workplace-based theory. The survey and verification of these theoretical backgrounds permits the researcher to pick up the most appropriate theoretical perspectives for this thesis. A new theoretical model is the conceptual framework of this research, which consists of organisational values, economic pressure, community pressure and their effects on employee theft. Finally, in Chapter 1 the main hypotheses and research questions are stated. The hypotheses are related to the effect of organisational values on employee theft with economic pressures and community pressures as the control variables.

In the light of the theoretical considerations concerning employee theft and the definitions of the main concepts in Chapter 1, Chapter 2 explains the study's methodology, which includes the research design, the description of the research

setting and the instrumentation. The quantitative questionnaire and the qualitative interview methodology techniques are explained fully in this chapter, as are the main instruments for data collection.

Chapter Two also deals with the pilot study analysis and results. An analysis of the pilot study was applied to test the validity of the questions for the final research. Descriptive and proper inferential statistics analyses, such as the Alpha Test, T-Test, Pearson correlation, Kruskal Wallis and Kendal tau_b have been applied to the data. Based on the analysis of the pilot data, a number of sentences from different sections of the questionnaire were consequently modified or deleted. The whole section of self-report employee theft was eliminated because the subjects appeared reluctant to answer the questions. The perception of employee theft section was retained in the questionnaire to measure employee theft.

The findings are presented in Chapter Three, which is organised in two parts: the first involves questionnaire analysis and the second, the results of the interviews. The factor analysis was to test the appropriateness of questionnaire data for subsequent statistical analysis. Factor analysis was used for organisational values, economic pressures, community pressures and employee theft. A number of statistical techniques have been used for analysing data. For example: Pearson correlation, analysis of co-variance (Ancova), path analysis, T-test, and Kruskal-Wallis H.

In Chapter Three also, the results pertaining to research hypotheses are presented, including the significance of the relationships between organisational values and employee theft, and the extent to which economic and community pressures cause employee theft. Furthermore a number of tables of the main factors and their effects,

a description of the results, and charts and diagrams of the findings are presented to facilitate understanding.

Chapter Four is the last chapter. It concludes by considering and explaining the causal connection between organisational values, economic pressures, community pressures and employee theft which are the main themes of the thesis. The main contributions and their implications were discussed as well as the limitations of the study. More suggestions for future research and further studies in the field of criminology and retail security in Saudi Arabia are presented.

CHAPTER 1: LITERATURE REVIEW & THEORETICAL CONSTRUCTS

Part I: Employee theft studies and statistics

Most statistics in employee theft are dependent on the perceptions of management or employees. This is due to the difficulties of obtaining real data from the actual perpetrators. The difficulties stem from the reluctance of companies to examine theft in their workplace in case this damages their reputation as a sound investment or reflects problems on their management abilities. It is also the fact that theft figures and the identity of the perpetrators are sometimes unknown even to the companies themselves. Even when perpetrators have been identified they have a vested interest in not revealing the full extent of their activities as to do so many affect the penalties they suffer.

This study does not intend to compare theft figures in different countries due to the different definitions of employee theft and how the law in these countries defines types of theft. This is clear from the definition of employee theft and employee fraud in Saudi law for no distinction is made between them. Also, the comparison between the various premises of the targeted company in this study is not attempted because of the commercial sensitivity of revealing information about its various branches. Analysis of theft and loss statistics is limited to the general figure in the company.

In this part of Chapter One, a review of statistics about different parts of the world, starting in the USA and proceeding through the UK, Canada and Australia will be presented. Such statistics may also be representative of the other western countries. Due to the unavailability of such statistics in most of the African and Asian

developing countries, a study of Saudi Arabia may give some insights into these areas.

The United States of America

According to Greenberg and Barling (1996), both organisations and consumers must contend with the consequences of employee theft. It has been estimated that employee theft results in an annual loss exceeding \$US 40 billion for American businesses, ten times that of street crime (Greenberg and Barling 1996). In fact, the greatest source of loss due to crimes against business comes from employee theft, making it the most expensive form of non-violent crime against business. Over and above an organisation's potential lower profitability the more deleterious consequence of employee theft is the likelihood that it is a major factor in 20% to 30% of bankruptcies in the USA. If this is indeed the case, all employees – including those who do not engage in employee theft – can suffer. Additionally, customers and consumers suffer because prices inevitably rise to offset the losses incurred (Greenberg and Barling 1996).

In the National Retail Security Survey Reports (2001) directed by Hollinger and Davis (2001), losses from employee theft reached record levels. The total inventory shrinkage cost to U.S. retailers was \$US 32.3 billion, up from \$US 29 billion the year before. This figure, however, is close to the figure reported above by Greenberg and Barling (1996) taking into consideration that there is a five years difference between these two statistics. Hollinger and Davis's (2001) results indicate that in 2000, retailers lost 1.75 percent of their total annual sales to shrinkage, up from 1.69 percent the previous year. They said that the results of the survey should serve as a wake-up call to the retail industry as shrinkage continues to be a multi-billion dollar

source of revenue loss. Inventory shrinkage from employee theft was 46%, from shoplifting 30.6%, from administrative error 17.6%, and from supplier fraud (by suppliers) 5.8%. Given that the value of the retail economy surveyed amounted to over \$US 1.845 trillion dollars, these percentages of losses are worth over \$US 32 billion. This means that the single largest category of larceny in the United States occurs in retail stores. This figure is larger than motor vehicle theft, bank robbery and household burglary combined⁴.

According to Oliphant and Oliphant (2001), the consequences of employee theft have a profound impact on employers, employees, consumers and society. Their estimates of employee theft reach \$US 400 billion a year in the USA alone in all types of businesses (wholesale and retail). Although identifying employee theft is difficult, certain behavioural-based studies have been able to separate employee theft from customer theft (shoplifting). Oliphant and Oliphant (2001) conducted a study in a retail setting. The study was able to separate most of the losses caused by employee theft from shoplifting. Furthermore, the results appear to reinforce the notion that survey data alone may underestimate the actual amount of employee theft.

The National Supermarket Research Group (NSRG)'s 2003 / 2004 Shrink Survey in USA⁵ investigated the overall level of shrinkage and causes for retail inventory loss in grocery stores. This was the 14th annual survey: it described in detail the sources of shrinkage and stated exactly what retailers were doing in order to combat the problem.

⁴ According to University of Florida criminologist Richard C. Hollinger, Ph.D., who directs the National Retail Security Survey,
<http://retailindustry.about.com/library/weekly/01/aa011124a.htm>, 16/2/2004.

⁵ <http://retailcontrol.traxretail.com/pdfs/execsum.pdf>, 16 /2/2004.
<http://retailcontrol.traxretail.com/pdfs/ncss.pdf>, 13/1/2005.

An extensive questionnaire by NSRG 2003/2004 was mailed to over 6,000 retailers. Completed questionnaires were received from 108 companies representing 8,924 chains and independent stores making this one of the largest, most comprehensive, industry-representative studies on retail shrinkage. Approximately 80% of the questions in the survey required respondents to provide actual numbers and experience. 20% of the questions called for the respondents to provide their best estimates. Of all the types of total store shrinkage, employee-caused shrinkage ranked first (57%), shoplifting ranked second (20%), while back-door receiving errors and dishonesty ranked third (11%). This included delivery of goods' errors and supplier dishonesty.

For the fourteenth year in a row, the largest component of employee-caused shrinkage was cashier dishonesty. This was the sixth consecutive year that cashier-caused losses (35%) exceeded those from shoplifting (20%). The loss from shoplifting again showed a shift in 2002/2003. Respondents reported the loss impact from shoplifting was down in 2002 compared with 2000/2001. According to the 2002 survey, the shift appeared to be directly related to a lower percentage of apprehension (759 in 2002 as against 793 in 2000/2001) (Miller and Allen 2004)⁶ or greater use of electronic tills.

Similar to the NSRG survey, the National Convenience Store Research Group (NCRG), Miller, Allen and Smith (2004) reported the findings of its survey in 2004. This year's survey represents data from the calendar year 2002 collected from convenience stores with a variety of geographic and demographic backgrounds.

⁶ <http://www.trax-usa.com/research.htm>, 26/2/2004.

Completed questionnaires were received from 15 companies representing 18,877 stores. The overall level of shrink reported in 2002 was 1.46% of retail sales. Total sales include gasoline and in-store figures. The contribution to total store shrinkage was reported in five categories: employee-caused shrinkage ranked first (74%), shoplifting ranked second (9%), receiving error and dishonesty ranked third (9%), followed by pricing/accounting errors/damage (5%) and gasoline run-offs (3%) (Miller et al. 2004)⁷.

United Kingdom

The British Chamber of Commerce (BCC) published a report of crime experienced by its 2914 members in 2001⁸. The report formed part of their “Securing Enterprise” campaign that aims to raise awareness of the cost and impact of business crime to dispel the idea that business crime is a victimless crime. The survey was repeated in 2004. The report in brief stated:

- Fifty-eight percent of respondent businesses had been a victim of crime in the last 12 months, but only 26% of the self-employed reported being affected.
- The concentration of victims is highest in Yorkshire and Humberside (67%) and lowest in the Eastern region (47%).
- Older businesses were more likely to be victims of crime than newer ones - 66% of businesses were over ten years old compared with 47% between one and two years old.
- Businesses in shopping centres reported the most crime, with 27% reporting 50 or more crimes in the past 12 months.

⁷ <http://retailcontrol.traxretail.com/pdfs/ncss.pdf>, 28/2/2004.

⁸ <http://www.crimereduction.gov.uk/business20.htm>, 15/1/2005.

- The most commonly cited crimes were vandalism and burglary.
- Half of businesses reported 80 to 100% of incidents to the police.
- Small businesses were less likely to report crime - 20% of those employing less than 4 people did not report any incidents at all.
- Of those businesses that did not report any crime at all, nearly half said that this was because they did not have any confidence in the police; one in five because of time constraints and one quarter because no loss or damage had occurred.
- Three percent of respondents said that crime had cost them over £100 million in the previous 12 months.
- A quarter of respondents said that crime had cost £1 - £10 million.
- Increased insurance premiums were the main reported consequence of crime.
- Three percent of respondents said that they changed premises because of crime, while thirteen percent changed the design or layout of their premises.

In 2004, BCC reported its survey (Hill 2004)⁹, with these major findings:

- Crime against business shows no sign of diminishing. If anything, it appears to be escalating. 64% of all business surveyed experienced at least one crime in the previous 12 months - a rise from 58% in the 2001 survey.
- One third of all premises were burgled during the past year. A further 19% of businesses suffered from attempted burglary. Nearly a third of all firms experienced damage to vehicles and almost one quarter was victim to structural damage (including vandalism).

⁹ <http://www.chamberonline.co.uk/policy/issues/businesscrime/crimereport.pdf>, 15/1/2005.

- One third of businesses surveyed estimated crime cost them more than £1000 per year. For 15% of firms, the cost of crime is estimated to be greater than £5000 a year. The average cost of crime per business is over £8000 per year.
- One third of firms suffered a disruption from trading as a result of crime committed against them. A further 10% lost business due to crime consequence. A quarter of firms saw insurance costs increase and staff morale damaged.
- Whilst businesses should ensure that they are fully engaged in the issue of crime, the government and local authorities should equally demonstrate their full commitment to tackling the issue. The BCC have long been calling for a statutory measure that requires Crime and Disorder Reduction Partnerships (CDRP's)¹⁰ to include business crime within their audit. This would make a significant difference in tackling the issue at the local level.
- Crime against business should be recorded as a separate statistic by the police. A separate statistic will allow the police to build up a more accurate picture of business crime within the area, and act as a tool by which police performance can be measured.
- Over half the businesses surveyed said they did not report all of the crime suffered to the police. Sixteen percent did not report any crimes at all. 32% of

¹⁰ The Crime and Disorder Act 1998 as amended by the Police Reform Act 2002 sets out statutory requirements for responsible authorities to work with other local agencies and organisations to develop and implement strategies to tackle crime and disorder and misuse of drugs in their area. These statutory partnerships are known as Crime and Disorder Reduction Partnerships (CDRPs) or Community Safety Partnerships in Wales. The responsible authorities are: local authorities, fire authorities, police authorities, health authorities in Wales and primary care trusts in England (became responsible authorities on 30 April 2004). <http://www.crimereduction.gov.uk/regions00.htm>, 15/1/2005.

businesses failing to report a crime did so because they had no confidence in the police response. One-fifth stated that the process was too time consuming.

- Businesses would be much more likely to report crime if they felt that the police were able to provide an adequate response. The survey findings show 67% of firms consider a faster police response to be fairly effective in reducing crime against their business.
- Seventy-four percent think that crime against business should now become a key performance indicator for the police, to ensure priority alongside other issues and resource allocation.
- Forty-one percent of firms consider tougher sentences for criminals who engage in crime against business to be a very effective method of reducing crime against their business.

According to British Retail Consortium (2001), the total cost of retail crime in the UK, including crime prevention, increased, albeit marginally, from £2.015 billion in 1999 to £2.044 billion in 2000. In 2000 the value of losses from crime was £1.418 billion (69%). Staff theft amounted to 30% of total retail losses. The remaining percentages relate to damage 0.7%, robbery/till snatch 0.3%, burglary 1.8%, fraud 3.8%, customer theft 52.6%, and other causes 10.8%. From these figures it can be seen that the loss value of employee theft in the United States is more than the loss value of shoplifting, whereas the opposite is true in the United Kingdom. The extent and type of shoplifting deterrent measures used in the retail outlets in this regard might explain the differences between the two. In the UK, there were 18,321 recorded offences of theft by employees in 1985, a drop of 22% on the 23,577 offences recorded in 1981. It should be noted that not all offences recorded will necessarily

have occurred in a retail context, since the category covers all areas of manufacturing and trading (Phillips 1986).

Canada

According to the Retail Council of Canada's (RCC) 2003 Retail Security Report¹¹, merchandise shrinkage costs Canadian retailers nearly \$CA 3 billion annually, this equals \$CA 8 million per day. This shrinkage is the difference between the recorded value of inventory (at retail) based on merchandise bought and the actual retail value of actual inventory in stores and distribution centres divided by retail sales during a time period¹². The disappearance of these assets is attributed to a combination of internal and external causes: customer theft - 35 %, employee theft - 40 %, administrative errors - 18 % and supplier dishonesty - 7 %.

The 2003 Retail Security Report was released at the RCC Resources Protection Conference in Toronto. Its results were consistent with others in the past, demonstrating that merchandise shrinkage is not being curbed, despite large investment by retailers in preventative training and technology and that the monetary loss caused by inventory shrinkage is exerting a negative impact on retailers, consumers and the government. According to Brisebois¹³ (2004):

Merchandise shrinkage is an issue that has obvious ramifications for retailers but these losses also equate to lost tax revenues for the government and price increases for Canadians'. 'Our members are investing millions of dollars in employee training and technology to help remedy the problem,' she said, 'but we need additional support from our

¹¹ http://retailindustry.about.com/cs/lp_retailstore/a/aa030923a.htm, 26/9/2003.

¹² <http://www.marketingpower.com/mg-dictionary-view2879.php>, 29/5/2005.

¹³ Diane J. Brisebois is President and Chief Executive Officer of the Retail Council of Canada, (RCC) a position she has held since January 1995.

government partners if we are going to see a reversal of this disturbing trend.¹⁴

The RCC's 2003 Canadian Retail Security Report¹⁵, for the first time, surveyed respondents on the impact the issue is having on company net profits. The 21 leading retailers, who participated in the survey and represented a consolidated 2002 sales volume of \$CA 64.2 billion, reported that, on average, 28.5 percent of their losses could be attributed to shrinkage. This figure does not include the additional loss due to activities such as credit card fraud, counterfeit currency, robberies or breaking and entering.

In 2003, according to the Canadian Retail Security Report, respondents reported a dramatic rise in the impact of organized theft rings. Over 17 percent of overall losses were attributed to these groups of professional thieves who make stealing their vocations for profit. Respondents also identified counterfeiting, theft of brand products, youth gangs and fraud as growing issues that negatively impact on their businesses.

Australia

Research in Australia¹⁶ by Smith (1997) suggests that approximately \$AU 2.7 billion is stolen each year by employees. By way of comparison, the same amount of money is spent on gambling each year. It also echoes the total cost of the Sydney 2000 Olympics. In business terms this loss is between 2%-5% of gross profit each year. In 1996 the Australian Federal Police suggested that fraud cost Australia \$AU 3 to \$AU 3.5 billion each year. This cost presumably included the \$AU 2.7 billion

¹⁴ <http://retailcouncil.org/media/press/pr20030923.asp>, 26/9/2003.

¹⁵ http://retailindustry.about.com/cs/lp_retailstore/a/aa030923a.htm, 26 /9/2003.

¹⁶ <http://www.employeetheft.com.au/costs.htm>, 14 /2/ 2004,
<http://www.aic.gov.au/publications/tandi/ti74.pdf>, 17/1/2005.

losses due to direct employee theft. Deakin University in conjunction with the Victorian Police Major Fraud Group surveyed 477 medium or large businesses in Victoria. They found 251 (25%) businesses reported losing stock and equipment totalling \$AU 284 million, and 162 (16%) having cash totalling \$AU 259 million stolen.

Little or no systematic research was found in Arab literature for the Middle East and the Arab countries. The focus, therefore, will be on Saudi Arabia in general and on the city of Riyadh in particular.

Overview of Saudi Arabia

The official name of the Kingdom of Saudi Arabia is Al-Mamlaka al-Arabiya as-Saudiya. The capital is Riyadh. The Kingdom covers an area of 2,250,000 square kilometres (868,730 square miles). Its principal physical features are deserts, plateaux and mountains. Its highest point is Jabal Sawda, which peaks at 3,133 meters¹⁷. Saudi Arabia has a population of 25.8 million including 5.6 million non-nationals (July 2004 estimate)¹⁸. The language is Arabic and the currency is the Saudi Riyal. Administratively, the country is divided into 13 regions: Al-Baha, Al-Jouf, Asir, Eastern, Hail, Jazan, Madinah, Makkah, Najran, Northern Border, Qasim, Riyadh and Tabouk. The major cities are Riyadh, the Holy City of Makkah, the Holy City of Madinah, Jeddah and Dammam¹⁹. See Saudi Arabia map, Figure 1.

It is noticeable that Riyadh is located nearly in the middle of the country and this location makes it a very strategic site for a capital. Due to its location and the large

¹⁷ <http://www.saudinf.com/main/a2.htm>, 17/1/2005.

¹⁸ <http://www.cia.gov/cia/publications/factbook/geos/sa.html#Geo>, 17/1/2005.

¹⁹ <http://www.saudinf.com/main/010.htm>, 7/11/2002.

number of supermarkets and commercial centres Riyadh was chosen as the research setting.

Figure 1: Map of Saudi Arabia²⁰



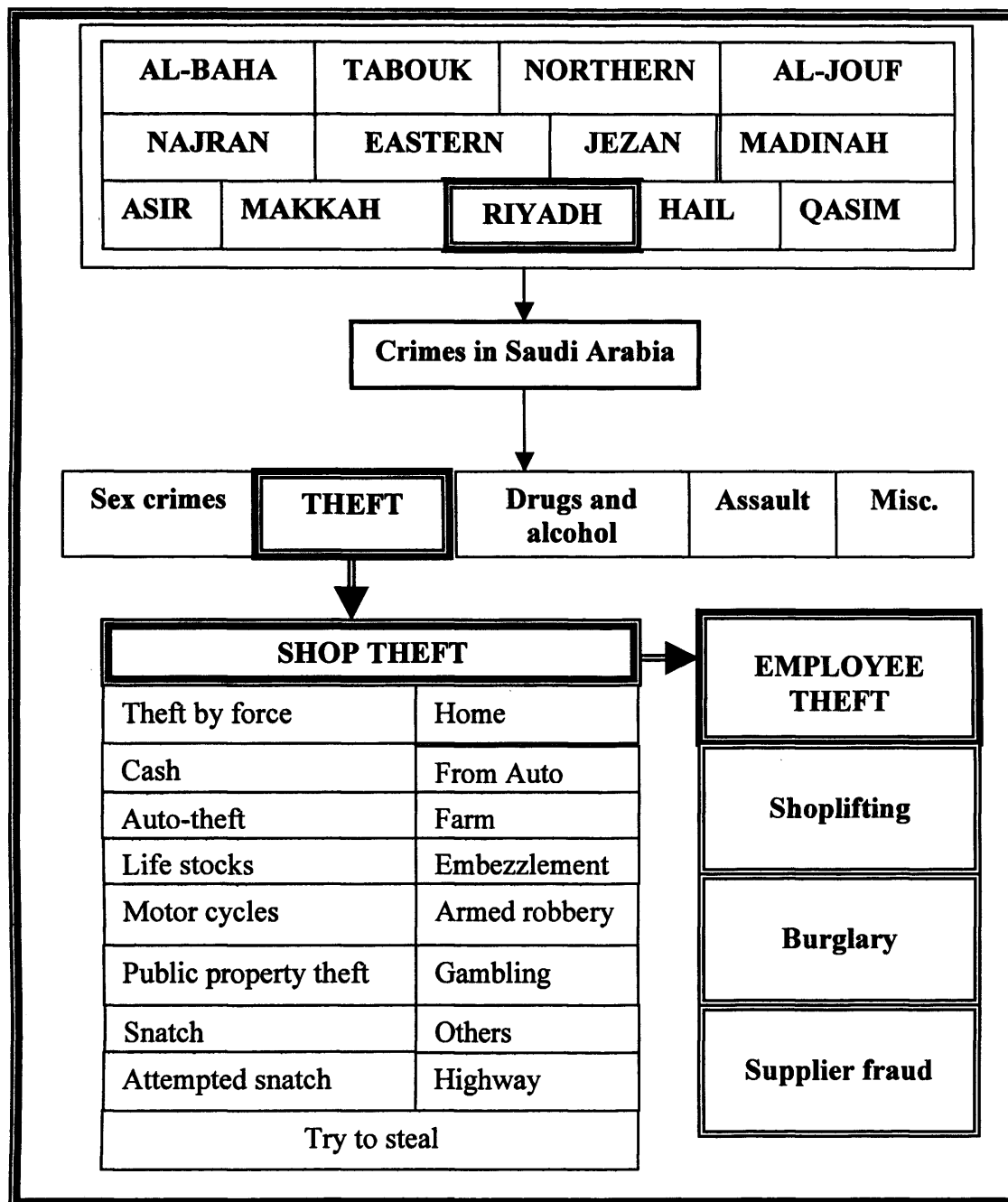
The aim of this thesis, as mentioned before, is to study employee theft in Riyadh. The following diagram, Figure 2 indicates the main focus of the study and separates particular elements of the study from general elements related to theft and crimes.

By looking at the diagram below, Figure 2, it can be seen that the crime statistics in Saudi Arabia involve the 13 different regions which form the Kingdom of Saudi Arabia. The study focus, however, is related only to the Riyadh region. Although there are other cities in the region, Riyadh is the focus for the field research. But the statistics in this section are representative of the whole region.

²⁰ Source: Saudi Arabian Ministry of Defence, 2001.

This diagram also shows that crimes in Saudi Arabia are separated into five categories, one of which is theft. Theft itself is categorised into 18 different types, one of which is shop theft. Shop theft is also broken down into at least four categories. They are; shoplifting, burglary, supplier fraud and employee theft. This study, however, focuses only on employee theft.

Figure 2: Focus of the study



In Riyadh, the study focuses on the Al-Othaim Commercial Group (OCG) and it was from this company that background statistics were culled. The number and distribution of employees along with the inventory figures refer to more than one period in the company's history of OCG were obtained. Inventory results and an account of shrinkage are used in this chapter as the background information about the company. The statistics and the distribution of employees and their positions are dealt with in the method chapter.

Riyadh

Riyadh is the capital of Saudi Arabia, with 5,455,363 inhabitants (2003 estimate) or 24.1 % of the total population. It is situated in the very heart of the country, 300 km from the Persian Gulf, and 900 km from the Red Sea. Originally Riyadh was located along a green river bed. The name Riyadh is derived from the Arabic word meaning "a place of gardens and trees" ("rawdah"). With many wadis (former water course, now dry) in the vicinity, Riyadh has been since antiquity a fertile area set in the heartland of the Arabian Peninsula.²¹ The total inhabited area is more than 1,600 square kilometres²². Riyadh is the nation's educational, administrative, financial, and transportation centre. Oil refining is the main industry. Riyadh is the focal point for desert travel and trade. Its architecture formerly represented the classic Arabic style, but in the oil boom of recent decades many buildings were torn down and replaced by large modern structures.²³

²¹ <http://lexicorient.com/e.o/riyadh.htm>, 9/5/2005.

²² <http://www.the-saudi.net/saudi-arabia/riyadh>, 9/5/2005.

²³ <http://www.factmonster.com/ce6/world/A0842027.html>, 9/5/2005.

Crimes and theft in Saudi Arabia

Currently, in Saudi Arabia, there are no statistics compiled for retail shrinkage or employee theft. Official statistics only show total figures for all forms of theft. Theft statistics are categorised by the administrative districts and both the location and type of theft are noted. According to the latest statistics (2001), the total number of crime cases in Saudi Arabia was 79,785, of which 46% (36,701 cases) were categorised as theft.

General crime in Saudi Arabia will now be introduced to serve as a basis for presenting theft in Riyadh. In 2001, there were 26,405 recorded cases of general crime in Riyadh, or 33% of the total crime cases in Saudi Arabia. These crime statistics for the Riyadh district for 2001 show a 17.29% increase from the year 2000 (Saudi Ministry of the Interior 2000 and 2001). The number of theft cases in Riyadh was 13,856. This is 52.38% of the total crime cases in Riyadh. The total number of shop theft incidents in Riyadh was 813, which is 5.87% of the total number for the whole of Saudi Arabia. There is, however, no classification of the types of shop theft. Theft here includes burglary, shoplifting, employee theft, supplier fraud, and other types (Riyadh Police 2001). Among the different crimes occurring in Saudi Arabia theft is the most prevalent type (See Table 1 for more details).

Table 1 shows theft as exceeding all types of crimes which have occurred in Saudi Arabia²⁴ for eight years. It is obvious that theft in Saudi Arabia is the number one

²⁴ Saudi Arabian crime official statistics come in one condensed book for each Hijra year. A Hijra year is of 12 months but using the lunar month which is based on the rise of the moon and the calculation of the crescent appearance in each month. The book contains not only crimes but also statistics for most of the social, educational, business and economic affairs of the country. Years 1994 – 2001 are consistent with 1415H–1422 H.

crime and is growing rapidly year by year, from 15,268 in the year 1994 to 37,085 in the year 2001. The percent change²⁵ from 1994 to 2001 is 142.89 %. This means that the rate of theft has doubled in eight years. The great changes occurred each year from 1998 to 2001. The percent changes respectively are: 105.16 %, 27.79 % and 6.93 %. The greatest change in the theft rate occurred from 1998 to 1999.

The plausible explanation for the great change from 1998 to 1999 may be related to the economic and security crisis that faced Saudi Arabia after Gulf War 2 in 1990 when Iraq invaded Kuwait. Saudi Arabia joined the efforts to liberate Kuwait with other allied countries such as the USA and the UK. According to Metz (1992) the economy in Saudi Arabia had weathered some of the other problems by 1989, such as the spate of bankruptcies of private companies, the growth of bad banking debts, and the massive outflow of private capital to overseas financial centres that followed the oil-price crash of 1986. During 1989 and 1990, economic planners had renewed optimism. New plans were made to put the oil and non-oil sectors of the economy on a surer footing. The perceived recovery in international oil consumption and prices provided regional policymakers with the opportunity to resume spending and promote economic growth. Accordingly, theft needs special attention by both the research community and those who are concerned with security matters in Saudi Arabia. This thesis is part of the efforts that have been taking place in the country to combat crime in general and theft in particular.

²⁵ Percent change score was obtained by this formula: $(N2 - N1 / N1) * 100$.

Table 1: Crimes in Saudi Arabia (1994 - 2001)²⁶

Crimes	1994		1995		1996		1997	
	N	%	N	%	N	%	N	%
Sex crimes	3263	10.7	2849	9	3664	18	3314	11
Theft	15268	50.3	14169	47	15685	46	13568	44
Drugs and alcohol	4999	16.5	5081	17	6352	15	6336	20
Assault	3849	12.7	5003	17	5221	11	4528	15
Misc.	2975	9.8	2885	10	3316	10	3186	10
Total	30354	100	29987	100	34238	100	30932	100
Riyadh	6713	22.1	7270	24.2	9096	26.6	9020	29.16
Crimes	1998		1999		2000		2001	
	N	%	N	%	N	%	N	%
Sex crimes	3200	11	7964	13	8746	12	8799	11
Theft	13229	46	27140	45	34681	48	37085	46
Drugs and alcohol	5309	18	8769	14	8610	12	9792	12
Assault	4669	16	10376	17	12242	17	14168	18
Misc.	2723	9	6473	11	8233	11	9941	12
Total	29130	100	60722	100	72512	100	79785	100
Riyadh²⁷	9324	32	17220	28.4	-	-	26453	33.16

Table 2 below shows the distribution of crime in Saudi regions in 2000 and 2001 (the latest crime statistics) with Makkah region (34 %) and Riyadh region (33 %) in 2001 experiencing the most crimes. Perhaps Makkah region exceeds Riyadh in the percentage of theft because the Makkah Region has the largest population in the Kingdom of Saudi Arabia. It accounts for 25.6 percent of the 22.67 million national population, according to the preliminary results of the recently concluded Third National Census of Population and Housing. According to the census figures released by the Central Statistics Department of the Ministry of Economy and Planning²⁸, the Makkah Region has a population of 5,797,9719, followed by Riyadh Region with 5,455,363 or 24.1 percent and the Eastern Region with 3,360,157 or

²⁶ Source: Saudi Ministry of the Interior Statistical Book 2000 and 2001.

²⁷ Data is not available for the year 2000 for Riyadh.

²⁸ <http://www.saudinf.com/main/y7733.htm>, 18/1/2005.

14.8 percent. The purpose of introducing the statistics for Makkah and Eastern regions is to identify the position of Riyadh among other Saudi regions in term of the population and crimes.

Sixty-seven percent of all crimes in Saudi Arabia occurred in Makkah and Riyadh over the two years 2000 and 2001. In the Riyadh region 33 % of all crimes in Saudi Arabia regions were recorded in the latest official statistics (2001). The other regions have a lower crime rate than Makkah and Riyadh. Of these the one with the next highest recorded crime figures is Eastern region with 9.53 % in 2000 and 11% in 2001. In each other region the crime rate does not exceed 4%. Again the domination of Makkah and Riyadh comes because these two regions have the highest populations. This factor makes the study of these two regions significant. This thesis focuses on Riyadh city, which is part of Riyadh region. It is here that more crimes occur than in any other city or town in this region. Riyadh, therefore was chosen because of its high population, high crime rate and also because of its central location as well as for it being the capital of the country.

Table 2: Distribution of crimes in the Saudi Arabia regions (2000 and 2001)²⁹

Regions	2000		2001	
	N	%	N	%
Al-Baha	646	.89	782	1
Al-Jouf	1624	2.24	2034	3
Asir	2653	3.66	2869	4
Eastern	6907	9.53	8595	11
Hail	1146	1.58	1236	2
Jezan	2018	2.78	2386	3
Madinah	3927	5.42	2896	4
Makkah	26744	36.88	26915	34
Najran	597	.82	792	1
Northern	821	1.13	807	1
Qasim	2312	3.19	2774	3
Riyadh	21879	30.17	26405	33
Tabouk	1238	1.71	1294	2
Total	72512	100	79785	100

All types of recorded theft in the eight years sequence are included in Table 3 below.

From Table 3 these results are evident:

- Auto theft is the most prevalent type of theft in Saudi Arabia. In all years since 1995 it has topped more than 50 %, and superseded home theft.
- In 1994 and before home theft was traditionally the number one theft in Saudi Arabia.
- The growth of auto theft stems from the massive growth in the number of private cars in the country.
- Auto theft has also given impetus to another type of theft in Saudi Arabia, that of theft from autos. This type of theft ranked second or third through the years from 1995 to 2001.
- Shop theft ranked third in all types of theft in Saudi Arabia from 1994 to 1998.

The percentages were respectively 2.77%, 7.66%, 7.91%, 6.05% and 7.17%. It

²⁹ Source: Saudi Ministry of the Interior Statistical Books 2000 and 2001.

ranked fourth after theft from cars for three years in row 1999, 200 and 2001.

The percentages respectively were 8.66%, 8.85% and 9.48%.

- Notwithstanding the comparison between the various types of theft, shop theft has gone up through the period and is expected to grow rapidly as is indicated by the following data: 978 cases in 1994 to 3514 cases in 2001. This may stem from the transformation of shop business in Saudi Arabia in the year 1999, when the government announced the need for a move from small grocery stores to large type supermarkets or department stores. Policies for implementing this suggestion for grocery stores followed this announcement.

Table 3: Theft types in Saudi Arabia (1994 -2001)³⁰

Theft types	1994		1995		1996		1997	
	N	%	N	%	N	%	N	%
Theft of automobile	8553	24.20	7202	50.83	7922	50.51	7677	56.58
Theft from automobile	916	2.59	861	6.08	859	5.48	629	4.64
Home	24443	62.45	2252	15.89	2890	18.43	2196	16.19
Cash	1168	3.31	1464	10.33	1149	7.33	0	0
Shops	978	2.77	1086	7.66	1241	7.91	821	6.05
Animal theft	293	0.83	304	2.15	297	1.89	274	2.02
Motor cycles	303	0.86	24	0.17	7	0.04	4	0.03
Attempted theft	115	0.33	183	1.29	207	1.32	154	1.14
Theft of public property	0	0	0	0	0	0	926	6.82
Snatch	243	0.69	199	1.40	157	1	133	0.98
Attempted snatch	5	0.01	8	0.06	7	0.04	4	0.03
Theft by force	448	1.27	258	1.82	464	2.96	261	1.92
Farm	0	0	0	0	0	0	0	0
Embezzlement	232	0.66	312	2.20	443	2.83	346	2.55
Highway robbery	0	0	0	0	0	0	3	0.02
Armed robbery	3	0.01	4	0.03	16	0.10	8	0.06
Gambling	14	0.04	12	0.08	26	0.17	0	0
Others	0	0	0	0	0	0	132	0.97
Total	39140	100	14169	100	15685	100	13568	100
Theft types	1998		1999		2000		2001	
	N	%	N	%	N	%	N	%
Theft of automobile	7957	60.15	11021	40.61	15896	45.83	16367	44.13
Theft from automobile	595	4.5	2992	11.02	3690	10.64	3821	10.30
Home	2362	17.85	4908	18.08	5388	15.54	5776	15.58
Cash	0	0	0	0	0	0	0	0
Shops	948	7.17	2350	8.66	2977	8.58	3514	9.48
Animal theft	285	2.15	995	3.67	998	2.88	1465	3.95
Motor cycles	4	0.03	156	0.57	200	.58	194	0.52
Attempted theft	141	1.07	922	3.40	1014	2.92	975	2.63
Theft of public property	95	0.72	798	2.94	443	1.28	550	1.48
Snatch	163	1.23	960	3.56	1218	3.51	1290	3.48
Attempted snatch	3	0.02	0	0	0	0	0	0
Theft by force	335	2.53	835	3.08	1123	3.24	1041	2.81
Farm	-	0	454	1.67	358	1.03	431	1.16
Embezzlement	330	2.49	582	2.14	736	2.12	897	2.42
Highway robbery	4	0.03	430	1.58	14	.04	17	0.05
Armed robbery	4	0.03	17	0.06	16	.05	72	0.19
Gambling	0	0	0	0	0	0	0	0
Others	3	0.02	120	0.44	610	1.76	676	1.82
Total	13229	100	27140	100	34681	100	37085	100

³⁰ Saudi Ministry of Interior Statistical Books, 1994 –2001.

Crimes in Riyadh

A review of the crime statistics in Riyadh will start with the general and move to the specific, and hence to the focus of the study. Crime in general will be considered first, then crime related specifically to shop theft and, finally, employee theft. According to the annual report by Riyadh Police (2001) the total number of crimes in Riyadh has 26,453 cases. The rate of different crimes shows that theft (n=13856, 52.38 %) exceeds all other crimes in the Riyadh region. The percentage of 47.62, therefore, is divided between all other crimes. These crimes include assault, sex crimes, drugs and alcohol and other miscellaneous crimes. This is a clear indication of the importance of studying theft in the Saudi context.

Below is a review of the types of theft that occurred in Riyadh region for the seven years from 1994 to 2001, (See Appendix C). Table 4 shows the 14 different types of theft that have been included. Automobile theft exceeds all other types of theft, and shop theft ranked second in the five years in a row³¹ from 1994-1998. Shop theft came third (7.59%) in the year 2000 behind auto theft and home theft. In 2001, shop theft came fourth (5.87%) behind auto theft, home theft and theft from auto. For all seven years total shop theft is 8.40 % and its position is third after auto theft (64.87%) and home theft (8.63 %). Looking at the trend of both shop theft and general theft reveals that the percent change from 1994 to 2001 is 207.95 % for shop theft and 343.82 % for general theft. The pattern of these increases seems similar for both general theft and shop theft. This would suggest a certain pattern for crime increase in the Riyadh region. Despite fluctuations the crime rate has increased dramatically in only eight years. The overall rise was gradual before 2000 except that

³¹ Data for 1999 are not available and empty cells mean no data available in the statistical reports.

in the year 2000 there was some decrease in the shop theft rate. This is may be because of the start of economic recovery in Saudi Arabia and the gulf region after Gulf War 2. These results prove that shop theft has now become a major form of theft in Saudi Arabia and is likely to surpass other forms in the near future. This will be as a consequence of the expansion of supermarkets and commercial centres around the kingdom. The lack of any official data about employee theft in Saudi Arabia suggested the need for requiring data on the problem and the positive response by OCG management can only be welcomed. Shrinkage is the only data available in OCG to present.

Table 4: Theft types in Riyadh region (1994 -2001)³²

Theft types	1994	1995	1996	1997	1998	2000	2001	Total	%
Theft of automobile	2334	2876	3193	3210	3341	4058	8243	27255	64.87
Theft from Automobile	32	33	47	70	51	442	834	1509	3.59
Home	186	172	303	238	328	930	1371	3530	8.63
Cash	130	111	125					366	0.87
Shops	264	199	410	601	671	572	813	3528	8.40
Animal theft	14	15	25	230	24	321	512	1141	2.72
Motor cycles	0	1	1		2	13	50	67	0.16
Attempted theft	23	39	49	34	55	93	130	423	1.01
Theft of public property				184	10	376	106	676	1.61
Snatch	6	6	5	8	30	75	231	361	0.86
Theft by force	46	79	65	77	76	229	528	1100	2.62
Farm						254	104	358	0.85
Embezzlement	82	105	150	113	108	176	300	1034	2.46
Others	5		10	19			634	669	1.60
Total	3122	3636	4383	4784	4697	7539	13856	42017	100

³² Source: Riyadh Police 2001.

Inventory shrinkage analysis

One important source of data used to explain inventory shrinkage in Saudi Arabia was found in OCG. Such data are very important in studying the seriousness of employee theft because they are the only measurement available in Saudi Arabia for employee theft (see Table 5).

Table 5 shows a notable shrinkage in the OCG group. It may be explained partly by the losses from employee theft among other losses such as shoplifting, supplier fraud, damage and expired items. This situation confirms the importance for studying this phenomenon in Riyadh in general and in this retail company specifically. It should be said that OCG was the only company of those contacted which offered unlimited support to use its resources. These figures show a gradual increase in shrinkage over four periods, rising from SR 886,968 in March 2001 through to SR 1,383,195 (June, 2002) and to SR 1,854,142 (Dec.2002)³³. A marked difference in shrinkage is apparent for the December 2001 period. This may be due to the change of management in this period. In this period a new management group with a new style of managing the inventory was installed. The collection and processing of data were new to the OCG. It was further developed later in the fourth period (7/2002-12/2002) when most of the corners had been established. The analysis, therefore, will concentrate on this fourth period, as it has enough data for all supermarkets and corners (small corners shops).

³³ SAR is Saudi Arabian currency (Riyal).

Table 5: Inventory shrinkage results in four periods for OCG

Store No. ³⁴	Branch Identity	Shrinkages in Saudi Riyals			
		3/2001	12/2001	6/2002	12/2002
Supermarkets					
2	Seteen	46,581	7,524	42,819	27784
3	Rawdah		111,488	55,744	114922
6	North market	67,115	53,883	94,057	11063
7	Moruj	83,190	269,601	217,990	270137
8	Selay	46,469	32,398	62,668	137849
9	Rabwah	57,986	250,987	67,507	103420
12	Badeah	2,190	217,981	11,181	46458
15	Orobah	36,850	119,163	22,731	-1607
16	Shefa	150,555	48,254	126,428	55239
20	Dhabab	68,611	262,825	200,024	207325
26	Batha	19,585	43,168	41,169	30264
27	Khazan	42,329	9,474	37,592	104829
28	Othaim market	148,455	229,043	262,977	352007
29	Mansourah	76,190	21,637	65,372	96097
31	Prince Abdullah	40,862	195,267	56,771	110870
Sub-total		886,968	1,872,693	1,365,030	1,669,871
Corners					
101	Rabwah		207	103	5985
102	Khalidiah				38529
104	Taawen		36,123	18,062	2174
105	Oreja				44597
108	Badeah				4816
109	Tuaiq				24323
110	Naseem				14464
113	Oeraiah				49383
Sub-total			36,330	18,165	184,271
Totals		886,968	1,909,023	1,383,195	1,854,142

A better picture of shrinkage losses may be obtained by examining shrinkage from a percentage viewpoint and relating it to the latest figures (31/12/2002) shown below in Table 6. An average shrinkage for all the stores in the company is 0.56 %. The percentage of shrinkage is from total sales at each store³⁵. The store with the highest shrinkage in the company is Deraiah corner with 2.01 %. The lowest is the Orobah supermarket with .01 %. This level of shrinkage is below the 2.13 % in US stores as indicated in the National Supermarket Research Group Report in 2003.

Table 6: Percentage of inventory shrinkage for 31/12/2002 for OCG

Store No.	Identity ³⁶		%	Store No.	Identity		%
2	SETEEN	S	.15	28	OTHAIM MARKET	S	.65
3	RAWDAH	S	.37	29	MANSOURAH	S	.37
6	NORTH MARKET	S	.08	31	PRINCE ABDULLAH	S	.33
7	MORUJ	S	.51	101	RABWAH	C	.40
8	SELAY	S	.70	102	KHALIDIAH	C	1.99
9	RABWAH	S	.34	104	TAAWEN	C	.08
12	BADEAH	S	.16	105	OREJA	C	.73
15	OROBAB	S	-.01	108	BADEAH	C	.35
16	SHEFA	S	.16	109	TUAIQ	C	.85
20	DHABAB	S	.63	110	NASEEM	C	1.41
26	BATHA	S	.14	113	DERAIAH	C	2.01
27	KHAZAN	S	.49	Average percent shrinkage			0.56

According to Ernst & Young's³⁷ Study of Retail Loss Prevention in 2002, shrinkage can be attributed mainly to employee theft rather than to other sources. Ernst & Young (2002) included employee theft, shoplifting, administrative and paperwork errors, and supplier errors/issues. In addition to the financial impact of "shrinkage," the survey provided new insights on the effectiveness of the programs and tools employed by retailers to combat the problem. According to the study, employee theft is the single biggest contributor to inventory shrinkage even though shoplifters far outnumber dishonest employees. "This is because the dollar value of employee theft on a per-incident basis is much higher than that of shoplifting," said McIntosh³⁸. But

according to Ernst & Young's Study, "apprehending for shoplifting far outpace employee theft." Though employees accounted for only one out of every ten apprehensions, the average value of merchandise recovered, \$US 1,525, was nearly seven times that from the average shoplifter \$US 223.

These numbers should raise a red flag for retailers. If, as our study indicates, 47 percent of dollars lost to shrinkage are attributable to employee theft, there should be less satisfaction with the ability to catch shoplifters, and more emphasis on efforts to identify and deter in-house theft," said McIntosh.³⁹

The inclusion of the previous studies and analysis is not for studying shrinkage, but for supporting evidence for the cost of employee theft and how much this kind of theft explains the loss retail business is encountering.

Part II: Review of the literature

Key definitions pertaining to employee theft and related terms are examined in this section of Chapter One. They include crime and employee theft, economic pressures, community pressures and organisational culture. Also included is a discussion of the concept of white-collar crime and Weberian thought on values as a background concept for this research. This section serves as a review of most research and studies which have been published on employee theft and their relevance to this thesis.

Employee theft

The term “employee theft” was defined by Hollinger and Clark (1983b) as “unauthorised taking, control, or transfer of money and/or property of the formal work organisation that is perpetrated by an employee during the course of occupational activity” (p.2). It is also defined by Sieh (1987) as “unlawful and unauthorised intentional taking of an employer’s property, with the purpose of benefiting the worker or someone who is not entitled to the property” (p.174). Similarly, employee theft is described by Greenberg (1998) as “an act in which an individual takes company property to which he or she is unentitled, leading to the labelling of that behavior as “illegitimate” (p.147). Many researchers have borrowed these definitions for their research.⁴⁰

From the mentioned definitions of employee theft, some common characteristics are evident: unauthorised taking of, and/or control of, an employer’s money or property from the formal work organisation. Some key distinctions are not common among these definitions: for example, during the course of occupational activity and stealing for the purpose of benefiting not just the worker but also someone else. Another matter to consider is the threat of physical violence (Academic American

Encyclopedia 1994; Greenberg 1995; Devi 1997; Thompson 1998). These key aspects of the term 'employee theft' are important for drawing a precise and specific boundary about the research theme. Therefore, the precision of the definition is important in order to produce a clear result and make a useful contribution to the field of internal retail theft in Saudi Arabia in particular, and in the field of criminology in general. The researcher's definition will be presented after all aspects of the term "employee theft" have been reviewed and examined.

Hogan and Hogan (1989) stated that employee unreliable behaviours are often conceptualised as employee theft. But theft is just one element in a larger syndrome of antisocial behavior. Consequently, employee screening procedures which focus on theft necessarily ignore a number of other indicators of unreliability. These include substance abuse, insubordination, absenteeism, excessive grievances, bogus worker compensation claims and temper tantrums.

To come up with clear definitions, employee theft should be looked at from the differing points of view of those involved in organisations, such as employers (victims) and employees (thieves). Taking unauthorised long lunch breaks, misusing sick leave, using alcohol or drugs in the workplace, engaging in industrial espionage, releasing confidential information, taking kickbacks and embezzling money are considered employee theft by employers (Taylor 1986). Whereas employees may rationalise most of these acts as misuse of company property, the taking of food they often do not view as stealing. They will admit to eating food stolen from the workplace but they do not regard it as theft (Taylor 1986). However, management may nominate such behaviour as stealing if employees sell what they have taken but not if they keep it for their personal use (Taylor 1986).

One other type of employee theft identified by Hollinger, Slora and Terris (1992) is “altruistic property deviance” defined as the giving away of company property to others, either at no charge or at a substantial discount, usually to improve social relationships with peers. This type of employee theft is also described by (Hawkins 1984) as “socially based theft” (p.59). Employee theft may include stealing merchandise or equipment, eating food without paying, changing company records to receive unearned pay, and doing slow or sloppy work intentionally (Boye and Jones 1997).

The boundaries of “employee theft” were defined by Greenberg and Scott (1996) by distinguishing it from other forms of criminal activity. They identified it as both a form of occupational crime and a form of property deviance. Occupational crime is crime committed against the organisation as opposed to crime on behalf of the organisation (against the general law of society), which is called organisational crime (Robin 1978; Hofacre 1980; Glasberg and Skidmore 1998; Thompson 1998). Property deviance involves those instances where employees acquire or damage the tangible property or assets of the work organisation without authorisation; for example: theft of tools, goods, equipment, or money from the workplace, as opposed to production deviance. Production deviance concerns behaviours which violate the formally-prescribed norms delineating the minimal quality and quantity of work to be accomplished; for example: tardiness, low or sloppy workmanship, absenteeism, coming late to work, misplaced merchandise, and bookkeeping errors (Lewicki, Bies and Sheppard 1997).

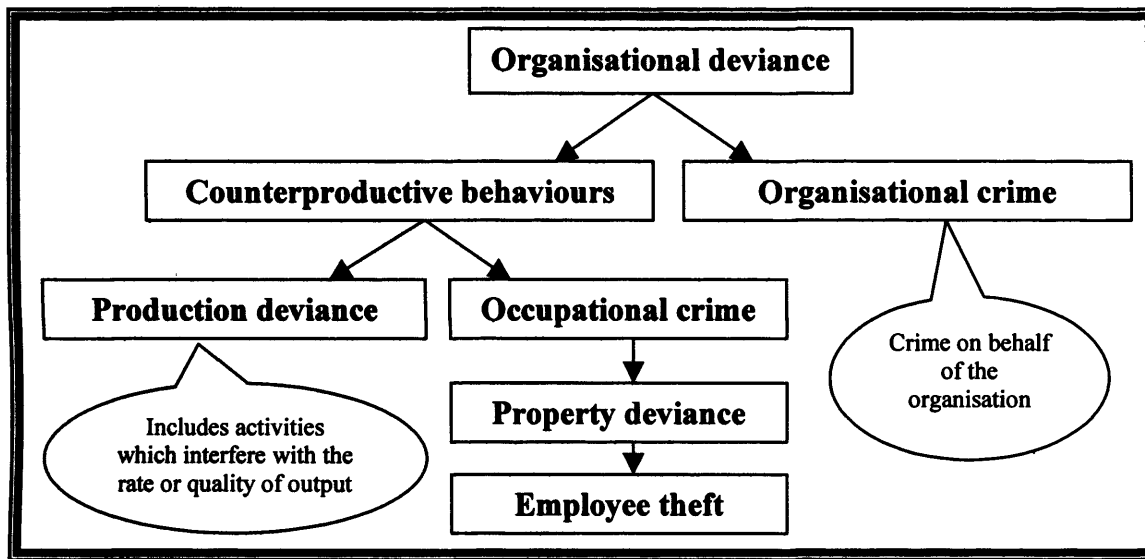
There is a distinction between employee theft and production deviance. Production deviance includes activities that interfere with the rate or quality of output, while

employee theft refers to the unauthorized taking of cash, merchandise or property (Greenberg and Barling 1996:50). Despite both employee theft and production deviance being counterproductive behaviour, production deviance cannot be considered employee theft and therefore is not within the scope of this thesis. Based on the definitions above, and for the purpose of this thesis, the researcher defined employee theft as any act of theft or fraud by a worker in the workplace may cause an employer a financial loss. Employee fraud is included in the term 'employee theft', primarily because no such distinction is made in Saudi law.

The purpose of introducing counterproductive behaviours with the study of employee theft are threefold: (1) counterproductive behaviours in the workplace include employee theft along with other behaviours such as tardiness and low or sloppy workmanship (Paajanen 1988); (2) both these types of deviance cause business loss within an organisation; (3) both counterproductive behaviour and employee theft could, theoretically, be explained by similar organisational factors such as organisational values.

In Figure 3 there are two types of behaviours which can occur within an organisation. They are counterproductive behaviour and organisational crime (crime committed on behalf of the organisation). Counterproductive behaviours are of two types: production deviance and occupational crime (crime committed against the organisation), which includes property deviance (including employee theft). Therefore, employee theft is considered part of property deviance and linked to occupational crime, then to counterproductive behaviours and finally to organisational deviance.

Figure 3: Organisational deviance



Despite this, shrinkage⁴¹ it is difficult to estimate internal theft. Nevertheless it is measuring loss. Shrinkage can result from several different factors other than employee theft; such as shoplifting, misplaced merchandise, and bookkeeping errors. Similarly, using the number of employees apprehended as an indication of the extent of theft will not provide an accurate estimate because of the low base rate of such detection (Greenberg and Barling 1996). Thus, the perceptions of employees in the workplace about the prevalence of employee theft are used in this thesis.

Regardless of the accuracy of statistics and the estimation of the causes of loss in the retail industry, employee theft stands out as one of the most significant forms of theft (Hollinger 2002). Non-theft causes of loss, such as unpremeditated damage of goods, expired items, paper errors and so on, can easily be detected and measured. Nevertheless, the internal causes of loss such as employee theft can be controlled far more easily than such causes of loss as shoplifting. At present there is no foolproof way of controlling theft by preventing access to stores, or of keeping customers on

site if theft is suspected. Loss prevention control should focus initially on trying to minimise employee theft. Nothing else is likely to have a greater effect in reducing the magnitude of shrinkage in the retail industry⁴².

Mars (1983) pointed out that employees can steal not just goods. They can also steal time from employers, and borrow equipment for their own use without permission. This expansion of employee theft makes definition rather difficult. Due to the level of ambiguity of the term, many employees are likely at some time to participate in activities that could be defined as employee theft.

Employee theft is generally regarded as a serious offence not only by those who are responsible for ensuring that organisations operate as efficiently as possible (business owners and managers), but also by the research community⁴³. Furthermore, in most modern settings, employee theft is defined as criminal and subject to punishment (Tucker 1989). Most retailers have come to accept the fact that employee theft is a bigger problem than they originally thought and they are willing to take additional measures to control it (Berlin 1983).

Some scientists such as Croall (1992, 2001); Greenberg and Scott, (1996) consider employee theft as a major category of occupational crime. They relate employee theft to the broader concept of white-collar crime, as it is also a category of occupational crime. For this reason white-collar crime term is defined and related to employee theft in the following section.

White-collar crime

Historically employee theft studies are considered a descendent of the work of Sutherland (1940; 1945; and 1949) in his study of white-collar crime. Sutherland

(1940) did not agree with many criminologists that crime is a result of poverty, or to psychopathic and sociopathic conditions: first, because their studies' results were derived from samples which were grossly biased with respect to socio-economic status; second, because they do not apply to white-collar criminals (rich also committing crime); and third, because poverty does not explain all types of crimes of the lower classes.

The term white-collar crime was used originally by Sutherland (1945). In 1949 he defined white-collar crime as "a crime committed by a person of respectability and high social status in the course of his/her occupation" (p.9). Similarly with more details white-collar crime was defined by Minnaar-Van Veijeren (1999) as the unlawful, intentional commitment of deceit, deception, concealment, manipulation, breach of trust, subterfuge or any other similar trickery, by an individual, a syndicate or by an organisation, normally after meticulous planning, without the use of physical violence, which may cause actual economic prejudice or potential economic prejudice to another.

Stotland (1977), Coleman (1987) and Dierking (1991) tried to integrate etiological research on white-collar crime under the hypothesis that criminal behaviour results from the confluence of appropriate motivation and opportunity. According to Vold (1958); Clinard (1969); Long (1984); Johnstone (1998) & Miller and Kanazawa (2000), interactionist theory helps explain white-collar crime in terms of offenders' symbolic construction of their social worlds. Origins of symbolic motivational patterns can be found in the social structure of industrial capitalism and its culture of exploitation. However, no theory of motivation sufficiently explains the causes of

white-collar crime (Collins and Clark 1993; Hagan and Radoeva 1997; Johnstone 1998; Tillman and Indergaard (1999).

Obviously, the hypothesis that crime is due to personal and social pathologies does apply to white-collar crime. This means that this hypothesis may also explain all crimes that ordinarily confront police departments, and criminal and juvenile courts with the exception that poverty is not seen in causal equation with white-collar crimes (Friedrichs 1997; Friedrichs 1997; Johnstone 1998; Miller and Kanazawa 2000). In addition to such explanations, the theory of differential association and theories of disorganisation may apply to white-collar crimes as well as to the crimes of the lower classes (Sutherland 1949). Nelken (1997) criticised Sutherland's definition of white-collar crime as lacking internal coherence.

The main distinctions between white-collar crime and employee theft are two-fold: employee theft can be committed by all general employees in both high and low positions whereas white-collar crime is only committed by high-position employees. And employee theft is related to theft only whereas white-collar crime is related to many types of crimes including theft such as harassment, abuse, bullying, using alcohol or drugs in the workplace and espionage.

Despite the importance of introducing white-collar crime as a major step in studying employee theft, this thesis will not deal with it in detail for the aim of this study is to investigate which factors lead employees to commit theft, and the illustration of white-collar crime serves as a historical background to this theme.

Economic pressures

Few articles and pieces of research have studied the exact relationship between economic pressures and employee theft⁴⁴. So included in this section is a review of the research and studies about economic pressures and their relation to deviance in general and to employee theft in particular. A number of studies and researches are listed hereafter and critically linked to this area of enquiry.

To trace the literature for the effect of economic pressures on employee theft, Wahrer (1987) examines external pressures. The purpose of Wahrer's study was to determine if relationships existed between the personal characteristics of job applicants and admissions of internal theft. His study used data from pre-employment polygraph-based interviews with 599 job applicants. They were questioned on their past history of drug use, use of marijuana and of other drugs on the job and on external economic pressures on them and their peer age group. All characteristics were tested in bivariate relationships with admissions of employee theft. The results revealed a series of relationships between admissions of internal theft and personal characteristics including economic pressures. So, the thesis hypothesis of the relationship of economic pressures and employee theft is based on Wahrer's findings.

In their chapter on counterproductive behavior by employees, Boye and Jones (1997) stated that such behavior violates significant organisational norms and, in so doing, threatens the well-being of the organisation, its members, or both. It can be broadly viewed as resulting from (a) economic factors, (b) individual factors, and (c) organisational factors. Boye and Jones (1997) considered that the modification of organisational factors and employee reactions to these factors reduced theft and other

types of counterproductive behavior at work. In this thesis, economic pressures are considered as one of the control variables which mediate between organisational values and employee theft.

Pagani, Boulerice, Vitaro and Tremblay (1999) used data from the Montreal Longitudinal-Experimental Study with the purpose to show how poverty can cause economic pressures and how this leads to antisocial behaviours. The authors examined the impact of poverty (and its correlate, family configuration data) on academic placement and self-reported delinquency in 497 boys at age 16. They found that poverty was one of the factors causing the economic pressures. They then investigated whether the relationship between family economic hardship and antisocial behavior was direct or indirect by considering the value of parenting practices and academic failure as process variables in the model. The results revealed that poverty had an effect on both academic failure and extreme delinquency. This, they said showed the effect of economic pressures on antisocial behaviors. Poverty as a factor for economic pressures was further investigated by Allen and Stone (1999) and yielded a similar result. This is also evidence for the hypothesis of the effect of economic pressures on employee theft.

Hardship is another term of poverty which leads to economic pressures. Rollin (1997) stated that variables reflecting economic hardship would be positively related to crimes of theft. Unfortunately, the variables measuring social disorganisation and economic hardship were highly correlated, so that it was impossible to disentangle their effects. Both social disorganisation and economic variables were significant predictors of both assaultive crime and crimes of theft.

Poverty and hardship with economic pressures can lead to so-called property crime (employee theft). Lester (1995) attempted to provide a microeconomic foundation for the link between property crime and unemployment. The model was based on a cost-benefit analysis. It is unique in that behaviour is viewed from the perspective of criminals rather than non-criminals. This adds another perspective to the scientists' views. The empirical findings supported the hypothesis, with some qualifications. Only the association between the unemployment rate and the larceny rate was positive and significant for property crimes in the USA for the period of 1960-90. This model of effect is also used as a basis for the economic pressures hypothesis.

Like Lester (1995); Rollin (1997) and Allen and Stone (1999), Pyle and Deadman (1994) also examined property crime. They studied the association between crime and economic activity. The first section of their article considered possible reasons why crime might be related to the state of the economy. The second section surveyed the evidence linking property crime to economic circumstances. The third section presented new results, obtained by using S. Field's (1990) annual and quarterly time-series data for England and Wales spanning 1946 to 1991. Results concerned the relationship between the business cycle and property crime, such as offences of burglary, robbery, theft and the handling of stolen goods. The analysis highlighted the need to build a convincing dynamic model of criminal activity and its relationship to the economy as a whole which, in turn, can contribute to the present thesis hypothesis of economic pressures and employee theft. This contribution is different from the present thesis in that it deals with economic pressures in a general setting while this thesis is limiting the research to the retail industry or specifically to supermarkets.

Economic pressures play a major role in causing employee theft. This hypothesis was supported by the Pogrebin, Poole and Regoli (1986) study of embezzlement which was one type of employee theft which they investigated. They studied the records of 23 males and 39 females found guilty of embezzlement in an effort to construct a profile of the contemporary bank embezzler. Data were extracted from records by probation officers. The income of these subjects averaged under \$US10,000 annually. Most worked in low entry-level positions and most indicated that family and personal debts were the reasons for their offences. Most were without accomplices and had been at the job for less than one year. Their study which was conducted in the bank may be of value for this present study of supermarkets. Moreover, since personal and household income is the most common measurement for economic pressures, the Pogrebin, Poole and Regoli (1986) study has much to offer in both this thesis' methodology and its theoretical background hypothesis. The questions of personal and household income were included in the questionnaire and interview as the measurements for the hypothesis of economic pressures.

Community pressures

Approximately eight pieces of research and studies are listed in this section in order to compare and evaluate the role that community pressures can play in explaining employee theft. Few studies, however, have pointed to an exact relationship between community pressures and employee theft (see: Bynum and Purri 1984, Farrington 1994 and Dahlback 1998). Rather they are described in more general terms.

The community pressures factor is founded in the work of Bynum and Purri (1984) when they reviewed the literature concerning environmental design. They hypothesise and argue that weaknesses exist in previous research designs. The study

investigated the victimization experiences of 1,872 undergraduates who resided in campus high- and low-rise dormitories and measured the residents' sense of community in determining the relationship between environmental structures and reported crime rates. Findings revealed significantly greater theft and larceny rates in the high-rise dormitories. This suggests a greater feeling of community in low-rise dormitories. Thus the community pressures play a very important role in causing crime including theft. This is one of the hypotheses of this thesis.

The influence of community pressures can also be seen in the Dahlback (1998) study. Dahlback (1998) investigated the possibility of using a non-linear longitudinal model when analysing the influence of crime opportunity and commission propensity factors on societies' theft rates. The model used, which is based on decision-theoretical assumptions on individual criminal behaviour, explains how the theft rate is influenced by contemporary and historical societal characteristics. The crime opportunities in a municipality are assumed to be strongly affected by the density of the population and the inhabitants' commission propensities by their social bonds. It was found that the theft rate is higher the denser the population and the weaker the social bonds; that there are strong interactions between various contributing factors; and that there are temporal trends for relationships between the theft rate and social bond characteristics at different points in time that have interesting causal interpretations. The interaction effect of community pressures and organisational values on employee theft in the present thesis are a replication of the methodology of the Dahlback (1998) study.

According to Farrington (1994), among the number of factors affecting antisocial behavior, socio-economic deprivation, community influences and peer influences are

the most important. Farrington (1994) reviewed knowledge about the causes and prevention of offending with special reference to violence 'offending' which is defined to include the most common types of crimes that predominate in the official criminal statistics, such as: theft, burglary, robbery, violence, vandalism and drug use. This study is a basis for outside (community influences) and inside (peer influences) community pressures. Beside the studies which have investigated the theme "community pressures" directly, some studies have touched on the theme indirectly and they are investigated in the following paragraphs.

Bellair (1997) stated that the social disorganisation perspective assumes that social interaction among neighbors is a central element in the control of community crime. Moreover, the social interaction among neighbors that occurs frequently, such as every day, is assumed to be most effective. His analysis tests that assumption by exploring the consequences of frequent and infrequent interaction. Bellair (1997) constructs ten alternative measures of social interaction and separately examines the effect of each on the rates of three serious crimes, burglary, motor vehicle theft and robbery, across 60 urban neighborhoods. His findings suggest that the community interaction played an important role in reducing these crimes.

In a similar investigation, Loeber and Schmalin (1985) examined the utility of differentiating between mixed and pure forms of antisocial child behavior. This was done for 195, 10-17-year-old boys on the basis of a typology of antisocial behaviour. They were divided into mutually exclusive groups, based on their pattern of antisocial behavior. Results indicated that there is a clear effect of community and peer group on delinquency with delinquency including fighting and theft. This study and the present thesis are similar in that both examine the community pressures on

causing deviant behaviours. Despite the fact that the Loeber and Schmalting (1985) study dealt with children as the sample and that the present thesis focuses on mature people, both are under the heading of criminology and deviant research. Therefore, the Loeber and Schmalting (1985) study may be of value for the present thesis.

There is another look at the phenomenon of theft. In this case it is shoplifting. McNees and Patrick (1980) designed an evaluation program for elementary school-aged youth which they implemented at a retail business near a school. The program included visual instructions to youths concerning tokens (exchangeable for special prizes) for appropriate verbal behavior, visual feedback to them, and rewards for reducing merchandise loss. A 54 % reduction in loss of popular youth merchandise was achieved. The programme showed how effective the role of the community factor could be in controlling behaviour. The enhancement of the community alliance had reduced theft among youth customers. The sense of outside-community is related to enhancing the sense of inside-community. Inside-community can be categorised as a workplace which is related to the study of community pressures in the present thesis.

Peer group pressures and psychogenic factors appear to influence theft and vandalism according to the Levine and Kozak (1979) study. They analysed data from a study of 796 5th-12th-grade students in an upper-middle-class Chicago suburban community. The level of community affluence and quality of community institutions and services ruled out the explanations ("the tangle of pathology") usually offered in studies of delinquency in lower-class and low-income communities. This study contributed to the background of the present thesis in its assumption of peer group pressures and their effect on theft. The difference in the sample of this study

(students) and present thesis (employees) cannot prevent one from utilizing the findings to support the thesis hypothesis.

Work group norms, as important elements of community structure, have been investigated by Dabney (1995). He integrated sociological and nursing perspectives regarding on-the-job drug use and/or theft use by nurses. Specifically, he used interview data collected from 25 practising nurses to illustrate the link between work group norms and these forms of nursing deviance. The data suggest that informal work group norms often differ from formalised administrative guidelines. Under these circumstances, work group norms consistently take precedence and, thus, serve to shape nurses' behaviors. The influence of the peer group on nurses' behaviours in Dabney's study was, theoretically, similar to the effect of the peer group on employee theft in the present thesis. Inside-community pressures are operationally defined, in this thesis, as the influence of the peer group in the workplace. The present thesis hypothesised: when community pressures on employees are highly apparent employee theft increases. This argument makes the study a suitable background for the thesis. Economic and community pressures are factors related to both employee theft and organisational values.

Economic pressures and community pressures (inside and outside) are hypothesised to control the effect of organisational values on employee theft. The effect of organisational values on employee theft can be more explained in the context of the pressures on employees during their work. Three cognitive processes are involved in this situation: the pressures on employee to steal; the values of the organisation that the individual experiences in his or her workplace; then the outcome which is the decision to steal or not. The values of the organisation are a collective of traits based

on organisational culture as whole. Thus, understanding of the values within the organisation needs to be addressed through the discussion of organisational culture or, in technical terms, corporate culture.

Organisational culture

The starting point for a study of values in general, and values in an organisation in particular, is culture. According to Brown (1995), the interest in organisational culture during the 1980s and 1990s stems from at least four different sources. The first source is climate research as it relates to the workplace environment. The second is national culture. The third is human resources management (HRM), which concerns the human side of enterprises and the factors that determine workers' relationships with their employers (Hannagan 1998). The fourth is an explanation of how clearly performance is related to counterproductive behaviour in the workplace.

According to Chin, Pun, Ho and Lau (2002), company culture, consisting of a shared pattern of basic values, beliefs, and organisational assumptions, is widely accepted as a powerful force for driving performance-enhancing behavior in an organisation. Changing a well-established culture is, however, a highly complex issue. It is thus very challenging to implement a new organisational culture. Organisational culture is also recognised by Sinclair (1993) as one determinant of how people behave, more or less ethically, in organisations. It is also increasingly understood as an attribute that management can and should use their influence to improve organisational performance.

Culture, or more specifically organisational culture, is a topic that entered the academic literature in the late 1970s (Pettigrew 1979). Since that time a stream of

research on organisational behaviour has brought about a variety of definitions and characteristics of the term. While there are many definitions of organisational culture, several characteristics remain consistent across these definitions. 'Holistic', 'historically determined', 'socially constructed' and 'difficult to change' are characteristics of organisational culture frequently found in the literature. Culture, it is also commonly agreed, involves 'a pattern of shared values and beliefs', 'determines how organisations function' and 'guides persons and groups towards satisfaction, fulfilment and meaning'.⁴⁵

According to Wright (1994), organisational values are the components of the culture in which the culture paradigm can mean the informal concepts of attitudes and values of a workforce; or it can refer to the formal organisational values and practices imposed by management as a glue to hold the workforce together and to make it capable of responding as a body to fast changing and global competition. In this regard the term values was defined by Hornby (1989) "moral or professional standards of behaviour; principles; artistic, legal, scientific values, such as: return to Victorian values, the values of justice and democracy" (p. 1411). Also defined by Procter (1995) as "the values are the principles one has which control his or her behaviour: family / moral/ traditional, such as ; she believes strongly in basic values like courage, loyalty and honesty." (p. 1605). Similar definitions have been found; one by Cambridge University Press (2003) as the beliefs people have about what is right and wrong and what is most important in life, which control their behaviour⁴⁶. The other by Marshall (1998) in the Oxford Dictionary of Sociology "values are ideas held by people about ethical behaviour or appropriate behaviour, what is right or wrong, desirable or despicable" (p. 689). Thus, organisational values are part of the culture definition, as well as workplace environment.

The definition of values is also traced to Weberian thought. Max Weber's contribution to sociology was immense. He offered a philosophical basis for the social sciences; a general conceptual framework for sociology; and a range of learned studies covering most world religions, ancient societies, economic history, the sociology of law and of music, and many other areas. On a philosophical level, Weber's main contribution was a theory of value-freedom (Marshall 1998). For Weber, the choice of science and sociology was a value choice which could not be justified in terms of instrumental rationality. In this sense, social scientific work is hemmed in by values, not only the values of the individual sociologist, but also those of the community of social scientists and the prevailing culture as whole (Marshall 1998).

Weber believed that values of "nation," "development," "human rights," and "science" must be freely chosen by people. This means a "disenchantment" of the world, which is a result of the rationalisation of man and of the world that has occurred throughout history (Manson 2000).

Albrow (1990) mentioned that the vocabulary Weber employed in his account of values is rich in nuance and fine distinctions. It is possible to engage in value analysis, interpretation, discussion, and consideration, and values could operate as axioms. Values can be related to decisions, feelings, standards, postulates, viewpoints and theories. Moreover, values can be organised as hierarchies, orders, systems, spheres and realms and they can conflict, compete and collide. They can be intensified, subjected to critique and placed in relation to anything else. People can be sensitive to values, judge things by them, evaluate, have faith in them or disbelieve them and can be free from them or discover them around and in their

lives. Values have content, mechanisms, and can change. On the other hand, the validity of values cannot be proven empirically and faith in values can never be other than irrational. These characteristics of values can be easily linked with organisational values, as these are open to all types of point of view in any segment of a society (workplace setting).

A number of organisational values will be evaluated and related to employee theft. They are categorised into four dimensions based on suggestions in some of the literature:⁴⁷

Organisational values dimensions are introduced because of their contribution to organisational culture. They are taken from management, sociology and criminology research⁴⁸. Organisational values dimensions include: support orientation, rules orientation, innovation orientation and outcome orientation. These organisational values will be further developed and discussed in the method chapter. Reviews of some studies and research have been listed in this section to show the previous research findings related to organisational values.

Jones and Boye (1994) investigated the relationship of job stress, predisposition to stealing, and admissions of employee theft in the workplace. 3,468 employees from 70 companies completed an employee attitude inventory, which included a job-related dishonesty scale and a job stress scale. Subjects also completed a checklist regarding the total dollar value of cash and merchandise they had stolen in the past three years. Approximately 33% of subjects reported stealing. The dollar value of merchandise stolen ranged from \$US 25 to \$US 3,500. Both job stress and propensities toward theft were found to be related to employee admissions of theft. The effect of job stress on admission of theft was found to vary according to

employee attitudes toward theft. Among employees strongly or moderately predisposed to steal, those experiencing high job stress made substantially more admissions of theft. It can be concluded that stress at work, as a physical and/or psychological symptom, is another sign of job dissatisfaction, and in this regard this finding may be accepted as a basic argument for the current study which also linked to how employees perceive their organisational values. A number of studies and research are critically introduced hereafter and linked to organisational values. These include the studies of equity, justice and fairness as organisational values. The discussions of their contributions are in the following paragraphs.

A survey by Vandenberghe and Peiro (1999) was conducted using a convenient sample of employees ($n = 999$) from various industries in order to examine the main and combined effects of organisational and individual values on organisational commitment, perceived organisational support, and procedural justice. Moderated multiple regression analyses showed that employee reactions could mainly be explained by perceived organisational values and value preferences. This is, however, a measurement of employees' perception which the present study is also trying to achieve. Thus, this present study has benefited considerably from Vandenberghe and Peiro (1999) in the development of the research instrument (questionnaire) especially for the measurement of organisational values perceptions.

As an organisational value orientation Greenberg and Scott (1996) stated that employee theft is widespread and extremely costly to organisations. It may be viewed as a non-violent form of property deviance toward a company committed by an employee for personal gain. A social exchange orientation highlights the roles of social norms and distributive injustice as determinants of employee theft. According

to the proposed “cycle of acceptance”, societal norms condone employee theft insofar as (1) people are willing to victimise organisations; (2) employee thieves are only infrequently prosecuted; and (3) guilt feeling is minimal. Indeed supervisors who sometimes condone employee theft, or permit theft as an informal source of reward serve as models of deviant behaviour.

Greenberg and Scott (1996) also stated that social norms within work groups support employee theft and carefully regulate the form it takes. Theft is also conceptualised as an attempt to redress distributive injustice. Theft-induced responses to inequity are motivated by both restitution and retaliation. Experimental studies have demonstrated that these reactions are exacerbated by inequitable conditions in which employees are treated in a socially insensitive manner. The implications for employee theft include: (1) breaking the cycle of acceptance; (2) aligning the interests of employers and employees; and (3) demonstrating interpersonal sensitivity in the treatment of employees.

The study of 514 security guards by De Boer, Bakker Syroit and Schaufeli (2002) examined the relationship between perceptions of unfairness at work and absenteeism during a one-year follow-up. On the basis of previous theoretical work and fragmented empirical evidence, it was hypothesised that distributive unfairness causes absence behavior in a direct and indirect way (through health complaints). Procedural unfairness was hypothesised to cause absence behavior through affective commitment or through health complaints. The results of a series of structural equation modeling analyses offer support for the mediating role of health complaints in the relationship between distributive and procedural unfairness at work and absenteeism. Moreover, the findings demonstrate that perceived unfairness might

help to explain absenteeism over and above the impact of traditional work-related stressors such as work load and low job control. Absenteeism is one form of counterproductive behavior and can, therefore, be related to employee theft as another form of counterproductive behavior. Lam, Schaubroeck and Aryee (2002) also examined the influence of organisational justice perceptions on employee work outcomes, including some forms of counterproductive behaviors such as absenteeism, and found support for the hypothesized model.

The study of Aquino, Lewis and Bradfield (1999), tested a model that uses organisational justice variables and the personality trait of negative affectivity to explain two forms of deviant employee behavior. The two deviant employee behaviors are organisational deviance and interpersonal deviance. A survey was conducted for this study in which respondents were asked to indicate the number of times they had performed the behaviour described within the last 6 months. Results showed that this model fits the data well and that nearly all of the hypothesised relations among constructs were supported.

Employee theft rates in manufacturing plants were measured by Greenberg (1990) during a period in which pay was temporarily reduced by 15%. Compared with the pre- or post-reduction pay period (or with control groups whose pay was unchanged), groups whose pay was reduced had significantly higher theft rates. When the basis for the pay cuts was thoroughly and sensitively explained to employees, feelings of inequity were lessened, and the theft rate was reduced as well. The data support equity theory predictions regarding likely responses to underpayment and add to recently accumulated evidence demonstrating the mitigating effects of adequate explanations on feelings of inequity.

The roles of motivation, frustration and satisfaction on formulating organisational values have been discussed by a number of researchers (see: Vardi and Wiener (1996), Payne (1989), Spector (1997), Fox (1999) and Huiras, Uggen and McMorris (2000)).

Vardi and Wiener (1996) tried to associate personal and organisational motivational forces with behavioral misconduct by organisational members. It therefore served as the basis for the distinction among three types of organisational misbehavior: (1) misbehavior that intends to benefit the self (type S); (2) misbehavior that intends to benefit the organisation (type O); and (3) misbehavior that intends to inflict damage (type D).

In order to integrate these forms of misconduct within a comprehensive motivational framework, Vardi and Wiener (1996) used the distinction between normative and instrumental sources of motivation. They proposed that people who engage in type S are primarily motivated by self-interest consideration (instrumental processes), whereas those who perpetrate type O do so mostly because of a strong identification with and a loyalty to their organisation (normative processes). Type D, however, may be triggered by either instrumental or normative forces, or by both at the same time. The study found support for the proposed main effects with some mediating interaction differences. Type O is a sign for perceived high organisational values which may lead the employee to committee theft against others not against the organisation. This is what has been described previously as crime on behalf of the organisation. Type S and type D are misconduct behaviours related to theft by an employee which is directly relevant to the theme of this thesis.

The role of motivation has been discussed further by Payne (1989). He believes that self-presentational biases are associated both with motivation for employee theft and unrealised potential controls for employee theft. These self-presentation biases can obstruct a better understanding of the nature and extent of theft, as well as of the steps necessary to reduce the problem. Thus, motivation in the organisation is part of an outcome organisational dimension which may explain the control of theft in the workplace by employees. The same results can be obtained by minimising frustration in the workplace. This is discussed by Spector (1997).

According to Spector (1997), events and conditions of work can induce anger and frustration that are accompanied by antisocial acts such as aggression, sabotage, theft, and the intentional withholding of output. Earlier, Spector presented a model of how frustration leads to these antisocial behaviors (1978). He then updated this model by incorporating an expanded role for cognitive processes and individual differences. Finally, he discussed strategies for reducing antisocial behaviour at work, based on the expanded frustration model.

The study of Fox (1999) was designed to investigate the situational, dispositional, and affective antecedents of counterproductive work behaviors. A model based on the organisational frustration-aggression work of Spector and colleagues was tested using structural equation-modeling and zero-order correlational analysis. As hypothesised, a positive relationship was found between employees' experiences of situational constraints (events frustrating their achievement of organisational and personal goals) and counterproductive behavioral responses to frustration (personal and organisational aggression). In addition, personality (trait anger and trait anxiety), control beliefs (work locus of control), and an estimation of the likelihood of

punishment had a major effect on how people behaved. In particular, strong direct relationships were found between affective response variables and anxiety and the locus of control, while direct relationships were found between behavioral response variables and anger and punishment. Finally, differentiated relationships between two facets of trait anger (angry temperament and angry reaction) and four categories of counterproductive behaviors (serious and minor deviance directed at organisational and personal targets) were explored. As anger leads to frustration and frustration leads to a perception of low organisational values which, as hypothesized in the present study leads, to employee theft in the workplace, employee satisfaction needs to be achieved in the organisation.

Huiras, Uggen and McMorris (2000) examined the relationship between career stakes, job satisfaction, and employee deviance. The researchers analysed data from the Youth Development Study (YDS), a longitudinal community sample of individuals now in their mid-twenties. Results show that career stakes and job satisfaction exert independent effects on worker misconduct even when prior levels of general deviance and workplace deviance are statistically controlled.

The cognitive process of justifying theft produces a workplace psychological environment which leads to a perception of organisational values by employees. In his recent publication, Case (2000) showed that employees questioned as to why they stole often rationalized their action and stated that the opportunity of theft presented itself through lax policies and controls and management indifference. Moreover, many employees cited opportunities created by management, not their financial need, as their primary motivation to steal (Beki, Zeelenberg and Van Montfort 1999). Another significant reason employees gave for stealing was their perception that

managers themselves were stealing so it was permissible for them too. This situation supports the proposition that, if management wants a theft-free work environment, it must set an example of honesty and adherence to policies (Case 2000). This can be considered the rules orientation as one dimension of organisational values. The high perception of rules orientation by employees in the workplace plays a very major role to reduce misconduct behaviours including employee theft. When employees feel that superiors (managers and supervisors) keep to the rules, they are themselves follow too. As a result, the justification for theft will be limited.

Similarly, Nakamura (1985) examined the cognitive structures of a sample of 155 boys (aged 16-19 years) living in a juvenile home. What concerned them most about theft was the fear of detection. Moreover, they had a deep concern as to whether their conduct was appropriate for their sub-cultural norms. Some took risks and rationalized their offences according to those norms. Others suffered from inferiority feelings or bitter experiences at the hands of other members of the community, particularly in the case of theft.

Some of the common examples of employee rationale for theft include these statements⁴⁹: “I am underpaid and I only taking what I deserve”, “Everybody does it. Besides, they can write it off”. The company makes a large profit and I deserve some of it. And “ The company angered me and I got back at it.” Such statements indicate the type of workplace environment and how employees perceive their organisations. This way of thinking is very important as a reflection of the workplace environment that is related to the discussion and the investigation of employee perceptions about organisational values. These statements are not only a reflection of one

organisational dimension but also complex reflections of all organisational values dimensions.

Based on the literature that explains employee theft, several theories have been identified. The theories of employee theft are classified in different ways. One classification is based on the nature of the factors that cause employee theft. It is either based on personal factors or on workplace factors. This classification is adopted in the present study. Each group of theories has been critically investigated through several approaches. The final stage is the formulation of the thesis' theoretical perspectives. these perspectives are constructed as a theoretical model to be prepared for empirical investigation. The criticisms of these theories and the adaptation of justified approaches to be included in the model are discussed in the following section.

Part III: Theoretical constructs

Theoretical background

This survey of theoretical backgrounds helps to take an overview of most theoretical aspects in the field of criminology that relate to the employee theft phenomenon. It also enables to organise thought processes starting from general factors affecting employee theft to more specific causes. In this section two distinct theoretical perspectives are presented. Each class of these two groups will be presented with a number of theoretical approaches. For person-based theories there are five approaches. They are: need, an individual's deviant background, greed and temptation, an epidemic of moral laxity and marginality of the job. Workplace-based theories comprise four approaches: the organisational climate, deterrence doctrine, perceived organisational fairness and cognitive processing. These theories form the background and basis for selecting the appropriate theoretical perspective and framework for this study.

Person-based theories

Person-based theories attempt to construct an epistemological basis for describing employee theft as a reflection of personal traits and special characteristics. Clinard (1969) argued that personality traits consist of two kinds of personality traits, sociogenic and psychogenic, both of which from a social experience through association with other persons. Sociogenic traits, or attitudes, are derived from definitions of situations furnished by culture or subcultures to which people belong, such as their attitude towards law and property. Psychogenic traits, or general reaction patterns, are often referred to as basic personality traits such as feelings of emotional security or insecurity. In general, person-based theories are concerned

with the question of why some employees steal? The answer is in five approaches of person-based theories. The illustrations of these five approaches are in the following paragraphs.

The first person-based theory takes the approach of need, where employees steal from their organisation because of their own need. They steal to resolve financial difficulties (Caudill 1988; Kannappan and Kaliappan 1988; Greenberg and Barling 1996; Teevan and Dryburgh 2000). This reasoning has a set of intervening variables associated with needs: such as how the stolen materials satisfy these needs, how pressure from peers encourages young workers to steal, and what the social need is for such theft (as if the thieves give a discount to their friends or relatives without asking permission from management). Hollinger et al. (1992) call this act “altruistic deviance”. These explanations might be linked to the thieves’ psychological background (Williams 1935; Penrod 1987). Economic pressures theory is derived from the need approach which is one of the main theoretical perspectives for this thesis.

The economic pressures factor theorises that, when economic pressures become great, people may turn to illegitimate means to achieve socially acceptable goals (Hollinger and Clark 1983a). The economic situation within the community in which the individual lives and works can affect that person’s financial viability and hence influence his or her decision to become involved in employee theft⁵⁰. The economic pressures variable has been tested in this research as one of the control variables mediating between organisational values and employee theft. Operationally, economic pressures are translated into a number of questions categorized by the title

of financial status, including the perception of household income and personal financial concern for employees.

The second person-based theory relates to an individual's deviant background approach, which proposes that the tendency to engage in workplace theft is a function of deviance (McCarthy 1995; Raine et al. 1996; Mumford, Connelly, Helton, Strange and Osburn 2001). This approach is an applicable link to the explanation of deviance in general, including counterproductive behaviours in the organisation. In this context, counterproductive, is used for a wide range of behaviours in the organisation. Some counterproductive uses are: (1) theft and related behaviours; (2) destruction of property; (3) misuse of information; (4) misuse of time and resources; (5) unsafe behaviour; (6) poor attendance; (7) poor quality work; (8) alcohol use; (9) drug use; (10) inappropriate verbal actions; and (11) inappropriate physical actions (Gruys 2000; Gruys and Sackett 2003). The explanation for this approach is that those people who have a tendency to steal in the workplace are likely to commit other types of deviant behaviours in their workplace. They are more likely to be involved in street crime, larceny, burglary and other crimes (Lynch and Cantor 1992; Britt 1994; Steffensmeier and Haynie 2000). The deviant behaviour needs a situational social background to develop (Greenberg and Barling 1996). This explanation is related to the second theoretical perspective for this thesis which is community pressures.

Community pressures theory (Hollinger and Clark 1983b; Robinson and Bennett 1997; Niehoff and Paul 2000) suggests that the incidence of employee theft in a company is a direct reflection of the rate of non-violent larceny in the larger community. The basic theoretical assumption is founded upon the idea that if a

company hires indigenous employees from that community, their aggregate theft behaviour while at work may correspond to the level of theft present in the community (Hollinger and Clark 1983b). One plausible reason for this might include the locality's criminal background. According to Sommers, Fagan and Baskin (1993); Greenberg and Barling (1996); Vardi and Wiener (1996); Bennett and Robinson (2000) and Lee and Allen (2002), individual deviant background theory indicates that the person with a positive attitude to stealing will steal in the workplace. Boye and Jones (1997) present an alternate view by stating that pressure resulting from the workgroup in the organisation contributes to a higher probability of workplace theft. Internal pressures include the effect of work group norms (Hawkins 1984) and collaboration with other employees to steal from employers (Horning 1963; Horning 1968; Mars 1983).

There are two basic components of the model within work groups. First, conditions often exist that facilitate social influence (Dabney 1995). These conditions are referred to as priming conditions. Two major factors fall into this category: ambiguous situations and exposure to salient others (supervisors and peers) according to Sieh (1985). Second, according to Dabney 1995 and Robinson and O'Leary-Kelly (1998) various social influences encourage employee theft. They referred to these as social triggers. Three major social triggers may be identified: informational social influence, normative social influence and cognitive social influence (Greenberg 1997,1998). This theory offers the social influence model of employee theft as an adjunct to existing approaches rather than as a substitute for them (Greenberg 1997).

Third, greed and temptation (opportunity) is one approach of person-based theories. This theory suggests that people are naturally greedy and everyone would steal if there were a chance to steal⁵¹. This approach according to Greenberg and Barling (1996) lends itself to theft deterrence by minimizing opportunity (Schneider 2005) and by providing appropriate surveillance over the employees in the workplace. Organisational theft rates are to a large extent contingent on the opportunities for employees to steal (Pallone and Hennessy 1992; Thompson 1998). Security measures are used to reduce these opportunities substantially and are perhaps the most obvious organisational climate factors used to deter employee theft (Caudill 1988; Dahlback 1998; Felson et al. 2000). Some of these methods, such as security guards and video cameras, may also be beneficial for reducing other types of counterproductive behaviour (Boye and Jones 1997). The poorer the organisational climate of honesty, the greater the likelihood of employee theft in the workplace (Warr 1988; Stack 1995).

Fourth, an epidemic of moral laxity. This approach explains the phenomenon of employee theft where workers have weak values in relation to honesty, and become less trustworthy (Hawkins 1984; Simmons 1987; Dickinson 1992; Kornelussen 1996; Greenberg 1998; Judy and Nelson 2000). This is particularly prevalent among young and temporary employees who are mostly holding marginal jobs (Hollinger and Clark 1983b; Hollinger et al. 1992; Greenberg and Barling 1996; Giacalone and Greenberg 1997; Greenberg 1997).

The last approach of person-based theories is the marginality approach. This approach explains the factors affecting employee theft in low status jobs (Michel 1937; Cloward and Ohlin 1960; McCaghy et al. 1977; Baruah 1989; Tucker 1989;

Hollinger et al. 1992). Not only can having a low ranking position in an organisation's hierarchy be linked with a proclivity to steal, so can other characteristics of a job such as low wages, expendability, little opportunity for advancement, short tenure, little chance to develop relationships, lack of security, and social isolation (Michel 1937; Wattenberg and Balistrieri 1952; Pawar 1985; Greenberg and Barling 1996). This theoretical approach of marginality can also contribute to the economic pressures theory which is one of the main theoretical perspectives of this study.

Workplace-based theories

In contrast to the person-based theories, which were concerned with why some employees steal, workplace-based theories answer the question as to why some organisations experience more theft than others. Here there are four theoretical approaches. Each one attempts to explain employee theft from a different perspective. In the end, the person-based theories and workplace-based theories together give a complete explanation of employee theft.

The first of the workplace approaches is organisational climate (Kamp and Brooks 1991). This suggests that employee theft is more prevalent when a dishonesty climate exists in the organisation (Jones and Terris 1991; Giacalone and Greenberg 1997; Luther 2000). This theory indicates that there is a perception of dishonesty among employees which is related to their perception of how their managers, immediate subordinates, co-workers, and they themselves view theft (Kearse 1993; Layne 1994; Luther 2000 and Greenberg and Barling 1996). It is also predicted by Greene (1999) that those employees who believe that their organisation is culturally honest, engage in fewer dishonest behaviors than those believe that their organisation is culturally

dishonest. And the same notion can be applied with other counterproductive behaviours such as absenteeism, disregard of work instructions and attitude towards damaged or out-of-date foods.⁵² .

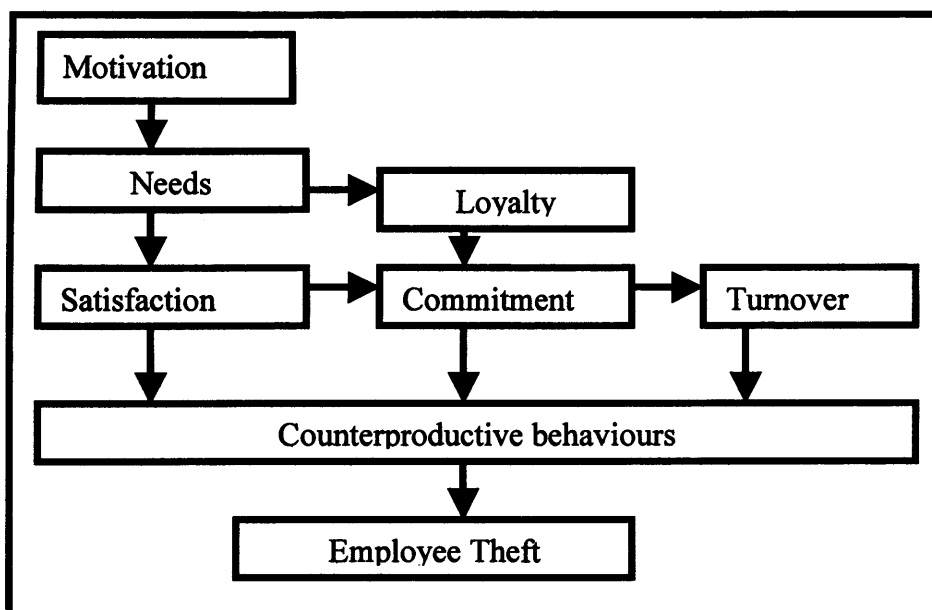
The workplace environment is related also to motivation which, in turn, is related to how employees perceive their workplace. If the employees are well motivated in their workplace, their loyalty tends to increase. If employees rate loyalty highly, they are likely to refrain from committing theft in their work (Paajanen 1988; Davis 1992; Vardi and Wiener 1996). Motivation can contribute to job satisfaction. One job satisfaction factor is meeting the needs of employees in the workplace. Maslow's hierarchy of needs explains how employees with sufficient needs can be satisfied in their job. Satisfaction leads in the end to a lessening of counterproductive behaviours in the workplace (Paajanen 1988). Maslow's theory identifies five sets of needs: physical needs, safety needs, social needs, self-esteem, and self-actualisation (Maslow 1954; Academic American Encyclopedia 1994; Adair 1996). The most related sets of needs in this theory with counterproductive behaviours in general and employee theft in particular are the last two, self-esteem and self-actualisation. Esteem consists of self-respect, achievement, status, and recognition, while self-actualisation is about growth, accomplishment, and personal development (Baker and Sandore 1991; DeCarvalho 1991).

As motivation leads to satisfaction, satisfaction and dissatisfaction could theoretically be linked to counterproductive behaviours in the workplace. The satisfaction theory proposes that the victimised organisation may play a part in determining the level of theft behaviour of its own employees by influencing their perceptions level of dissatisfaction with their jobs (Hollinger and Clark 1983a;

Hawkins 1984; Kamp and Brooks 1991; Boye and Jones 1997). According to Thoms, Wolper, Scott and Jones (2001) job satisfaction is negatively correlated to intentions to leave and to turnover, and the intention to leave predicts employee theft and turnover. This may be attributed to a lack of commitment to the organisation. Similarly, Greene (1999) predicted that those employees who felt high job satisfaction would engage in fewer dishonest behaviours than those whose job satisfaction was low. Based on the literature, the researcher has depicted the diagram in Figure 9 to show how motivation is linked to theft.

As shown in Figure 4 the motivation in a workplace environment can suffice the needs of employees and lead them to a state of loyalty and satisfaction. Loyalty leads to higher commitment to the job and to the willingness to stay longer in the job. Staying longer in the job persuades them to refrain from any counterproductive behaviour including employee theft. Satisfaction also leads to the same result as loyalty but with a direct effect on counterproductive behaviours. If employees are satisfied they can distance themselves from counterproductive behaviours or theft.

Figure 4: Motivation link to employee theft



In relation to organisational factors and the workplace climate, organisational security is an important factor which may help to explain why some organisations experience more theft than others. The implementation of security measures in the retail stores such as CCTV, security guards, video cameras, and other surveillance equipments, plays a major role in controlling internal theft (Purpura 1998; Oz, Glass and Behling 1999; Helena 2000; Boye and Jones 1997). Considering workplace theories on the phenomenon of employee theft may encourage the loss prevention section or security department in an organisation to advocate a personnel screening approach in the recruitment of new applicants or more effective control of the work security environment. This screening approach may involve devising honesty testing for new applicants⁵³, learning their job history⁵⁴ or supervising their performance and continuously monitoring their trustworthiness.⁵⁵

The second approach of workplace-based theories is deterrence doctrine which explains employee theft as an outcome of either a lack of deterrence measures in the workplace or improper security measures and precautions. There are five important elements associated with the deterrence process⁵⁶. These five elements are:

- Employees' perceived certainty of the risk of being discovered;⁵⁷
- The certainty of apprehension;⁵⁸
- The certainty of prosecution;⁵⁹
- The severity of possible criminal punishment;⁶⁰ and
- Visibility and celerity of punishment.⁶¹

The essence of this approach is that employee theft will be more likely in an organisation that does not make its anti-theft policies explicit (Hollinger and Clark

1983b; Hollinger and Clark 1983a; Dierking 1991; Greenberg and Barling 1996; Ziegenfuss 1996). Similarly, Boye and Jones (1997) pointed out that a formal antisocial policy is one method of communicating the organisational attitude on the degree to which the employer will tolerate theft by employees. This leads to a double effect: one is that employees will consider that stealing company merchandise or property is a serious matter and will be punished and they will respond to this threat; the other is the certainty that supervisors will react when employee theft is discovered (Pallone and Hennessy 1992; Tucker 1989). The results of the Grasmick, Jacobs and McCollom (1983) study also support the potential contributions of deterrence theory to the study of crime and social control. Deterrence doctrine in the workplace was more closely investigated by Mitchell, Daniels, Hopper, George and Ferris (1996) who assessed employees' perceptions of the degree to which illegal behavior was caused by: deficiencies in the moral character of employees; the clarity of expectations and standards describing illegal behavior; and the presence of reinforcements and punishments (Schneider 2003) contingent on these behaviors.

The problem of counterproductive behaviours in the workplace in general and theft in particular, may be intensified when workers see that the violations of some people (low level workers) are punished more regularly and severely than the violations of others (supervisors and superiors) (Parilla 1982; Saltzman et al. 1982; Hollinger and Clark 1983b; Clark 1984; Lott 1992). This kind of feeling on the part of employees encourages them either to imitate their superiors in their acts of theft, to feel frustration or not to help their organisation in controlling theft among other employees.

Perceived organisational fairness is the third approach from workplace theory used to explain employee theft (Aquino et al. 1999; Greenberg and Barling 1996; Boye and Jones 1997). This approach indicates that interpersonal and payment fairness are linked to employee theft (Tucker 1989; Niehoff and Paul 2000; Greenberg and Barling 1996). The issue may be illustrated by two sets of explications. One considers employee theft as a social control process rather than crime (Rosse et al. 1996). Within this context employee theft might be considered as a response to employer deviance (unfairness to employees) (Sieh 1985). The other is concerned with payment inequity, as if the employees feel that their payment, relative to the work they are doing, is seen to be less than it should be (Sieh 1985; Rosse et al. 1996). In this case employees either reduce their productivity or increase their income by theft (Umbreit 1989; Lamertz 2002; Greenberg and Barling 1996). This discussion of perceived organisational fairness can be discussed further by introducing equity theory ⁶². This approach proposes that when employees are dissatisfied with employer fairness, they are more likely to violate organisational norms and commit acts of deviance (Aquino et al. 1999). Additionally, when the basis for a pay cut is thoroughly and sensitively explained to employees, feelings of inequity are lessened and the theft rate is reduced (Greenberg 1990 and Terman 1985). Moreover, it is argued that employees feel justified in taking company property when they perceive they have been treated very unfairly in their work (Sieh 1985; 1987; Shapiro, Trevino and Victor 1995; Greenberg and Barling 1996) .

Fairness has been introduced by many studies as part of organisational values. These values were linked to counterproductive behaviours. Employee theft is considered one such behaviour as it is shown that the same explanation process for counterproductive behaviours in the workplace can also explain employee theft. For

example, Boye and Jones (1997) mentioned that the prevalence of ten organisational values can be related to lower levels of counterproductive workplace behaviour. These organisational values are: fairness with employees, caring and empathy, employee empowerment, career-enriching opportunities, equitable pay and benefits, interpersonal cooperation, accurate job-person matching, honesty and ethics, safe working conditions, and job security.

Perceptions of organisational values, as one main element of this thesis' theoretical perspective are rooted in workplace climate theory, perceived organisational fairness, satisfaction theory, and motivation theory. Counterproductive behaviours are also a by-product of these theoretical backgrounds along with employee theft.

The proposition by Greenberg and Barling 1996; Boye and Jones 1997, that there is relationship between organisational values and employee theft is included in organisational climate theory, which is one of the workplace theories. The basic premise of organisational climate theory is that people steal from their employers because they interact in a social setting in which conditions make social influence regarding theft possible and in which various social influences trigger employee theft (Kamp and Brooks 1991; Greenberg and Barling 1996; Boye and Jones 1997). This theory indicates that better results will be obtained by altering the organisational climate to address employee motivations and perceptions than by merely decreasing employee opportunities to engage in employee theft. This theory considers the modification of organisational factors and employee reactions to these factors to reduce theft (Ziegenfuss 1996; Greenberg 1997; Greenberg 1997; Robinson and Bennett 1997; Boye and Jones 1997).

The perception of organisational values can be categorised in four dimensions (Denison 1996; Van Muijen et al. 1999; Vandenberghe and Peiro 1999)⁶³. They are: support orientation (Tepeci 2001; Chin et al. 2002); rules orientation (Herndon et al. 2001); innovation orientation (Holt 1998; Toulson, Campbell and Holt 1998), and outcome orientation (Pun 2001). These dimensions will be viewed as separate factors in relation to employee theft.

The fourth approach to workplace theory is related to cognitive processing. The explanation of employee theft mentioned earlier with person-based theories demonstrates the traditional approach to explain this phenomenon, which is based either on the premise that people steal because they have opportunities to do so, or on the criminology approach which takes the economic pressures, youth, or emotionally unstable people, as the factors behind employee theft. Cognitive processing is a recent explanation which advocates the social psychological explanation.

According to Greenberg (1997) four different aspects can be put in taxonomic fashion. They are put as pairs: one is the pro-social intention, which contains the approval motive and the support motive of social norms; the other is the antisocial intention, which contains the even of the score and the thwart motives.

Approval is an adherence to supervisory norms condoning theft. This happens when supervisors engage in thefts which make employees believe that it is legitimate for them to engage in theft as well. The rewards given by supervisors to their employees for doing good things for the organisation such as allowing them to take substantial or limited goods, or giving them a big discount, is another type of employee theft apparently condoned by the employer.

Support is an adherence to work group norms condoning theft where employees establish a form of work group norms of deviant behaviour that control their behaviours and their relation with each other; and their relation to the organisation and their superiors. These norms have a strong effect on employee theft. They condition the nature and extent of theft allowed by this reference group. The most apparent element in this regard is the way members feel obliged to participate in such theft as a means to demonstrate their solidarity with other group members. Community pressures theory – as the second element of this thesis' theoretical perspective - is rooted in this approach (adherence to work group norms).

The motivation to even the score stems from a desire to harm or strike back at an employer. When the employees feel that they have been paid less than they deserve according to their performance, they may steal from their work to compensate for their extra work. If the accommodation provided for employees is inadequate, some employees may strike back by damaging property or goods, or more likely, steal from their employer. This theoretical aspect is based mainly on equity theory, which has been taken as a background theory for the perception of organisational values and is dealt with in the empirical study.

Thwarting is a violation of the work group norm regulating theft. This again reflects a tendency by employees to harm fellow workers for the purpose of striking out at members of the work group. Violations of group norms become clear when a work group constructs limits and rules for theft in their work place according to the different characteristics of employees. Individual employees may violate these boundaries and limits by stealing more company property than that assigned to them, or by stealing what had not been agreed upon. This would be a clear violation of

work group norms. In most cases this would lead to the person being punished. This situation, however, can be dealt with by introducing community pressures theory as the second major theoretical approach to this thesis.

According to Spector (1997), frustration at work is a derivative of cognitive processing. Frustration is another important factor leading to antisocial behaviour in the workplace. It embraces events and conditions of work which induce anger and frustration and is accompanied by antisocial acts such as theft (Spector 1997) . Spector (1997) modelled that the effect of such factors affects the cognitive appraisal and the frustration then experienced leads in the end to a behavioural reaction (antisocial behaviour). Cognitive appraisal is also affected by arbitrariness, goal importance, and the number of, and severity of, frustrators. This frustrator factor is not the only factor leading to employee theft (Beck and Willis 1993; Spector 1997; Fox 1999). A number of other factors may directly lead to a behavioural reaction, such as control perceptions, fear of being caught, hostility to rules, impulsiveness, a sense of alienation and social insensitivity. Despite the support for an existing relationship between frustration and antisocial behaviour in the organisation (Spector 1997), the link between idiosyncratic individual causes and environmental conditions remains. High levels of job stress are also associated with frustration. The final product of this pairing may well be employee theft (Jones and Boye 1994). Fox (1999) tested the Spector model (1997), the organisational frustration-aggression model, and found a positive relationship between employees' experiences of situational constraints (events frustrating their achievement of organisational and personal goals) and counterproductive behavioral responses to frustration (personal and organisational aggression). More support of this theoretical aspect is found in the work of Kolman and Wasserman (1991) and Chen and Spector (1992).

Besides frustration as a byproduct of the cognitive process, social exchange orientation is used to explain why employee theft occurs in the workplace (Graf 1999; Barkley 2001). According to Greenberg and Scott (1996), social exchange orientation highlights the roles of social norms and distributive injustice as determinants of employee theft. According to the proposed “cycle of acceptance,” societal norms condone employee theft insofar as: (a) people are willing to victimize organisations; (b) employee thieves are only infrequently prosecuted; and (c) guilt over theft is minimal. Theft also is conceptualized as an attempt to redress distributive injustice. Theft-induced responses to inequity are motivated by both restitution and retaliation (Greenberg and Scott 1996). Further to the theory of social exchange orientation and an extension to it, according to Nelson and Perrone (2000), employee theft is seen as enjoyment of the challenge of participating in the act of theft in the workplace.

The surveyed theoretical elements mentioned in this section are not dichotomised in nature; there are notable links between them. This can be expressed by the traditional fraud triangle. The traditional fraud triangle suggests that workers will steal when they are presented with opportunities to steal; they face pressures to steal; and they can rationalize stealing (Jones and Boye 1994; Greenberg 1997; Nicol and Paunonen 2002,. Greenberg (1997) suggests if any one of these elements is eliminated, theft will not occur. This is one example of the link between most of the theoretical elements mentioned in this section. This, however, suggests a need to formulate a special theoretical model for this research depending on the most relative aspects found in the literature and previous research.

Thesis theoretical perspectives

The theoretical perspective of this research is based on aspects of a range of other theories. This collection of elements forms a new theoretical model. The model is tested in an empirical way. This model consists of three factors to be related to employee theft. They are organisational values, and economic and community pressures.

The choice of the proposed theoretical model in this thesis was based on the idea of having an adequate conceptual framework by which to explain employee theft. The stipulations of an adequate conceptual framework are: first, to cover both person and workplace theories (Martinko, Gundlach and Douglas 2002). This must include propositions such as the level of economic need of the employee and, at the same time, the level of organisational values that management has in relation to theft from the workplace. Introducing both the economic and community pressures as controlling variables with organisational values has fulfilled this condition. Second, a one factor-explanation of employee theft is nowadays considered incomplete as the phenomenon of employee theft is now viewed as having multifaceted aspects and directions (Levine and Jackson 2002). The opportunity to steal from a workplace is not the only explanation for employee theft. Opportunity needs a situation and a certain workplace climate to cause employee theft. Opportunity as one of the person-based theories has failed to explain employee theft without the support of other factors such as the nature of the deterrence doctrine in the organisation (Carroll and Weaver 1986). The perception of a certainty of apprehension, prosecution, punishment and the severity of punishment of an employee will neutralise the opportunity factor for stealing. If the security measures have been employed

effectively the opportunity will never exist. Also if the employee has a sufficient salary based on his or her work efforts the opportunity to steal may not lead to theft.

Third, the societal culture must be addressed when explaining employee theft (Sinclair 1993; Wright 1994; Chin, Pun, Ho and Lau 2002; Reid London House 2002). The culture surrounding this theme, employee theft, was considered in this thesis with a triangulation approach, background deviant behaviours (outside community), the work group (inside community) and management values (organisational values). This triangulation approach covers many theoretical aspects such as an employee's deviant background, an epidemic of moral laxity, work group norms and the organisational values of management. The thesis model has addressed these cultural aspects to explain employee theft, as each one of these on its own will not explain theft (Levine and Jackson 2002). Fourth, there is a need to build on the literature findings and move toward exploring more aspects of the employee theft phenomenon. The theoretical model of this thesis has considered the previous research results and proposes new aspects to explain this phenomenon. Organisational values as factors are a new contribution to this field of study as they have been related to counterproductive behaviours in the organisation in general (Bies and Tripp 2005). Unlike the previous literature the theoretical model of this thesis has focused mainly on an investigation of the effect of organisational values on employee theft.

Organisational values factors have either encompassed a number of theoretical approaches mentioned earlier (person and workplace-based theories) or have some advantage over them. This makes organisational values a suitable substitute for those approaches eliminated to explain, partly, the employee theft phenomenon. These

organisational values, may explain employee theft adequately if they can be tested using economic and community pressures as control variables.

Organisational values factors have encompassed the need and marginality approaches by employing fairness orientation as one dimension of them (Greenberg and Barling 1996). Need can be eased and eliminated for employees if the fairness orientation is characterized in the workplace as part of organisational values. Fairness, however, is the best tool for compensating employees for their work according to their qualifications and efforts while performing their jobs. It reduces the negative image of marginality in the job (Aquino et al. 1999). An innovation orientation in the workplace leaves the door open to all positions and ranks in the workplace to express their ideas and suggestions. If the employee feels that he or she is able to express his or her ideas about the job, the feeling of marginality will be reduced and, in the process, reduce the financial needs of employees and reduce the state of marginality feeling; this in turn can minimise employee theft (Bies and Tripp 2005).

Organisational values can also embrace the individual's deviant background and the epidemic of moral laxity approaches by assuming that support orientation in the workplace can help to solve individuals' problems which, in turn, may change their attitudes and their deviant behaviours (Peterson 2002). With consistent ongoing support, managers may well be able to help employees modify their deviant behaviours to an extent to which their behaviour could be deemed normal (Bersoff 1999). The problem of greed and temptation in combination with opportunity environment that may induce employees to steal is addressed in a different way in this thesis model. Culture and outcome orientation as part of organisational values

have been employed to compensate for the greed approach. When an organisation takes measures to evaluate all aspects of its practices and processes, especially those concerned with security, the chances for employees to commit theft may lessen.

Organisational values construction as the main factor related to employee theft was based on organisational climate theory. Organisational climate theory embraces both an honest and dishonest environment, motivation, satisfaction, security measures employed, fairness, deterrence doctrine and frustration. These aspects of organisational climate theory have been incorporated into this thesis model under organisational values dimensions. Both honest and dishonest environments have contributed to the construction of rules orientation as one dimension of organisational values. When employees feel that their managers and co-workers are not honest, this may be because the rules of the organisation have not been explained properly (Hollinger and Clark 1983; Greenberg 1990; Ziegenfuss 1996; Boye and Jones 1997). A dishonest environment causes others, especially new employees, who have just joined the work force to become similarly dishonest (theft). This is also related to the deterrence doctrine, as discussed earlier, that the perception of employees about the security system could inform, at least partially, the workplace climate. Deterrence doctrine includes the perception by employees of the certainty of apprehension, prosecution, punishment, celerity and severity of punishment. If these security measures are not commonly acknowledged in the workplace a dishonest climate may exist (Parilla 1982; Clark 1984; Montmarquette and Nerlove 1985). Also frustration among employees may lead to employee theft. Nevertheless, it can be controlled by employing support orientation in the workplace. All of these climate theory aspects were easily incorporated in the construction of the organisational values dimensions. The use of these aspects in the organisational values dimension is

the empirical way to test their effectiveness on employee theft. If the original aspects were used consistency of measurement would not be obtained as those aspects cannot be measured on a single scale. By transforming these aspects to organisational values dimensions, factor analysis and other related statistical techniques can be performed.

The second aspect of the thesis model is economic pressures, one of the control variables. This factor represents both the need and the marginality approaches. Marginality leads to a feeling of inferiority in the workplace. This feeling may reduce the loyalty to the organisation. Low feelings of loyalty cause employees to engage in counterproductive behaviours and theft (Bies and Tripp 2005) (see Figure 4). When employees have financial pressures they may be tempted to steal to solve their financial problems. Thus, reducing economic pressures and the marginality feeling may help to minimize theft in the workplace. So the economic pressures factor has been investigated in this thesis to test its direct and indirect effect through organisational values dimensions.

Community pressures is the other control variable in this thesis' model. This factor covers a number of theoretical approaches in both person-based and workplace-based theories. It covers deviant backgrounds, epidemics of moral laxity, marginality and cognitive processing approaches. An individual's deviant background and the epidemic of a moral laxity approach are related to outside community pressures which may lead employees to commit theft in the workplace (Peterson 2002). A cognitive processing approach is used to explain the formation of group norms. And group norms play a major role in persuading employees to steal or not to steal

(Martinko, Gundlach and Douglas 2002). They are considered inside community pressures.

The theoretical model of this thesis covers and incorporates all of the theoretical aspects and approaches in employee theft literature. The researcher is encouraged, therefore, to put this model under investigation in this thesis because it is, systematically and constructively, reflecting the literature. The model has the characteristics to be tested empirically. Moreover, path analysis requires the determination of independent variables (organisational values), dependent variables (employee theft) and intervening variables (economic and community pressures). This model is therefore suitable.

Theoretical model

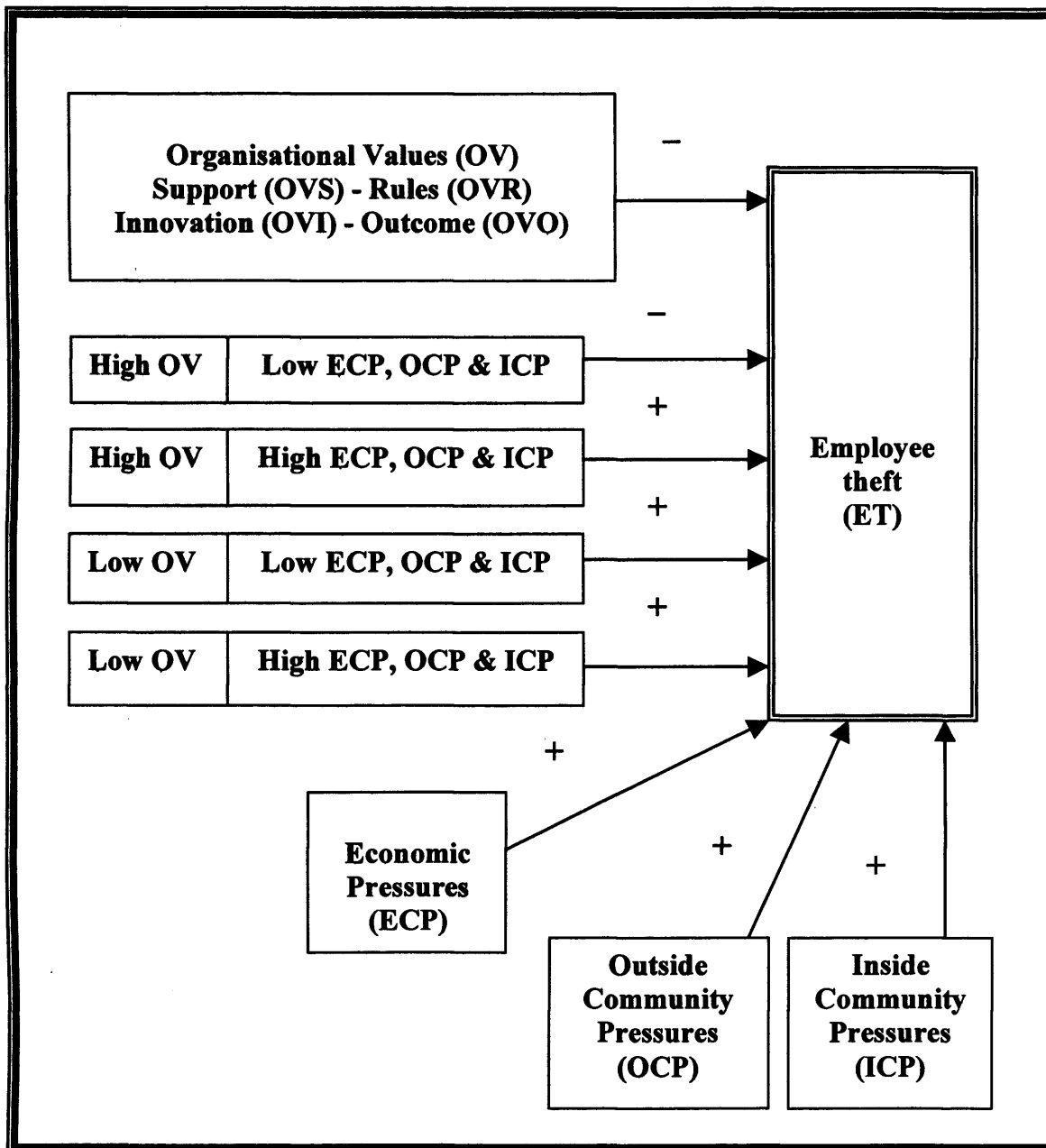
The first factor directly relates employee theft to the perception of organisational values by employees in the workplace (Greenberg and Barling 1996; Boye and Jones 1997). The second explains employee theft as a confluence of economic pressures as a (control) variable mediating between organisational values and employee theft⁶⁴. The third factor relates organisational values to employee theft with community pressures as the control variable (Hollinger and Clark 1983b; Robinson and Bennett 1997; Niehoff and Paul 2000).

Employee theft is the main dependent variable of this study. This variable embraces a number of employee theft practices. The independent variables will be related to employee theft.

Figure 5 refers to two types of effects, the direct and the indirect. It is proposed that the direct effect from organisational values to employee theft be negative. This

means that as the perception of organisational values in the workplace rises the employee theft rate falls. In contrast, a direct effect from control variables to employee theft is proposed as positive. This means that when economic and community pressures rise the employee theft rate also rises. Four conditions are proposed for mediating variables between OV and ET. High OV with low ECP, OCP and ICP, it is proposed, will have the lowest employee theft rate, one which is equal to 0. Low OV with high ECP, OCP and ICP, it is proposed, will have the highest rate of employee theft, one which is equal to 2. High OV with high ECP, OCP and ICP and low OV with low ECP, OCP and ICP, it is proposed will have a moderate employee theft rate equal to 1. The analysis of the data will disentangle the difference effects between the last two conditions.

Figure 5: Illustration of the proposed theoretical model



These theoretical aspects that form the theoretical model of this study are the most neglected elements in the major theories and few studies have given them the investigation they deserve. When it comes to person-based theories, it can be noted that opportunity and greed are the elements on which the most extensive research has been done. Community pressures, group norms and the supervisory effect are predominant in this field of study. Little research has been concerned with how outside community pressures lead to employee theft. Organisational values in broader terms, corporate or organisational culture, have been linked mostly with counterproductive behaviour in organisations where the focus is on production deviance rather than on property deviance (employee theft). Most research on organisational values which has been done by human resources management scientists has been directed toward job performance and only in a few instances has it dealt with property deviance. This thesis, therefore, could serve as a starting point for further studies on organisational values and their relationship with employee theft.

To the best of the researcher's knowledge, this is the first study in Saudi Arabia to address the link between organisational values and employee theft. This proposed relationship, therefore, is a very important contribution to this thesis. Hypotheses and the research questions of this thesis follow.

Hypotheses

There are four main assumptions for this study. One is related to economic pressures and employee theft, the second to community pressures and employee theft, the third to organisational values and employee theft and the fourth to economic and community pressures as controlling variables. These assumptions are broken down into the following hypotheses.

Economic pressures and employee theft

- When economic pressures on the employee are highly apparent, employee theft increases.

Community pressures and employee theft

- When community pressures on the employee are highly apparent, employee theft increases.

Organisational values and employee theft

- When support orientations have high apparent in the organisation, employee theft decreases.
- When rules orientations have high apparent in the organisation, employee theft decreases.
- When innovation orientations have high apparent in the organisation, employee theft decreases.
- When outcome orientations have high apparent in the organisation, employee theft decreases.

Mediating factors

- High organisational value rates with low economic or community pressures yield a low employee theft rate.
- High organisational value rates with high economic or community pressures yield a medium employee theft rate.
- Low organisational values rates with low economic or community pressures yield also a medium employee theft rate.
- Low organisational values rate with high economic or community pressures yield a high employee theft rate.

Research questions

The research questions are related to the interview. The research questions are the following:

- How prevalent is theft in the stores?
- What is the extent of the effect of economic pressures on employee theft?
- What is the extent of the effect of community pressures on employee theft?
- To what extent could support orientation control employee theft?
- To what extent could rules orientation control employee theft?
- To what extent could innovation orientation control employee theft?
- To what extent could outcomes orientation control employee theft?

The research methods and techniques in the following chapter are designed to collect suitable data in order to test the research hypotheses and to answer research questions. The research methods include quantitative questionnaires and qualitative interviews. The methods took the process of step-by-step to achieve the research objectives. The explanation of the statistical techniques and procedures used in the research are also presented.

CHAPTER 2: METHODS

Purpose of the study

The primary purpose of this study is to explore empirically the relationship between staff perceptions about organisational values and employee theft with an intention to show that the perception of strong organisational values in the workplace by employees minimises the occurrence of employee theft. The study focuses on a chain of company supermarkets in Riyadh, Saudi Arabia. The company consists of 15 large supermarkets and eight small ones called 'corners'. The study investigates the effect of two factors as control variables mediating between organisational values and employee theft. They are economic pressures and community pressures. It is centred on one large supermarket company in Riyadh, Saudi Arabia, OCG⁶⁵.

Access to research setting

One problem that could occur was related to access for data collection for this study. Studying employee theft in a commercial organisation is like testing the honesty and trustworthiness of the organisation (Jones, Ash, Soto and Terris 1991; Nicol 2000). This type of study could engender either reluctance to give information, or a complete restriction on doing the research in that setting. The approach to overcoming such a problem is to generalise the questions for interview. A personal approach should be applied in order to ensure trust and access to the research setting (Vrij, Edward and Bull 2001; Mumford, Connelly, Helton, Van Doorn and Osburn 2002). But substitute companies must be considered if the targeted company refuses to cooperate with the researcher. Beside the personal relationship offered, the mutual benefit approach may be the most effective way to gain access. Moreover, the assertion of anonymity (Lee and Allen 2002) and a respect of workplace timescales

and rules can be highly effective in gaining optimum access to the research setting (Kamp and Brooks 1991; Dabil 1996; Purpura 2002).

The aforementioned access techniques were used successfully during the researcher's summer trip in July 2002 to Riyadh, Saudi Arabia. Very good relationships were established with the headquarters management of the OCG, and they kindly agreed to allow its participation in this study to be identified. More effort, however, was needed to engage with and to create a good rapport with managers and supervisors and the rest of the store employees for the purpose of collecting research data. The cooperation from the OCG was very high. Nevertheless, as advised by many researchers (see for example: Dudra-Benner 1995; Greenberg 1997; Gross-Schaefer, Trigilio, Negus and Ro 2000; McGonigle 2000; Niehoff and Paul 2000), arrangements were made to use other companies if insufficient access was permitted by the OCG.

A three-step access strategy to the research setting was required to collect and generate data by interview and questionnaire. The first step involved access (Flick 1998). The aims of this step were to gain access and obtain mutual understanding of the value of the research for the company itself. The second step involved dealing with store managers and supervisors in order to gain access to their stores, to interview them, and to gain their co-operation in completing the survey questionnaire with their employees. Using approved statistically techniques, the sample of employees selected for the questionnaire was chosen by researcher. The third step required individual access to chosen employees in order to communicate with them and convince them to participate in answering the questionnaire. The construction of the sample will be discussed later in this chapter

Once contact and communication between the researcher and the chairman of OCG had begun, a good relationship was established to optimise the research setting. Three amicable meetings were conducted with the chairman, where the researcher presented the study as being of mutual benefit for both parties, the company and the researcher. The company would gain, without any cost, a systematic study of employee theft and the factors leading to it. The work of Ash (1976), Abel (1985), Plotkin (2001) and Lee and Allen (2002) show that employee theft can exert a dangerous effect on a company's business. This view was shared by the OCG chairman and his senior staff. The researcher, therefore, was granted access and afforded support to perform his study in this company with the one proviso that the company's research department would be allowed to evaluate the outcomes of the study and give their comments. These would be directed towards the protection of company-sensitive information especially against any competitors in Saudi Arabia. The agreement indicated that the company would neither interfere in any theoretical or methodological processes nor would it ask to alter any scientific tool or idea. Furthermore, the researcher and the finance manager met four times together and exchanged a number of e-mails. These meetings aimed to provide more information about the study to the company's top management to consolidate its understanding and support of the study. The meetings also aimed to gain information for the researcher not only about employee theft but about the company's systems, concerns, and ideas about its organisational structure, branches, stores and employees and about its positions and financial elements including inventories and shrinkage. This information served as a necessary background in constructing the methodology of the study.

The chairman and the finance manager were informed about the research instruments that would be used to collect research data. They were told that there would be around 40 interviews with the top management officers and store managers concerning the issue of employee theft. They were also told that an anonymous questionnaire would be distributed to selected employees from the 15 supermarkets and eight corner establishments as well as to a number of store supervisors in Riyadh concerning the same issue.

Ethical issues

The ethical issues of the British Sociological Association were reviewed and followed to protect the rights of research participants (Pole and Lampard 2002). Those involved in either the interviews or the questionnaire must be assured of protection against possible untoward repercussions from their participation in the study⁶⁶. These repercussions could include losing time, losing money, losing position or promotion and revealing damaging personal information. They could possibly lead to psychological accusations of bad behaviour or using personal information to gain financial privileges. One ethical dilemma is changing subjects' normal attitudes or behaviours to deviance (Devine and Heath 1999).

These ethical issues have been controlled and the participants have been fully protected in this thesis by employing certain protective measures (Dabil 1996). For general employees and supervisors to answer the questionnaires, the prayer breaks⁶⁷ were used. Each prayer break is approximately 30 minutes and employees normally use this time to relax, to eat or - for Muslims - to pray. The usage of part of this time for answering the questionnaire is a protection against misuse of both the company's and employees' time. Employees could complete their answers in their next prayer

break if they had not managed to complete their questionnaire the first time. The participants were assured that their participation would neither cause any loss of their salary or part time pay nor affect their promotion to a good position in the company. This assurance was done by completely keeping the responses of the subjects under a strict protection away from the reach of the company's officials or their colleagues. This measure also protected the sensitive personal information of all participants. Seeking opinions on employees' perceptions about theft behaviours rather than asking directly about their own personal behaviour helped to avoid psychological accusation of bad behaviours.

One important ethical issue could have been aroused is the possibility of educating employees what or how to steal from the stores. The ethical dilemma is that the method of gathering data — sending specific, detailed vignettes to currently employed employees — is tantamount to providing them with a manual for deviant behaviour. Respondents unaware of a particular technique might use this knowledge to commit more in absolute theft in the setting studied (Hawkins 1984). This problem was addressed by choosing those techniques which were known by most of the employees. These techniques were only selected after managers and supervisors had been consulted. The questionnaire would not, therefore, provide workers with any information that they did not already possess. To overcome this problem with new employees, the questionnaire was limited to those who had at least six months tenure to avoid any ethical problem issue of giving newly hired staff knowledge about theft techniques. Moreover the questionnaire did not deal with the techniques of theft directly, it rather investigated the various types of theft in a general way.

The ethical issues discussed above were practically addressed to the employees twice: (1) on the cover page of both the interview and questionnaires. The cover page assured the anonymity of information and (2) in the consent forms which were distributed among the participants and were collected with questionnaires (Dane 1990; Dabil 1996). The principle of informed consent refers to providing potential research participants with all of the information necessary to allow them to make a decision concerning their participation. Thus the disclosure of any risk to the physical, mental health, job, promotion or personal information of the participant is considered necessary information (Dane 1990). These consent forms indicated that there would be no harmful repercussions what-so-ever for the participants and their personal information would be protected. Participants also were informed of their right to withdraw from the participation any time that they want and they can ask to have their responses removed before the analysis process. Respondents were asked to sign the consent form and keep a copy for themselves before returning the form with the questionnaire (see Appendix D).

Research design

This research is a survey/correlational design using cross-sectional survey methodology. Cross-sectional survey is research which is done at one point of time.

According to Babbie (1995):

Many research projects are designed to study some phenomenon by taking a cross section of it at one time and analysing that cross section carefully. Exploratory and descriptive studies are often cross-sectional. A single US Census, for instance, is a study aimed at describing the US population at a given time. (p. 95)

It is the opposite of longitudinal design. Longitudinal studies are designed to permit observations over an extended period (Babbie 1995). One example of longitudinal studies is presented by Pole and Lampard (2002):“there is sometimes a temptation to

use data corresponding to different age groups from a cross-sectional study as a way of looking at change” (p.29). Moreover, this research is descriptive. Descriptive studies, according to Best (1970) are concerned with:

Conditions or relationships that exist, practices that prevail, beliefs, points of views; or attitudes that are held, processes that are going on, effects that are being felt; or trends that are developing”. (p.113).

Marsh (1979) insisted that a survey is not synonymous with a particular technique of collecting information: questionnaires are widely used but other techniques such as structured and in-depth interviews, observation, content analysis and so forth are also appropriate. The distinguishing features of a survey are the form of data collection and the method of analysis. Surveys according to De Vaus (1993) are apparent by a structured or systematic set of data which can be called a variable-by-case data matrix. This means that information is collected about the same variables or characteristics from at least two (normally far more) cases and ends up with a data matrix. In other words, for each case its attribute can be obtained from each variable. Put together the result is a structured or ‘rectangular’ set of data. However, the technique by which data are generated need not be highly structured so long as each case’s attribute is obtained from each variable. Because questionnaires are the easiest way of ensuring this structured data matrix they are the most common technique used in survey research. But there is no necessary connection. (Babbie 1983; Baily 1987; Dabil 2000).

Additionally, this study is policy-oriented in that it intends to provide policymakers and managers with specific recommendations, based on empirical evidence, in relation to employee theft in the supermarkets (Majchrzak 1984). Nisbet (1997), in an attempt to define policy-oriented research, suggested, “researchers undertake

systematic procedures, such as surveys, to enable policymakers to base their decisions on evidence rather than on prejudice or guesswork” (p.212).

The term survey implies, as suggested by Borg and Gall (1996), “collecting data from participants in a sample about their characteristics, experiences, and opinions in order to generalize the findings to a population that the sample is intended to represent” (p.289). Moser and Kalton (1971), on the other hand, indicated that the purpose of conducting surveys is to describe a social phenomenon and/or to explain relationships between a number of variables. (Warwick and Charless 1975).

This study combines both purposes. It describes the perceptions of stores employees toward their organisation and, at the same time, attempts to develop a model linking organisational values, economic pressures and community pressures with employee theft.

Instrumentation

This study uses the triangulation methodological technique. Triangulation is the application and combination of several research methodologies in the study of the same phenomenon. It can be employed in both quantitative (validation) and qualitative (inquiry) studies. It is a method-appropriate strategy of founding the credibility of qualitative analysis. It becomes an alternative to " traditional criteria like reliability and validity". It is the preferred line in the social sciences. By combining multiple observers, theories, methods, and empirical materials, sociologists can hope to overcome the weakness or intrinsic biases and the problems that come from single method, single-observer and single-theory studies. Often the purpose of triangulation in specific contexts is to obtain confirmation of findings

through convergence of different perspectives. The point at which the perspectives converge is seen to represent reality.⁶⁸

There are four basic type of triangulation: (1) data triangulation, involving time, space, and persons; (2) investigator triangulation, which consists of the use of multiple, rather than single observers; (3) theory triangulation, which consists of using more than one theoretical scheme in the interpretation of the phenomenon; and (4) methodological triangulation, which involves using more than one method and may consist of within-method or between-method strategies. Multiple triangulations can be taken when the researcher combines in one investigation multiple observations, theoretical perspectives, sources of data, and methodologies.⁶⁹

Among the purposes for mixed-method evaluation design, Greene, Caracelli and Graham (1989) highlight five major instances; they are: (1) testing the consistency of findings obtained through different instruments. In the present study, triangulation will increase chances to control, or at least assess, some of the threats or multiple causes influencing our results; (2) complementarity clarifies and illustrates results from one method with the use of another method. In the present study, the interviews will add information about the reasons and justification of theft among employees based on the points of view of executive staff and store managers; (3) development results from one method shape subsequent methods or steps in the research process; (4) initiation stimulates new research questions or challenges results obtained through one method; (5) expansion provides richness and detail to the study exploring specific features of each method.⁷⁰

Methodological triangulation is the technique used in the present study. It involves using more than one instrument to study the association between the mentioned

factors identified and employee theft (Begley 1996). These instruments are the qualitative interviews for executive staff and store managers, the questionnaire for supervisors and the same questionnaire for general employees. Qualitative interviews are distinguished from survey interviews in being less structured in their approach and in allowing individuals to expand on their responses (Maanen, Dabbs and Faulkner 1982; Jones 1991). The logic of triangulation is that the findings from one type of study can be checked against the findings derived from another (Punch 1998). In this study the results of the questionnaire as a quantitative investigation can be checked against the interview as a qualitative technique. This will give confidence about the result. The triangulation design serves as a check and an assurance of results and offers confirmation of the research findings and outcomes (Jick 1983; Knafl and Breitmayer 1989)

The triangulation design of this study consists of the questionnaire to be completed by general employees in the OCG, the same questionnaire to be completed by the supervisors of the stores at OCG and the interviews for executive staff and store managers. Punch (1998) supported the use of interviews along with questionnaires. He considered grounded theory to support the use of the interview to generate data. He defined this theory as both an overall approach to research and a set of procedures for developing a theory through the analysis of data.

The following points were basic reasons for using qualitative interviews:

- Qualitative research may help to provide background information on context, and subjects act as a source of hypotheses and aid scale construction (Punch 1998);

- Quantitative research and qualitative research are combined in order to provide a general picture (Hollway and Jefferson. 2000);
- Quantitative research is especially efficient at getting to the 'structural' features of social life, while qualitative studies are usually stronger in terms of process aspects'. These strengths can be brought together in a single study (Cassell and Symon. 1994; Punch 1998);
- Quantitative research is usually driven by the researcher's concerns, whereas qualitative research takes the subject's perspective as the point of departure. In a single study these emphases may be combined (Warwick and Osherson. 1973; Punch 1998);
- A qualitative study can be used to explain the factors underlying the broad relationships that are established, whereas quantitative research readily allows the researcher to establish relationships among variables. But it is often weak when it comes to exploring the reasons for those relationships (Punch 1998; May 2002); and
- Many researchers have used the triangulation technique and used it effectively in investigating organisational studies.⁷¹

Along with the questionnaire for both supervisors and general employees, the interviews of executive staff and store managers helped as triangulation research techniques to assess the effect of the factors (economic pressures, community pressures and organisational values) on employee theft (Baily 1987).

Pilot study

Pilot study is administering the questionnaires to a similar but smaller sample to that to be used in the actual study. It is an assessment of the reliability and validity of

indicators before carrying out the actual study (De Vaus 1993). The pilot study was also defined by Balnaves and Caputi (2001) as:

A preliminary test of a questionnaire or interview schedule which helps to identify problems and benefits associated with the design. It also helps the researcher to get a better understanding of the frame of reference relevant to the questionnaire and question wording. (p. 87)

One of the advantages of conducting a pilot study is that it can give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated (De Vaus 1993). It permits preliminary testing of the hypotheses that leads to testing more precise hypotheses in the main study. It may lead to changing some hypotheses, dropping some, or developing new hypotheses (Bouma and Atkinson 1995). The pilot study often provides the researcher with ideas, approaches, and clues which may not have been foreseen before conducting the actual questionnaire used. Such ideas and clues increase the chances of obtaining clearer findings in the main study (Devine and Heath 1999). Pre-testing is another word for a pilot study. it permits a thorough check of the planned statistical and analytical procedures, giving a researcher a chance to evaluate their usefulness for the data. A researcher may then be able to make desirable alterations in the data collecting methods, and therefore, analyze data in the main study more efficiently (Babbie 1990). According to Babbie (1995), pre-testing can greatly reduce the number of unanticipated problems because of the opportunity to redesign parts the study to overcome difficulties that the pilot study reveals and may save a lot of time and money. The pilot study almost always provides enough data for the researcher to decide whether to go ahead with the main study. It enables a researcher to try out a

number of alternative measures and then select those that produce the clearest results for the main study.

It should be recognised pilot studies may also have a number of limitations. These include the possibility of making inaccurate predictions or assumptions on the basis of pilot data; problems arising from contamination; and problems related to funding (Devine and Heath 1999). Also completing a pilot study successfully is not a guarantee of the success of the full-scale survey. Although pilot study findings may offer some indication of the likely size of the response rate in the main survey, they cannot guarantee this because they do not have a statistical foundation and are nearly always based on small numbers (Bateson 1984). Furthermore, other problems or headaches may not become obvious until the larger scale study is conducted. The obvious concern is that if there were problems with the research tool and modifications had to be made in the light of the findings from the pilot study, data could be flawed or inaccurate (Palys 1997).

Despite limitations and disadvantages of conducting a pilot study of the questionnaire, it was done because the advantages exceed these limitations and because they have been considered prior to it being conducted. The questionnaire was translated into Arabic and piloted prior to distribution to the respondents to verify the appropriateness of the format and the dimensions of the organisational values being measured. The respondents of the pilot study were chosen during the interviews of headquarters staff to allow time to edit the questionnaire. Fifty employees were chosen for the pilot study but only 32% ($n = 16$) employees responded to the pilot questionnaire. The pilot study was applied in different company than the OCG for a number of reasons:

- 1) To give some overview about employee theft in another research setting and to gain comparative knowledge about this phenomenon;
- 2) To restrict the burden on the OCG in completing the pilot and the main study questionnaires and interviews;
- 3) To avoid confusing OCG and their administration by having them participate in both the pilot and the main study;
- 4) To use the pilot study in a different company has the benefit of allowing the researcher to trial the study before the OCG employees were involved; and
- 5) To use the pilot study in a different company dispenses with the need to separate participants in the pilot from those in the main study.

The pilot study involved a test of the validity of the questions. The responses of the pilot study were analysed initially for reliability of measurement especially for the organisational values scale and the categorisation of organisational values dimensions and the reliability of economic pressures and community pressures. Descriptive statistics for demographic variables and others were presented in the results of the pilot study. Full details of the pilot study results are given at the end of this chapter.

Questionnaire

Both self-report questions and self-perception questions have adherents and detractors in almost equal numbers among the researchers. Beck and Willis (1993) and Greenberg and Barling (1996) have criticised self-report questions since the approach might generate fascinating data, but lead to a zero response owing to unreported acts of theft because of the socially undesirable nature of this behaviour. These researchers prefer to use employees' self-perceptions that they are not thieves

and ask instead about their colleagues in the workplace. More criticisms of self-report techniques and support instead for self-perception techniques are found in a number of other works.⁷²

But the self-report survey questionnaire has been shown to be a valid and reliable technique to gather data on less-threatening forms of deviant behaviour, particularly among conventionally-socialised individuals. This is supported by Hollinger et al. (1992). Another support for the self-report technique comes in the work of Shotter (1981) who stated that self-explanation about self-intentional actions and reasons can give valuable and reliable information and may in some circumstances be accurately reported by subjects. More support for this approach is found in many other works.⁷³

From a close look at the materials provided and due to the compelling number of supporters for these techniques, it can be concluded that the appropriate method to measure employee theft is a combination of the self-report form and the self-perception form in a pilot study. This should show if enough respondents answer the self-report questions or not.

The occurrence of employee theft in the workplace was measured in two phases. The first phase was a set of questions investigating employees' perceptions about the occurrence of theft by other employees in their workplace. The second phase was concerned with an investigation of the employee's own involvement in theft (self-report). The two sets of questions were almost identically formed, which means that the same style of questions were repeated in the second phase but with some minor alterations to adapt them for self-reporting (Converse and Presser 1986).

Questions and answers index

The original questionnaire and interview schedule were devised in English before being translated into Arabic and subsequently validated by an academic institution, the Translation Section of the Social Sciences Department at King Fahad Security College. (See: Appendix E). The study questionnaire included these outlined sections (see: Appendix F and G).

- A) Demographic variables. These included the respondent's age, marital status, nationality, education level, job, position, and length of employment work in the supermarket business, in the company and in the present store. These were adopted from the work of Hollinger and Clark 1983b; Greenberg and Barling 1996; Greenberg 1997.
- B) Financial pressure variables included household income, job salary, the adequacy of the salary in regard to need, position and workload. These questions were adopted from the work of Hollinger and Clark (1983b); Greenberg and Barling (1996); Ziegenfuss (1996); Boye and Jones (1997); Greenberg (1997); Robinson and Bennett (1997); Nelson and Perrone (2000). Respondents were asked to give their answers using a 5-point Likert scale (1=strongly agree; 2=agree; 3=neutral; 4=disagree; 5=strongly disagree) (Aquino et al. 1999).
- C) Community pressure variables included the assessment of involvement in four different behaviours. These were: quarrelling, acts leading to imprisonment, criminal behaviour, and behaviours related to community deviance such as the frequency of crimes in the neighbourhood. These outside acts are related to external community pressures. This is supported by a number of researchers, namely: (Hollinger and Clark 1983b; Greenberg and Scott 1996; Greenberg

1997; Robinson and Bennett 1997; Niehoff and Paul 2000). Three questions were put to the respondents about internal community pressures, namely: fighting with others inside the workplace, cooperation with colleagues to harm the company and cooperating with colleagues to harm other colleagues. These internal acts are related to internal community pressures as has been supported by a number of researchers namely: Jones and Terris (1991); Ziegenfuss (1996); Boye and Jones (1997); Greenberg (1997); Greenberg (1997); Robinson and Bennett (1997). The respondents were asked to answer the question of how often they committed this act according to these responses: 1= never; 2=seldom; 3=sometimes; 4=often; 5=always (Fowler 1995).

- D) Regarding organisational values, a number of them were evaluated and related to employee theft and categorised initially into four dimensions based on suggestions from these studies: Denison (1996); Van Muijen et al. (1999) and Vandenberghe and Peiro (1999) and Delobbe, Haccoun and Vandenberghe (2002). The respondents were asked to evaluate their current organisation. The rating key (Fowler 1995; Vandenberghe and Peiro 1999; Tepeci 2001) is as follows: 1=not at all characteristic; 2=uncharacteristic; 3=neutral; 4=characteristic; 5=very characteristic. This key answer was changed after the pilot study to a 5-point Likert scale (1=strongly agree; 2=agree; 3=neutral; 4=disagree; 5=strongly disagree) in order to facilitate clearer understanding for respondents.

The following are the suggested dimensions which were the basis for selecting items for the pilot study and the questionnaire after piloting:

- The support orientation dimension includes 30 items (Hollinger and Clark 1983a; Boye and Jones 1997; Van Muijen et al. 1999; Tepeci 2001). They are: caring about employees, support for employees, empathy for employees, providing safe working conditions, fairness in handling complaints by employees, honesty, ethics, employee empowerment, accurate job-person matching, valuing employees, trusting the employees, mutual trust, helping with non-work problems, flexibility, respect, mutual understanding, support advancement, career-enriching opportunities, job security, interpersonal harmony, friendly environment, interpersonal cooperation, cooperation with employees, employees liking their manager, getting people to work together, friendly supervisors, making work interesting, appreciation from superiors, harmonious team atmosphere and team orientation .
- The rules orientation dimension includes 31 items. They are: fairness with employees, compliance with rules, adherence by managers themselves to company rules, compliance with standards, commitment to good procedures, job clarity, supervisor competence, written instructions, clearly defined responsibilities, enough authority to carry out duties, sufficient latitude, reasonable amount of work expectation, enough time to complete task, equitable pay, equitable benefits, pay reflects actual contributions, good promotion opportunities, promotions impartiality, precision in doing the task, fair compensation, good promotion within the store and the company, cooperation between employers and employees, advancement opportunities, accuracy in doing the work, high pay for good performance, integrity (keeping promises), personal/career development, career development, team work and training is important.⁷⁴

- The innovation orientation dimension includes 15 items.⁷⁵ They are: risk taking, analytical orientation, conscientiousness, encouraging suggestions, openness to criticism, keeping abreast of new technology, sharing information, acceptance of constructive criticism, opportunities to develop special abilities, encouraging suggestions, innovations, a willingness to experiment, creativity, solving work problems and support advancement.
- The outcome orientation dimension includes 19 items⁷⁶. They are: emphasis on reward, decisiveness, willingness to accept failure, rewards for high performance, appraisal directly related to the attainment of goals, clearly specified targets, clear performance evaluation, clear criteria for measuring job performance, rewards dependent on performance, clear objectives, responsibility for performance, explaining decisions, seeing the results of the work, focus on getting the job done, good financial rewards, hard work, achievement orientation, results orientation and creativity rewards.

E) Employee theft variables include two identical sections with some modification in the wording. The first section deals with the perceptions of employees about the occurrence of theft in the workplace by other employees. The second deals with the self-reporting of employee theft. The answers to the questions take the format of: 1=never, 2=rarely, 3=sometimes, 4=often and 5=always (Fowler 1995; Aquino et al. 1999).

There are 38 items listed here as types of employee theft⁷⁷. They are: taking unauthorized money from a supplier, taking unauthorized money from a supplier, taking money from the employer without permission, borrowing money from employer without authorisation, taking money from employer without authorisation,

thinking about taking money without actually doing it, being paid for more hours than were worked, being reimbursed for more money than was spent on business expenses, purposely underringing a customer's purchase, shortcharging customers (taking less money from customer for their purchase), overcharging customers, using the discount privileges in an unauthorised manner, altering pricing in order to purchase items for oneself, altering pricing for a friend or a relative, eating food items at work without paying for them, drinking from company stocks without payment or without permission, taking store merchandise, taking cash by using a computer, taking property by misusing a computer, damaging merchandise so that it can be bought on discount, using discount privileges to buy merchandise for non-employees, actively helping another person take company property or merchandise, giving away company property without the authorisation to do so, taking unauthorized gifts from a supplier, taking unauthorized gifts from a supplier, lying about the number of hours that have been worked, failing to report the theft of the employer's property, falsifying a company document for personal gain, ignoring an instance of pilferage, ignoring an instance of shoplifting, rumination over theft activities, accusing others of theft, taking office or clerical supplies, taking company equipment or tools, using company copying machines for personal use, making personal telephone calls at company expense, and making unauthorised use of organisational property.

The research setting

As previously mentioned, the study was conducted in supermarkets in Riyadh, Saudi Arabia. It involved interviewing 23 officials, as well as distributing a questionnaire for a sample of 429 employees. OCG was chosen for the fieldwork. The OCG is an offshoot of the Salih Al-Othaim Trading Establishment, founded in 1956⁷⁸ by the late

Sheikh Salih Al-Othaim. The establishment opened its first shop in the Al-Gosman Market in the Al-Batha area which was already a business and trading centre. It traded solely in foodstuffs. In 1981⁷⁹, Mr. Abdallah Salih Al-Othaim and his brothers followed in their father's footsteps and expanded their trading scope by opening wholesale shops in the central markets. In 1990⁸⁰, the company decided to transform all its shops into "cash & carry" markets. This was done in order to serve more people and to be closer to clients, as well as to respond to the vast expansion of Riyadh city.

By these and other measures, Al-Othaim malls have become the leaders of their kind in the field of "cash & carry" and wholesale businesses. In 1992⁸¹, a grand warehouse was opened with a high standard of stocking to support the rapid-growth of the company and its multiple branches. The warehouse's modern systems were design to cater for both dry and cold storage. In addition, the transport fleet was almost doubled in order to meet tight delivery schedules and to facilitate dealing with suppliers and clients. The Al-Othaim name is a leader in the field of central and "cash & carry" markets. With its competitive prices, excellent service, and successful business strategies, the company remains a market leader.

This effort has not only led to new ideas in marketing but also in establishing creativity concepts in dealing with suppliers and clients. The company has introduced new techniques in the retail and wholesale business throughout its branches. Al-Othaim creative concept experiments make shopping easy and enjoyable through accurate classification and through suitable methods of payment at the point of sale. Moreover, invoices and receipts were issued for the first time in the Middle East in Arabic. Prior to this, they were issued in English, which was very

difficult for customers to understand. Success did not just stop at its capability to develop and grow once it became the leader in the field of 'cash & carry' and central markets. On top of all its other successes, as part of its marketing strategy,⁸² the company has initiated new activities in entertainment and real estate businesses.

OCG has a number of establishments all related to the food trade. They are the Al-Othaim Training Centre, Al-Othaim Entertainment, the Al-Othaim Mall, Al Othaim Supermarkets and Al-Othaim Corners. Al-Othaim Supermarkets (OSM) and Al-Othaim Corners (OCR) in Riyadh are the establishments which feature in the study. This overview of the company's profile will help to provide a better understanding of this company. This information will be the basis for conducting research and choosing the sample and respondents for the research techniques.

There are 46 locations and branches⁸³, most of them in Riyadh. They include: the headquarters of the company, the general warehouse, the veg-meat warehouse, the bakery, wholesale stores, supermarkets (OSM), and corners (OCR). There were 2,184 employees in the Al-Othaim Commercial Group in 2002. Some of the supermarkets and corners were not open when compiling these statistics. There were 1377 employees in all the OSMs and OCRs in Riyadh. There were 268 Saudi employees (19.46 %), and 1,109 non-Saudis (80.54 %).

All of the 15 OSM stores and all of the active eight OCR stores in Riyadh were chosen for the present study. To reiterate, the interviews were conducted with eight executive officers at the headquarters and 15 store managers. The questionnaires were administered to a sample of employees in each store (OSM and OCR).

The number of employees chosen in each store varied according to their percentage of the total employees. Nationality (Saudi and non-Saudi) was used in order to choose representatives of each of these two groups across stores.

Determination of sample size

It was not possible to include all of the company employees in the main empirical work. A sample of employees was obtained instead. This is to save the company business time. The target company allowed a limited, but representative, number of employees to participate in this survey.

There are many ways to determine sample sizes for research. These include using special formula, using a ready-made table using a computer programme and using a web-based sample calculator. These different ways are illustrated hereafter in order to decide an appropriate sample size. The best sample size is the greatest number that can be obtained because it will indicate more accurately the characteristics of the population. The ways of determining sample follow.

- 1) The sample size was determined using special formula. This formula is illustrated below⁸⁴. See (Blalock 1979).

$$\bar{X} \pm 1.96 \frac{\sigma}{\sqrt{N}}$$

Solving for N by substituting the formula as follow:

$$.04 = 1.96 \frac{.24}{\sqrt{N}}$$

Or

$$\sqrt{N} = \frac{1.96 (.24)}{.04} = 11.76$$

And N = 138

Notice that to solve for N, all quantities except (\sqrt{N}) were placed on one side of the equation and then simplified. To eliminate the radical, both sides of the equation were squared. For the estimation of population variance σ , the pilot study result about the perception of employee theft is utilized. It was estimated as .24.

- 2) A ready-made table was used to determine the appropriate sample size (Al-Qahtani, Al-Aamri, Al-Metaib and Al-Omar 2000). It was based on three pieces of information: (1) the population number, (2) the error level (5%, 3%, 1%) and (3) the confidence level. Table 7 is one framework for this kind of calculation.

Table 7: Framework of samples determination

Error		1%		3%		5%	
Confidence level		95%	99%	95%	99%	95%	99%
POPULATION	1000	More than 500	More than 500	More than 500	More than 500	278	400
	2000	More than 1000	More than 1000	696	959	322	498
	3000	More than 1500	More than 1500	787	1142	341	544
	5000	More than 2500	More than 2500	879	1347	357	586
	10000	4899	More than 5000	964	1556	370	622
	50000	8057	12456	1045	1778	381	655
	100000	8763	14229	1056	1810	383	659
	500000 Or more	9433	16056	1065	1836	384	663

Source: Al-Qahtani, Al-Amri, Al-Metaib and Al-Omar 2000)

If the sample size of this research had been based on this framework, the sample size would have been between 278 and 322, as the error desired is 5% under the confidence level of 95% which is around 300 ($278+322/2=300$). This way of determining sample size yields a larger sample than the one obtained by using (the formula). The sample size obtained previously was 138.

- 3) Utilising a computer programme, such as PS⁸⁵, which is an interactive program for performing power and sample size calculations, is one way of determining the sample size. The program runs on the Windows operating systems⁸⁶.
- 4) Using a web-based sample calculator, such as the Pearson web-based calculator⁸⁷ and/or a survey-system calculator⁸⁸ is another method to determine sample size. The latter was used to determine the sample size for this thesis research. The calculation helped to answer two questions:

(A) How many completed surveys are needed in order to obtain a reasonably accurate view of the entire population?

(B) What is the probability that the information collected is representative?

These steps were followed to determine how many completed surveys would be necessary:

1. Determination of the population of interest (All employees working in OCG stores);
2. Estimation of how many individuals there are in this population (1377 employees);
3. Evaluation of the reliability (determining the level of confidence) that the results are representative. A common rule of thumb is 95% confidence so that the results are accurate to within $\pm 4\%$; and
4. Entering the above two numbers in the calculator.

The result indicates how many completed surveys are needed for this population. The "uncorrected" confidence interval is for data that is not a continuous, normal distribution. Please note that these suggested sample sizes simply indicate whether the number of respondents can be viewed as representative of the population. This is not the same as statistical power that indicates if you have a large enough sample to determine differences between groups or to identify relationships through correlations. According to the Pearson calculator, in Figure 6, 300 employees are a sufficient sample size for this research.

Figure 6: Prototype of web-based Pearson calculator

Sample size required if desired confidence interval and population size are known (p=.5)		
Error Desired:	5 %	
Population Size:	1377	
	Sample Needed	Uncorrected
@90% Confidence:	227	272
@95% Confidence:	300	384
@99% Confidence:	448	664

According to the Survey-system calculator⁸⁹, the appropriate number of employees in the sample is 418 employees. This calculation is considered reliable because it gives a greater number than the Pearson calculator and other calculators. To obtain this number, a 70% response rate was anticipated because of the positive cooperation indications from management. The 418 determined sample size was then divided by 0.7 and the result showed 597 questionnaires needed to be distributed. This number constitutes a safe sample.

The sampling frame for all employees in the supermarkets and the corners in Riyadh was obtained. It consists of a list of employees which differentiates between Saudis and non- Saudis in each store. This list was obtained on the first of March 2003. All employees were categorised in each store according to their positions⁹⁰. The positions included supervisors, salesmen, cashiers, customer service officers, merchandisers, butchers, produce men, deli men, head cashiers, receivers, ordinary workers and others.

The sampling frame and systematic sampling

The purpose of this categorisation was to make the sampling frame suitable for systematic sampling (Babbie 1983). The need for a systematic selection is to ensure a representative and proportionate number in each category. The overall selection of the number of employees in the sample was in accordance with the proportionate percentage of their number shown as a percentage of the total of all employees employed in OSMs and OCRs. Out of the safe sample⁹¹, 597, 19.46%, or 116 employees were Saudis, and 80.54% or 481 employees were non-Saudis. The total number of safe sample (597) was then multiplied by the percentages of Saudis and non-Saudis in each store. For example, for Saudis in Seteen, store number two, the 0.94% was multiplied by 597 to give 6. For non-Saudis in the same store the 3.99 % signifies 24 employees. The same procedures were applied for the remaining stores.

Based on the statistics about the number of employees of OCG, the proportionate samples for Saudis and non-Saudis to the total number of employees (1377) in each store were determined. The targeted sample distribution to the stores is presented in Table 8 below:

Table 8: Targeted sample distributions among stores

Serial number	Store code	Saudis		Non-Saudis		Total	
		%	N	%	N	%	N
1	2	0.94	6	3.99	24	4.93	30
2	3	1.74	10	5.37	32	7.11	42
3	6	0.29	2	2.9	17	3.19	19
4	7	1.02	6	6.25	37	7.27	43
5	8	2.18	13	4.94	29	7.12	42
6	9	1.45	9	5.52	33	6.97	42
7	12	2.03	12	6.9	41	8.93	53
8	15	0.94	6	4.65	28	5.59	34
9	16	1.23	7	5.81	35	7.04	42
10	20	0.87	5	5.01	30	5.88	35
11	26	0.8	5	3.7	22	4.5	27
12	27	0.22	2	3.49	21	3.71	23
13	28	1.23	7	6.83	41	8.06	48
14	29	1.45	9	3.99	24	5.44	32
15	31	1.23	7	5.66	34	6.89	41
16	101	0.29	2	0.94	6	1.23	7
17	102	0.36	2	0.73	4	1.09	7
18	104	0.22	1	0.58	3	0.8	5
19	105	0.15	1	0.8	5	0.95	5
20	108	0.22	1	0.44	3	0.66	4
21	109	0.22	1	0.73	4	0.95	5
22	110	0.22	1	0.51	3	0.73	4
23	113	0.15	1	0.8	5	0.95	6
Total		19.46	116	80.54	481	100	597

Two lists of employees were constructed in each store, one for Saudis and the other for non-Saudis. Each list was categorised according to the positions of employees. Saudis dominated the category of cashiers and, in some instances, of supervisors. It was not possible to compare stores due to the sensitivities that might arise from such comparison. This was to protect the anonymity of the stores and the personal information of the store staff. The systematic sampling was governed by the determinants below:

- Determining the interval length by dividing the total number of employees in each store by the targeted number of the sample for each group (Saudi and non-Saudi). For example, the 13 Saudi employees in Supermarket 2 is divided by 6 (the number of Saudi employees needed in the sample in store 2). The result is 2.16, rounded down to 2. This means each second position in the list could be chosen.
- A random start was performed in each group to avoid bias in choosing the first target. For example, in store 2 the position 1 was chosen randomly. Then followed position 3, then 5, then 7 until 13. The total chosen sample was 7 instead of 6 to have more people in the sample.
- The chosen names were listed and prepared for questionnaire distribution. Each store was then visited according to a predetermined schedule in order to distribute the questionnaires. Then questionnaires in both Arabic and English were distributed for the chosen employees in each store.

Questionnaire administration

Each store was visited to explain in depth how to answer the questionnaire. The questionnaires were then distributed to the employees. The collection of completed questionnaires took two forms: one by waiting and collecting the completed questionnaires at the end of the session; and the other by going out of the store and returning later either on the same day or on another day. The same session technique, however, was the best method for collecting data and produced a higher response. The following points were catered for.

- The questionnaire was translated into Arabic so that those who cannot read or write English could participate.

- The stores were visited more than once to contact employees who were working other shifts, or who had either been absent on sick leave or had not been on site during the first visit.
- For busy respondents, a second visit to the store was scheduled to collect the questionnaires.

A total of 429 employees responded to the questionnaire. Of these 143 (33.3%) were Saudis, 273 (63.6%) non-Saudis and 13 (3%) of unknown nationalities. The unknown nationalities may have arisen because employees forget to write the answers. And it was very difficult for the researcher to verify these answers as the questionnaires were without identifiable names or codes.

Despite the fact that the non-Saudi response percentage was less than the intended safe sample, the response was more than the intended original sample size (418). The response rate was 72% or 429 out of a considered safe sample of 597. However every store was represented with sufficient numbers of Saudis and non-Saudis and of supervisors and general employees to enable analysis to be conducted.

The total number of employees in the sample was 429 and thus they were included for data analysis. 33.33% (1/3) of the sample were Saudi employees and 63.63% were non-Saudis. Supervisors formed 10% or 45 of all employees. The rest of the sample was defined as general employees. There were 45 supervisors in the 23 stores. This is a reasonable number to represent the supervisors in all stores because the maximum number of supervisors in each store is not more than five even in the large stores. The combination of questionnaires for employees and supervisors plus the face-to-face interviews served as a basic triangulation technique for this study.

The questionnaire allowed a comparison between the responses of the supervisors and of the general employees.

Preparation of data for statistical analysis

The collected raw data required systematic processing to permit analysis and to draw the conclusions needed to answer the research questions and test the hypotheses. To prepare data for analysis it was necessary to follow the processes below:

1. Checking questionnaires for error or misunderstanding of instructions.
2. Data entry;
3. Running frequencies and descriptive statistics for data;
4. Data cleaning;
5. Coding and recoding of data;
6. Running factor analysis and Reliability Coefficients Alpha (Cronbach) for major factors; and
7. Transformation of variables.

Checking questionnaires for error

The completed questionnaires were thoroughly checked for error booklet by booklet. Five questionnaires were eliminated because the people concerned fail to complete more than 50 % of the questions and, in particular, the main factors, the dependent and independent variables. Three further questionnaires were also eliminated because many of the answers were not clear or, seemingly, the respondents failed to understand the question. These eight questionnaires were not counted, thus giving an overall response number of 429 subjects from the original 437.

Data entry

After all questionnaires had been checked, those responses that were inappropriate were eliminated. The 429 responses were entered in the SPSS programme data entry interface. The data was entered in the SPSS by the researcher.

Descriptive statistics

In order to make sure that the data entry was correct the frequencies of all variables were produced. The descriptive statistics that included the mean, median, mode, sum, range, standard deviation, variance and minimum and maximum were also obtained. Variable D6 for example, is store management ethics, which is one item of support orientation. The mean is 3.8, where 1, the minimum, is “strongly disagree” and 5 the maximum, is “strongly agree”. This indicates that the entered values are within the normal responses.

Data cleaning

The frequencies and descriptive statistics in the previous stage allowed the cleaning of data to take place. The cleaning involved comparing the values entered and the real responses in the questionnaires according to their serial numbers. As a result around 30 mistakes were found and corrected.

Coding and recoding of data

This stage of preparing the data was concerned with the coding and recoding of data.

Coding means giving names and labels to:

- Nationality which is the variable name for A3.
- Value 1 is the value for Saudi Arabia in the variable A3 and 2 is the value for Sudan.

Recoding was giving new values to old ones. For example, a new variable was created from variable A3 (nationality) and named nat2 with a variable label (grouped nationality). The recoding kept value 1 as the value for Saudis, and value 2 for other nationalities (2,3,4 -----15).

Statistical techniques

Several statistical techniques were used in this study. Each statistical technique was used with purpose either to test the hypothesis or to answer the research questions. These tests were appeared according to the sequencing shown in Chapter three. (See: Table 24).

Factor analysis and Alpha Cronbach for the main variables is the first step in this section. They will be followed by the inferential statistics. Inferential statistics include the Friedman test, correlation, ANOVA, ANCOVA and path analysis. These are to test the research hypotheses. Finally, descriptive statistics and some of inferential statistics will be used for demographic variables to answer the research questions.

Factor analysis and reliability tests

Factor analysis is a statistical technique widely used in psychology and social sciences (Kline 1997). Principal component analysis is synonymous with factor analysis as originally conceived by Pearson (1901) then introduced by Thurstone (1931) and developed by Hotelling (1933). The main applications of factor analytic techniques are⁹²: (1) to reduce the number of variables and (2) to detect structure in the relationships between variables, in order to classify them. Therefore, factor analysis is applied as a data reduction or structure detection method. The purpose of introducing the factor analysis here is to check for underlying variables, then to

classify items into a small but reasonable number to enable analysis and to draw conclusions (Kim 1978; Leother and McTavish 1980; Kim and Mueller 1994).

Many statistical methods are used to study the relation between independent and dependent variables. Factor analysis is different; it is used to study the patterns of relationship among many dependent variables, with the goal of discovering something about the nature of the independent variables that affect them, even though those independent variables are not measured directly. Thus answers obtained by factor analysis are necessarily more hypothetical and tentative than those obtained when the independent variables are observed directly. The inferred independent variables are called factors (Gorsuch 1974).

The data were checked for normality using the Kolmogorov-Smirnov test. The result indicates that it was normal for only the general organisational values variable (OV), and not normal for the other organisational values, economic pressures and community pressures variables. The Kolmogorov-Smirnov value for OV is 0.035 with a significance level of 0.20. The significance level must be larger than 0.05 for the variable to be normally distributed. The distributions were J-shaped for other variables. As a result of this test the factor analysis and the parametric statistics were performed for OV. For other variables, first factor analysis was performed then non-parametric statistical tests were conducted because the data were not normally distributed.

In factor analysis (FA) or principle component analysis (PCA) three criteria need to be met to produce a satisfactory result. The first criterion is in respect of the sample size. Pallant (2001) indicated that the larger the better and added that at least 300 cases for factor analysis are required. She deduced this from the work of Tabachnick

and Fiedell (1996). This requirement is met in this research data (429 cases). The second criteria is the strength of the inter-correlations among the items. If few correlations above the level of .3 are found, then according to Tabachnick and Fiedell (1996) and Pallant (2001), factor analysis may not be appropriate. In this research most of the inter-correlations obtained are above this level and very few are below. Thus this criterion is also met. The third criterion is sampling variables. There should be at least three variables in each dimension as was suggested by Kline (1997) to enable researchers to mark a factor. According to this third criterion, two variables are not accepted as a sufficient basis to constitute a factor.

The correlation between several variables can be summarised in a scatter plot. A regression line can then be fitted that represents the "best" summary of the linear relationship between the variables. If a variable that would approximate to the regression line in such a plot could be defined, then that variable would capture most of the "essence" of the items in one group. Subjects' single scores on this new factor, represented by the regression line, could then be used in future data analyses to represent that essence of the items. In a sense, these variables have been reduced to one factor. Note that the new factor is actually a linear combination of all variables in the group (Duntelman 1994).

After the classification of items into groups by factor analysis (FA), the reliability coefficient alpha (Cronbach)⁹³ is needed to make sure the items in each group are consistent with each other. A Cronbach alpha estimate, often symbolised by the lower case Greek letter α , should be interpreted just like any other internal consistency estimate. That is, it estimates the proportion of variance in the test scores that can be attributed to true score variance. Put more simply, Cronbach alpha is used

to estimate the proportion of variance that is systematic or consistent in a set of test scores. It can range from 0 (if no variance is consistent) to 1.00 (if all variance is consistent) with all values between 0 and 1.00 also being possible (Leother and McTavish 1980). For example, if the Cronbach alpha for a set of scores turns out to be .90, this can be interpreted as meaning that the test is 90% reliable and, by extension, that 10% is unreliable. For example, for organisational values, six dimensions (groups) were extracted one of which was called fairness. The Cronbach alpha was then used to test the consistency of the items in that group. The fairness dimension had six items with an Alpha of 0.9096. This demonstrates a high consistency. So, the mean of 2.77 is the representative of all the items of this group. Transformation for factor fairness was done, for example, by taking the grand mean of the six items in this group (Pallant 2001). As a result, all items in this group can be averaged out. So the mean is the representative of this group which can be called a factor or a dimension.

Running factor analysis for major factors was an important step in this research. As far as is known, there are no published validation data including factor analysis of organisational values to be related to employee theft, so this thesis is taking that aspect further. The major factors were: economic pressures, community pressures, and organisational values which are independent variables and employee theft which is the main dependent variable.

Economic pressures scales

The economic pressures scales include five items: the salaries for employees are high enough; the benefits for employees from the job are satisfactory; the salaries of the employees compared to the workload in the store are high enough; the salaries compared to the positions are high enough and the total financial resources for employees outside the company are satisfactory.

Factor analysis is not appropriate because the limited number of items (five only) will definitely lead to only one underlying variable. There should be at least three items (variables) in one dimension according to Kline (1997). Thus, the use of the reliability coefficient Alpha (Cronbach) is needed to test the consistency of the items. If the items are consistent then the mean of all items can be obtained. This mean will be used in the later stage as the underlying factor.

In order to calculate the reliability test and represent the economic pressures, responses were recoded according to the following new codes: strongly disagree = 5, disagree = 4, neutral = 3 (stays the same), agree = 2 and strongly agree = 1. Economic pressure is one of the main independent variables related to employee theft. There are 5 items (questions) in the questionnaire which need to be represented by only one figure or checked for an underlying variable or variables to represent them.

The Alpha (Cronbach) for 299 subjects and five items is .8456. This level of consistency suggests that the items are highly consistent with each other. Nunnally (1978) and Van de Ven and Ferry (1980) have indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. The scale statistics indicate that the scale is reliable when the Alpha (Cronbach) is .8456.

This confirmation of reliability allows calculation of the arithmetic mean for the five economic pressures items. This factor is given the connotation of ECP (the economic pressures scale). This result permits the researcher to average out the five items in a single figure to be related at a later stage to employee theft. The mean of the ECP is 2.46 out of five and has been chosen to represent economic pressures. This level can be classified as the medium level of pressure⁹⁴.

Community pressures scales

Community pressures scales have the basic requirement for FA. The sample size and the number of variables in this dimension are the basic requirement to start the process of FA for community pressures. The first step is to obtain the correlation matrix for the items in order to find as many correlations as possible over .3. From Table 9, item C1 is omitted (How often do store workers get involved in quarrels with other people outside their store?), as the correlation absolute values are less than .3 in four correlations out of nine. Other items were kept, as their correlation absolute values are .30 or more (rounding to two decimal points). For item C6 there are only two items where correlations are less than .30 (C1 and C9). Because they are only two out of 9 (and with the omission of C1 it became only one), C6 was kept.

Table 9: Correlation matrix for community pressure items

	C1	C2	C3	C4	C5	C6	C7	C8	C9
C1		.439	.471	.237	.206	.194	.318	.279	.273
C2	.439		.643	.379	.490	.385	.376	.395	.356
C3	.471	.643		.538	.461	.461	.410	.397	.362
C4	.237	.379	.538		.614	.483	.364	.325	.271
C5	.206	.490	.461	.614		.487	.325	.331	.303
C6	.194	.385	.461	.483	.487		.292	.290	.226
C7	.318	.376	.410	.364	.325	.292		.391	.420
C8	.279	.395	.397	.325	.331	.290	.391		.657
C9	.273	.356	.362	.271	.303	.226	.420	.657	

Two statistical measures were also performed in order to help assess the factorability of the data: Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. KMO statistics varies between 0 and 1. Zero indicates the sum of partial correlations and indicates diffusion in the pattern of correlations (hence factor analysis is likely to be inappropriate). A value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors. Kaiser (1974) recommends accepting values greater than 0.5. Where values are below should be reconsidered either more data needs to be collected or which variables to include. For good factor analysis it is suggested that 0.6 should be regarded as the minimum value (Tabachnick and Fidell 1996). The Bartlett test of sphericity tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work there is a need for some relationships between variables and, if the R-matrix were an identity matrix, then all correlation coefficients should be zero. Therefore, the requirement of this test is a significance of less than 0.05. A significance test indicates that the R-matrix is not an identity matrix; therefore, there are some relationships between the variables which can hopefully be included in analysis⁹⁵. The data are appropriate for factor analysis with the community pressures factor because the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value is .821 (more than .6) and Bartlett's Test of Sphericity is significant with (.0001). So, factor analysis is appropriate.

After meeting all requirements for performing factor analysis, the next step to do was factor extraction. Factor extraction involves determining the smallest number of factors that can be used to represent best the inter-relationships among the set of variables (Gorsuch 1974; Pallant 2001). One extraction technique⁹⁶ is the principal

components technique which was chosen to perform the extraction. The Kaiser criterion (the Eigenvalue rule) is the value which should be assessed to determine the number of factors to be extracted. The Eigenvalue must be 1 or over to be extracted (Kim and Mueller 1994).

In Table 10, two factors scored more than 1. The loading in these two factors is 3.88 and 1.16. These two components explain a total of 62.93 per cent of the variance (see cumulative % column).

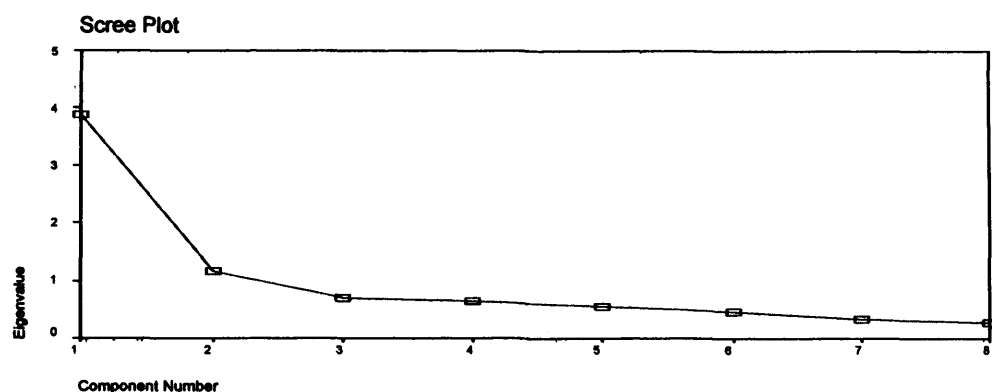
Table 10: Total variance explained for all community pressure items

Component	Initial Eigenvalues	% of Variance	Cumulative %	Extraction Sums of Squared Loadings	% of Variance	Cumulative %
1	3.88	48.45	48.45	3.88	48.45	48.45
2	1.16	14.48	62.93	1.16	14.48	62.93
3	.70	8.75	71.67			
4	.65	8.13	79.80			
5	.56	6.94	86.75			
6	.45	5.66	92.41			
7	.34	4.23	96.63			
8	.27	3.37	100.00			

Another assurance of confidence about the research choice can be obtained by plotting the data using Catell's scree test (Pallant 2001). Figure 7 shows another approach that can be used to extract underlying variables. This involves plotting each of the Eigenvalues of factors and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. This approach involves retaining all factors above the elbow, or seeking a break in the plot, as these factors contribute most in explaining variance in the data set. It is clear from the graph that

only two factors are above the elbow. This gives an assurance for the main method used for extraction.

Figure 7: The Scree Plot for community pressure items



One more process to assist in performing factor analysis is checking the loading of each item in the two components. In Table 11 the Kaiser criterion was used to check the loading of each item in the two components. Most of the items loaded quite strongly (above .4) on these two components. This supports the researcher's conclusion from the Screeplot to retain only two factors for further investigation.

Table 11: Component matrix for community pressure items

	Component	
	1	2
C3	.783	
C2	.735	
C5	.730	-.340
C4	.723	-.411
C6	.650	-.401
C7	.631	
C9	.631	.626

Once the number of factors has been determined, the next step is to try to interpret them. To assist in this process the factors are 'rotated'. This does not change the

underlying solution, but rather presents the pattern of loadings in a manner that is easier to interpret. One method of rotation is chosen for its ease of interpretation: it is orthogonal (uncorrelated) with Varimax and Kaiser normalization (Tabachnick and Fiedell 1996)⁹⁷. Table 12 shows two factors have been extracted and the related items clumped together in each factor. The main loadings on Component 1 are items C4, C5, C6, C3 and C2. These represent the pressures which originate outside the workplace. The main items on Component 2 are C9, C8 and C7. These relate to pressures inside the workplace. As can be seen, the number of variables in one factor is not less than 3 and the load of the variable is not less than 0.4. These are the main criteria for determining the underlying variable.

Table 12: Rotated component matrix for community pressure items⁹⁸

Items	Component	
	1	2
C4	.792	
C5	.785	
C6	.744	
C3	.707	.365
C2	.621	.398
C9		.881
C8		.839
C7	.346	.583

As a result of the above criteria two factors are produced as the main dimensions for community pressures. One is called out-side community pressures (OCP) and the other is inside-community pressures (ICP). The items contained in each factor are illustrated in Table 13 below. So five items were included under OCP and three items under ICP. These items are the original questions in the questionnaire and they will be needed only in the following step, the assessment of reliability using Alpha Cronbach. Should these items prove reliable under each factor they will not be used in any of the statistical tests in this study. These two factors will be used as representative of all of the other items.

Table 13: Framework of OCP and ICP

OCP	
C4	How often do store workers use drugs outside work?
C5	How often do store workers use alcohol outside work?
C6	How often do crimes happen in the areas where store workers live?
C3	How often do store workers engage in criminal behaviour such as assault and fighting outside work?
C2	How often do store workers engage in criminal behaviour such as theft, fraud and embezzlement outside work?
ICP	
C9	How often do store workers cooperate with each other to harm other employees?
C8	How often do store workers cooperate with each other to harm the company?
C7	How often do your store workers quarrel with each other in the workplace?

These two factors need to be tested for reliability with Cronbach Alpha. The results of reliability tests for both scales, OCP and ICP were found to be reliable. As Alpha coefficients, respectively, they are .83 and .75. These levels of reliability, along with the factor analysis result, permitted these two factors to be representative for the community pressure variables. So the means of OCP and ICP are, respectively, 1.38 and 1.67.

Organisational values scales

Originally in the questionnaire, items were included under four dimensions: support orientation, rules orientation, innovation orientation and outcome orientation. 68 items were the total number of items in the four dimensions. All of these 68 items were included in principal components analysis PCA. PCA and factor analysis, FA, are similar in many ways and are often used interchangeably by researchers. The PCA technique is used – among other purposes - to reduce a large number of variables to a small set of coherent factors, and to seek underlying variables which can be used as representative of a large number of items.

The three criteria mentioned with the discussion of community pressures were also met here in FA. These criteria are sample size, the strength of the inter-correlations among the items and sampling variables. A correlation matrix was performed to check for the appropriateness of the data to be factor analysed. The correlation matrix reveals that the items are correlated with few correlations less than .3. This result gives the go ahead to perform FA.

Two statistical measures are also generated to help assess the factorability of the data: Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The KMO value is .969 (more than .6) and Bartlett's Test of Sphericity is significant with .0001. So, factor analysis is appropriate.

After meeting all the requirements for performing factor analysis the next step was to perform factor extraction using the Kaiser criterion (the Eigenvalue rule). The results show eight factors score more than 1. As in Table 14 the loadings in the eight factors are 31.528, 3.776, 3.005, 1.981, 1.474, 1.224, 1.112 and 1.022. The other scores are less than 1 so they cannot be extracted. These eight components explain a total of 67.35 per cent of variance⁹⁹ (see the cumulative % column). Catell's scree plot also gave a confidence about the choice of the eight components which were extracted.

Table 14: Total variance explained for organisational values

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	31.53	47.06	47.06	31.53	47.06	47.06	10.17	15.19	15.16
2	3.78	5.64	52.69	3.78	5.64	52.69	9.14	13.65	28.83
3	3.01	4.49	57.18	3.01	4.49	57.18	6.01	8.97	37.80
4	1.98	2.96	60.13	1.98	2.96	60.13	5.89	8.75	46.59
5	1.47	2.20	62.33	1.47	2.20	62.33	5.78	8.63	55.21
6	1.22	1.83	64.16	1.22	1.83	64.16	5.12	7.65	62.86
7	1.11	1.66	65.82	1.11	1.66	65.82	1.91	2.85	65.71
8	1.02	1.53	67.35	1.02	1.53	67.35	1.10	1.64	67.35
9	.97	1.44	68.79						
10	.90	1.35	70.13						
11	.86	1.29	71.42						

The eight components' loading was checked by the Kaiser criterion. The result revealed that most items load quite strongly (above .4). Few loadings are between .4 and .3, and none less than .3. This supports a conclusion from the Scree plot to retain eight factors for further investigation.

Once the number of factors has been determined, the next step is to try to interpret them. To assist in this process the factors are 'rotated'. The results show that seven components have three items or more and the loading is .4 or more. So the rotation of the factors will consider these seven factors only in this stage out of the eight which were considered in the previous stage.

Due to the rotation of components, six of the seven components are suitable for use as underlying variables for organisational values. The seventh component is excluded because only two items are available in it. The minimum number is three. Furthermore, the total variance explained by the six factors is 63.43 per cent. See Table 15 for more details about each factor's share in this total percentage.

Table 15: Rotated component for organisational values¹⁰⁰

	1		2		3		4		5		6	
1	E5	.758	G4	.783	E15	.812	D2	.704	F7	.715	D12	.579
2	E4	.701	G8	.756	E13	.809	D1	.672	F6	.670	D21	.558
3	D6	.679	G2	.752	E14	.784	D3	.636	F9	.667	D19	.511
4	E2	.667	G3	.749	E16	.728	D9	.627	F10	.663	D22	.496
5	E6	.660	G7	.702	E17	.699	D4	.586	F8	.646	D11	.481
6	E7	.657	G11	.702	E19	.572	D8	.508	F11	.586		
7	E8	.647	G6	.701	E20	.508	D17	.482	F12	.574		
8	E3	.611	G9	.691	E21	.435	D16	.454	F5	.553		
9	E9	.606	G5	.661					F4	.452		
10	D14	.557	G1	.656								
11	E18	.557	G10	.599								
12	D18	.555	F2	.426								
13	D13	.531										
14	E1	.522										
15	D7	.517										
16	E10	.515										
17	E11	.513										
18	F3	.511										
19	D5	.503										
20	D10	.499										
21	D15	.499										
22	D20	.493										
23	E12	.471										
V	16.767		13.670		9.387		8.846		8.589		6.171	
CV	16.767		30.437		39.824		48.670		57.259		63.430	
Total variance explained for organisational values: Rotation Sums of Squared Loadings V =% of Variance, CV= Cumulative %												

In Table 16 there are some transfers and deletions of items from their original dimensions. These transfers and deletions were made after conducting FA. To transfer the item, it should be closer to other factors in meaning than in its original from. Avoiding it has an acceptable loading in the other factor. The item 'respect for employees by management' was transferred from Factor 1 'rules orientation' to Factor 6 'human needs orientation' because it is closer in meaning to that factor where the loading is above (.4), it is (.440). The reason for deletion is that the meaning of the item did not fit with its original factor despite the acceptable level of loading.

Table 16: Transfer and deletion of organisational values items

Transferred items		From factor	To factor
G10	Hard work by management	2	1
D14	Respect for employees by management	1	6
D15	Mutual understanding between management and employees	1	6
D20	Employees liking their managers	1	6
Deleted items		From factor	
D7	Employee empowerment	1	
D18	Interpersonal cooperation between employees	1	
D10	Trust in the employees	1	
E1	Fairness with employees	1	
E20	Keeping promises	3	
E21	Personal development	3	
D4	Fairness in handling complaints by employees	4	

The final step toward utilizing FA is produced in Table 17. This includes six factors. The researcher has named these six factors based on previous researches and literature (See Denison, 1996; Van Muijen, Kopman et al., 1999; Vandenberghe and Peiro, 1999)¹⁰¹. Based on FA six dimensions (factors) were extracted from organisational values. These six factors are the final products of FA which indicate that these factors represent the original 68 organisational values items. Rules orientation with 17 item is the largest organisational values factor in terms of the number of items it represents. (See: Appendix H). The smallest factor is human needs orientation which embraces eight items. All these factors were constructed earlier based on the literature review but two of them, namely human needs orientation and fairness orientation, were produced after FA.

Table 17: Organisational values factors

Factor	Title	Number of items
Factor 1	Rules orientation OVR	17
Factor 2	Outcome orientation OVO	11
Factor 3	Fairness orientation OVF	6
Factor 4	Support orientation OVS	7
Factor 5	Innovation orientation OVI	9
Factor 6	Human needs orientation OVH	8
Total		58

The items included in these organisational values factors all stem from the original questionnaire and they will be needed only in the following step, the assessment of the reliability using Alpha Cronbach. Should these items prove reliable under each factor they will not be used in any other of the statistical tests in this study. These six factors will then be regarded as representative of all of the items.

Reliability of organisational values

After factor analysis has been done on the data, the final stage for further analysis is the use of reliability coefficients (Alpha Cronbach) for each dimension. Table 18 shows the results of these tests. All the reliability tests for organisational values dimensions resulted in reliability and, therefore, the extracted items stay the same as the factor analysis results. Table 18 also shows the mean of each factor. OVR and OVH have the highest means among the dimensions. This means that rules and human needs orientations have been appreciated by employees more than other dimensions. The remaining orientations still bear a high level of presence in the organisation. For overall organisation values (OV), Alpha reliability coefficients were conducted for six items covering 423 cases. The Alpha coefficient of 0.9179 is considered reliable. The mean is 3.38 out of 5 point which is considered. Accordingly, these factors will be related to employee theft types in the finding

chapter. More descriptive and inferential statistics will be performed for these factors in relation to demographic and other control variables.

Table 18: Reliability tests for OV dimensions

Factors		No. of Items	No. of Cases	Reliability Coefficients Alpha	Means
1	OVR	17	355	.9559	3.59
2	OVO	11	382	.9386	3.36
3	OVF	6	396	.9096	2.77
4	OVS	7	398	.9074	3.43
5	OVI	9	400	.9397	3.51
6	OVH	8	393	.9131	3.59
OV		6	423	.9179	3.38

Employee theft scales

Originally in the questionnaire all 23 items were included under one dimension. They were included in the principal components analysis PCA. This technique is used to reduce a large number of variables to a small set of coherent factors and to seek the underlying variables which can be used to represent a large number of items. The abbreviation for the overall variables, employee theft, is ET, which is the main dependent variable. This was mainly used in this study to test the hypotheses. Also rotated sub-groups of theft were intended to show if there are different patterns for these sub-groups in their relationships with organisational values.

The three criteria mentioned in the discussion of community pressures and organisational values are also dealt with by FA. These criteria are sample size, the strength of the inter-correlations among the items and sampling variables. A correlation matrix was performed to check for the appropriateness of the data to be

factor analysed. The correlation matrix reveals that the items are correlated with few correlations less than .3. This result, however, is suitable for PCA.

Two other statistical measures are performed to help assess the factorability of the data: Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The Kaiser-Meyer-Olkin measure of sampling adequacy value (KMO) is .932 (more than .6). This indicates high R-matrix and that Bartlett's Test of Sphericity is significant at 0.0001. So, factor analysis is an appropriate test.

After meeting all requirements for performing factor analysis, the next step to take was factor extraction. Factor extraction involves determining the smallest number of factors that can be used to best represent the inter-relationships among the set of variables (Gorsuch 1974; Pallant 2001). As in Table 19 the principal components technique was chosen to perform the extraction. Kaiser's criterion (the Eigenvalue rule) was relied upon to determine the number of factors to be extracted. Four factors have an initial Eigenvalue score more than 1. The loading in these four factors is 11.082, 1.774, 1.087 and 1.025. The other scores are less than 1. So they cannot be extracted. These 4 components explain a total of 65.082 per cent of the variance (see Cumulative % column).

Another assurance of confidence can be obtained by plotting the data using Catell's Scree test. This is another approach that can be used to extract underlying variables. it involves plotting each of the eigenvalues of factors and inspecting the plot to find a point at which the shape of the curve changes direction and becomes horizontal. This approach recommends retaining all factors above the elbow, or break in the plot, as these factors contribute the most to explaining variance in a data set. It is clear from

the graph that there are four factors above the elbow. This gives assurance for the main method of extraction.

Table 19: Total variance explained for ET

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.082	48.184	48.184	11.082	48.184	48.184
2	1.774	7.712	55.896	1.774	7.712	55.896
3	1.087	4.728	60.625	1.087	4.728	60.625
4	1.025	4.457	65.082	1.025	4.457	65.082
5	.841	3.656	68.738			
6	.696	3.027	71.766			
7	.677	2.943	74.708			
8	.658	2.862	77.571			
9	.649	2.821	80.391			
10	.518	2.254	82.645			
11	.479	2.083	84.728			
12	.458	1.992	86.720			
13	.403	1.752	88.472			
14	.397	1.725	90.197			
15	.368	1.598	91.796			
16	.332	1.443	93.239			
17	.272	1.181	94.419			
18	.266	1.158	95.577			
19	.258	1.124	96.701			
20	.252	1.095	97.796			
21	.212	.923	98.719			
22	.174	.755	99.474			
23	.121	.526	100.000			

One more process to assist in performing factor analysis is checking the loading of each item in the four components. The Kaiser criterion was used for this check. The results reveal that most of the items load quite strongly (above .4). Few loadings are between .3 and .4; and none less than .3. This supports the conclusion from the Scree plot result to retain four factors for further investigation.

Once the number of factors has been determined, the next step is to try to interpret them. To assist in this process the factors are 'rotated'. One method of rotation that can be chosen for its ease of interpretation is the orthogonal (uncorrelated) method with Varimax and Kaiser normalization. Table 20 shows that four components have three items or more and the loading is .4 or more. So by rotation these four factors will be considered. Due to rotation, four components are fit to be used as underlying variables for employee theft. Furthermore, the total variance explained by the four factors is 65.082%. Factor 1 (paper theft ETP) encompasses the largest portion of that variance (26.360%) and Factor 4 (cash theft ETC) encompasses the least portion of the variance (10.142%) the rest of the variance was shared by property theft (ETPR) and use theft (ETU).

Table 20: Rotated component matrix for ET¹⁰²

Component	Items	Loadings	Rotation Sums of Squared Loadings	
			% of Variance	Cumulative %
1	H13	.788	26.360	26.360
	H6	.739		
	H5	.713		
	H14	.684		
	H7	.681		
	H15	.642		
	H4	.641		
	H8	.613		
	H12	.578		
	H20	.567		
	H18	.553		
2	H21	.508	17.331	43.691
	H9	.771		
	H10	.748		
	H19	.643		
	H11	.588		
	H17	.533		
3	H22	.818	11.249	54.940
	H23	.702		
	H16	.643		
4	H1	.796	10.142	65.082
	H2	.664		
	H3	.522		

Based on FA, one item (taking company equipment or tools H21) was transferred from Factor 1 'Paper theft ETP' to Factor 2 'property theft ETPR'. This transfer was made because the closeness in meaning of ETP to Factor 2; and the loading in that factor is still acceptable (.508). After FA, the Alpha Cronbach reliability test is the final step toward constructing the scales and obtaining the final underlying variables.

Reliability tests for employee theft

After factor analysis has been done for the data its final stage of preparation for further analysis is to use the Alpha Cronbach reliability coefficient test for each dimension and for overall employee theft. All the reliability tests for employee theft dimensions confirmed reliability and, therefore, the extracted items remain in line with those subjected to factor analysis. In general the perception of organisational values by employees is in its medium value as the OV mean is 1.48. Cash theft (ETC) has the lowest mean (1.31) among other types of theft and use theft ETP the highest mean (1.71). Table 21 also shows the mean of each dimension. These dimensions are the types of employee theft which are the main dependent variables in this study. These four dependent variables are related to the main independent variables. More descriptive and inferential statistics will be performed for these employee theft types in relation to demographic variables and other control variables in the Finding's chapter.

Table 21: Reliability tests for ET dimensions

Factors		N of items	N of cases	Mean	Alpha reliability coefficients
1	ETP	11	397	1.39	.9258
2	ETPR	6	410	1.47	.8816
3	ETU	3	412	1.71	.7854
4	ETC	3	420	1.31	.8082
	ET	4	425	1.48	.8606

The final statistics for utilizing FA are shown in Table 22. Four factors are shown each of which is put into one framework with its items and the loading of each item in the factor (See Appendix I). Title names have been allocated to these four factors based on the item's collective meaning in each group

Table 22: Employee theft dimensions

Factor	Title	Number of items
Factor 1	Paper theft ETP	11
Factor 2	Property theft ETPR	6
Factor 3	Use theft ETU	3
Factor 4	Cash theft ETC	3
Total		23

As a result of performing FA and Alpha Cronbach, one economic pressures factor, two community pressure factors, six organisational values factors and four employee theft outcome variables were emerged. Alpha tests were done on each of these factors. After that variables were transformed by taking the arithmetic mean to each the group of variables. Each factor was given a unique name. For the purpose of convenience the factors and main variables were abbreviated to avoid repetitively long phrases. See Table 23 for the definitions.

Table 23: Definitions of abbreviations

OV	General organisational values	ECP	Economic pressures	ET	General employee theft
OVR	Rules orientation	OCP	Outside community pressures	ETP	Paper theft
OVQ	Outcome orientation	ICP	Inside community pressures	ETPR	Property theft
OVF	Fairness orientation			ETU	Use theft
OVS	Support orientation			ETC	Cash theft
OVI	Innovation orientation				
OVH	Human needs orientation				

Friedman test

Friedman test is used to test the null hypothesis that k related variables come from the same population. For each case, the k variables are ranked from 1 to k . The test statistics are based on these ranks. The test relates to a series of related samples and compares the distributions of two or more variables (Conover 1980; Marascuilo and McSweeney 1985). For example in terms of the prestige in which they could be held would the public accord different rankings to doctors, lawyers, a police officers and a teachers? If ten people were asked to rank these four occupations in order of prestige, Friedman's test would indicate that the public does in fact associate different amounts of prestige with these four professions. The Friedman test is the nonparametric equivalent of a one-sample repeated measures design or a two-way analysis of variance with one observation per cell.¹⁰³ The Friedman test is frequently called a two-way analysis on ranks¹⁰⁴. This test was used in this study to compare organisational dimensions and employee theft dimensions for the purpose of

identifying the order of these dimensions. Friedman's test will tell what is the most apparent organisational values dimension in the workplace and what is the least of these dimensions. And it will do the same with the various types of the employee theft.

Correlation

In order to understand the relation between the variables, the correlation coefficient was performed for each hypothesised statement (Wright 1997). Researchers are much interested in exploring associations between variables. Thus, scholars have developed a number of measures by which researchers can see the extent to which variables are associated. Some of these measures of association are as follows (Miller and Salkind 2002):

- Pearson's product-moment correlation (r). This statistical approach is used to measure the relationship between two interval variables when both are continuous and the relationship is linear. The coefficient of correlation is most reliable when it is based on a large number of pairs of observations;
- Spearman's rank difference coefficient (ρ) is a statistical approach used to measure association between two rankings. It is used primarily when rankings of individual cases on two ordinal variables are available;
- The Lambda approach is a statistical approach used to measure the association between two bivariate distributions when both variables are interpreted to be nominal; and
- The partial correlation coefficient approach is a statistical approach used to measure the relationship between two continuous variables with the effects of a third variable (s) held constant.

Because the findings of the studies reported in this part were based on the use of the Pearson product-moment correlation to gauge the degree and direction of linear relationships between variables, and because the current research will use the same approach to explore the relationship between ECP, OCP, ICP and OV factors and ET, familiarity with certain features relating to this approach, is needed. The following paragraphs provide further details relevant to the concept of correlation in general and to the Pearson correlation approach in particular.

The term correlation refers to a technique used to gauge relationships between variables. Correlation coefficients (r) are commonly calculated in one of two ways depending on the nature of data collected. If the data is ordinal, a Spearman's rank correlation is appropriate. If the data is on an interval scale, application of the Pearson's product moment correlation approach to the data is recommended Bryman and Cramer (1999). Thus the Pearson correlation is used to explore whether there is linear relationship between variables while the Spearman rank correlation is used to explore whether there is rank correlation (Cohen, Manion and Morrison 2000).

A correlation expresses the extent to which two variables vary together. Correlation coefficients vary between -1.00 and $+1.00$; a correlation coefficient of 0.00 means there is no relationship between variables. Thus, a positive correlation means that as one variable increases so does the other. For example, a researcher may adopt a directional (one-tailed) hypothesis test concerning the relationship between employee perceptions of unfairness and employee theft. The logical ground for assuming a negative relationship between perceptions of fairness and employee theft lies in the assumption that as employee perceptions of fairness increase, employee theft decreases. A negative correlation coefficient indicates, therefore, that the two

variables co-vary in opposite directions while a positive correlation coefficient suggests that the two variables co-vary in the same direction (Clark-Carter 2001).

The closer the value of r is to 1.00 (whether positive or negative), the stronger the relationship. So, the nearer it is to zero (and hence the further it is from +1.00 or -1.00), the weaker the relationship. Thus, many researchers categorise the values of r into groups in order to gauge the estimated degree of a relationship between two variables. For example, Cohen and Holliday (1982) suggest the following groupings: 0.19 and below is very low; 0.20 to 0.39 is low; 0.40 to 0.69 is modest; 0.70 to 0.89 is high; and 0.90 to 1.00 is very high. Cohen (1988) prefers to use the following categories: 0.10 and below constitutes a small r , 0.30 is a medium r and 0.50 plus is a large r . As stated above, in keeping with the theme of the current research, only the parametric test, the Pearson product moment correlation, will be addressed.

To elaborate on the meanings of computed correlation coefficients and the coefficient of determination in relation to our interpretation of the degree and strength of a relationship between two variables, an example is required. When two variables, x and y , are correlated and the value of the computed correlation coefficient is shown to be 0.70, although this computed correlation coefficient is quite high, it means that less than half of the variance in y can be explained by x , 49 percent. Such an elaboration on the features of computed correlation coefficients (r) and the coefficient of determination (r^2) in relation to the interpretation of a relationship between two variables leads to the second fundamental feature relevant to the concept of correlation, namely causality Elton (1946).

Thus, to establish a causal relationship between two variables, three criteria have to be fulfilled. They are to demonstrate that: the distribution of values of one variable

measures the distribution of values of another variable; the relationship between two variables is non-spurious; and cause precedes effect (such as; smoking precedes lung cancer) (Bryman and Cramer 1999) (Quick 1992) and Clark-Carter (2001).

A significance testing is a crucial concept in research. This is because it is impossible to decide if there is a mathematical relationship between two variables unless Pearson's r is statistically significant at a specific probability (such as: $p < 0.05$). In statistics, analysis usually proceeds from a null hypothesis that there is no relationship between two variables (Miller and Salkind 2002). Restated, the null hypothesis basically suggests that the correlation between two variables, say perceptions of fairness and employee theft, is 0.00.

The probability is usually expressed as being less than the proportion of 0.05 ($5/100 = 0.05$) and is normally abbreviated as $p < 0.05$, where p stands for probability, $<$ for less than, and 0.05 for five times out of a hundred (Howitt and Cramer 2000). Deciding that the null hypothesis will be rejected at $p \leq 0.05$, for instance, means that there is less than a 5% probability that the result occurred by chance (Waters 1998). Thus, when a relationship is found which is estimated to occur five times or less out of a hundred if the null hypothesis was actually true of the population, it is decided as being statistically significant; otherwise the relationship is statistically non-significant. Achieving a statistically significant correlation coefficient is, however, strongly affected by the size of the population in the sample (Bryman and Cramer 1999; Krejcie and Morgan 1970)

ANCOVA

Analysis of covariance Ancova¹⁰⁵ is an extension of analysis of variance, Anova. Anova is a method of testing the null hypothesis that several group means are equal in the population, by comparing the sample variance estimated from the group means to that estimated within the groups (Blalock 1979; Dyer 1995)¹⁰⁶. Ancova deals with the idea of "controlling" factors, by including additional factors, reducing the error and increasing the statistical power (sensitivity) of the design. This can be extended to continuous variables, and when such continuous variables are included as factors in the design, they are called covariates¹⁰⁷. One type of Ancova is used in this study. It compares regressions within several groups. Classification (treatment) is not the primary concern. The main interest is the relationship of y to x within each classification¹⁰⁸.

Path Analysis

Path analysis identifies the directions of the effects from independent variables to the dependent variables through the mediating variables. Path analysis is used to examine the relationships between the independent variables more closely, given a high degree of inter-correlation. Therefore, a model was constructed in which the causal relationships between a numbers of variables were suggested (Al-Dossery 1996).

Path analysis is a technique for testing, not for generating, theory. It is used for testing 'causal' models. As Pedhazur (1982) pointed out,

Path analysis was developed by Sewall Wright as a method for studying the direct and indirect effects of variables hypothesized as causes of variables treated as effects. It is important to stress from the outset that, being a method, Path analysis is not intended to

discover causes but to shed light on the tenability of the causal models which a researcher formulates and bases on knowledge and theoretical considerations (p. 769).

Basically the model is constructed by drawing unidirectional arrows, representing the paths, from the independent to the dependent variables (Loehlin 1992). Next the path coefficients for each of the relationships are established. The standardised regression coefficients (beta weights) (Pallant 2001) give the value of path coefficients and are established by regression analysis. As mentioned in a website¹⁰⁹,

Path analysis is a straightforward extension of multiple regression. Its aim is to provide estimates of the magnitude and significance of hypothesised causal connections between sets of variables.

Linear regression estimates the coefficients of the linear equation, involving one or more independent variables, which best predict the value of the dependent variable (Schroeder, Sjoquist and Stephan 1986). According to Argyrous (1997) regression analysis is simply the task of fitting a line through a scatter plot of cases that 'best fits' the data. Any line can be expressed in a mathematical formula. The general formula¹¹⁰ for a straight line is:

$$Y=a + bx$$

For example, you can try to predict employee theft rate (the dependent variable) from independent variables such as age, education, and years of experience (Neuman and Weigand 1999).¹¹¹

The difference between ordinary regression and path analysis is that more than one regression analysis is called for at each stage. According to Pedhazur (1982) "a variable treated as a dependent on one set of variables may also be conceived as an independent variable"(p.771). Dependent variables are regressed on the variables upon which they are assumed to be independent.

T-Test and Mann-Whitney U-Test

The Independent-Samples T-Test procedure compares means for two groups of cases. Ideally, for this test, the subjects should be randomly assigned to two groups, so that any difference in response is due to the treatment (or lack of treatment) and not to other factors. This is not the case if average incomes for males and females are compared. A person is not randomly assigned as a male or female. In such a situation, you should ensure that differences in other factors are not masking or enhancing a significant difference in means. Differences in average income may be influenced by factors such as education and not by sex alone¹¹².

For example, patients with high blood pressure are randomly assigned to a placebo group and a treatment group. The placebo subjects receive an inactive pill and the treatment subjects receive a new drug that is expected to lower blood pressure. After treating the subjects for two months, the two-sample T-test is used to compare the average blood pressures for the placebo group and the treatment group. Each patient is measured once and belongs to one group (Colman 1995; Coolican 1995).

The Paired-Samples T Test procedure was also used in the pilot study to compare self-reporting employee theft items with perceptions of employee theft items. This test compares the means of two variables for a single group. It computes the differences between values of the two variables for each case and tests whether the average differs from 0. For example, in a study on high blood pressure, all patients are measured at the beginning of the study, given a treatment, and measured again. Thus, each subject has two measures, often called before and after measures. An alternative design for which this test is used is a matched-pairs or case-control study.

Here, each record in the data file contains the response for the patient and also for his or her matched control subject. In a blood pressure study, patients and controls might be matched by age (a 75-year-old patient with a 75-year-old control group member)¹¹³.

The Mann-Whitney U-Test is the most popular test for the two-independent-samples tests. It is equivalent to the Wilcoxon rank sum test and the Kruskal-Wallis test for two groups. Mann-Whitney tests whether two sampled populations are equivalent in location. The observations from both groups are combined and ranked, with the average rank assigned in the case of ties. The number of ties should be small relative to the total number of observations. If the populations are identical in location, the ranks should be randomly mixed between the two samples. The number of times a score from group 1 precedes a score from group 2, and the number of times a score from group 2 precedes a score from group 1 are calculated. The Mann-Whitney U statistic is the smaller of these two numbers (Conover 1980; Marascuilo and McSweeney 1985)¹¹⁴. Although the Mann-Whitney U statistic is the appropriate test for analysis because the dependent variables data are ordinal in scale, the T-test was chosen because the results are similar and the T-test is better known and more powerful than the former.

Kruskal-Wallis H-Test

The Kruskal-Wallis H Test was used to compare three groups in respect of employee theft and education levels. The Kruskal-Wallis H test is a non-parametric test equivalent to one-way Anova. It tests whether several independent samples are from the same population, assumes that the underlying variable has a continuous distribution, and requires an ordinal level of measurement. The one-way Anova

procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. Analysis of variance is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample T-test. In addition to determining that differences exist among the means, it may be desirable to know which means differ. There are two types of tests for comparing means: *a priori* contrasts and *post hoc* tests. Contrasts are tests set up before running the experiment, and post hoc tests are these run after the experiment has been conducted. You can also test for trends across categories (Conover 1980; Marascuilo and McSweeney 1985).¹¹⁵

Descriptive statistics

Some descriptive statistics have been used in this study to illustrate the characteristics of the sample and/or to describe some variables. Descriptive statistics include: the mean, or arithmetic average; Median; Mode and dispersion statistics that measure the spread or variation in the data, which include the standard deviation, variance, range, minimum, maximum, and standard error of the mean (Bohnstedt and Knoke 1981). Kurtosis and skewness are statistics that characterise the shape and symmetry of the distribution. These are used in some part of the study with their standard errors¹¹⁶.

All of the above statistical techniques were used to analyse the data and the results were discussed completely in the Findings' chapter. The analyses include both descriptive and inferential statistics (Andrew, Klem, Davidson, O'Malley and Rodgers 1981; Kanji 1993; Wright 1997). Descriptive statistics were used mainly for the sample characteristics and the variables descriptions as well as with interviewees' characteristics. Inferential statistics were used mainly to test the study hypotheses.

Inferential statistics include correlation r , ANCOVA, regression, path analysis, the Friedman, Kruskal Wallis and T-test and Mann-Whitney tests. (See Table 24).

Table 24: Framework of descriptive and inferential statistics

	Independent variables	Dependent variables
Correlation r	OV, ECP, OCP and ICP	ET
	AGE	ECP, OCP and ICP
		OV
ANCOVA	Categorized ECP, OCP and ICP via OV	ET
Path analysis	Uncategorized ECP, OCP and ICP via OV	
T-test	Marital status (married, not married),	
	Nationality (Saudi, non-Saudi)	
	Nationality (Saudi, non-Saudi)	ECP, OCP and ICP
Kruskal Wallis H	Education levels	ET
		ECP, OCP and ICP
		OV
T-test	Job (Supervisors, General employees)	ET
		ECP, OCP and ICP
		OV
Correlation	Tenure	ET
		ECP, OCP, ICP
		OV
Friedman test		ET and OV
Mean, Median, Mode, Std. Deviation, Variance, Minimum and Maximum	For most of the variables as descriptive statistics	

Interviews

Interviews are usually assumed to involve some form of conversation with a purpose (Burgess 1984) and are recognised as social interactions (Holstein and Gubrium 1995). The style is conversational, flexible and fluid, and the purpose is achieved through active engagement by interviewer and interviewee on relevant issues, topics

and experiences (Mason 2002; May 2002). In the view of Cassell and Symon (1994) and King (1994), because it is a highly flexible method, the interview is the most widely used qualitative method in organisational research. It can be used almost anywhere and is capable of producing data of great depth. In this case the interviewer identified himself as a researcher studying for a doctorate at the University of Leicester in the U.K.

As suggested by Mason (2001), semi-structured interviews are a method used for generating data from different sources. The degree of structured interviews varies from study to study, according to King (1994), who chose the term qualitative research interview to give more flexibility to this kind of interview. King (1994) has spelled out that this type of interview has the following characteristics:

- A low degree of structure imposed by the interviewer;
- A preponderance of open questions; and
- A focus on specific situations and action rather than abstractions and general opinions.

Mason (2001) suggested using the term 'generating' instead of 'collecting' data because the researcher can not only collect data, but also encapsulate the much wider range of relationships between researcher, social world, and data which qualitative research spans. Semi-structured interviews have been utilised in this study because, among other reasons, they attracted interest and are widely used (Flick 1998). This interest is linked to the expectation that the interviewees' viewpoints are more likely to be expressed in a relatively openly designed situation than in a standardised interview or questionnaire (Flick 1998; Mason 2002).

According to King (1994), the semi-structured interview is most appropriate for four reasons:

- The study focuses on the meaning of a particular phenomenon to the participants;
- The interviewee's perceptions of processes can be studied within the social unit;
- It permits the interviewee to offer his historical perspective of how a particular phenomenon has developed thereby allowing the researcher to understand better the factors behind employee theft; and
- As the quantitative study is carried out, qualitative data are obtained not only to validate the measurement of the organisational values scale and its effect on employee theft but also to clarify and illustrate the meaning of the findings.

Interview development

Mason's (2001) technique (the following seven steps) and King's (1994) suggestions (steps eight and nine) were used to develop the interview schedule. These steps are:(1) listing the 'big' research questions which the study is designed to explore (the relationship between economic pressures and employee theft;(2) subdividing the big research questions into 'mini' research questions. For example, the question of economic pressures has a number of sub-questions such as how household income can influence the employee in stealing from his workplace;(3) converting the big and mini questions into possible interview topics, for example, economic pressures, income, salary and benefits;(4) drawing questions from the topics with different styles suitable to the interview situation;(5) cross-referencing all the levels, so that

each big research question has a set of corresponding mini research questions each of which has a set of ideas about interview topics and questions;(6) developing some ideas about a loose structure, or format, for interviews, especially for those ideas that could not possibly be anticipated in advance due to the interview and interviewee situation. For example, in interviewing the general manager of the company an unanticipated situation might have arisen which could have lead to very important ideas for the study. The general manager of the company might have suggested some ideas to be put with the general interview to other staff;(7) thinking of some more standardised questions for all interviewees and some specific questions for certain interviewees, for example, age, position, nationality, education level and transportation to and from the workplace;(8) recruiting participants; and (9) carrying out the interviews.

The interview schedule

The interview schedule included six sections. They were, position in the store and its relationship to security matters, the magnitude of employee theft, the relationship between economic pressures and employee theft, the relationship between community pressures and employee theft, the relationship between organisational values and employee theft, and some general questions. There were in total 30 questions. All of the questions were open-ended except one question which was about ranking the organisational values dimensions.

Interview sources

An executive interview (Hollinger and Clark 1983a) with semi-structured interview questions was done with eight headquarters officers and 15 store managers. The interviews with the headquarters officers included¹¹⁷: the chairman of OCG, the

finance director, the director for markets sector, the operations manager, the supervisor general of IT & technical operations, the engineering director, the administration manager, and the director of the legal department.

The purpose of having two different groups with the same interview index was to compare the differences between these two groups. Headquarters officers mainly work in their offices remote from store operations whereas the store managers are the main people responsible for the stores and actually work in them. The diversities of these groups should give a continuum of attitudes about the organisation and employee theft which will complement the questionnaire as a basis for comparison between management and store employees.

The process of interview

The original research questions were subsequently amended to improve clarity and understanding. The original interview schedule was in English before being translated into Arabic. The interviews took three different forms:

- Face-to-face interviews with a copy of the interview booklet in the researcher's hand, so that he could manually record responses. This format was used with three executive staff including the chairman, and five store managers.
- Face-to-face interviews with two copies of the interview schedules, one for the interviewee and the other for the researcher, where the interviewees wrote their own answers but with additional support from researcher when appropriate. This format was used with two of the executive staff and four store managers including the finance manager.

- An interview schedule was given to the interviewees allowing some time for further reflection and completion before collection. This format was used for the remaining of the interviews (three executive officers and six store managers).

The interviews for the headquarters staff, including the chairman, were scheduled as the first stage. The first form of interview (face-to-face interview) lasted for approximately two-and-a-half-hours. The second format (face-to-face with shared copies of the interview schedules) took approximately three to four hours each. In the third type of interview, employees were allowed to complete the questionnaire in their own time. Their completed responses were collected three weeks after administration. The researcher moderated these interviews, especially the face-to-face interviews, and used the telephone to offer clarification to those in need. Approximately six conversations over the phone were conducted to offer explanation and clarification. A maximum of two interviews were performed in one day. It took around four weeks to collect headquarters staff responses.

The researcher was stationed in the headquarter office to arrange the interviews and survey questionnaires. The interviews were carried out in each person's office for two reasons. Firstly, to make it easy for the respondents and save their time and effort and, secondly, to gain a feeling for the individual's environment and have access to more information. The researcher checked each interview immediately after the interview but away from the interviewee. This was to check that responses were clear and to note some of the ideas which he had not recorded. Moreover, as Benjamin (1981) insists taking care of internal and external factors affecting the responses of participants is very important. Such factors help to promote an

interviewee's trust in the interview. When an interviewee has trust and faith in the researcher's competence, he is more likely to participate honestly and attentively and not to use defence mechanisms.

The interviews of store managers were scheduled directly following interviews with the headquarter staff. Although they were scheduled for the same day, collection of their completed questionnaires was arranged to suit the individual store. The store manager's own office, or a back area receiving office, was used for these interviews. Since store managers were working in two shifts from 8am to 12 mid-day and from 5pm to 9pm, their interviews were arranged to follow this timetable. The preferred time for these interviews was during the morning shift to minimise business disruption, as at this time of the day there are fewer customers to deal with. The completion of the store managers' interviews took the same time as that required by supervisors and general employees to complete their questionnaire. Six months¹¹⁸ were spent completing the fieldwork. This comprised one month for the pilot study and for interviewing headquarter staff, four months for interviewing store managers and for questionnaire administration and collection in the stores, and one month for wrapping up and checking details before leaving the research setting.

Qualitative data processing

Processing qualitative data is more difficult than dealing with quantitative data (Sullivan 2005). The difficulty stems from the nature of the interview technique which involves the interviewee talking or writing very long statements in response to the interviewer. This writing and talking needs to be verified. Dealing with a large amount of data requires some sort of coding to make the data easy to understand and interpret¹¹⁹. Due to the openness of the qualitative questions, a large amount of data

became rather irrelevant to the research theme. Interviewees tended to talk about all aspects of supermarkets including the business processes and administrative procedures which were not in the scope of this research. Coding and transferring the qualitative data into quantitative data helped to verify the answers and to decide which material had to be included. Six interactive steps were employed to utilise and process interview data. They were:

1. Reading through all interviews;
2. Categorising the answers of all questions;
3. Coding the answers of each question;
4. Transferring the qualitative data into quantitative data;
5. Analysing transferred data statistically; and
6. Drawing conclusions from transferred data and linking them to the research questions.

Analysis of the pilot study

Following the initial preparation of a questionnaire, it is recommended that a pilot test be undertaken (Bright 1991). This involves a practice run-through with a different, smaller group in order to iron out any snags. In this case, for example, a pilot project may show some deficiency in the design of the questionnaire (Bouma and Atkinson 1995). This involves enlisting the assistance of friends, colleagues, family members or others (convenience sampling) who volunteer to complete the questionnaire and to provide oral or written comments and feedback about items of difficulty, confusion or ambiguity, and the length of time necessary for completion. This information is then used to modify or re-design parts of the questionnaire which have been found to cause problems (Bright 1991). The underlying logic is that it is better to find these problems before the questionnaire is distributed to the sample of

respondents (Balnaves and Caputi 2001). The pilot is also useful to the researcher in examining the relevance and usability of the data produced by the questionnaire. The pilot study is the first research step to test the instruments of the data collection (Bright 1991). According to Kane (1985) "A pilot survey is useful when you do not know how to distinguish between what is essential to the problem and what may seem important but in fact is not" (p.73).

The pilot study is mainly a questionnaire to evaluate the readiness of the research instrument to be used in the real study. If researchers use the pilot study in a proper way they can be confident in conducting data collection. According to Blaxter, Hughes and Tight (2001), piloting or reassessment without fear is the process whereby the researcher tries out the research techniques and methods which s/he has in mind to see how well they work in practice and, if necessary, to modify the plan accordingly. Kumar (1996) considered the pilot study as a small-scale study which is undertaken to decide if it is worth carrying out a detailed investigation. Kumar (1996) also called the pilot study an exploratory or feasibility study. A pilot study may be particularly crucial in relation to research based on a self-completion questionnaire, because there will not be an interviewer present to clear up any confusion (Bryman 2001).

De Vaus (2002) has mentioned some of the purposes for pilot studies. They are: to ensure that respondents understand the intended meaning of a question and that the researcher understands the respondent's answer; to make sure that the questions proceed in a natural order that goes step by step from the general to the specific, and from less sensitive issues to questions of greater depth related to the subject matters; to figure out the non-response questions. this is the refusal of a large number of

people to answer a particular question which will normally produce difficulties at the data analysis stage and can lead to serious reductions in sample size. Questions which produce respondent hesitation, reluctance or refusal to answer are likely to produce a high level of non-response later; to prevent redundancy. If two questions measure virtually the same thing, only one is needed in the final questionnaire; scalability. If a set of questions is designed to form a scale or index, check to ensure that they do so. There is no point including items in the final questionnaire which are inappropriate for the scale or index for which they were designed; and to enable the researcher to discover the interests of respondents before finalising the main study questionnaire in order to make any necessary amendments.

Sharp and Howard (1996) have mentioned two purposes for the pilot study. They are to learn how much time subjects need to complete the questionnaire without it becoming a burden and to maintain the same enthusiasm level from the beginning to the end so that the validity of the questions is not affected. Discovering the rejected question is one objective of a pilot study. This objective is very important in this study as the measurement of employee theft is involved. A pilot study gives an indication of those questions which respondents are reluctant to answer. these may then be modified or deleted from the main questionnaire. The pilot study can also be used to forecast the important issues. For example, access to and availability of data and information, opportunity to pursue a particular research design, and assessing the technical skills and time needed to complete the research, the financial support required and the risk involved in participating.

The pilot study was also conducted for the two statistical purposes of trying and using statistical tests and statistical programs to test their contribution value to the

main questionnaire analysis and using reliability statistical techniques as extra advanced techniques for analysis of the main scales (organisational values, economic pressures, community pressures and employee theft) (Babbie 1990).

Subjects

Another supermarket company in Riyadh was chosen not the one intended for use in the main study. The identity of this company has been kept anonymous as permission for revealing its identity was not obtained. It can be called ACB. This company has a number of branches throughout Riyadh and has similar characteristics to the OCG, the company chosen for the main study. ACB was chosen for the pilot study for number of reasons. It could give an overview about employee theft in another company and provide more knowledge about this phenomenon while offering a basis for comparison. Furthermore using another company should add confidence to the relevance and applicability of the thesis' conclusions concerning not only the extant and nature of theft in Riyadh supermarkets alone but in the Saudi Arabian supermarket industry as a whole. It also eliminates the burden on OCG of responding to research questions twice (pilot and the main study); participating in the pilot study and then the main study may confuse OCG employees and busy administrators, so conducting the pilot study in ACB ensures that OCG employees are only required to participate once in the study. Moreover, this way OCG employees are not forewarned of the questions. This will eliminate the problem of separating those participants in the pilot from those chosen for the main study. As suggested by Bryman (2001):

The pilot should not be carried out on people who might have been members of the sample that would be employed in the full study. One reason for this is that, if you are seeking to employ probability sampling,

the selecting-out of a number of members of the population or sample may affect the representativeness of any subsequent sample (p.155).

Sixteen out of 50 ACB subjects responded to the researcher and voluntarily participated in the pilot study. That this number is enough for a pilot study is supported by Babbie (1994), who writes, “give the questionnaire to the ten people in your bowling league, for example”(p.153). ACB employees agreed to participate without revealing their own or their company’s identity. The purchasing department manager helped the researcher to contact the volunteers and collect the completed questionnaires. It was, however, not essential that the pre-test subjects comprised a representative sample, although people should be chosen for whom the questionnaire is at least relevant (Babbie 1994) as in ACB and OCG. Pilot subjects were asked to write their comments in the questionnaire booklet about anything they felt needed comment or clarification. The purchasing department manager gave his viewpoints regarding the wording, the order of the questions, the time length required for completion and other general comments.

Pilot questionnaire

Before administering the pilot questionnaire to the pilot subjects, it was translated into Arabic to cater for those employees who do not understand English. The pilot questionnaire consisted of nine sections and each section contained a number of questions or items to be answered. A description of the pilot questionnaire is in the following paragraphs.

The demographic variables section contained nine questions. They were concerned with: age, marital status, nationality, education level, job, type of work, experience in the supermarkets in general, experience in the company; and experience in the particular store. In the economic pressures section subjects were asked to rate a

number of sentences in relation to themselves about their financial status and their household income. In the community pressures section subjects were asked to rate a number of sentences about their involvement in deviant acts inside and outside the job. Four sections were devoted to perceptions of organisational values. Subjects were asked, according to their views and experience in their stores, to evaluate their current organisation in four orientation groups: support orientation, rules orientation, innovation orientation, and outcome orientation.

Two sections related to employee theft; one for the perception of organisational deviance and the other for personal deviance (self-reporting). In the perception section, subjects were asked about how often theft practices take place in their store by other employees. In self-reporting section, subjects were asked about how often they themselves had been involved in theft practices in their store. The order of the last two sections was deliberately tailored to start with less sensitive and progress to more sensitive questions.

Results of the pilot study

Subsequently both the pilot questionnaire and the final questionnaire were analysed. The analysis of the pilot questionnaire was replicated in the analysis of the final questionnaire. According to Babbie (1990) the pilot-study analysis

should be carried out with all the vigour and imagination intended for the final analysis, because the pilot study subjects are chosen with the intention of representing the target population. The results of the pilot analysis should be essentially the same as those of the final survey. The latter should be a more substantial replication of the former (p.227).

The analysis in this chapter includes descriptive statistics for demographic variables with accompanying graphic presentation. It includes also both descriptive and reliability testing for economic pressure items, community pressure items,

organisational values items and employee theft items. For the final analysis in this chapter the inferential statistics are presented. This will include relating statistically the main factors to employee theft. The initial statistics used in the analysis serve as a preparation for the final questionnaire. The final decision about amendments to the questionnaire was mainly based on the result of the pilot study. Full details of changes to the pilot questionnaire are included in this chapter.

Demographic variables

Demographic variables include: age, marital status, nationality, education level, job and experience. These demographic variables are illustrated in the following paragraphs.

The mean age of the pilot study respondents is 33.13. Skewness¹²⁰ is -.167 and Std. Error of Skewness is 0.564. This figure suggests that the data is symmetric because the skewness score is close to zero which is close to normal distribution and is not double the Standard Error of the Skewness. If the data are symmetric, this gives confidence to say that the subjects are representative of other people in the population. An examination of the mean age and the marital status of the respondents shows no surprise because the mean age is 34 and 75% are married. The maturity and marital status of the respondents gives confidence regarding the seriousness with which their responses may be given.

The frequency distribution of nationalities indicates a mix of nationalities answered the pilot questionnaire. Nationalities consist of Saudis, Sudanese, Filipinos, Indians and Yemenis. Yemenis form the largest group in the company. The spread of the respondents' levels of education can be seen as a sign for representativeness. From the pilot study, it is noticed that those who have secondary level of education

constitute 43.8% of the subjects while those with lower level and higher levels show similar percentages. Those at the preparatory level total 25% and those holding university degrees form 31.3%. The representation of different jobs in the supermarket is evident. It includes branch managers, supervisors, purchasing officers, cashiers, salesmen and receivers of the delivered goods. Branch managers and supervisors from 31.3 % of all the subjects who participated in the pilot study.

The respondents' mean experience in the supermarkets is 13.31 years. This is quite long enough to provide a reliable response in a pilot study. This data was categorized and the categorised years experience show that experience is distributed normally among the respondents (low, medium and high, respectively, 37.5 %, 43.8 %, 18.8 %) ¹²¹.

Economic pressures

Economic pressures contained five items for response. They are: B1, the salary from my job is enough; B2, the benefit from my job is enough; B3, my salary compared to my workload in the store is enough; B4, my salary compared to my position is enough; and B5, my total financial resources outside the company are enough. A five-point Likert scale was used to obtain answers: strongly agree is coded as 1, which is the highest level of agreement. Strongly agree was given the smallest number as it represents the least pressure. Strongly disagree is the lowest level of agreement so it was accorded the number five to represent the most pressure to inflict the economic pressure.

The reliability coefficients Alpha (Cronbach) ¹²² is needed to test the consistency of items in the scale. The test produced an Alpha = .59. To increase Alpha, B2 (The benefit from my job is enough) could be deleted. Theoretically this is a self-reporting

question which could cause reluctance in answering. The deletion of this item would increase the alpha scale from (.59) to (.75). An Alpha of .75 enables the researcher to take the average of the remaining four items to represent financial status. Financial status in this research is included in economic pressures. B2, however, was eliminated from the pilot study analysis but retained in the main questionnaire analysis. Although this item was retained, its wording was changed to address perception rather than the self-reporting and make this item reliable (consistent) with other items. An Alpha of .75 is widely accepted as reliable (see: Nunnally 1978 and Van de Ven and Ferry 1980).

The chosen statistics measure to represent economic pressures is the mean. The mean of the economic pressures after eliminating B2 is 3.42, which figure will be considered the value of the economic pressure factor. This is out of 5. A rating of five is the maximum pressure for the scale. Hence, the value of 3.42 economic pressures is considered high.

Community pressures

The community status contains ten items:

- C1 - How often do you get involved in quarrels with other people outside your store?
- C2 - How often do you get involved in acts leading to imprisonment?
- C3 - How often do you engage in criminal behaviour such as theft, fraud and embezzlement outside your work?
- C4 - How often do you engage in criminal behaviour such as assault and fighting outside your work?

- C5 - How often do you use drugs outside your work?
- C6 - How often do you use alcohol outside your work?
- C7 - How often do crimes happen in the area where you live?
- C8 - How often do you quarrel with others in the workplace?
- C9 - How often do you cooperate with other colleagues to harm the company?
- C10 - How often do you cooperate with colleagues to harm other employees?

Answers can be made according to a five-point Likert scale: Never is 1. This is the highest level of denial of any community pressure but was given the lowest rating to represent the least pressure. Always is the lowest level of denial of community pressure but was given a rating of 5 to represent the most pressure. This coding was designed to reflect the community pressures.

An Alpha score of 0.196 indicates no consistency between the items. Such a score needs to be increased so that the mean of all items can be used for further analysis.

To increase Alpha we could delete C8 (How often do you quarrel with others in the workplace?). The reluctance to answer self-reporting questions is evident in this question, so its deletion from the pilot analysis would solve this problem. This question was modified in the final questionnaire to address perception. The deletion of item C8 increases the Alpha scale from 0.196 to 0.33. An Alpha of (.33), however, will not enable the average of the remaining nine items to represent the community status (community pressures). The Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from a dichotomous response, (that is, questions with two possible answers), and/or multi-point formatted questionnaires or scales where the rating scale is: 1 = poor, 5 = excellent). The higher

the score, the more reliable is the generated scale¹²³. Nunnally (1978); and Van de Ven and Ferry (1980) have indicated 0.7 to be an acceptable reliability coefficient. Nevertheless, lower thresholds are sometimes used in the literature. This scale, however, needs to be modified extensively for the main study.

Perception of organisational values

The organisational values factor is the major independent factor in this research. As mentioned in previous chapters there are four proposed dimensions (support, rule, innovation and outcomes), each of which consists of a number of items. It is not statistically acceptable to do factor analysis for these items as the number of cases is below 100 (Pallant 2001). But for some initial analysis the reliability coefficient Alpha (Cronbach) can be used. This test of reliability can pave the way for using comparative statistical techniques to test for an association between organisational values and employee theft¹²⁴, namely regression and the Pearson correlation (r)¹²⁵ (Bryman and Cramer 1999). The test of reliability results suggests that there are consistencies between items in each dimension (Alpha levels are above .9). This indicates the validity of the scales and supports their use in the final questionnaire. The means for the dimensions are 4.13 for support orientation; 3.33 for rules orientation; 3.26 for innovation orientation and 2.94 for outcome orientation. So, there is one representative figure for all the items in each category (dimension). (See: Table 25).

Table 25: Reliability analysis scale (Alpha) for organisational values

	Support orientation	Rules orientation	Innovation orientation	Outcome orientation
N of Items	30	31	15	19
N of Cases	10	11	10	8
Mean	4.13	3.33	3.26	2.94
Reliability Coefficients Alpha	.9567	.9325	.9235	.9375

Employee theft

Two almost identical sections were included in the pilot questionnaire. One section is for the perception of employees about employee theft and the other section is for employees to report their own involvement in employee theft. The reliability coefficient Alpha was used to test these two sections and both sections have a reliable scale. The scale for perception has an Alpha level of (.97) and a mean of 1.40; and the self-reporting has an Alpha level of (.98) and a mean of (1.20). Nine subjects answered the perception section and 13 subjects answered the self-reporting section.

The number of respondents answering each section, however, is not the best criterion for judging the responses. The best and valid measurement of responses is to know how many respondents admitted to committing employee theft. In other words what is the average of the total responses for each section. When the average of one section exceeds the average of another about the prevalence of employee theft, the subjects' answers of the questions show integrity. Thus, integrity is very much needed to verify and validate the questionnaire for actual study.

The mean differences between identical items in the two sections can be seen in Table 26. The table shows that in 28 out of 38 items, the mean perception of

employee theft (1.40) exceeds self-reporting of employee theft (1.20). Only two items from self-reporting exceed perception. The remaining eight items are equal. This result indicates that respondents tend to answer the question of perception more freely than answering the self-reporting option on employee theft.

Table 26: Average differences of perception and self-report paired items

Pair		Mean	Paired Differences	Pair		Mean	Paired Differences
1	H1	1.75	.58	20	H20	1.07	0
	I1	1.17			I20	1.07	
2	H2	1.40	.27	21	H21	1.00	-.13
	I2	1.13			I21	1.13	
3	H3	1.20	.07	22	H22	1.00	-.13
	I3	1.13			I22	1.13	
4	H4	1.20	.07	23	H23	1.20	.07
	I4	1.13			I23	1.13	
5	H5	1.23	.08	24	H24	1.20	.07
	I5	1.15			I24	1.13	
6	H6	1.33	.20	25	H25	1.60	.47
	I6	1.13			I25	1.13	
7	H7	1.07	-.07	26	H26	1.87	.47
	I7	1.13			I26	1.40	
8	H8	1.07	.00	27	H27	1.29	0
	I8	1.07			I27	1.29	
9	H9	1.50	.36	28	H28	1.33	.27
	I9	1.14			I28	1.07	
10	H10	1.40	.27	29	H29	1.27	.20
	I10	1.13			I29	1.07	
11	H11	1.27	.20	30	H30	1.15	.08
	I11	1.07			I30	1.08	
12	H12	1.40	.27	31	H31	1.15	0
	I12	1.13			I31	1.15	
13	H13	1.67	.47	32	H32	1.23	.08
	I13	1.20			I32	1.15	
14	H14	1.64	.36	33	H33	1.23	.08
	I14	1.29			I33	1.15	
15	H15	1.67	.47	34	H34	1.14	0
	I15	1.20			I34	1.14	
16	H16	1.40	.27	35	H35	1.71	.29
	I16	1.13			I35	1.43	
17	H17	1.23	.08	36	H36	1.80	0
	I17	1.15			I36	1.80	
18	H18	1.23	.08	37	H37	2.80	.67
	I18	1.15			I37	2.13	
19	H19	1.07	.00	38	H38	2.00	.67
	I19	1.07			I38	1.33	

The above table and calculation of means differences are considered manual procedures. The convincing procedures are the one using statistical techniques. For

statistical techniques and a further check of the above results, the T-test was performed to compare statistically the mean of each identical item. A significance difference between the two sections (perception and self-report) has been resulted. The T-test score is 2.141 and the significant level (α)¹²⁶ is 0.05. Despite the marginality of the difference, the difference is genuine and action should be taken. This result, however, supports the elimination of the self-report section from the final questionnaire.

As has been said the Alpha Cronbach Reliability Coefficient has been used to test the reliability of the measurements as an indicator of consistency between items in each group. According to Table 27, all groups are reliable except community status (.1964) and, therefore, community pressures items will not be averaged in the pilot study. Also community pressures items were kept for the final questionnaire after the modification of the wording to address perception instead of self-reporting. In most studies 0.7 or more as the Alpha base is considered to be reliable¹²⁷. The reliability suggests that all items in the scale are consistent. In other words the average correlations of the correlation matrix between all items in the scale is larger than .70.

Table 27: Summary of reliability results

Group	Description	Number of items	Alpha
B	Financial status	5	.5939
C	Community status	10	.1964
D	Organisational value (support)	30	.9567
E	Organisational value (rules)	31	.9325
F	Organisational value (innovation)	15	.9235
G	Organisational value (outcome)	19	.9375
H	Perception of employee theft	38	.9732
I	Self-report of employee theft	38	.9860
DEFG	All organisational values groups	95	.9907

After completing preparation tests for the pilot questionnaire, inferential statistics were used to test the relationships between the independent and the dependent variables.

The descriptive statistics shows the following results:

- The mean of economic pressures is 3.4 out of a maximum of 5. This indicates that the economic pressure on the employees in the pilot study is high.
- Community pressures were not averaged because the items in this section were not reliable.
- For support, rules, innovation and outcomes orientations the means respectively are 4.13, 3.33, 3.26 and 2.94 out of five. This indicates the organisational values in these four dimensions are high.
- The perception of employee theft in the store mean is 1.40 out of 5. This indicates that employee theft is low. The mean of self-report is 1.20 which is low as well and lower than the perception figure.

Independent variables and employee theft

The Kendall tau_b correlations suggest there are no significant relationships between all the independent variables (OV, OCP & ICP) and for both perceived and self-reporting employee theft. This result is to be expected owing to the limited number of subjects (16 only). This result, however, is an encouragement to proceed to the main questionnaire study because the signs of the correlation are convincing and they were hypothesized (positive relationship between economic pressures and employee theft and negative relationships between organisational values dimensions and employee theft).

Demographic variables and employee theft

Demographic variables give more information about the characteristics of the pilot subjects in relation to employee theft. The analysis of demographic variables can also produce some indications of any possible need to modify the final questionnaire. Therefore some analyses are included in this section. Demographic variables include: age, marital status, nationality, education level, job and experience. The followings are the main results and their explanations.

- The Pearson correlation test shows no significant correlation between age and employee theft both for the perception and self-reporting. This result is based on 16 cases so it is reasonable to expect some level of relationship between the much larger number of samples in the final questionnaire.
- The T-test shows no significant difference between married and unmarried employees in employee theft in both perception and self-reporting.
- For the comparison of different nationalities in employee theft no basic statistical assumptions can be made from this data to enable a researcher to

apply any statistical test, especially the Chi-square, as each cell should contain at least 5 cases. Thus, a means comparison is used to obtain indicators about the data. The result shows Yemenis scored more in perception and in self-reporting employee theft and Filipinos scored less. There is no need to elaborate this analysis for the final questionnaire for the nationalities will be put into only two categories, Saudi and non-Saudi. This cannot be done here owing to the smaller number of cases available.

- The Kruskal-Wallis test shows no significance difference between the levels of education in employee theft. But the significance level is 0.09 which is close to 0.05. Taking into account the far larger sample size in the final questionnaire, there is the possibility of finding a significant difference. The mean rank difference of education levels on employee theft shows that employees educated to secondary school levels have the highest rank mean score in both perception and self-report.
- For a comparison of different jobs in the stores and their relationship with employee theft no basic statistical assumptions can be made from this data to enable any statistical test to be applied, especially the Chi-square test, as each cell should contain at least 5 cases. Thus, means comparison is used to obtain indicators about data. This shows purchasing officers scored more highly in perception and in self-reporting employee theft than the supervisors. There is no need to elaborate here as in the final questionnaire jobs will be placed in only one of two categories - supervisors and general employees. Here, however, owing to fewer cases being available, this cannot be done.
- Pearson correlations of experience with employee theft show a noticeable significant relationship between experience and perception of employee

theft¹²⁸, whereas there is no significant correlation with self-reporting. This result is another assurance of the necessity of eliminating the self-reporting questions from the final questionnaire.

According to an analysis and interpretation of the above, the following section deals with modifications to the questionnaire to be distributed among the final subjects of the study.

Modification of the questionnaire

The wording of the questionnaire was amended following suggestions by the respondents in the pilot study and by some of the interviewees. Some items were also eliminated because of repetition, a lack of clarity and sensitivity. The summary of the results is shown in Table 28.

Table 28: Number of items in all main dimensions before and after elimination

	Dimension	Before elimination	After elimination
A	Demographic variables	9	9
B	Financial status	5	5
C	Community status	10	9
D	Organisational value (support)	30	22
E	Organisational value (rules)	31	23
F	Organisational value (innovation)	15	12
G	Organisational value (outcome)	19	11
H	Perception of employee theft	38	23

No change has been made in section A, demographic variables. In section B, financial status, the wording has been changed from self-description to colleague-description in the workplace. The purpose of this change is to encourage respondents to answer questions about their workplace. Also the key option response of strongly agree, agree, neutral, disagree and strongly disagree were reversed because some subjects in the pilot study were confused about how to answer. The code numbers

stayed the same and ranged from 1 to 5. These numbers were then recoded for community pressures to reflect the higher the number the higher the pressure. More sensitive questions found in section C are concerned with community status. This section had a clear impact on the subjects' answers to most of the questions for most of the options on offer are never likely to happen. From the Alpha reliability analysis-scale, community pressure items do not confirm the reliability of the scale. Consequently changing the questions from self-reporting to workplace description was the solution selected for the main study questionnaire. The result shows 100 % of subjects plumped for the 'never' option which must be considered a non-response or a reluctance to answer. One question was omitted namely; how often do you become involved in acts which could lead to imprisonment? Many subjects were confused when answering this question. Due to the omissions, nine questions remain in this section.

In the pilot questionnaire the rating keys in the four sections on perception of organisational values were changed from 1=Not at all characteristic, 2=Uncharacteristic, 3=Neutral, 4=Characteristic and 5=Very characteristic to a different 5-point Likert scale of 1=strongly agree, 2=agree, 3=neutral, 4=disagree and 5=strongly disagree (Aquino et al. 1999). This was done because the former key was not understood by subjects especially after a translation into Arabic. The wording of the questions was changed accordingly to fit with new key answers.

Section D: Perception of organisational values (support orientation). The number of items was resulted from 30 to 22. This reduction took place owing to the omission of some questions. Omissions concerned generalizations or repetitions. The result was eight items were omitted, 12 stayed unchanged and ten were modified.

Section E: Perception of organisational values (rules orientation). Here the number of items changed from 31 to 23. These changes took place owing to the omission of certain questions. Those questions based on generalizations or repetitions were omitted. Eight items were therefore omitted, 19 stayed unchanged and four were modified.

Section F: Perception of organisational values (innovation orientation). Here the number of items was reduced from 15 to 12. The reductions took place owing to the omission of some questions. Those questions involving generalities or repetition were omitted. Three items were therefore omitted, six stayed unchanged and six were modified.

Section G: Perception of organisational values (outcome orientation). The number of items was reduced from 19 to 11. This reduction took place due to the omission of some questions. Omissions concerned generalisations or repetition. Eight items were omitted, five stayed unchanged and six were modified.

Section H: With some modification the perception of organisational deviance has been kept in the main questionnaire to measure employee theft. Section I: Personal deviance (self-reporting) was eliminated completely. It was eliminated because of the high number of questions on the self-reporting of employee theft considered not to require a response by subjects in the pilot questionnaire. It is possible the reluctance to respond to self-reporting employee theft may stem from the sensitive nature of the questions. Such omissions and responses are to be considered as legitimate (Devine and Heath 1999). In section H: Perception of organisational deviance, the number of items was reduced from 38 to 23. This reduction took place due to the omission of

some questions. Omissions concerned generalisations or repetition. Fourteen items were omitted, 21 stayed unchanged and two were modified.

CHAPTER 3: FINDINGS

Introduction

This chapter is concerned with the research's findings, its quantitative and qualitative results. Part 1 outlines the quantitative analysis and the preparation for the questionnaire on which the main analysis is founded. The preparation includes performing factor analysis and the Alpha test to build four scales. These scales will be concerned with economic pressures, community pressures, organisational values and employee theft. The main research variables will also be analysed and linked to the research hypotheses. The second part of this chapter includes a description of the qualitative findings. These findings are mainly derived from the interviews. The interpretation of the findings tries to show the connection between qualitative and quantitative results. The chapter concludes with an investigation of the hypotheses and research questions.

The lack of similar studies in Saudi Arabia has prevented the researcher from integrating his results with such findings. Indeed, this thesis may be the first to investigate the effect of organisational values on employee theft. Thus, the researcher compared the findings of this study with those conducted in different countries, particularly in the US and the UK. One common factor, which links the current study with others, is the use of the cross-sectional research design. Therefore, it seems logical to conclude that the ideal situation with which to compare these results is one based on both a comparable environment and similar measures of the two issues of organisational values and employee theft.

Part I: Quantitative result

The quantitative data from the main collecting instrument, the questionnaire, is analysed and presented in this chapter. The performance of the analysis and the presentation of findings are given through a series of processes. Preparations of data for further analysis are done for both dependent and independent variables. The preparation of data includes PCA¹²⁹ and the reliability test, Alpha (Cronbach)¹³⁰, for economic pressures, community pressures, organisational values and employee theft items.

The descriptive statistics provide the way to formulate a representative figure for the main factors to be tested. For example, the mean of each group of items in each organisational dimension will be used as a representative for that dimension. Without formulation of the representatives, either there would be no possibility to test the research hypotheses or there would be an endless succession of procedures and processes. Think of 68 items in organisational values alone then multiply them by the 23 employee theft items. A total of 1564 statistical processes will result. This is a very large number and a long process to test. The solution is to have the items factor analysed and obtain the mean of each extracted factor. In this research, and due to this preparation, only one economic pressure factor, two community pressures factors, and six organisational value factors have been related to the four employee theft (dependent variables) factors. This produces 36 statistical processes compared to the 1564 mentioned before.

After preparation the main hypotheses were tested. They included the correlation between organisation values and employee theft. Then the control variables (economic pressures and community pressures) were inserted as intervening

variables between the organisational values and employee theft using covariance interaction analysis (Anocva). The next step was path analysis. Finally, the demographic variables were described for respondents and linked to employee theft and other related variables (economic pressures, community pressures and organisational values).

Results and analysis

In this section the results and analysis will be presented. The result of each aspect of the findings will be linked to its hypothesis and research question. The interpretations will be fully discussed in this chapter. The discussion and the accompanying interpretations will be introduced in this sequence: first, organisational values and employee theft; second, control variables (economic and community pressures); and last, demographic variables and employee theft.

Employee theft

Employee theft is the main dependent variable in this study. It was previously factor analysed. The FA has resulted four types of employee theft. They are: paper theft (ETP), property theft (ETPR), use theft (ETU) and cash theft (ETC). General theft also was based on these four types of employee theft and was abbreviated (ET).

The descriptive statistics are calculated for all types of theft and for general theft. These calculations were done in order to describe employee theft in the workplace, with particular preference to the study subjects who completed the questionnaires. As shown in Table 29, the most prevalent theft type is use theft. The mean for ETU is 1.71 with a low of 1.31 in respect of ETC. The highest degree of theft is 5. Thus, the prevalence of theft in general is of a low level taking in consideration that a degree of 2.5 is the middle point. Other central tendency tests (Median and mode) show a

similar result to the mean. The median of ETU is also the highest among other types of theft.

For confidence in the mean as representative of the data we should look for small standard deviation¹³¹. The standard deviations in Table 29 are small values¹³². Because use theft is the most obvious type of theft in the store this suggests that employees may look at this type of theft differently. They may not consider it as theft or stealing. They may regard using the workplace equipment or tools during the course of their work for their own purpose as a legitimate act. The obvious example is using the work phone for their personal calls. They justify this by saying we are in the job and we cannot leave to see a friend or go to do any thing outside, so, using the workplace phone will save workplace time, it is for the benefit of the workplace.

In contrast, the least occurring theft type is cash theft. This is the obvious form of theft. No one can justify this type of theft, because it involves cash. The opportunity to steal cash is not available to all employees; it is only possible for cashiers or in some instances for head cashiers or for the person in charge of the safe deposit box. The clear line of responsibility for controlling cash makes such theft easy to trace and therefore less likely to occur. Also the cashiers, in OCG always have very good pay compared with other positions which make the theft less attractive. Moreover, cashiers are mostly Saudi nationals and mostly have another job with the government which attracts extra pay. This extra pay makes them better off than other employees. The comparison between these types of theft lends credence to the basic theoretical assumption in this thesis that economic pressures play a major role in causing theft in the workplace.

Table 29: Descriptive statistics for employee theft

	Paper	Property	Use	Cash	General
Mean	1.39	1.47	1.71	1.31	1.48
Median	1	1	1.33	1	1.17
Mode	1	1	1	1	1
Std. Deviation	.69	.75	.94	.65	.66
Range	4	3.67	4	4	4
Minimum	1	1.00	1	1	1
Maximum	5	4.67	5	5	5
N	429	428	428	426	429

This comparison between the four types of employee theft was done without using the statistical techniques. Thus, the use of statistical techniques will give assurance to these comparisons. The Friedman test was therefore performed to test the assumption that there is indeed a rank difference between the types of employee theft. Table 30 shows a significance rank order of them. The Chi-square score is 134.452 and the significance level is .0001. This indicates that there is a genuine rank difference between the types of employee theft occurring in the workplace. Table 30 further shows that ETU, the use of workplace items, is the most prevalent of the various types of theft, and that the theft of cash is the least. Property theft comes second and paper theft is third. Moreover, general employee theft ET is the representative of all of the types of theft with a mean of 1.48. This mean can also be considered low for employee theft in general. The lower level of employee theft does not diminish the relevance or importance of this study because there are variations of the levels of employee theft even at this low level. The variations were hypothesised on the levels of organisational values and the levels of economic and community pressures.

Table 30: The Friedman test and rank order for ET variables

	Mean Rank	Order	N	Chi-Square	Df.	Asymp. Sig.
ETP	2.44	Third	425	134.452	3	.0001
ETPR	2.51	Second				
ETU	2.91	First				
ETC	2.13	Fourth				

Organisational values and employee theft

The descriptive statistics are needed to underline the background data for analysing the organisational values and their relationship to employee theft. In this regard the mean and standard deviations of all organisational values dimensions and overall organisational values were calculated. For overall organisational values OV, the mean is 3.38 and the standard deviation is .78. The high mean indicates that OV is at a relatively high level (the maximum value is five). The small standard deviation (less than one) indicates that the mean can be confidently considered representative for other values, or in other words, other values are similar in value to the mean. The high level of organisational values here does not prevent inferences from being made on the statistics of the dependent variable ET. The small variation in OV can explain statistically the differences in employee theft.

For OV dimensions, the highest mean is 3.59 for both rules orientation, OVR, and human needs orientation, OVH. This is out of five. This indicates high values in these dimensions. In all of the dimensions the rates are considered high except for fairness orientation, OVF, which may be considered moderate (2.77). The standard deviations of the OV dimensions are small values. This indicates and assures the statistical representativeness of the mean for all OV dimensions. Despite the standard deviation for OVF (1.04) which is larger than the other dimensions'

standard deviations (less than one), it is still considered an acceptable variation to enable the representative of the mean.

The Friedman test for ranking was performed to learn the order of these dimensions in Table 31. There is a significant rank order¹³³ for the dimensions of organisational values. OVH is the highest dimension with a mean rank of 4.16, whereas OVF is the lowest with a mean rank of 2.04. This indicates that there are variations of organisational dimensions which may in turn affect employee proclivity for theft differently. In the literature there was support for the existence of a relationship between organisational culture and employee theft (See Reid London House 2002). It shows that employee theft may be affected by organisational culture and can have a substantial impact on business profitability. The average annual cost of self-admitted theft added up to \$US 82 in cash or merchandise (Reid London House 2002).

Table 31: Friedman test and rank order for OV dimensions

	Mean Rank	Order	N	Chi-Square	Df.	Asymp. Sig.
OVR	4.10	Second	423	403.639	5	.0001
OVO	3.21	Fifth				
OVF	2.04	Sixth				
OVS	3.68	Fourth				
OVI	3.81	Third				
OVH	4.16	First				

The correlation coefficient (r) is the statistical test needed to investigate the relationship between organisational values orientations and employee theft. The correlation coefficient is the test of relationship between variables. If the r is large a strong relationships between variables can be assumed. The sign of the relationships could be positive or negative. If the sign is negative it means that when the independent variable is high the dependent variable is low. An example from the

present study shows that where there is a negative relationship, if OV is high, employee theft can be hypothesised as low.

From Table 32, the rule orientation factor, OVR, is correlated strongly with paper theft, property theft and with employee theft in general. These findings support Hollinger's (1991) findings. Paper theft is related strongly to rule orientation. This is because paper theft is related to employees with a higher rank of employment such as supervisors and store managers. These staff have greater access to documents and papers, so they are able to modify these documents in order to steal from their organisations. When rule orientation is highly apparent in the work place, employees are unlikely to engage in employee theft.

The rules orientation factor also correlates moderately¹³⁴ with cash theft but there is no significance correlation with theft by use. The negative signs of all these correlations indicate that the relationship between organisational values and employee theft are negative relationships: as the perception of organisational values by employees rises, employee theft declines in the workplace. This analysis suggests that when the management of an organisation follows the rules during the course of their work, employees in the work place are much less likely to commit paper theft, property theft and general employee theft and quite likely also to refrain from committing cash theft. One last point on the rules orientation factor: there is no genuine relationship between this factor and use theft. This indicates that when management follows the rules employees do not necessarily refrain from using work place equipment for their own benefits. The explanation of this is that employees do not necessarily regard using such equipment as theft (Taylor 1986). If this conclusion was formed from self-report questioning, it might not be related to the study of

employee theft, but the answer was based on the perceptions of employees about their colleagues. Thus, the results assure that there are no relationships between rule orientation and using work place equipment and tools.

Table 32 also shows that outcome orientation has a moderately negative but significant effect on all types of employee theft except for cash theft (ETC). This result is largely supported by the finding in Gruys and Sackett (2003)'s study that theft and related behaviour vary on the task relevance dimension. This shows how task or outcome orientation in the work place can control employee theft. According to Greenberg (1993), theft in the work place was greatest in a low valid information situation and least in a high valid information situation. Valid information is the knowledge of instructions and outcome performance by employees. This supports the findings of this research about outcome orientation. Mitchell, Daniels, Hopper, George, Falvy and Ferris (1996) gave more support to these findings by pointing out that the perceptions about illegal behaviour were caused by the clarity of expectations and standards describing illegal behaviour. Clarity of expectations is one segment of outcome orientations.

For fairness orientation there is only one moderately negative significant effect. That concerns use theft. This is the opposite of rule orientation which was mentioned earlier. The lack of a significant relationship between fairness and employee theft types differs from the findings by Greenberg and Barling (1996). When explaining why some people would pilfer from an organisation, they attributed it to perceived organisational fairness. Hollinger et al. (1992) also stated that employee deviance is highest in occupational settings that rely heavily on "marginal" workers - especially those who are young, with little tenure, and who believe that their employers treat

them unfairly. Similarly (Sieh 1987) stated that employees' most common response when experiencing high inequity is deviant activity such as theft and sabotage. According to Kears (1993), many employees feel it is up to them to even out perceived unfairness by management. So, when the president gets a rise and the work force suffers layoffs or a wage freeze, the outcome can be negative for everyone. Most literature contradicts current research findings in connection with fairness.

Support orientation has a moderately negative effect on paper theft and property theft but no effect on the other two types of theft (cash and use). Kears (1993) illustrated how work attitudes, organisational commitment, trust, and company loyalty affect a company's success. Similarly, the necessity of support orientation in the work place came from O' Hara, Johnson and Beehr (1985).

For innovation orientation there are significantly strong negative effects on paper theft and property theft and moderate effects on cash and use theft. It is clear from these results that innovation orientation is a very important factor in controlling employee theft because it has an effect on all types of employee theft.

The same effects are present in human needs orientation but with very high effect on property theft. This indicates that human need orientation controls property theft more strongly than any other orientation. This result is generally supported by the finding in Gruys and Sackett (2003)'s study that theft and related behaviour vary on the interpersonal-organisational dimension as one element of human needs. This shows how human needs orientation in the work place can control employee theft.

For a general organisational value orientation there is a moderately negative significant effect on general employee theft and on all other types of employee theft

except cash theft. The lack of correlation with cash theft may well be explainable because of possibility that only cashiers can steal cash from the workplace. So, it is unreasonable to generalise for all types of employees. Moreover the majority of cashiers are Saudis and are very well paid compared to the expatriates who hold other positions. The perception of cash theft here actually can be viewed as a perception about Saudi staff.

Table 32: Pearson correlations for OV factors and ET variables¹³⁵

	Paper	Property	Use	Cash	General
OVR	-.240	-.251	-.086	-.143	-.206
OVO	-.134	-.176	-.150	-.067	-.162
OVF	.037	-.074	-.114	.053	-.039
OVS	-.175	-.166	-.062	-.037	-.131
OVI	-.224	-.240	-.152	-.111	-.218
OVH	-.223	-.301	-.148	-.158	-.241
OV	-.183	-.235	-.134	-.088	-.190

Control variables

The nature of the social phenomena is the complexity of attributions and relationships between factors and variables. In this study, the great importance of the work place environment as the background to perceptions of organisational values and employee theft must be noted. Economic and community pressures play very important roles in accelerating the effect of organisational values on employee theft. Three control variables are introduced here: economic pressures, ECP; outside community pressures, OCP and inside community pressures, ICP. The descriptive statistics of these variables in Table 33 shows the economic pressures has greater pressure on employees than OCP and ICP. The mean of ECP pressures is 2.46 out of five points. There are also moderate community pressures from both outside and

inside the work place. The respective means are 1.38 and 1.67. This indicates that inside pressures are greater than outside pressures. (See: Table 33).

The Friedman test is also presented in Table 33. There is a significant rank order for these control variables. The rank means for ECP, OCP and ICP are, respectively, 2.63, 1.48 and 1.89. The Chi-Square is 325.198 and the significance level is ($p = .0001$). According to the Friedman test the difference in order for these factors is a genuine difference, which is based on true characteristics of the data. A genuine difference means that this does not happen by chance alone.

Based on the Friedman test and other descriptive statistics, ECP is the most apparent factor of the other two. ICP precedes OCP. This result can be discussed using the socio-economic interpretation approach. The socio-economic interpretation approach is a way of attributing the effect of one factor to another based on economic and community social life. The socio-economic information is an attempt to synthesize relevant demographic, social, and economic data and to explain their relevance to the research issues, such as, employee theft. The socio-economic background can explain much of the pressures that employees usually experience.

Table 33: Friedman test and descriptive statistics for control variables

STATISTICS		ECP	OCP	ICP
Mean		2.46	1.38	1.67
Median		2.40	1.00	1.33
Mode ¹³⁶		2	1.00	1
Std. Deviation		.85	.61	.82
Range		4	3.20	4
Minimum		1	1.00	1
Maximum		5	4.20	5
Friedman Test	Mean Rank	2.63	1.48	1.89
	Chi-Square	325.198	Asymp. Sig	.0001
	df	2	N	426

For an explanation of the socio-economic factors that cause the pressures, employees can be classified into two groups, Saudis and non-Saudis. The 143 Saudis form 33.33% and the 273 non-Saudis 63.6% of the sample. Thirteen (3%) are missing from the data. The only possible reason for this missing data is because some subjects forgot to answer the question of nationality, as this question is not a sensitive one. The Saudis are mostly young people with a mean age of 22.86; whereas non-Saudis are considered mature people with a mean age of 30.53. The social background of employees and the communities where the employees live is also taken into account. According to interviews with executive staff in the headquarters and store managers, and based on the observation and the knowledge of the researchers, Saudi employees are living with their families in Riyadh and expatriates are living with groups of males from their nationalities in buildings distributed throughout Riyadh close to their place of work.

For most Saudis their jobs are part time jobs which bring in extra pay. Their main employment is in the government sector. The salaries and benefits of their government jobs greatly exceed their pay in the company. In contrast most expatriates only have one job, which is with the company. The pay for non-Saudis is always less than that for Saudis¹³⁷.

Income and living status are synthesized to produce the socio-economic status of the employees. The Saudis are less pressured economically but open to pressure by the community where they live. Despite their high pay compared with their expatriates colleagues, most Saudis have the responsibility of supporting their extended families including their youngest brothers and sisters, their living costs are therefore high. The expatriates in turn have similar responsibilities for their own homes. They also

have families to support. Moreover, Saudis and expatriates are likely to enjoy similar cultural backgrounds as most expatriates in the company have come from other Arab and Asian developing countries. This problem was solved by the extra pay for Saudis in other jobs and by the part time pay for expatriates. This explains the low economic and community pressures found in this study.

Regarding ICP, the position of the peer group in the workplace is important. Saudis consider themselves a minority and subordinates as the managers and most of the supervisors of the stores are non-Saudis. This could create some bitter feeling against the store management and against other non-Saudis employees. This situation engenders an 'us and them' attitude. It creates a sense of competition between these groups to show who works hardest and is most loyal to the company. Saudis look at the practice of management to hire non-Saudis as a violation of the 'Saudisation rule' which is widely applied throughout Saudi government as well as the private sectors. Non-Saudis see the situation as Saudis not being qualified enough to handle some store jobs such as the merchandising. Non-Saudis characterise Saudis as not working very hard and having time-keeping problems. Yet each group, tries to show good working behaviours. This explains the low inside community pressures and helps to promote better job performance. These low levels of pressures (ECP, OCP and ICP) can be attributed to the peer group situation and may lead in the end to a low employee theft rate. The low levels of ECP, OCP and ICP, however, do not prevent the use of these variables to test their effect on employee theft. Even marginal differences could serve, statistically, as a background factors for changing levels of employee theft.

Direct effects of control variables

The correlation coefficient is an appropriate statistical technique to test the direct relationship between ECP, OCP, ICP and ET as Table (34) indicates.

According to Table 34 there is no significant correlation between economic pressures and all types of employee theft. This indicates that there is no direct positive effect from economic pressures on employee theft as was traditionally considered. It was assumed previously in the literature that financial and economic difficulties cause many deviant acts including crimes and theft. One interpretation of this is that there must be some missing intervening variable mediating the effect or ECP needs to work within a special environment. This finding was supported by Fowles and Merva (1996) who found no evidence linking wage inequality, as an economic pressure, with the crimes of robbery and burglary as theft related behaviour.

The lack of support for the direct effect of economic pressures on employee theft in this thesis research, however, does not support the findings of Slobodian and Browne (2001) that studies of car theft in the UK suggest the characteristics of the offenders in offences recorded by the police in the 12 months ending March 1999 included those associated with socio-economic deprivation. Nor does the study of Carmichael and Ward, 2000, support this thesis' findings when they investigated youth unemployment and crime in England and Wales. Furthermore this finding is not supported by Boye and Jones (1997). They said that counterproductive behaviours by employees (voluntary behaviour that violates significant organisational norms and in so doing threatens the well-being of the organisation, its members, or both) can be broadly viewed as resulting from economic factors.

This will be addressed later in this chapter during the investigation of path analysis. This finding can also be explained by the theoretical principle that there is no one-factor-explanation to any social phenomenon. Thus, ECP still needs support from another factor or factors to cause an effect on employee theft.

This unsupported evidence suggests the desirability of investigating the effect of economic pressures as an indirect effect via organisational values. This will be dealt with shortly after the presentation of the findings on community pressures.

For OCP and ICP there are significant correlations between both outside and inside community pressures and all types of employee theft. These effects are direct, positive and strong correlations. The highest correlation is between outside pressures and paper theft ($r = .59$), whereas the lowest is between inside community pressures and property theft ($r = 0.37$). This result was hypothesised and is supported by the same theoretical principle mentioned earlier (no one-factor-explanation). This is because community pressures do not consist of a single variable but a complex of variables related to the social setting and social environment. Furthermore, it is very difficult to separate the social causes from each other. This factor on its own stems from a group of reasons conspiring collectively and causing employee theft.

These findings receive overwhelming support from the literature, especially for ICP. Roebuck and Barker (1974) found that police corruption as a form of organisational deviance hinged primarily on informal police peer group norms. This is inside community pressures. The study by Robinson and O'Leary-Kelly's (1998), found a positive relationship between the level of antisocial behaviour exhibited by an individual and that exhibited by his or her co-workers. In Dabney's (1995) study,

informal work group norms served to shape nurses' behaviours. This is also the effect on the peer group of community pressures.

Table 34: Pearson correlations for control and ET variables¹³⁸

	ET	ETP	ETPR	ETU	ETC
ECP	.010	.044	-.055	.000	.038
OCP	.594	.592	.566	.418	.515
ICP	.432	.429	.370	.358	.371

Interaction effects

In order to test the effectiveness of the control factors as intervening variables (indirect effect) between OV and ET, the analysis of covariance ANCOVA is needed. For this statistical technique, categorisation into low and high is performed. All values below 50% are considered low and over 50% high. For ECP, low pressures are the values between 1 and 2.25, and high are the values between 2.4 and 5. For OCP, 1 is considered low and between 1.2 and 4.2 it is considered high. For ICP, the values between 1 and 1.33 are low pressures, and the values between 1.5 and 5 are considered high. The categorisation of such variables was based on cumulative percentages for each variable from SPSS frequency tables.

Organisational values dimensions are also categorised into low and high by the same procedures as for control variables. The categorisations are in Table 35.

Table 35: Categorisation of OV dimensions

	OVR	OVO	OVF	OVS	OVI	OVH	OV
Low	1-3.63	1-3.30	1-2.80	1-3.50	1-3.63	1-3.50	1.18-3.32
High	3.65-5	3.36-5	2.83-5	3.57-5	3.67-5	3.63-5	3.33-5

The test compared the different levels of control variables (ECP, OCP and ICP) in different levels of OV dimensions. This test produced a clear result about the

different effects of the different conditions. There are four different conditions in each model: low OV and low ECP, OCP and ICP; low OV and high ECP, OCP and ICP; high OV and low ECP, OCP and ICP and high OV and high ECP, OCP and ICP. See Table 36 for Ancova (analysis of covariance). Column 3 under ET, shows the interaction effect of the main model for the control variable ECP as mediated between general OV and general ET. The results show that an F test score is 17.91, and the significant level is .0001 with an Eta¹³⁹ correlation of .20. The F score and the significant level here indicate that there is an interaction effect between the different conditions to produce employee theft. The interaction effect means that employee theft levels vary from condition to condition and these variations are considered genuine variations. The order of conditions is very important in this study. It was hypothesized as having certain directions for two conditions but without direction for two other conditions. The two directed conditions are: high OV with low ECP yields low employee theft, and low OV with ECP yields high employee theft. The two undirected conditions which produce medium ET are: high OV with high ECP, and low OV with low ECP. The latter two conditions are hypothesized to produce medium employee theft. But the order of these two needs to be disentangled. The result of the interaction model includes these four ordered conditions (high employee theft first in order)¹⁴⁰:

- Low general organisational values with high economic pressures; the mean employee theft is 1.76;
- Low general organisational values with low economic pressures; the mean employee theft is 1.51;

- High general organisational values with high economic pressures; the mean employee theft is 1.35; and
- High general organisational values with low economic pressures; the mean employee theft is 1.33.

As previously hypothesised the lowest rate of employee theft comes from high OV with low ECP, and the highest rate of employee theft comes from low OV with high ECP. For the proposed moderate employee theft rate for the remaining two conditions, there is a significant ranking between these two conditions; the ranks are:

- Low OV with low ECP has a higher employee theft rate and
- High OV with high ECP has a lower employee theft rate.

This finding stresses the role of organisational values as the main factor in employee theft and economic pressures as the secondary factor. It disentangles the effects of these two conditions.

The same trend is apparent for all types of employee theft with economic pressures for general organisational values. The relationships are significant for ETP, ETPR and ETU, columns 4, 5 and 6, and no statistical significance is found for ETC column 7 (cash theft). Although the order of the means and the trend of the interaction effect for ETC follow the same pattern, there is no statistical significance. The non-significance with ETC could be attributed to the low cash theft in general in the study as mentioned earlier. The mean is 1.31. This is the least common of all types of employee theft.

Table 36 also shows significant interaction effects for outside community pressures and inside community pressures as mediating variables between general organisational values, and general and all types of employee theft except for ETC.

The trends of the relationships are ranked as suggested in earlier analysis. But the moderate effect seems different from the one connected with economic pressures. High OV with high OCP and ICP reflects a higher rate of employee theft, and low OV with low OCP and ICP reflects a lower rate of employee theft. This indicates that community pressures play a greater role in controlling employee theft than economic pressures do even when the organisational values level is high. Community pressures as discussed before when dealing with descriptive statistics for OCP and ICP, are a collective of complex factors not deriving from one factor alone. They reflect the true workplace environment. The interaction effect can be seen in two illustrations. First, high community pressures play a greater role in causing high ET than high ECP when OV is at a high level. Second, low community pressures play a greater role in causing low ET while OV is at a low level. Thus, community pressures, inside and out are crucial factors in controlling employee theft in the workplace. This is the opposite of the effect of economic pressures, as this can be neutralised by the presence of high organisational values.

More analyses for ECP, OCP and ICP as mediating variables between organisational values dimensions and general employee theft and all types of employee theft are performed. The results are similar to the trends as described. The tables are shown in Appendix J.

Table 36: Ancova interaction effects for ET dimensions

OV	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.51	1.40	1.59	1.72	1.37
	High	1.76	1.78	1.74	1.99	1.43
High	Low	1.33	1.17	1.28	1.70	1.17
	High	1.35	1.27	1.29	1.53	1.30
Anova	F	17.91	22.69	25.75	7.00	3.44
	Sig.	.0001	.0001	.0001	.008	.064
Eta		.20	.23	.24	.13	.09

OV	OCP					
Low	Low	1.27	1.22	1.25	1.49	1.12
	High	1.93	1.87	2.03	2.15	1.62
High	Low	1.18	1.12	1.15	1.32	1.13
	High	1.56	1.39	1.48	1.94	1.43
Anova	F	17.95	22.80	25.75	7.09	3.35
	Sig.	.0001	.0001	.0001	.008	.068
Eta		.20	.23	.24	.13	.09

OV	ICP					
Low	Low	1.28	1.29	1.22	1.37	1.11
	High	1.86	1.76	1.96	2.17	1.57
High	Low	1.17	1.12	1.18	1.27	1.13
	High	1.59	1.43	1.49	1.99	1.46
Anova	F	13.48	17.69	19.44	5.78	2.18
	Sig.	.0001	.0001	.0001	.017	.141
Eta		.19	.22	.23	.13	.08

Although the Ancova statistical technique gave profound detailed ideas about the relationships between the main research variables more in-depth analysis is needed because Ancova is used with a categorised variable. Path analysis is a statistical technique which uses the original continuous variables. This technique will be used for more in-depth analysis. Path analysis also identifies the directions of the effects from the independent variable to the dependent variables through the mediating variables. As assured in the previous analyses, there are relationships between organisational values and employee theft with ECP, OCP and ICP as control variables. The directions of these relationships need to be investigated. The main purpose of path analysis, then, is not intended to discover causes but to shed light on

the tenability of the causal models (Pedhazur 1982). This test will show which of the organisational values dimensions ECP, OCP and ICP affect employee theft and which paths are stronger in effect than others.

Path analysis

In this model, the direct effect of control variables (ECP, OCP and ICP) on ET and an indirect effect via OV dimensions are being tested. It may be argued that economic pressures and community pressures will influence employee theft. If not directly then via organisational values. In fact, when a correlation analysis was constructed for ECP and ET, there was no direct positive effect. On the other hand there are significant correlations between both OCP and ICP and ET. This influence will be investigated further especially for ECP.

First, OV dimensions (OVR, OVO, OVF, OVS, OVI and OVH) were regressed on control variables (ECP, OCP and ICP) to establish the first path coefficients. So, OV dimensions were treated as dependent variables. Next, ET dimensions were regressed on each of the OV dimensions as independent variables. Path coefficients were obtained from normal regression analysis. To assess the importance of the indirect path, the coefficients along the path are multiplied together then added to the direct path coefficients¹⁴¹.

The arrows were drawn only between the variables with statistically significant coefficients. The signs of all arrows in the figure are negative except for the direct lines from OCP and ICP to ET dimensions which have positive signs. In Figure 9 there is no significant direct effect from ECP on ET, thus the arrow was not drawn.

The researcher calculated the overall impact of one variable on another – such as OCP on ET. This is done by simply adding the direct effect of OCP (.507) and the indirect effects (-0.099) to it. The indirect effects are calculated by multiplying the coefficients for each path from OCP to ET. This is OCP to OVH and OVH to ET ($0.189 * -0.522$). The total effect of this path is (-0.606). This is the total value effect of this path. It will be used to compare it with other paths to identify which path has the greater effect. The total effect value will also indicate the strength of the effect. The stronger effect is, the closer it is to 1 (unity)¹⁴².

Figure 8 shows the overall model effect of path analysis and Figure 9 shows the detailed path diagram. Economic, outside community, and inside community pressures were proposed as having positive direct effect on employee theft. furthermore economic, outside and inside community pressures were proposed as having negative effects on organisational values. Finally, organisational values were posited as having a negative effect on employee theft.

Figure 8: Overall Model effect of Path analysis

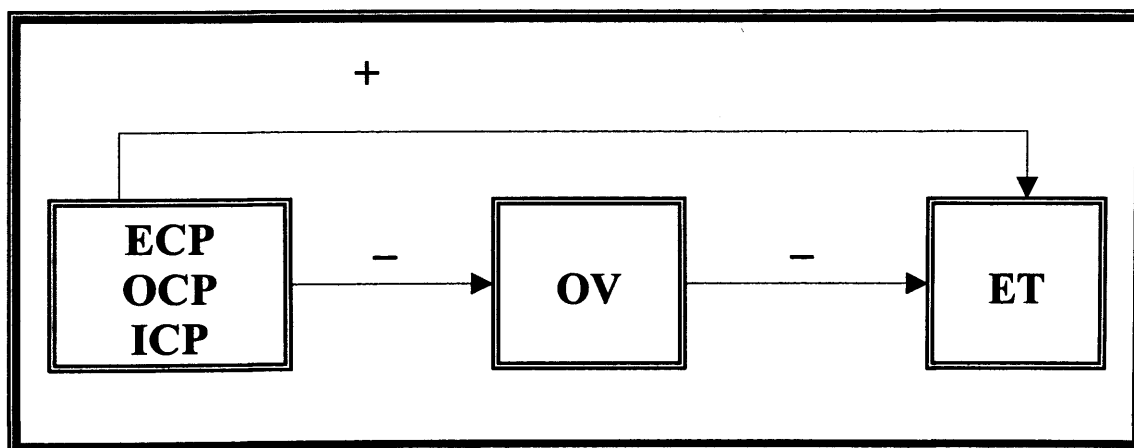
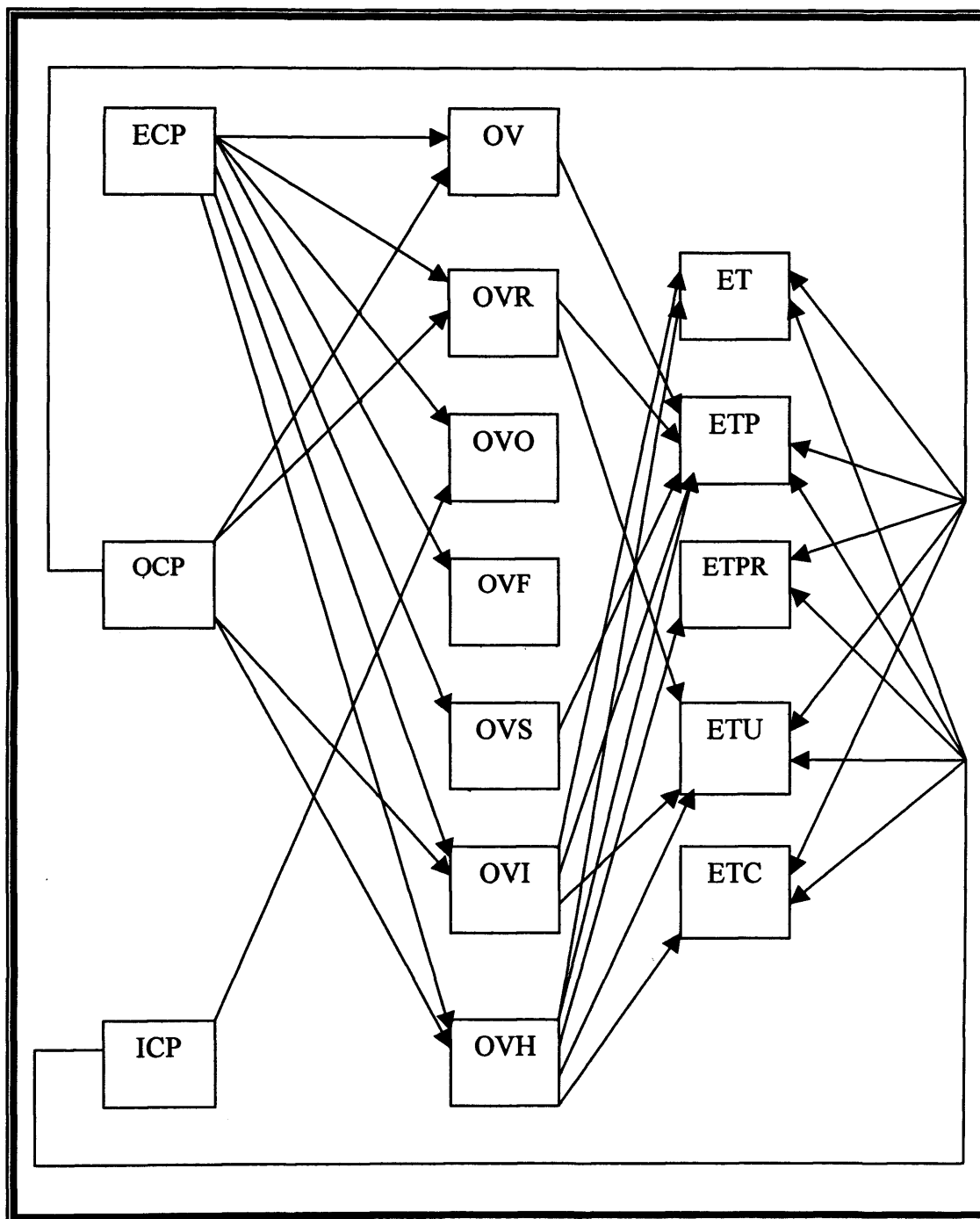


Figure 9: Detailed path diagram



In separate tables path analysis for each control variable is presented. Table 37 relates to ECP. It shows no direct effect at all from ECP to any ET dimensions but it has many indirect effects. The ECP affects ET dimensions indirectly via its effects on OV dimensions. The largest effect is on ETP via OV (overall organisational values) (.830). The smallest effect is on ETC via OVH (-.130). ECP has affected both OVO and OVF but neither of these variables has exerted any effect on any dimension of ET. This analysis indicates that despite the lack of any direct effect from economic pressures on employee theft there are some indirect effects associated with organisational values. This suggests that even when economic pressures are highly apparent on the employees the high rate of organisational values may control the prevalence of employee theft in the work place. The negative signs in most of the coefficients indicate a lower rate of employee theft due to the high rate of organisational values.

ECP has its highest level of effect through QVR, directed toward ETP. In other words, high economic pressures cause a low level of rule orientation, which in turn produces paper theft. The second effect of ECP takes the path of OVH to ET. This is through the human needs dimension which leads to more general employee theft. Third is paper theft which is caused by economic pressures through a lack of innovation orientation in the workplace. Thus it appears that a low rule orientation is the number one orientation likely to cause employee theft, especially paper theft when instigated by high economic pressures. Human needs orientation is also mainly related to general theft related to economic pressures. So, if this orientation under economic pressures is not there general employee theft is likely to arise.

Table 37: Standardized Coefficients Beta (SCB) for ECP

	Indirect effect				Direct effect	Total effect
ECP	.501	OV	1.656	ETP	0	.830
	.456	OVR	-.560		0	-.255
	.354	OVO	-----		0	
	.540	OVF	-----		0	
	.420	OVS	-.366		0	-.151
	.386	OVI	-.409	ET	0	-.158
	.386		-.502	ETP	0	-.194
	.386		-.359	ETU	0	-.139
	.377	OVH	-.522	ET	0	-.197
	.377		-.381	ETP	0	-.144
	.377		-.410	ETPR	0	-.155
	.377		-.495	ETU	0	-.187
	.377		-.345	ETC	0	-.130

Table 38 shows that there are several direct effects from OCP on all of the ET dimensions as well as many other indirect effects. The OCP affects the ET dimensions indirectly via its effects on OV dimensions. The largest effect is on ET via OVH (.606). The smallest effect is on ETP via OV (.287). This analysis indicates that despite the direct effects from outside community pressures on employee theft there are indirect effects via organisational values. This suggests that even when community pressures are highly apparent on the employees, the high rate of organisational values may control the prevalence of employee theft which occurs in the work place. When outside community pressures are great, employee theft occurs. But if organisational values are higher, theft is likely to be reduced. So the key factor in this model is organisational values.

Table 38: Standardized Coefficients Beta (SCB) for OCP

	Indirect effect				Direct effect	Total effect
OCP	-.133	OV	1.656	ETP	.507	.287
	-.157	OVR	-.560		.507	.595
	-.117	OVS	-.366		.507	.550
	-.140	OVI	-.409	ET	.507	.564
	-.140		-.502	ETP	.507	.577
	-.140		-.359	ETU	.317	.367
	-.189	OVH	-.522	ET	.507	.606
	-.140		-.381	ETP	.507	.579
	-.140		-.410	ETPR	.514	.591
	-.140		-.495	ETU	.317	.411
	-.140		-.345	ETC	.442	.507

Table 39 is devoted to ICP and this table lacks any indirect effect. This makes it different from other tables. It shows that there is only one significant effect from ICP on only one QV dimension. It is from ICP to OVO. There are five direct effects from ICP to ET dimensions. This indicates that there is no intermediate variable between inside community pressures and employee theft dimensions. It suggests, however, two conclusions: 1) the relationship between inside community pressures and employee theft is direct and 2) the direct effect is positive and moderate. This means that inside community pressures affect the perceptions of employees towards the organisation values in their workplace. They do not rate them highly. comparing the effect of OCP with ICP, OCP has the greatest effect. This is despite the direct effects for OCP are high and the indirect effects are relatively high as well. As mentioned earlier there is overwhelming support from the literature for the correlation between community pressures and employee theft (Roebuck and Barker 1974; Dabney 1995; Sieh 1987 and Robinson and O'Leary-Kelly 1998). While the findings in this study suggest that the role of OCP is greater than that of ICP the literature emphasises the opposite. This apparent paradox needs to be re-examined. The logical explanation is

that the literature read did not evaluate intervening variables in order to disentangle the effect of the various factors, or suggest that these works only focused on the final by-products and not on the detailed findings.

Table 39: Direct effect of ICP on ET dimensions (SCB)

ICP	-.122	OVO
	.164	ET
	.160	ETP
	.103	ETPR
	.191	ETU
	.137	ETC

Demographic variables

Analysis of the demographic variables was needed for describing the respondents' characteristics; understanding the background of the thesis; exploring more aspects of the phenomenon of employee theft in relation to these demographic variables; comparing different groupings in relation to employee theft, such as nationality, age, education levels and positions in the workplace; and using the triangulation method for comparing supervisors attitudes to employee theft with that of general employees. Analysis of findings in this section included age, marital status, nationality, education level, job and tenure. No analyses by store were conducted as this could lead to individuals being identified.

The average age of respondents in this study was 28. It reflects the true mean of the company and serves as an indicator for other supermarkets in Riyadh and in Saudi Arabia as a whole. Age is considered interval data¹⁴³ with employee theft types as a ratio. This sort of data allows the researcher to use the correlation coefficient r as a mean of investigating the relationship between age and employee theft. There are

significant negative correlations for general and all other types of employee theft. These associations have a moderate significance between .1 and .2.

More analysis of the data shows the relationships between age on the one hand and economic and community pressures on the other. The results indicate that there is no significant correlation between age and economic pressures. This suggests that age has no significant role or effect on the perception of individuals of economic pressures on employees. The correlation between age and people's perceptions of both outside and inside community pressures shows a negative but strong significance for outside pressures and a moderate significance for inside community pressures. The importance of such a finding for this study is that it shows how the various age groups view themselves and their group in the work place. The perceptions of everybody in the work place and the respondent himself were considered.

Moreover the results indicate no significant correlation between age and any organisational value dimension. This suggests that age and perceptions of organisational values are not correlated. Therefore there are no effects from age on these dimensions, and even though age is important, it cannot be considered a control variable.

Data show that the difference between the age of married and unmarried respondents is only 16 % in this study. This small difference gives a reasonable basis for comparing the perceptions of these two groups on employee theft and on other issues in this study.

For a comparison between married and unmarried people in their perceptions of employee theft, a T-test or the Mann-Whitney U test may be used. Both tests were used in order to decide which is the more appropriate one for the task.

Table 40 shows the results of the comparisons between married and unmarried people in employee theft. It indicates a significant difference between the means of general employee theft for the married people and singles. Singles tend to view employee theft as the most prevalent. They characterise their workplace with a more dishonest environment than married people. This can be explained by the fact that married employees are mostly too concerned with supporting their families and have little time for other affairs. Singles, moreover, are primarily concerned with their workplace and consequently discover more information about the surrounding situations. For employee theft the two types which show significant difference, are paper theft and use theft. There is always likely to be a difference in how single people and married people regard the issue of paper theft. On average, single employees view paper theft as a perk than those who are married. On average the difference is 0.17%. The two other types of theft that have no significant differences are property theft and cash theft. These latter two types are at a low level for most of the comparisons between variables.

Table 40: T-test for ET variables by marital status

	t-test	df	Sig.	Mean		
				Married	Single	Difference
ET	-2.083	422	.038	1.3998	1.5343	-.1344
ETP	-2.540	422	.011	1.2992	1.4717	-.1725
ETPR	-1.086	421	.278	1.4199	1.4995	-.0797
ETU	-2.106	421	.036	1.5955	1.7891	-.1936
ETC	-.872	419	.384	1.2846	1.3409	-.0562

Data show that Saudis are more than a third of all employees in the company, 34.4 %. This ratio can be regarded as near to the norm in Saudi Arabia companies. For the purpose of analysis the nationalities were condensed into two groups: Saudis and non-Saudis. Saudis number 143 and non-Saudis 286. This affords a basis for comparisons of employee theft and other issues in the study. The T-test was used to analyse the differences between Saudis and non-Saudis in employee theft. See Table 41. The results show significant differences between Saudis and non-Saudis in all types of employee theft. According to this test, it is Saudi nationals who characterise the work place with more employee theft than non-Saudis. The largest difference is in use theft where the difference is .52. This, however, assumes that Saudis mostly feel free to admit to wrong-doing in the workplace more than the non-Saudis. This may be because they are less afraid of being fired from their job if their bosses do not like what they say. Saudis, as mentioned earlier, mostly have other jobs and can easily find a job elsewhere. This is not the case with expatriates. They have only one job and if their bosses do not like what they say, they might easily be fired or sent to another store or given alternative employment. Also, expatriates have often had to pay lots of money to come to Saudi Arabia for work so they need to stay longer to pay their debts and support their families back homes. This situation induces expatriates to say little about their workplace to protect themselves.

Table 41: T-test for ET by nationality (Saudi & non-Saudi)

	T-test	Df.	Sig.	Mean		
				Saudi	Non-Saudi	Difference
ET	5.621	427	.000	1.7201	1.3550	.3651
ETP	5.085	427	.000	1.6283	1.2781	.3502
ETPR	4.819	426	.000	1.7057	1.3463	.3594
ETU	5.527	426	.000	2.0552	1.5402	.5150
ETC	4.077	424	.000	1.4918	1.2242	.2676

Table 42 shows the differences between Saudis and non-Saudis in their perceptions of economic and community pressures. This analysis serves as an exploration of the differences between them about their opinions of the prevalence of economic and community pressures in their workplace. Table 42 shows no significant differences between Saudis and non-Saudis in their perceptions of economic pressures but significant differences over outside and inside community pressures. The differences respectively are 0.40 and 0.27.

Table 42: T-test for ECP, OCP and ICP by nationality

	T-test	Df.	Sig.	Mean		
				Saudi	Non-Saudi	Difference
ECP	.881	426	.379	2.5142	2.4368	.0774
OCP	6.833	426	.000	1.6525	1.2483	.4042
ICP	3.333	426	.001	1.8521	1.5746	.2775

Data in this study show that 83.2% of respondents have an educational level beyond that of the secondary level. This level of education gives more confidence about the reliability of the answers. The approximate normal distribution also provides reasonable validity for comparing levels of education in respect of the respondents' perceptions of employee theft. Education levels are primary, preparatory (level between primary and secondary), secondary, and university degrees and diplomas.

The Kruskal-Wallis H^{144} was used for examining education levels. The results of comparing ET with education levels indicate that there is only one significant difference between the various levels of education. This concerns cash theft where the Chi-Square is 11.372 and the significance level is .02. Those educated only to the primary level, view the workplace with more cash theft than those with higher levels of education. The mean is (1.6). This may be because a low education level makes people sometimes unaware of the consequences of telling the truth. Often they tell the truth more easily than mature people who are highly educated. The Kruskal Wallis test indicates that there are significant differences between education levels and both economic pressures and outside community pressures but no significant difference for inside community pressures. Primary level educated employees also have the highest mean compared with those educated to a higher level. This result suggests that low level educated employees may easily talk freely about the situation in the workplace. Either because they are more honest, or because they are not aware of the consequences of telling the truth.

The Kruskal Wallis test for OV against education levels indicates that only two dimensions have significant differences among the six dimensions and general organisational values. These dimensions are rules orientation and support orientation. Those with a secondary education level have a higher average mean with respect to rules orientation (3.698). Preparatory level employees have a higher support orientation mean (3.68). This suggests that employees with secondary level are concerned about rules orientation in the workplace and employees with preparatory level are more concerned about support orientation because they still feel a need for that kind of support because of their level of education.

This section of the study is very important for its link with the triangulation method for testing the difference between supervisors' and general employees' perceptions of employee theft and other issues. See Table 43 for the full description of respondents' jobs. The largest group of respondents are merchandisers (33.9 %), then cashiers (24.2 %), followed by supervisors (10.7 %). These jobs have been categorised into two jobs, supervisors and general employees. Supervisors constitute 10.5 % of respondents. The remaining 89.5 % are general employees.

Table 43: The respondents' jobs

	Freq.	%		Freq.	%
Cashier	102	24.2	Produce man	14	3.3
Salesman	38	9.0	Delicatessen food salesman	7	1.7
Supervisor	45	10.7	Produce supervisor	1	.2
Customer relation supervisor	3	.7	Computer	11	2.6
Customer relation officer	16	3.8	Safe keeper	2	.5
Merchandiser	143	33.9	Driver	2	.5
Butcher	17	4.0	Head cashier	1	.2
Corner shop manager	7	1.7	Receiver	2	.5
Trainer of employees	3	.7	Worker	1	.2
Clinic worker	1	.2	Trainee	1	.2
Nuts salesman	5	1.2	Total	422	100.0

Despite the fact that supervisors characterise the workplace by committing more theft than general employees, the use of the T-test to compare supervisors with general employees indicates there is no significant difference between them. This result assures the consistency of respondents in acknowledging the prevalence of employee theft in their workplace among all levels of employees. Supervisors and general employees alike rate honesty at a similar level. This result can be explained as supervisors are under the management of the stores as well as other employees. General employees always report to the store managers not to the supervisors. In the

respect all employees may be said to enjoy similar ranking ratings, even though, they may have different responsibilities. The supervisors should hold a higher rank over certain employees which is not the case in the company under study. Thus there is no difference in the view of all employees about the prevalence of employee theft in the workplace.

Similarly, this study shows no significant difference between supervisors and general employees in their views of economic and community pressures. It shows, also, only one significant difference between them on organisational values. These concern rules orientation. For rules orientation the organisational values supervisors' mean is 3.38 and for general employees' it is 3.56. The difference is .32. The T-test value is 2.478 and the significance level is (0.014). Rules orientation is something that always concerns supervisors. This is why supervisors rate them so highly in the workplace. The differences here suggest that there is some sort of subjectivity which has influenced supervisors when answering this particular question that so concerns them. This does not, however, affect the validity of the questionnaire as the point is a relatively minor aspect of the study.

Three questions were asked in the questionnaire about the tenure of respondents to check for the reliability of their answers. It has been assumed that the longer an employee's tenure, the more reliable will be his or her responses (Al-Amri 2003). The three questions concerned working in supermarkets in general (GSC)¹⁴⁵, working for OCG and working in a particular store (OCS). The averages of the correlation matrix of these three questions were obtained; they are, respectively, .68, .62 and .75. The highest average correlation for length of tenure is .75. this reflects

employees' attitudes towards the company OCG and not to supermarket employment in general or at a particular store.

There are a number of significant correlations between tenure variability and employee theft types. All have significant correlations except paper theft. The results indicate that long-standing employees view their workplace as one in which employee theft is relatively unimportant. This is a commonly held view and generally shared by respondents (Hollinger et al. 1992 and Huiras et al. 2000)

Results show that there is neither significant correlation between tenure and all economic and community pressures variables nor with organisational value dimensions. These results suggest that tenure is independent of economic and community pressures and organisational values. These results indicate that employees' perceptions about their workplace environment seem to be valid and are not affected by job tenure; a situation which gives strong support for the reliability of the research.

After analyzing the two questionnaires the one for supervisors and the other for general employees, the next step was to generate data collected for the qualitative interviews. It has been assumed that organisational values and economic and community pressures offer the most scope for evaluating the nature of employee theft. The following section of this chapter deals with the qualitative results.

Part II: Qualitative results

In order to make interpretation easy and clear, the qualitative data have been transformed into quantitative data. The benefit to the study of collecting qualitative data, however, is not lost. The interpretations and explanations of the results are based on the written interview booklet. The main purpose of applying a qualitative method in this study as in others is to increase the likelihood of gaining more information than can be obtained by the traditional questionnaire method. Once the data has been collected from the interview, its transformation to quantitative data is not only recommended but necessary. The quantitative transformed data works as a guideline for more in-depth understanding of the phenomenon of employee theft and for linking them with the research questions.

Characteristics of the interviewees

The experience of the staff is a virtual factor to take into account when processing other results of the interviews. The minimum years of experience is 3 and the maximum is 18, with an average length of 7.71 years. Such lengths of tenure are satisfactory for the purpose of this study.

Staff responsibilities

To repeat, the main interest in this study is employee theft. That is why the issues of security and theft were introduced. The approach is to move from the general (security) to the specific interest (employee theft). In their responses, executive staff and store managers demonstrated a high level of responsibility regarding security. That 78.3% of executive staff and store managers rate it so highly indicates the high level of importance they attach to the issue.

Magnitude of employee theft

Executive staff and store managers were asked to estimate the magnitude of employee theft in their respective company and stores. On the whole (56.5 %), a majority of executive staff and store managers reported low rates of employee theft in their company and respective stores. This reported low rate of employee theft, however, does not affect the validity of this study as the interviewees explain by introducing a high level of organisational values later in this section. This result is consistent with the result of the questionnaire among the general employees. The average employee theft rate in the questionnaire is 1.48 with a standard deviation of .66. These two results from the questionnaires and interviews are an assurance that the level and magnitude of employee theft is rated low in OCG. This result could be an indicator of similar situations elsewhere in Saudi Arabia. However, it would not be prudent to make a generalisation from the results of this one piece of research. It merely provides background information to further research which offering the possibility that such results will be echoed in such research. This background information is available to other researchers in the future to expand and build on it in order to explain employee theft in Saudi Arabia and in the retail industry.

Theft types

In the interview all interviewees were asked to list from their experience what types of theft occurred in their stores and in the company. The item stolen most by employees is food (mentioned ten times); second cause expensive small items and health and beauty items (both mentioned eight times). The least frequent act of theft concerned produce items (green leaves, vegetables and fruits) and back door theft (mentioned once).

The interviewees were asked about the different methods of theft that employees use and to give people a confidence to feel able to talk freely about their experiences of theft in the retail stores. According to both executive staffs and store managers, the most favored way of stealing by employees is by concealing stolen items in their clothing followed by eating and drinking items without payment. As shown earlier there are other kinds of theft but they are less frequently used. The ranking of the methods of theft and the number of respondents for each way are produced in Table 44.

Table 44: Theft ways

Method of theft	Frequency
Concealed in clothing	13
Eating or drinking items	11
Concealed in a box	6
Switching price labels	4
Damaging items to reduce the price	3
Co-operating with suppliers	3
Co-operating with the cashiers	3
Concealed in refuse bags	2
Taking advantageous of changing shift to steal	2
Shortening expiry dates for price reduction	1
Adding more weight to the products	1

One question concerned the characteristics of employees who are prone to steal from their workplace. It revealed six different characteristics. As hypothesised, the vulnerable characteristics are youthful age, nationality, low-grade jobs, low education levels, being unmarried and those working in positions with poor tenure protection. Both nationality and low-level job are characteristics which frequently featured in employee theft. Without actually stating the specific nationality concerned, interviewees indicated that workers coming from poor countries and/or with lower salaries were more likely to be involved in theft. The majority of

interviewees indicated that Saudi employees are less likely to steal from the work place. The reason given was that payrolls indicated that the salaries of Saudis left them far better off than non-Saudis. Low salaries, they said, made people more likely to steal in their work place. Age was considered a less important factor, as most employees were mature and the only young workers are Saudis. Marital status and tenure were not considered important factors in motivating theft in the work place. These findings support the results of questionnaire.

Economic pressures

Regarding economic pressures, the first control variable for organisational values, two questions were posed about the relationship between economic pressures and employee theft.

- Do you think that salary and other pay for employees could lead them to steal? And to what extent?
- Do you think that the general household income for employees could affect their propensity to commit theft in the work place? And to what extent?

According to the interviewees' points of view, answers were classified as low, medium or high pressure. High pressure applies to individuals with low incomes: economic pressures motivate them to steal from their own work place. Low applies to those individuals without sufficient economic pressure to motivate them to steal.

A third of interviewees (34.8 %) think that individual income has a medium effect on employee theft. The 43.5 % of interviewees also think that medium pressures can be related to household income. Each of these responses is held by more than a third of the subjects. Overall household income produces greater pressure than individual

income. Those who were given the questionnaire believe economic pressures have no direct effect on employee theft but that they do exert an indirect effect via organisational values. This is not a contradiction and it can be said there is a consistency between the qualitative (interview) and the quantitative (questionnaire) data.

Community pressures

The other control variable is community pressures. Outside and inside the work place are two different pressures. Each of these has a number of associated behaviours. For outside pressures, seven acts of behaviour are cited. Table 45 shows that fighting outside the workplace has a low effect on employees' propensity to steal from their own workplace. indeed 56.5 % of all interviewees say fighting has no or little effect on the employees' proclivity to steal. Across the range of other acts (stealing, harming others, drug use, crime in the area where they live, linking theft to crime or a lack of social cohesiveness) community pressures is seen as having only a medium level of importance. Inside community pressures encompass fighting inside the workplace, co-operating to harm the company, co-operating to harm colleagues and how the dynamics of the work group affect colleagues' inclination to commit theft.

Table 45: Outside community pressures

	Fighting	Stealing	Harming others	Drug use	Crime	Linking of theft to crime	Social cohesiveness
Low	56.5		34.8		13.0	13.0	4.3
Medium	26.1	52.2	52.2	60.9	52.2	52.2	56.5
High	8.7	47.8	8.7	39.1	30.4	21.7	26.1
Total	91.3		95.7		95.7	87.0	87.0
Missing	8.7		4.3		4.3	13.0	13.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 46 shows that 60 % of interviewees reported that fighting inside the workplace does not motivate employees to steal there. All subjects are almost equally distributed across the three levels of effect (low, medium and high) in co-operating to harm the company; respectively 34.8 %, 30.4 % and 30.4 %. 39.1 % of interviewees said co-operation to harm colleagues has little effect on employees' propensity to steal from their workplace whereas the impact of a work group has a medium effect (39.1). So, the impact of the work group has the largest effect on motivating these acts inside the workplace. The results of the questionnaire show high correlations between OCP and ET; and between ICP and ET. The rates respectively are .59 and .43. These are considered supporting results. Based on the path analysis in the questionnaire, the main path for the effect of OCP on ET is via OVI (innovation orientations) and OVH (human orientations). The standardized coefficients (Beta) are .564 and .606.

Table 46: Inside community pressures

	Fighting	Co-operation to harm the company	Co-operation to harm colleagues	Impact of work group
Low	60.9	34.8	39.1	8.7
Medium	26.1	30.4	26.1	39.1
High	13.0	30.4	17.4	26.1
Total		95.7	82.6	73.9
Missing		4.3	17.4	26.1
Total	100.0	100.0	100.0	100.0

Organisational values

In the questionnaire there are a different number of organisational values dimensions which need to be compared by subjecting them to factor analysis. These organisational values were considered in the interview before factor analysis was

done. As far as the interviews were concerned, the study has only four dimensions whereas in the questionnaire, after factor analysis, there are six. Table 47 shows that a lack of support orientation is a very important factor affecting employees' stealing from their workplace. 78.3 % of interviewees reported that a lack of support for employees would make it far more likely that they would steal from their workplace. The majority of participants also agree that while other orientations are important they are but of medium importance. The other orientations are rules, innovation and outcomes. The percentages respectively are 56.5 %, 43.5 % and 39.1 %.

Table 47: Relationship between organisational values and employee theft

	Support	Rules	Innovation	Outcomes
Low		4.3	39.1	34.8
Medium	21.7	56.5	43.5	39.1
High	78.3	39.1	4.3	
Total			87.0	73.9
Missing			13.0	26.1
Total	100.0	100.0	100.0	100.0

The Friedman test was used to test the ranking order of these four orientations and their effects on employee theft. The rank order test is a statistical tool used to identify the most affective and the least affective factor control employee theft in the store. The results are shown in Table 48. There is a significant difference in order between the four orientations. The chi-square equals 22.212 with a significance level of .0001. This level is very high. It indicates that the order is a genuine order and does not happen by chance or error. The order of ranking is: (1) support orientation; (2) rules orientation; (3) innovation orientation; and, (4) outcomes orientation. Support orientation based on this result is a vital element in controlling employee theft.

There are some detectable differences of opinion between the responses made in the interviews (executive staffs and store managers) and in the questionnaire

(supervisors and general employees). The analysis of the questionnaire uses correlations between organisational values orientations and employee theft types. In the interview the direct question to the interviewees was which organisational orientation affects employee theft most. Interviewees were asked to rank the four orientations. Their responses show rules orientations as more effective in minimising employee theft than the other orientations. The questionnaire ranked support orientation third. But both interviewees and questionnaire respondents agree to the great effect that organisational values have on employee theft. Interview results suggest enhancing and establishing a good environment to allow organisational values orientations to develop is most likely to improve employee performance and promote honest behaviours.

For economic and community pressures (control variables), most interviewees agreed that when the lack of organisational values orientations is accompanied by economic or community pressures, employee theft is likely to increase in the workplace. Employee theft would reach its maximum level when the lack of organisational values orientations is combined with economic and community pressures. Table 48 illustrates the explanation of the previous paragraph.

Table 48: Rank orders of organisational values

	Mean Rank	Statistics for Friedman Test	
Support order	1.64	N	21
Rule order	2.07	Chi-Square	22.212
Innovation order	3.12	df	3
Outcomes order	3.17	Asymp. Sig.	.0001

Control of employee theft

Three questions were included in the interview which were excluded from the questionnaire. The interviewees were asked three open questions to express their points of view about the factors behind employee theft, the reasons employees gave for their stealing and how theft might be controlled. These questions were necessary in the interview because they were not included in the questionnaire in order to keep the questions simple, to allow multiple choices answers and to ease the burden on respondents. These three questions were designed to help explain theft in the work place and how these deviant behaviours may be controlled. See Table 49 for theft factors.

Table 49 shows that socialisation tops all of the factors which relate to employee theft. 12 out of 23 interviewees indicated that the lack of socialisation leads to employee theft. Low salary and a low level of education are also seen as important factors behind employee theft. Other factors received but limited support. The common factor in both the interviews and the questionnaires is the financial reason which was included in economic pressures in the questionnaire and in low salaries in the interviews. Economic pressure has only an indirect effect on employee theft. It is related to the organisational values dimensions which apply to all employees.

Table 49: Theft factors

	Fre.		Fre.
Socialisation	12	Lack of loyalty	3
Low salary	12	Revenge	2
Low education	8	Psychological	1
Low control	6	Chances and opportunities	1
Unfairness	5	Excessive control	1
Financial	5	Greed toward owner	1
Unqualified management	3		

In Table 50 below employees who steal gave reasons to justify their act. Fourteen out of 23 indicated that financial problems were the main reason.. The other justification was family problems. This is also related to the financial needs. The most notable justifications are that salary discrimination between Saudis and non-Saudis motivate the lower paid people to steal as a kind of compensation for their lower salary levels. These two justifications lend themselves to the discussion of which nationalities are more likely to steal. This situation suggest that the OCG and other companies must seriously address this issue. Other reasons were mentioned but with less frequency. There are consistencies between the points of view of executive staff and store managers themselves (as in the theft factor in Table 49) and their perceptions about the justifications by employees in general. Nevertheless, the financial aspect is the dominant justification for employee theft.

Table 50: Justification of theft behaviours

Reasons	Fre.
Financial needs	14
Family	3
Stealing does not harm company	3
The value of items stolen would be repaid later	2
Salary differences among nationalities	2
Compensation for low payment	1

Finally in Table 51 there are five suggestions by interviewees (executive staff and store managers) on how to control employee theft. Control over employees and punishment of those who steal is the recipe most advocated. This suggestion stresses the importance of advertising the methods used for control and punishment of those found guilty. Other suggestions included implementation of organisational values orientation including courtesy, ethics, enhancing the work environment and fairness.

But these latter suggestions were mentioned less frequently than control and punishment.

Control and punishment are related to the deterrence doctrine which explains employee theft as an outcome of either a lack of deterrence measures in the workplace or improper security measures and precautions. The essence of this approach is that employee theft is more likely to occur in an organisation that does not make its anti-theft policies explicit (Hollinger and Clark 1983b; Dierking 1991). Similarly, Boye and Jones (1997) pointed out that a formal antisocial policy is one method of communicating the organisational attitude on the degree to which the employer will tolerate theft by employees. This leads to a double effect: one is that employees will consider that stealing company merchandise or property is a serious matter which will be punished and thus they will respond to this threat; the other is their appreciation that supervisors will always react when employee theft is discovered. Grasmick et al. (1983) also support the potential contribution of deterrence theory to the study of crime and social control.

The research findings about control and punishment and the supporting theory of deterrence doctrine suggest that further study in the field of employee theft in Saudi Arabia based on this theory could be worthwhile. Such study could serve to verify the advantage of employing deterrence doctrine in Saudi Arabia.

Table 51: Suggestions

Suggestions	Fre.
Control and punishment	6
Ethics	5
Work environment	4
Fairness	4
Good treatment of employees	3

CHAPTER 4: CONCLUSION

Introduction

The primary purpose of this study is to explore empirically the relationship between staff perceptions about organisational values and employee theft with the intention of showing that a perception of strong organisational values in the workplace by employees minimises the occurrence of employee theft. The study focuses on a chain of company supermarkets in Riyadh, Saudi Arabia.

Having determined the study's objectives, questions and assumptions, a number of systematic steps, which form the framework of the study, are undertaken. Based on the results achieved by the current study, certain recommendations for future research, as well as implications for organisational values and employee theft, and the relationship between the two issues, are presented.

The aim of this conclusion chapter is to provide an overall summary and reflect upon the conclusions drawn from the research. They have been structured into four sections. The first section provides a brief summary of methods and statistical techniques used. This is followed by the contributions and implications of the current research in Section Two, while Section Three presents the recommendations and suggests avenues for future research and implications for the field of criminology and the retail community, specifically in Saudi Arabia. And finally, Section Four deals with the limitations of the study.

Procedures

To achieve the study's objectives research instruments were needed. In order to formulate them a number of processes conducive to the development and validation of these instruments were undertaken.

These processes started with identifying the theoretical background of the study. The theoretical perspective of this research is based on aspects of different theories. This collection of elements forms a new theoretical model. The model is tested in an empirical way. The theoretical model consists of three factors to be related to employee theft. They are organisational values, and economic and community pressures.

The formulation of the hypotheses and research questions follows the theoretical perspective. This is the frame of reference for the current study. At this stage the conceptual dimensions were generated to measure organisational values, economic and community pressures, and employee theft. The questionnaire then, was administered to a number of subjects as a pilot study. This pilot study was carried out prior to the main survey in an effort to refine the instrument's design and to identify errors. In total, 16 out of 50 questionnaires, distributed by drop-off and pick-up methods, were successfully administered. The final stage of the data processing was evaluating the reliability, dimensionality, and validity of the scales tackled by the current research.

The advantage of using a questionnaire is that it provides a relatively simple and straightforward approach to the study of attitudes, values, beliefs and motives. It can be adopted to collect generalisable information from almost any human population; and highly structured surveys have a high degree of data standardisation. After

collecting quantitative data by the main questionnaire, factor analysis was conducted to check for underlying variables. There were six such factors.

A correlation coefficient test was used to investigate the direct relationships between organisational values and employee theft. This correlation coefficients test was also used with economic pressures and community pressures toward employee theft. Ancova (analysis of covariance) was used to investigate the effectiveness of organisational values within the situation of high and low economic and community pressures on employee theft. For investigating and identifying the direct effect of economic and community pressures on employee theft and any indirect effect via organisational values, path analysis was used. A number of statistical tests such as the T-test, the Kruskal Wallis, the Friedman and some descriptive statistical tests, were used to describe the data.

The qualitative instrument, the interview, was conducted in order to collect data which could not possibly be collected by the questionnaire, to test the results obtained from the questionnaire, and to enable the use of a triangulation technique along with the questionnaire for general employees and supervisors.

The main research objectives were: first, an investigation of the direct effects of six organisational values dimensions on the employee theft variables. These organisational values dimensions include: rules orientation, outcome orientation, fairness orientation, support orientation, innovation orientation and human needs orientation. Employee theft consists of four different types of theft: property theft, paper theft, use theft and cash theft. The second objective was to investigate the direct and indirect effects of economic and community pressures on employee theft. Community pressures have two dimensions: outside community pressures and inside

community pressures. The indirect effect can be obtained from examining organisational values through the employee theft types. After the methodology section, the main results of the research are shown. These results provide clear answers to the research objectives, and their clarity forms a basis for a comprehensive discussion of these results.

Contributions and implications

This study responds to the weakness in the literature for studies on the relationship between organisational values and employee theft, particularly in Saudi Arabia, are extremely limited. Moreover, studies conducted in other industries have considered the use of subjective or perceptual data as a limitation to the assessment of the relationship between organisational values and theft practices in the workplace. The use of self-reporting questions have failed to measure employee theft since, even in the pilot study, subjects appeared reluctant to answer such questions. This is may be because of the socially undesirable nature of this behaviour. So instead of asking employees to judge their own behaviours, it proved more forthcoming to ask them to assess their colleagues' behaviours in the workplace. The collection of these subjective data, as well as the establishment of a link between the six organisational values dimensions and four different employee theft types, have reduced the gap in the literature governing the relationship between these two sets of variables. They also confirm a number of consistent patterns of relationship between economic and community pressures via organisational values and employee theft. Thus, the current study has made a contribution to an understanding of how organisational values and employee theft in the workplace may be linked.

Although these findings are bounded by the context of the research, they constitute the first endeavour in crime research in Saudi Arabia, certainly in supermarkets, to relate internally consistent organisational values dimensions, each of which consists of a number of interrelated items, to employee theft types in the work place. Moreover, it is most probably the first attempt, particularly in the retail industry, to apply the interaction approach and path analysis technique for testing the effect of economic and community pressures levels via organisational values on employee theft outside the original arenas of the USA and the UK. Furthermore, this study being the first research attempt in Saudi Arabia to investigate the factors affecting employee theft.

This study provides academics, as well as practitioners, with empirical evidence supporting a promising new perspective with which to investigate the relationship between organisational values and employee theft in the retail industry. The results of this research can be generalised to supermarkets similar to those chosen in the study.

This research has brought about a number of interesting achievements and contributes to the understanding of the problem of theft in the workplace. The discussion of the contributions and implications includes the main findings, the meaning of these findings, how they are related to the thesis' hypotheses and research questions, and what can be done to enable organisations to benefit from such findings in practice. This takes into consideration the questionnaire and the interview findings. A discussion of these contributions covers the main aspect of the thesis. It covers the significant effects of organisational values on employee theft and identifies the direct role of economic pressures on employee theft as well as via

organisational values. It also covers the direct role of community pressures on employee theft and the indirect role via organisational values. The final aspect of the contribution is the development of an organisational values and employee theft survey instrument.

Regarding the first objective, the six organisational values dimensions have correlated negatively with some of the employee theft types. Rules orientations have a negative correlation with all types of employee theft except with use theft. Similar to general organisational values, outcome orientations have negative correlations with all employee theft types except for cash theft. In contrast, fairness orientations have correlated negatively only with use theft. Support orientations have correlated with two types of employee theft: paper and property theft. Both innovation and human orientations, however, have correlated negatively with all types of employee theft. Additionally, the interviews of executive staff and store managers produced a similar concern for the use of organisational values to control employee theft with support orientation as the most important one.

In general the results about organisational values mean that when organisational values are strongly apparent in the workplace, employees are likely to behave honestly and not to engage in theft. These highly preferable organisational values in the workplace not only create an honest environment but also produce other healthy basic attitudes and behaviours. These attitudes and behaviours include loyalty and an attachment to the organisation, a devotion of work, an eagerness to see the organisation achieving a good reputation in business, a tendency to defend the organisation against other competitors and a likelihood of a lengthy tenure in the organisation and even viewing their position as permanent. The existence of good

organisational values in the workplace helps to engender a business environment which promotes achievement in a company. Loss prevention as a finance and business term can be related completely to employees perceptions about the values that their managers and their organisations propagate.

All organisations are called to take the issue of values seriously in order to promote effective administrative practices and to achieve its ambitions and targets. This suggests business organisations such as supermarkets and retail outlets should institute three internal schemes. First, an awareness agenda for all levels of employees including managers, supervisors and general employees, about the importance of teamwork. Second, a formula by which consideration of employees' complaints and an evaluation of their human needs. Third, an undertaking to stress their commitment to the principle of fairness in their approach to pay, workloads and promotion.

Nevertheless, fairness orientation in the workplace was given the lowest rating among the other orientations; it lacks a statistical correlation significance with most employee theft types. This may be because fairness is considered the most important element in the view of organisations. Violation of this element could be considered a violation of an organisation's main principles. Thus, employees may alter their answers when it comes to saying bad something about their organisation's principles.

The only statistical correlation significance for fairness is with theft for use. This can be explained by the fact that most employees do not consider use of workplace tools or items as stealing. So it could correlate negatively with fairness. When fairness is highly apparent in the workplace the use of store items and tools tends to decrease. This needs to be discussed during the initial orientation interviews with new workers

in the job. It is very important to make employees aware that using store items for their own purpose is stealing and this act will not be tolerated. Employers should make it absolutely clear that regulations for theft for use in the workplace will be rigorously enforced.

These regulations must be established in the organisation, maintained and presented frequently to both new and old employees. The idea of controlling use theft is because it can exert a most devastating effect on the organisation's business. This finding has its root in the community culture, as people in normal life often do not differentiate between their own belongings and equipment they use in their work. Especially, those who work full time and have for a long time in the same job. They may well feel that they are not violating any regulation because, sometimes, they use their own property when working on a job for their employer. Sometimes this practice is accepted by their managers who may see a benefit in using company equipment to finish off paperwork at home. This acceptance makes employees feel that it is all right for them to use the work phone, for example, when they want to call their homes, or to use some computers software for their own benefit. Some employees feel that using the tools of the workplace does not cause any loss to the organisation but they forget the time loss which can be called theft of time. This issue may be well pursuing in future studies to investigate the theft of time in the organisation. It may contribute to an understanding of time loss in organisations.

This lack of correlation between outcomes, fairness and support orientations with cash theft can be interpreted, by the possibility that only cashiers can steal cash from the work place. Also the majority of cashiers in the chosen company are Saudis who receive very good pay compared to expatriates. Nevertheless, perceptions of cash

theft here can be viewed as perceptions about Saudi staff. The implication for criminology research is that other intervening variables may be needed to explain employee theft, such as nationality or, if subjected to close inspection, the socio-economic status of the employees.

In general the findings in this research support the research hypothesis that there are negative correlations between organisational values and employee theft. The hypothesis is based on workplace theories which suggest that there are relationships between organisational values and employee theft. This proposition is included in organisational climate theory, which is one of the workplace theories. The basic premise of organisational climate theory is that people steal from their employers because they interact in a social setting in which conditions make social influence regarding theft possible and in which various social influences trigger employee theft. This theory indicates that better results will be obtained by altering the organisational climate to address employee motivations and perceptions than by merely decreasing employee opportunities to engage in theft. The theory considers the modification of organisational factors and employee reactions to these factors to reduce theft.

These findings about organisational values and their relationships to general and other types of employee theft indicate the original nature of the current study's findings. Indeed, hopefully, this study may be the forerunner of many others to centre on Saudi business practices and approaches. The publication of such studies will be greatly welcomed by both the intellectual and business communities.

The other objective of the current study was to investigate the direct and indirect relationships between economic and community pressures on employee theft. The

findings showed no direct positive effect from economic pressures on employee theft but an indirect effect via organisational values. The lack of the correlation between economic pressures and employee theft was surprising to the researcher. This surprise come from the fact that financial needs are nearly always the motivating factor affecting crime and deviant behaviours. Even the majority of interviewees support the role of economic pressures in causing employee theft. This contradiction between qualitative and quantitative approaches brings us back to the fundamental question of the values of these two measurements. The qualitative approach, interviewees, tends to answer the question in general terms, while the quantitative approach measures the phenomenon to a detailed and specific degree. The quantitative method takes the overall mean for a variable while the interviews depend on the collective answers to certain questions. Subjectivity very often involves answering interview questions, while objectivity is more likely found by quantitative methods. Thus, economic pressures in this study have no effect on causing employee theft, as is suggested from a quantitative methodological approach. This result means that, regardless of the financial status of the employee, the effect will be based on other factors which may be intervening variables.

This finding assures the interpretation doctrine of a no-one-factor explanation. This doctrine suggests that the effects noticed in any one-outcome variable are definitely deduced to more than one factor. Moreover, linkage of theft to economic need can easily violate some cultural aspects. These cultural aspects put pressure onto the respondents to refrain from openly agreeing that money is the cause of deviant behaviours. The culture in Saudi Arabia and other Middle Eastern societies enshrines the belief that religion is a powerful deterrent to people from being involved in wrongdoing, including theft. This argument, moreover, can be found clearly in the

media when deviant behaviour is discussed in Saudi Arabia. These taking part in the research may have been affected by this argument and thus adjusted their response to be consistent with the societal norms.

For the measurement of economic pressures to be accurate in future studies, there will need to be certain methodological modifications to this study's methodology. The need for an actual calculation of personal and household income and the need to construct a measurement to evaluate actual employee theft prevalence will be necessary. This could lead to self-report questions based on insensitive acts or to a calculation of actual shrinkage value in one shop or retail firm being related directly to the average income of all employees in that firm. The interview can also be a good tool for collecting valuable data if the interviewer has enough qualification and enough time to conduct it. But it may well need more assurance of anonymity and protection of the individual's rights and a regard for preserving ethics. The logical corollary of this is that a no-one-factor approach is again used. This issue can be solved with an intervening variables approach. The intervening variables approach would allow findings to be made as an indirect effect through a third variable.

The indirect effect could be traced to two dimensions of organisational values: innovation orientations and human orientations. Interaction analysis using analysis of co-variance indicates that the effect of economic pressures on employee theft is based on different conditions. The effects were strongest under conditions of high economic pressures and low organisational values, and weakest under low economic pressures and high organisational values. The second strongest effect was found under conditions of low economic pressures and low organisational values. Next in influence came a combination of high economic pressures and high organisational

values. The discovery of this order of effects is a new contribution to the body of knowledge about the relationships that exist between economic pressures and employee theft via organisational values. This order of effects means that economic pressures should not cause employee theft unless combined with other variables such as innovation orientation and human needs orientation. For innovation orientation the economic pressures cause employees to view the innovation orientation as minimal in the organisation and this induces employees to steal. For human needs, when employees perceive the organisation is little concerned about their human needs, such as their illness and social problems, the economic pressures then will lead to more theft in the workplace.

The lack of a direct effect does not indicate a lack of need to suggest improvements should be made in the financial status of employees. It rather, assures the strong need to support such a movement. Such a response may not only work to control employee theft but also to improve the whole atmosphere in the organisation. It would affect other aspects of organisational values (innovation and human needs orientation). To improve the financial status of employees there must be an equitable salary payroll for all employees, Saudis and non-Saudis. Presently, there are two payrolls with extra pay for Saudis. Promotion and mobility in the company must also be open and based on objective evaluation. At present it is based on length of tenure and nationality. There must be some sort of minimum wage in existence, not only for the specific company under study but also for all sectors in Saudi Arabia. Financial status and organisational orientations need improving to achieve the total quality management value.

For both outside and inside community pressures there are direct and indirect effects on employee theft. These outside and inside community pressures have direct effects on all types of employee theft. For outside organisational values the indirect effects are via general organisational values and the three dimensions of rules, innovation and human orientations. Inside community pressures have only one indirect effect; this is via the outcome organisational dimension. The direct effects of both community pressures groups that can be seen to affect employee theft are signs for the not-one-factor interpretation. Community pressures do not originate from only one factor; instead they come from a complex of variables related to the social setting both outside and inside the workplace. Family culture and socio-economic factors cannot be isolated from each other and cannot be isolated from affecting employee theft as a group of factors. Therefore, looking after employees in their social setting as well as looking at their job needs inside the workplace are both very important.

These results infer that outside community pressures have more effect on employee theft than inside community pressures. These outside community pressures, therefore, are a very important factor for the business community to address. The recommendation for the business community in the retail and supermarket industry is to screen employees before recruitment or shortly afterwards in order to weed out those most likely to commit employee theft.

Many employers like to use pre-employment tests as a way of screening out applicants who may not be suitable for the job. These tests include skills tests, aptitude tests, psychological tests, personality tests, honesty tests, medical tests and drug tests. Although employers are permitted to do some testing of applicants, legal

and human rights issues entail various restrictions on these screening procedures. These restrictions are often vague and open to contradictory interpretations. As a result, employers should only use tests that are absolutely necessary.

Comparisons between the perceptions of three groups of people about the prevalence of employee theft revealed similar results. These groups consist of executive staff (interviews), supervisors (questionnaire) and general employees (questionnaire). The study revealed that the prevalence of theft in the work place is very low. There is a narrow difference between supervisors and general employees in their perceptions of the prevalence of employee theft in the stores where they work with the supervisors perceiving more theft. The difference, however, is not statistically significant. Executive staff perceive theft in the work place as minimal. This finding assures the consistency between the three groups in their perceptions about the prevalence of employee theft. For other variables there is also consistency between these three groups. This suggests that the triangulation method for the prevalence of employee theft, economic and community pressures, and organisational values produces confirmation of all the three groups results.

This research confronts the fundamental challenge of developing an instrument that measures organisational values and employee theft. By developing valid and reliable measures and establishing a specific consistent pattern of relationships between them, this study has contributed toward discovering a solution to the challenge. Research that concentrates on instrument development is a valuable enterprise and can often makes a greater contribution than research which attempts to relate existing measures to each other in some new and as yet untried fashion.

In the absence of any theory specifying how the fifty-eight organisational values and twenty-three employee theft acts developed for this study should be grouped together exploratory factor analysis was performed on them. The use of factor analysis was based on the assumption that the organisational values items and employee theft practices are related to each other in ways that can be captured by a few underlying dimensions which have been summarised from a small number of derived variables. Subsequently, relationships between extracted organisational values factors and extracted economic and community pressures factors and employee theft were analysed. Thus these results fill a gap in the literature concerning such inter-relationships

Recommendations for retail and research communities

This research has implications for criminology researchers and retail industry managers. For the purpose of future research an instrument to assess organisational values, economic and community pressures and employee theft has been developed. A six-factor structure of organisational values was identified which represents the organisational value dimensions influencing employee theft. The development process indicated that normative Likert-type scaling yielded reliable results, and the construct and predictive validity of the organisational values and employee theft instruments support the use of normative scales for assessing these values. Because normative scaling permits value profiles to be high or low on any or all values, however, the normal distribution of organisational values remains in question. The study contributes to interactional research by bringing the economic and community pressures debate into an organisational research where high economic and community pressures-organisation values interact. The findings provide substantial support for perceived organisational values as predictors of employee theft, but

limited and mixed results for the role of economic and community pressures. Overall the study indicates that organisational values can be significant predictors of employee theft. The direct effects of economic pressures were relatively unimportant in explaining employee theft.

Universities and higher education institutes in Saudi Arabia might well wish to initiate research on the retail sector. Most research and studies are focusing in the government issues or/and general crimes and deviant behaviours. Studying these issues are needed in Saudi Arabia but private and retail sectors have a similar if not greater need. Indeed this study is part of such an effort to study this much neglected private retail sector in Saudi Arabia. Business studies in Saudi Arabia need to be addressed more widely. At present they are limited only for feasibility economic studies for the purpose of getting loans from the government.

The awareness of the importance of studying private firms in Saudi Arabia is still very weak. Private firms owners, mostly individuals or family companies, have little awareness of the importance of such studies. They consider these studies as waste of time and money. The research community in the university and higher education institutions are trying very hard to persuade the private sector to fund special budgets for research and studies but these institutions often fail to convince these firms of the value of such projects.

In Saudi Arabia it is very rare and indeed might be unique if any grant by private firms for the study of any issues related to the private sector, even though the benefits could well be exclusively to the advantage of these firms. The target of most of consultancy and research agencies in Saudi Arabia is the government sector. They target it not because public sector needs these studies more than private sector

but because the public sector is generous in its financial support and makes very little criticism of these projects. Most government financial grants are for the purpose of supporting research and helping studies centres to survive not for solving public sector problems.

It is clear now that the lack of awareness of the need to study the private sector creates a huge dilemma. But it is a dilemma for the public sector as well as for the private sector and for the society as whole and its citizens. This study suggests the promotion of an awareness campaign throughout Saudi Arabia to address this issue and to stress the importance of studying all facets of the private sector. To achieve good consistent benefits such research should not be something optional but required. The awareness message should contain the idea that the cost of such studies can result in a two-fold profit.

Retail firms, who gather information about their culture and generate profiles of their ideal organisational culture, may use the scale of organisational values. Once “actual” and “ideal” culture profiles are specified, they can be compared to see where discrepancies and similarities exist. Managers then can decide what the kind of culture they wish to promote and what specific actions are required to achieve that profile.

For appointments, in addition to matching applicants’ knowledge, skills, and abilities with job requirements, an ideal process might also seek to match applicants’ perceived with the organisation’s values (culture). Selection based on a person-organisation fit (P-O) potentially improves effectiveness because employees who feel they belong to the organisation are satisfied, will tend to remain, and be willing to refrain from committing employee theft. In addition to selecting employees with a

high P-O fit, retail organisations can develop socialisation programs to improve the fit. This may be more appropriate early in an organisation's life cycle when a P-O fit would enhance co-ordination, communication, and the employees' sense of belonging. Later in an organisation's life individuals with a low P-O fit may bring new ideas and a competitive edge.

The current research illustrates how a number of organisational values dimensions, or orientations, have been linked to different employee theft types. Not only retail firms in Saudi Arabia can benefit from these findings in relation to the effect of organisational values on employee theft. They may also be of value to anyone concerned with retail security issues.

There is a need in the retail sector to establish strongly defined security systems to maximise control of the assets of the organisation in order to minimise losses. This was partly covered in the targeted company of this study, but several aspects of that system are still questionable.

Personnel selection is the first step toward the establishment of a reliable security system. This involves interviewing the applicants for the job and testing their attitude toward the work and their honesty. Training comes after selection and before they actually start work. Training could also be done during the course of their employment. An example would be supporting training. But security personnel selection and training need extra care. Preferably organisational values should be implemented in order to promote productive workplace climate. The implementation of such preferable organisational values would include an assurance of fairness, attention to the human needs of employees and the maintenance of these values in the workplace. Physical security measures such as CCTV and others are also help to

enhance security. These physical security measures need not necessarily be used to keep an actual watch over employees but rather to show that a security system is in existence. A virtual security system to assist control over cashiers, merchandisers, and other employees may be the most effective tool for an organisation to use. It would be the establishment of a computer network system linking the operations of the store to the account department to monitor the operations of the business. A reliable inventory system too is likely able to control most losses and minimise employee theft.

Other groups of employees who do not belong to the firms also need to be vetted. suppliers are an example of such employees who need special attention. Their co-operation with the store employees to commit theft can have a devastating effect on the business of the organisation. It is impossible to select these suppliers because they are changing all the time and come from various companies. Thus, the solution to this problem is to use both the physical and virtual security measures. The surprise visit and check by security supervisors and managers is a very good method to combat fraud in this important area. suppliers usually operate in the back areas of stores away from the store managers and most of the employees. Such areas are vulnerable to theft.

Loss prevention control is a new theme in the retail and security realms. The organisation of retail firms cannot fulfil two jobs in the same time. The actual retail business is the firm's main occupation but loss prevention can also be a speciality. In this regard, a suggestion to establish a loss prevention agency is recommended. This agency would have an open membership for all supermarket companies interested. The agency would use all information necessary to develop evaluative techniques to

be published or to arrange consultations if required. This agency could also establish computer networks using Intra-net or Internet to achieve this objective. The agency could serve as a training institute for security officers specialising in the retail and supermarket industry and create a database on loss prevention advice data. This agency could possibly be connected with the police and the Chamber of Commerce in Saudi Arabia to deal with security issues and suggest procedures and regulations to control loss. Inventories could be performed for member companies on a monthly, twice a year or an annual basis.

Nowadays, recruitment for Saudi nationals is very important in order to solve the mounting unemployment rate. Saudisation has become a well-used term to solving the Saudi Arabia unemployment problem. Regulations insist that only Saudis are hired for the cashiers' job in the supermarkets because they are linked to the cash and can easily be identified through their addresses and national identification cards. In contrast expatriates may leave the country suddenly without warning and this can create problems for a company. This suggests expanding the number of jobs for Saudis to embrace merchandising and receiving jobs in order to stabilise the work forces in supermarkets and retail firms. Such stability is likely to instigate better retailing and smooth business operations with improved profit.

Limitations

Researchers identify specific limitations not only to show the extent to which they are prevented from making their findings more rigorous and conclusive but also to help others to avoid them to the benefit of their own field of investigation. This study, indeed, is no exception. Thus, the following limitations need to be listed and noted by researchers interested in the investigation of the factors affecting employee

theft in the organisation. The limitations of future research in this field may be summarised in terms of a cultural and methodology factor.

Firstly, any study is limited by its research methodology. The empirical evidence of this study is based on a questionnaire survey of supervisors and general employees of a certain supermarket company and therefore the usual limitations of this kind of method apply. Thus, this study may not capture the richness of the respondent's views which might be obtained better from using an alternative approach. To deepen the richness of the findings it may be profitable to use an independent administration of questionnaires to general employees in future research. This is to assure true responses from employees without fear of management knowledge. Also a constructed interview with a smaller sample may have advantages for further study of the phenomenon of employee theft. However, the researcher feels that it is possible to argue validly that the research method chosen was appropriate in providing insight into the research hypotheses and responses to the questions posed.

Secondly, although a consistent pattern of relationships may have been detected between organisational values dimensions and employee theft, the results here cannot be viewed as causal. Causality can only really be tested with data collected at different points in time. Thus, the field would greatly benefit from some time-series or longitudinal studies in the future. Attempts to explore the nature of the relationship between organisational values and employee theft may be too complicated to be revealed by cross-sectional data. Longitudinal data, may be used to overcome problems of sample selection bias usually associated with cross-sectional studies. The effects of such organisational values on theft in the work place are long-term, which means that they cannot be identified in the short run, even in those

studies with a large sample and using advanced qualitative techniques. The benefits of a longitudinal analysis over a cross-sectional study include increased statistical power and the capability of estimating a greater range of conditional probabilities. With any study where weighted stratified sampling is employed, the benefits extend to include the capability of making appropriate inferences regarding changes over time. Thus, there is a need for longitudinal in-depth research designs in order to identify the order of events and the whole network of causes and effects.

Thirdly, both types of data, organisational values as well as employee theft data, were collected from a single type of source, that is, supermarkets. Because customers are the principal segment of supermarket business, their views with respect to the evaluation of the workplace image and security matters might have a significant importance for the relationship between the two issues. Moreover, business and security matters, such as shoplifting and local legal systems involving procedures of reporting theft and investigation are interesting as intervening and/or moderating variables in an assessment of the relationship between organisational values and employee theft.

Fourthly, this study is limited by its context. Its results may be applicable only to the Saudi environment and to other developing countries, particularly other Gulf Countries which share the influence of a similar socio-economic environment. Nevertheless, it would be interesting to extend the study to such countries, especially after the establishment of the Gulf Corporation Council (GCC).

Finally, the lack of similar studies in Saudi Arabia has prevented integration of this study's findings with other similar research. Although this is a limitation, it is, at the

same time, one of the strengths of the study for it may be the first attempt to investigate the relationship between a number of interrelated organisational values dimensions and employee theft. Thus, this study invites other researchers to build on its conclusions.

APPENDICES

Appendix A: Approval letter from Al-Othaim Commercial Group



NO : 146Admin 2003
Date : 20/05/1424 H
Corr : 20/07/2003 M

الرقم : ١٤٦ إدارية ٢٠٠٣
التاريخ : ١٤٢٤/٠٥/٢٠ هـ
الموافق : ٢٠٠٣/٠٧/٢٠ م

TO WHOM IT MAY CONCERN

إلى من يهمه الأمر

Our company was pleased to have Mr. Saleh A. Dabil undertaken his PhD fieldwork research project in our enterprise.

During his fieldwork research project time he administered his study questionnaires to our employees and conducted interviews with some of our executive personnel as well as store managers.

Mr. Dabil is therefore, permitted to use our enterprise name as well as any other information deemed necessary for his research project.

We wish Mr. Dabil the best of luck and we are anxious to see his research project result characterized by accuracy and objectivity.

لقد سعدنا جدا بقيام الأستاذ صالح بن عبد الله الدبل بإجراء بحثه الميداني لدراسة الدكتوراه في شركتنا.

وقد قام الباحث أثناء بحثه الميداني بتوزيع عدد من الاستبانات على العاملين في الأسواق وإجراء بعض المقابلات البحثية مع مسؤولي الشركة ومع عدد من مدراء الأسواق.

وإنه لا مانع لدينا من إعطاء موافقتنا للباحث الأستاذ صالح عبدالله الدبل أن يشير إلى اسم شركتنا وأن يستفيد من كافة المعلومات التي حصل عليها منا في مشروع بحثه للدكتوراه.

كما نتمنى للباحث التوفيق والسداد مع تطلعنا لرؤية نتائج البحث وقد خرجت بكل دقة وموضوعية.

Best Regards,,

وتقبلوا خالص تحياتنا،،

عبد الله بن صالح العثيم
Abdullah S. Al-Othaim
رئيس مجلس الإدارة
Chairman of the Board



١٤٠٠ هـ



ص ب ٤١٧٠٠ الرياض ١١٥٣١ - المملكة العربية السعودية - هاتف : ٤٩١٩٩٩ - فاكس : ٤٩٢٢٦٦١ - موقعنا على الإنترنت : www.othaim.com / www.othaim.corner.com
P.O.Box 41700, Riyadh 11531 - Kingdom of Saudi Arabia - Tel. 4919999 - Fax 4933264 - http://www.othaim.com / www.othaim.corner.com
رقم العضوية ١٠٠٢٨٠

Appendix B: Sample letter to one of the contacted companies (Arabic)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



المملكة العربية السعودية
وزارة الداخلية
المديرية العامة لأكية للأمن فهد الأمنية
إدارة

الرقم : ١٢ / ١٢
التاريخ : ١ / ١ / ١٤٤٥
المشروعات :

سعادة رئيس مجلس الإدارة لمجموعة العثيم التجارية
سلمه الله

السلام عليكم ورحمة الله وبركاته

نفيدكم بأن عضوية التدريس في الكلية المحاضر/ صالح بن عبد الله الدبل المبعث
إلى جامعة لستر في المملكة المتحدة لدراسة الدكتوراة في العلوم الاجتماعية والجنائية، يقوم
خلال الفترة الحالية برحلة علمية مكلف بها من قبل الجامعة لدراسة أمن الأسواق التجارية،
نأمل منكم التكرم بمساعدته وتسهيل حصوله على البيانات المطلوبة، متمنين له وللجميع دوام
التوفيق والنجاح.

شاكرين لكم سلفا حسن التعاون والتجاوب,,,,,,،

مساعد مدير عام الكلية للشؤون التعليمية
الواء /
د/ خالد بن سليمان الكليوبي



Appendix C: Letter to Riyadh police (Arabic)

بسم الله الرحمن الرحيم

المملكة العربية السعودية
وزارة الداخلية
المديرية العامة لكتبة الامنية
ادارة الشؤون التعليمية

الرقم : ٥٣٥ / ٤
التاريخ : ٢٢ / ٦ / ١٤٤٠
المشروعات :



الموقع

سعادة مدير شرطة منطقة الرياض

وبعد

السلام عليكم ورحمة الله وبركاته

الموضوع:- طلب إحصاءات للباحث المحاضر: صالح بن عبد الله الدبل
الحيثيات:- حيث يقوم عضو هيئة التدريس في الكلية المحاضر/ صالح الدبل بدراسة
الدكتوراة في جامعة ليستر حول الحوادث الجنائية في مدينة الرياض
ونظراً إلى حاجته إلى جمع بعض المعلومات من إدارتكم تعينه في بحثه
الإفادة:- نفيد سعادتكم بأنه لا مانع لدينا من تزويد المحاضر صالح بالبيانات المطلوبة
المطلوب:- نأمل من سعادتكم التكرم بمساعدته وتسهيل حصوله على مطلوبه.

وتقبلوا فائق التقدير والاحترام،،،،،

مساعد مدير عام الكلية للشؤون التعليمية

اللواء/

د. خالد بن سليمان الظبيوي



Appendix D: Consent form

Dear Participant

Prior to your response to the questionnaire, please read the statements in this page carefully and sign the form. Could you please return this form with your answers?

You can keep a copy of this form.

The information obtained in this study will be used to prepare a research report. Any information obtained from you in connection with this study will be kept confidential and available only to the researcher. If the research report is published, your name will not be disclosed. In fact, your name will not appear on any of the data forms.

Your participation in this study is voluntary. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time. The researcher will answer any additional questions that you may have regarding this study.



YOU ARE MAKING A DECISION WHETHER TO PARTICIPATE OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE AGREED TO PARTICIPATE. HAVING READ THE INFORMATION PROVIDED ABOVE, YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

Name:

Signature:.....

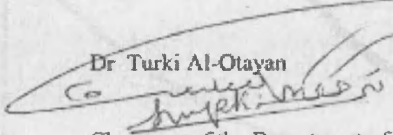
Date:.....

Appendix E: Translation approval of interview and questionnaire

الرقم:		
التاريخ:		
المرفقات:		
Kingdom of Saudi Arabia Ministry of Interior King Fahad Security Collage Department of Social Sciences		Date: 21/2/2003

Certificate

The translation section of the Department of Social Sciences at King Fahad Security College has approved the translation from English into Arabic for Mr. Saleh Dabil's thesis instruments. The research instruments include the interview index and the questionnaire. We certify that the translations are accurate to be understood by the research subjects and an appropriate for data collection. We wish Mr. Dabil the best of luck and we are anxious to see his research project results characterised by accuracy and objectivity.


Dr. Turki Al-Otayan
Chairman of the Department of
Social sciences

ص.ب ٢٥١١ - الرياض ١١٤٦١ - تلفون: ٢٤٦٤٤٤٤ - فاكس: ٢٤٦٤٣٢٠ - تالك: ٤٠٧٦٧٠ AMEN
مواقع الكلية على شبكة الانترنت: WWW.KFSC.EDU.SA - البريد الإلكتروني للكلية: KFSC@KFSC.EDU.SA

Appendix F: Main study questionnaire (English)

Dear Participant

This is part of my PhD thesis, which is under the supervision of the University of Leicester in the United Kingdom. Please answer the entire questionnaire which needs only to tick the appropriate choice except the first part which needs little writing.

For your knowledge the study will be dealt with in a general way, so there is no need to write your name. And I would like to assure you that all your answers will remain anonymous.

I would like to express my appreciation and thanks to you for your participation in this questionnaire. I would like to urge you to be precise and sincere in your answer since the information will be only used for scientific purposes.

Thank you very much,

Saleh Dabil,

**PhD student
University of Leicester.**

QUESTIONNAIRE

A: DEMOGRAPHIC VARIABLES

1	What is your age? ()
2	What is your marital status? Married (1) Not married (2)
3	What is your nationality?
4	What is your education level? Primary (1) Preparatory (2) Secondary (3) University degree (4) Higher education (5)
5	What is your job?
6	What type of work do you do?
7	How long have you been working in supermarkets in general? (in years):
8	How long have you been working in this specific company? (In years):
9	How long have you been working in this store? (In years):

How do you rate the following sentences in relation to your store employees? (please tick the appropriate answer)		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	The salaries for employees are high enough	1	2	3	4	5
2	The benefits for employees from the job are satisfactory	1	2	3	4	5
3	The salaries of the employees compared to the workload in the store are high enough	1	2	3	4	5
4	The salaries compared to the positions are high enough	1	2	3	4	5
5	The total financial resources for employees outside the company are satisfactory	1	2	3	4	5

C: Community status How do you rate the following sentences in relation to your store?		Never	Rarely	Sometimes	Often	Always
1	How often do store workers get involved in quarrels with other people outside your store?	1	2	3	4	5
2	How often do store workers engage in criminal behaviour such as theft, fraud and embezzlement outside work?	1	2	3	4	5
3	How often do store workers engage in criminal behaviour such as assault and fighting outside work?	1	2	3	4	5
4	How often do store workers use drugs outside the work?	1	2	3	4	5
5	How often do store workers use alcohol outside work?	1	2	3	4	5
6	How often do crimes happen in the areas where store workers live?					
7	How often do your store workers quarrel with each other in the workplace?	1	2	3	4	5
8	How often do store workers cooperate with each other to harm the company?	1	2	3	4	5
9	How often do store workers cooperate with each other to harm other employees?	1	2	3	4	5

D: SUPPORT ORIENTATION		Please evaluate your current organisation, as it actually exists. Please tick the appropriate answer according to your view and experience in your store				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Caring about employees	1	2	3	4	5
2	Empathy for employees	1	2	3	4	5
3	Providing safe working conditions	1	2	3	4	5
4	Fairness in handling complaints by employees	1	2	3	4	5
5	Honesty of the store management	1	2	3	4	5
6	Ethics of the store management	1	2	3	4	5
7	Employee empowerment	1	2	3	4	5
8	Accurate job/person matching	1	2	3	4	5
9	Valuing employees	1	2	3	4	5
10	Trust in the employees	1	2	3	4	5
11	Mutual trust between management and employees	1	2	3	4	5
12	Helping with non-work problems	1	2	3	4	5
13	Flexibility of store management	1	2	3	4	5
14	Respect for employees by management	1	2	3	4	5
15	Mutual understanding between management and employees	1	2	3	4	5
16	Career-enriching opportunities	1	2	3	4	5
17	Job security for employees	1	2	3	4	5
18	Interpersonal cooperation between employees	1	2	3	4	5
19	Cooperation between management and employees	1	2	3	4	5
20	Employees approval of their managers	1	2	3	4	5
21	Interesting work	1	2	3	4	5
22	Appreciation by superiors of employees	1	2	3	4	5

E: RULES ORIENTATION		Please evaluate your current organisation, as it actually exists. Please tick the appropriate answer according to your view and experience in your store				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Fairness with employees	1	2	3	4	5
2	Compliance with rules by management	1	2	3	4	5
3	Management adherence to rules	1	2	3	4	5
4	Compliance with standards by management	1	2	3	4	5
5	Taking care of work procedure by management	1	2	3	4	5
6	Job clarity	1	2	3	4	5
7	Supervisors competence	1	2	3	4	5
8	Written instructions	1	2	3	4	5
9	Clearly defined responsibilities	1	2	3	4	5
10	Enough authority to carry out duties	1	2	3	4	5
11	Reasonable work loads	1	2	3	4	5
12	Enough time to get the job done	1	2	3	4	5
13	Equitable pay	1	2	3	4	5
14	Equitable benefits	1	2	3	4	5
15	Pay reflects actual contributions	1	2	3	4	5
16	Good promotion opportunities	1	2	3	4	5
17	Promotions are handled fairly	1	2	3	4	5
18	Accuracy in doing the job	1	2	3	4	5
19	Fair promotion opportunities	1	2	3	4	5
20	Keeping promises	1	2	3	4	5
21	Personal development	1	2	3	4	5
22	Career development	1	2	3	4	5
23	Training is important	1	2	3	4	5

F: INNOVATION ORIENTATION		Please evaluate your current organisation, as it actually exists. Please tick the appropriate answer according to your view and experience in your store				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Risk-taking by management	1	2	3	4	5
2	Analytical orientation by management	1	2	3	4	5
3	Conscientiousness by management	1	2	3	4	5
4	Encouraging suggestions	1	2	3	4	5
5	Openness to criticism	1	2	3	4	5
6	Keeping abreast with new technology	1	2	3	4	5
7	Sharing information	1	2	3	4	5
8	Opportunity to develop special abilities	1	2	3	4	5
9	A willingness to experiment	1	2	3	4	5
10	Managerial enthusiasm for creativity	1	2	3	4	5
11	The tendency for managers to solve problems	1	2	3	4	5
12	Supporting advancement by management	1	2	3	4	5

G: OUTCOME ORIENTATION		Please evaluate your current organisation, as it actually exists. Please tick the appropriate answer according to your view and experience in your store				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Emphasising rewards for good performance	1	2	3	4	5
2	Clear performance evaluation	1	2	3	4	5
3	Rigid criteria for measuring job performance	1	2	3	4	5
4	Rewards dependent on performance	1	2	3	4	5
5	Clarity of objectives	1	2	3	4	5
6	Identifying the responsibility for performance	1	2	3	4	5
7	Explaining decisions	1	2	3	4	5
8	Seeing the results of the work	1	2	3	4	5
9	Job focus	1	2	3	4	5
10	Management dedication	1	2	3	4	5
11	Rewards for new ideas and suggestions	1	2	3	4	5

H: PERCEPTION OF ORGANISATIONAL DEVIANCE		How often do the following theft practices take place in your store by other employees? (Please tick the appropriate answer)?				
		Never	Rarely	Sometimes	Usually	Always
1	Take unauthorized money from a supplier	1	2	3	4	5
2	Borrow money from employer without authorisation	1	2	3	4	5
3	Take money from employer without authorisation	1	2	3	4	5
4	Get paid for more hours than were worked	1	2	3	4	5
5	Get reimbursed for more money than spent on business expenses	1	2	3	4	5
6	Undercharge customers	1	2	3	4	5
7	Overcharge customers	1	2	3	4	5
8	Use the discount privileges in an unauthorised manner	1	2	3	4	5
9	Eat food at work without paying for it	1	2	3	4	5
10	Drink from store items without permission	1	2	3	4	5
11	Take store merchandise	1	2	3	4	5
12	Damage merchandise to buy on discount	1	2	3	4	5
13	Alter pricing for oneself	1	2	3	4	5
14	Alter pricing for a friend or a relative	1	2	3	4	5
15	Help another person to take store merchandise	1	2	3	4	5
16	Take unauthorized gifts from a supplier	1	2	3	4	5
17	Fail to report theft of employer's property	1	2	3	4	5
18	Falsify a company document for personal gain.	1	2	3	4	5
19	Ignore an instance of shoplifting by customers	1	2	3	4	5
20	Accuse others of theft	1	2	3	4	5
21	Take company equipment or tools	1	2	3	4	5
22	Make personal telephone calls at company expense	1	2	3	4	5
23	Make unauthorised use of company property	1	2	3	4	5

Appendix G: Main study questionnaire (Arabic)

بسم الله الرحمن الرحيم

عزيزي المشارك

وبعد

السلام عليكم ورحمة الله وبركاته

فإن هذه الاستبانة هي جزء مهم من أطروحتي للدكتوراه حول أمن الأسواق التجارية والتي تشرف عليها جامعة ليستر بالمملكة المتحدة. وأرجو منكم التكرم بالإجابة عن كافة الأسئلة وفقا لترتيبها. كما أن بعض الأسئلة يتطلب قليلا من الكتابة وخاصة في الجزء الأول من الاستبانة بينما بقية الأسئلة لا تحتاج إلا لوضع علامة صح للخيار المناسب.

وللمعلومية فإنه ليس هناك من داع لذكر أسمائكم لأن البحث لايركز على الأفراد وإنما ينظر إلى الموضوع بشكل إجمالي ومع ذلك أود طمأننتكم بأن أسماء وشخصيات المشاركين ستكون سرية للغاية .

وأستميحكم عذرا في أخذ بعضا من وقتكم الثمين للإجابة عن هذه الاستبانة كما أرجو منكم التكرم بكتابة إجابتكم بكل صدق ودقة لكي نصل إلى نتائج واقعية مفيدة تخدم كل أطراف العمل في الأسواق التجارية وهم العاملين والإدارة والشركة والموردين والزبائن، مع تقديري العظيم لتعاونكم .

وتقبلوا فائق تحياتي واحترامي

الباحث

صالح بن عبدالله الدبل

طالب الدكتوراه في جامعة ليستر ببريطانيا

الاستبانة

(A) بيانات شخصية	
١	ما عمرك؟
٢	ما هي حالتك الاجتماعية؟ متزوج (١) غير متزوج (٢)
٣	ما هي جنسيتك؟
٤	ما هو مستواك التعليمي؟ ابتدائي (١) متوسط (٢) ثانوي (٣) جامعي (٤) دراسات عليا (٥)
٥	ما هي وظيفتك؟
٦	ما نوع العمل الذي تمارسه فعلا؟
٧	ما هي المدة التي عملتها في السوبرماركت بشكل عام؟ (بالسنوات)
٨	ما هي المدة التي عملتها في هذه الشركة؟ (بالسنوات)
٩	ما هي المدة التي عملتها في هذا السوق؟ (بالسنوات)

(B) الحالة الاقتصادية حسب اعتقادك ومعرفتك بالعاملين حدد مستوى موافقتك على العبارات التالية بوضع علامة صح للإجابة المناسبة					
موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة	
٥	٤	٣	٢	١	١ رواتب العاملين في الشركة تعد كافية
٥	٤	٣	٢	١	٢ المنافع الأخرى للعاملين تعد كافية (بدل السكن، والعلاوات)
٥	٤	٣	٢	١	٣ رواتب العاملين بالمقارنة بالجهود التي يبذلونها في العمل تعد كافية
٥	٤	٣	٢	١	٤ رواتب العاملين وفقا لمراكزهم الوظيفية تعد كافية
٥	٤	٣	٢	١	٥ مجموع الدخل العائلي للعاملين خارج الوظيفة يعد كافيا

(C) وضع المجتمع حسب اعتقادك ومعرفتك بالعاملين ما مدى حدوث الأمور التالية: (ضع علامة صح للإجابة المناسبة)					
لا أبدا	نادرا	أحيانا	غالبا	دائما	
١	٢	٣	٤	٥	١ اشتراك العاملين في السوق في مشاجرات مع الآخرين خارج العمل
١	٢	٣	٤	٥	٢ اشتراك العاملين في السوق في غش أو اختلاس خارج العمل
١	٢	٣	٤	٥	٣ اشتراك العاملين في السوق في سلوك اعتداء عنيف خارج العمل
١	٢	٣	٤	٥	٤ تعاطي العاملين في السوق المخدرات خارج العمل
١	٢	٣	٤	٥	٥ تعاطي العاملين في السوق الكحوليات خارج العمل
١	٢	٣	٤	٥	٦ حدوث الجرائم في المناطق التي يسكن فيها العاملين في السوق
١	٢	٣	٤	٥	٧ حدوث مشاجرات بين العاملين داخل موقع العمل
١	٢	٣	٤	٥	٨ تعاون زملاء العمل للإضرار بالشركة
١	٢	٣	٤	٥	٩ تعاون زملاء العمل للإضرار بزميل آخر يعمل في الشركة

(D) مساندة العاملين					
حسب ما تراهي لك حدد مستوى موافقتك على توفر القيم التنظيمية التالية في موقع عملك وذلك بوضع علامة صح للإجابة المناسبة					
موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة	
٥	٤	٣	٢	١	١ الاهتمام بالعاملين
٥	٤	٣	٢	١	٢ الشفقة بالعاملين
٥	٤	٣	٢	١	٣ الحرص على وسائط السلامة في موقع العمل
٥	٤	٣	٢	١	٤ العدالة في التعامل مع شكاوى العاملين
٥	٤	٣	٢	١	٥ الأمانة من قبل إدارة السوق
٥	٤	٣	٢	١	٦ حسن الخلق من قبل إدارة السوق
٥	٤	٣	٢	١	٧ بث الحماس في العاملين
٥	٤	٣	٢	١	٨ وضع الرجل المناسب في المكان المناسب
٥	٤	٣	٢	١	٩ اعتبار أن للعاملين قيمة
٥	٤	٣	٢	١	١٠ الثقة في العاملين من قبل إدارة السوق
٥	٤	٣	٢	١	١١ الثقة المتبادلة بين العاملين والإدارة
٥	٤	٣	٢	١	١٢ مساعدة العاملين في مشكلاتهم خارج إطار العمل
٥	٤	٣	٢	١	١٣ مرونة إدارة السوق
٥	٤	٣	٢	١	١٤ الاحترام للعاملين من قبل إدارة السوق
٥	٤	٣	٢	١	١٥ التفاهم المتبادل بين الإدارة والعاملين
٥	٤	٣	٢	١	١٦ إيجاد فرص وظيفية أفضل للعاملين
٥	٤	٣	٢	١	١٧ الأمن الوظيفي للعاملين
٥	٤	٣	٢	١	١٨ تعاون فيما بين العاملين في أداء العمل
٥	٤	٣	٢	١	١٩ تعاون بين الإدارة والعاملين
٥	٤	٣	٢	١	٢٠ محبة العاملين لمدرائهم في العمل
٥	٤	٣	٢	١	٢١ العمل ممتع
٥	٤	٣	٢	١	٢٢ المشرفون يقدمون إنجازات العاملين

(E) التقيد بالنظام					
حسب ما تراهي لك حدد مستوى موافقتك على توفر القيم التنظيمية التالية في موقع عملك وذلك بوضع علامة صح للإجابة المناسبة					
موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة	
٥	٤	٣	٢	١	١ العدالة مع العاملين في المعاملة
٥	٤	٣	٢	١	٢ التمشي حسب الأنظمة من قبل إدارة السوق
٥	٤	٣	٢	١	٣ تطبيق أعضاء الإدارة للنظام على أنفسهم
٥	٤	٣	٢	١	٤ التمشي وفقا للمعايير من قبل إدارة السوق
٥	٤	٣	٢	١	٥ الاهتمام بالإجراءات من قبل إدارة السوق
٥	٤	٣	٢	١	٦ وضوح العمل
٥	٤	٣	٢	١	٧ حرص المشرفين على أداء أعمالهم
٥	٤	٣	٢	١	٨ كفاءة الأنظمة والإجراءات مكتوبة
٥	٤	٣	٢	١	٩ تحديد المسؤوليات بدقة
٥	٤	٣	٢	١	١٠ وجود صلاحيات كافية لكي يؤدي العاملين أعمالهم
٥	٤	٣	٢	١	١١ حجم العمل معقول وفي حدود القدرات
٥	٤	٣	٢	١	١٢ تناسب الوقت مع حجم العمل
٥	٤	٣	٢	١	١٣ عدالة في الرواتب
٥	٤	٣	٢	١	١٤ عدالة في البدلات والملاوات
٥	٤	٣	٢	١	١٥ الرواتب تتناسب مع الأداء الحقيقي للعاملين
٥	٤	٣	٢	١	١٦ فرص الترقيات جيدة
٥	٤	٣	٢	١	١٧ التعامل مع الترقيات بعدالة بين العاملين
٥	٤	٣	٢	١	١٨ دقة إدارة السوق أثناء أداء العمل
٥	٤	٣	٢	١	١٩ زيادة الملاوات لمن ينجح أفضل
٥	٤	٣	٢	١	٢٠ الوفاء بالوعود للعاملين
٥	٤	٣	٢	١	٢١ تنمية شخصيات العاملين
٥	٤	٣	٢	١	٢٢ التنمية الوظيفية للعاملين
٥	٤	٣	٢	١	٢٣ الاهتمام بالتدريب

(F) الابتكار					
حسب ما تراهي لك حدد مستوى موافقتك على توفر القيم التنظيمية التالية في موقع عملك وذلك بوضع علامة صح للإجابة المناسبة					
موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة	
٥	٤	٣	٢	١	١ اتباع أسلوب المغامرة من قبل إدارة السوق
٥	٤	٣	٢	١	٢ اتباع أسلوب التحليل من قبل إدارة السوق
٥	٤	٣	٢	١	٣ وعي الإدارة بالظروف المحيطة بالعمل
٥	٤	٣	٢	١	٤ تشجيع المقترحات من قبل إدارة السوق
٥	٤	٣	٢	١	٥ تقليل النقد من قبل إدارة السوق
٥	٤	٣	٢	١	٦ تقليل المبتكرات الجديدة من قبل إدارة السوق
٥	٤	٣	٢	١	٧ تبادل إدارة السوق للمعلومات مع العاملين حول جوانب العمل
٥	٤	٣	٢	١	٨ إعطاء الفرص لتنمية القدرات الخاصة للعاملين
٥	٤	٣	٢	١	٩ تقليل إدارة السوق تجارب العاملين
٥	٤	٣	٢	١	١٠ تشجيع إدارة السوق لإبداع العاملين
٥	٤	٣	٢	١	١١ محاولة إدارة السوق حل مشكلات العمل
٥	٤	٣	٢	١	١٢ مساندة إدارة السوق للجهود التطويرية

(G) الأهداف					
حسب ما تراهي لك حدد مستوى موافقتك على توفر القيم التنظيمية التالية في موقع عملك وذلك بوضع علامة صح للإجابة المناسبة					
موافق بشدة	موافق	محايد	غير موافق	غير موافق بشدة	
٥	٤	٣	٢	١	١ الحرص على مكافأة المتميزين
٥	٤	٣	٢	١	٢ وضوح كيفية تقييم الإنجاز
٥	٤	٣	٢	١	٣ مقاييس محددة لتقييم إنجاز المهام
٥	٤	٣	٢	١	٤ اعتماد المكافأة على مستوى الإنجاز
٥	٤	٣	٢	١	٥ وضوح الأهداف
٥	٤	٣	٢	١	٦ تحديد المسؤوليات
٥	٤	٣	٢	١	٧ بيان وشرح حيثيات القرارات
٥	٤	٣	٢	١	٨ إبراز النتائج التي تم تحقيقها للمعاملين
٥	٤	٣	٢	١	٩ الاهتمام بتحقيق الأهداف
٥	٤	٣	٢	١	١٠ بذل الإدارة للجهد في العمل
٥	٤	٣	٢	١	١١ مكافأة المبدعين

(H) الرؤية حول شذويع السرقات بين المعاملين					
ما مدى حدوث الأمور التالية بين المعاملين في السوق الذي تعمل فيه؟					
دائما	غالبا	أحيانا	نادرا	لا أبدا	
٥	٤	٣	٢	١	١ اخذ نقود من موردي البضائع إلى السوق دون تخويل من الإدارة بذلك
٥	٤	٣	٢	١	٢ الاستدانة من السوق دون موافقة الإدارة
٥	٤	٣	٢	١	٣ اخذ نقود من السوق الذي تعمل فيه دون وجود الصلاحية بذلك
٥	٤	٣	٢	١	٤ الحصول على مكافأة على عمل مبيعات إضافية دون العمل الفعلي فيها
٥	٤	٣	٢	١	٥ الحصول على تعويضات عن مشتريات أو أعمال لم تتم
٥	٤	٣	٢	١	٦ اخذ مبالغ أقل من الزبون للبضائع المشتراة
٥	٤	٣	٢	١	٧ اخذ مبالغ أكثر من الزبون للبضائع المشتراة
٥	٤	٣	٢	١	٨ استخدام صلاحية التخفيض في غير المسموح به
٥	٤	٣	٢	١	٩ الأكل من بضائع السوق دون دفع قيمتها
٥	٤	٣	٢	١	١٠ شرب ماء أو عصير أو خلافة من بضائع السوق دون الموافقة بذلك
٥	٤	٣	٢	١	١١ اخذ بضائع من السوق
٥	٤	٣	٢	١	١٢ إتلاف البضائع لشرائها بسعر مخفض
٥	٤	٣	٢	١	١٣ تغيير السعر لغرض ثرائه بسعر أقل
٥	٤	٣	٢	١	١٤ تغيير السعر لأجل بيعه لصديق أو قريب
٥	٤	٣	٢	١	١٥ مساعدة شخص من غير المعاملين لأخذ بضائع السوق دون دفع القيمة
٥	٤	٣	٢	١	١٦ اخذ الهدايا من موردي البضائع للسوق دون موافقة الإدارة
٥	٤	٣	٢	١	١٧ عدم التبليغ عن حالات سرقات زملاء العمل
٥	٤	٣	٢	١	١٨ التعميل في الوثائق الرسمية للعمل لمنفعة شخصية
٥	٤	٣	٢	١	١٩ تجاهل حالات سرقات الزبائن
٥	٤	٣	٢	١	٢٠ اتهام الآخرين بالسرقة
٥	٤	٣	٢	١	٢١ اخذ أدوات تستخدم في العمل من السوق
٥	٤	٣	٢	١	٢٢ استخدام هاتف السوق للأغراض الشخصية
٥	٤	٣	٢	١	٢٣ استخدام أدوات العمل لغرض شخصي

Appendix H: Organisational values dimensions

Table H1: Factor 1 rules orientation OVR

Items	Loading	Statement
E5	.758	Taking care of work procedure by management
E4	.701	Compliance with standards by management
D6	.679	Ethics of the store management
E2	.667	Compliance with rules by management
E6	.660	Job clarity
E7	.657	Supervisors competence
E8	.647	Written instructions
E3	.611	Management adherence to rules
E9	.606	Clearly defined responsibilities
E18	.557	Accuracy in doing the job
D13	.531	Flexibility of store management
E10	.515	Enough authority to carry out duties
E11	.513	Reasonable work loads
F3	.511	Conscientiousness by management
D5	.503	Honesty of the store management
E12	.471	Enough time to get the job done
G10	.401	Management dedication

Table H2: Factor 2 outcome orientation OVO

Items	Loading	Statement
G4	.783	Rewards dependent on performance
G8	.756	Seeing the results of the work
G2	.752	Clear performance evaluation
G3	.749	Rigid criteria for measuring job performance
G7	.702	Explaining decisions
G11	.702	Rewards for new ideas and suggestions
G6	.701	Identifying the responsibility for performance
G9	.691	Job focus
G5	.661	Clarity of objectives
G1	.656	Emphasising rewards for good performance
F2	.426	Analytical orientation by management

Table H3: Factor 3 fairness orientation OVF

Items	Loading	Statement
E15	.812	Pay reflects actual contributions
E13	.809	Equitable pay
E14	.784	Equitable benefits
E16	.728	The chances for promotion are good
E17	.699	Good promotion opportunities
E19	.572	Fair promotion opportunities

Table H4: Factor 4 support orientation OVS

Items	Loading	Statement
D2	.704	Empathy for employees
D1	.672	Caring about employees
D3	.636	Providing safe working conditions
D9	.627	Valuing employees
D8	.508	Accurate job/person matching
D17	.482	Job security for employees
D16	.454	Career-enriching opportunities

Table H5: Factor 5 innovation orientation OVI

Items	Loading	Statement
F7	.715	Sharing information
F6	.670	Keeping abreast with new technology
F9	.667	A willingness to experiment
F10	.663	Managerial enthusiasm for creativity
F8	.646	Opportunity to develop special abilities
F11	.586	The tendency for managers to solve problems
F12	.574	Supporting advancement by management
F5	.553	Openness to criticism
F4	.452	Encouraging suggestions

Table H6: Factor 6 human needs orientation OVH

Items	Loading	Statement
D12	.579	Helping with non-work problems
D21	.558	Interesting work
D19	.511	Cooperation between management and employees
D22	.496	Appreciation by superiors of employees
D11	.481	Mutual trust between management and employees
D14	.440	Respect of employees by management
D15	.487	Mutual understanding between management and employees
D20	.491	Employees approval of their managers

Appendix I: Employee theft dimensions

Table I1: Factor 1 paper theft ETP

Items	Loading	Statement
H13	.788	Alter pricing for oneself
H6	.739	Undercharge customers
H5	.713	Get reimbursed for more money than spent on business expenses
H14	.684	Alter pricing for a friend or a relative
H7	.681	Overcharge customers
H15	.642	Help another person to take store merchandise
H4	.641	Get paid for more hours than were worked
H8	.613	Use the discount privileges in an unauthorised manner
H12	.578	Damage merchandise to buy on discount
H20	.567	Accuse others of theft
H18	.553	Falsify a company document for personal gain.

Table I2: Factor 2 property theft ETPR

Items	Loading	Statement
H9	.771	Eat food at work without paying for it
H10	.748	Drink from store items without permission
H19	.643	Ignore an instance of shoplifting by customers
H11	.588	Take store merchandise
H17	.533	Fail to report theft of employer's property
H21	.508	Take company equipment or tools

Table I3: Factor 3 use theft ETU

Items	Loading	Statement
H22	.818	Make personal telephone calls at company expense
H23	.702	Make unauthorised use of company property
H16	.643	Take unauthorized gifts from a supplier

Table I4: Factor 4 cash theft ETC

Items	Loading	Statement
H1	.796	Take unauthorized money from a supplier
H2	.664	Borrow money from employer without authorisation
H3	.522	Take money from employer without authorisation

Appendix J: Extra control variables tables

Table J1: Control variables for the relationship between OVR and ET

OVR	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.51	1.43	1.59	1.62	1.37
	High	1.75	1.80	1.71	1.95	1.46
High	Low	1.39	1.17	1.35	1.88	1.16
	High	1.34	1.24	1.28	1.56	1.26
ANOVA	F	16.39	32.17	22.01	1.20	8.21
	Sig.	.000	.000	.000	.273	.004
Eta		.19	.27	.22	.05	.14
OCP						
Low	Low	1.25	1.21	1.22	1.43	1.12
	High	1.96	1.96	2.05	2.08	1.68
High	Low	1.20	1.13	1.16	1.38	1.12
	High	1.55	1.32	1.49	2.03	1.36
ANOVA	F	16.41	32.30	22.01	1.24	8.07
	Sig.	.000	.000	.000	.266	.005
Eta		.19	.27	.22	.05	.14
ICP						
Low	Low	1.26	1.30	1.20	1.33	1.11
	High	1.88	1.84	1.95	2.11	1.63
High	Low	1.18	1.12	1.18	1.30	1.12
	High	1.60	1.38	1.52	2.09	1.41
ANOVA	F	12.45	25.96	15.12	1.43	5.42
	Sig.	.000	.000	.000	.233	.020
Eta		.19	.26	.20	.06	.12

Table J2: Control variables for the relationship between OVO and ET

OVO	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.50	1.34	1.54	1.78	1.31
	High	1.71	1.67	1.65	2.01	1.42
High	Low	1.39	1.31	1.41	1.61	1.23
	High	1.35	1.29	1.31	1.51	1.28
ANOVA	F	13.36	8.74	11.62	15.03	2.29
	Sig.	.000	.003	.001	.000	.131
Eta		.17	.14	.16	.18	.07
OCP						
Low	Low	1.27	1.18	1.25	1.54	1.11
	High	1.89	1.79	1.92	2.21	1.60
High	Low	1.19	1.15	1.15	1.30	1.13
	High	1.61	1.49	1.62	1.87	1.45
ANOVA	F	13.38	8.81	11.62	15.15	2.22
	Sig.	.000	.003	.001	.000	.137
Eta		.17	.14	.16	.19	.07
ICP						
Low	Low	1.26	1.21	1.17	1.47	1.08
	High	1.79	1.66	1.81	2.14	1.54
High	Low	1.19	1.18	1.21	1.24	1.14
	High	1.68	1.54	1.65	2.02	1.51
ANOVA	F	8.99	5.69	6.56	11.92	1.49
	Sig.	.003	.018	.011	.001	.223
Eta		.16	.12	.13	.18	.06

Table J3: Control variables for the relationship between OVF and ET

OVF	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.47	1.28	1.50	1.82	1.26
	High	1.56	1.51	1.59	1.85	1.28
High	Low	1.41	1.40	1.46	1.47	1.29
	High	1.47	1.42	1.39	1.66	1.36
ANOVA	F	.54	.71	2.83	6.03	1.26
	Sig.	.461	.398	.093	.014	.262
Eta		.04	.04	.08	.12	.05
OCP						
Low	Low	1.27	1.17	1.24	1.56	1.10
	High	1.69	1.52	1.78	2.06	1.41
High	Low	1.20	1.17	1.17	1.32	1.14
	High	1.84	1.80	1.78	2.04	1.66
ANOVA	F	.55	.69	2.83	6.11	1.32
	Sig.	.460	.405	.093	.014	.252
Eta		.04	.04	.08	.12	.06
ICP						
Low	Low	1.17	1.13	1.15	1.35	1.05
	High	1.73	1.51	1.80	2.20	1.41
High	Low	1.25	1.23	1.22	1.30	1.16
	High	1.75	1.71	1.69	1.98	1.62
ANOVA	F	.13	1.53	1.69	5.74	2.42
	Sig.	.715	.218	.195	.017	.121
Eta		.019	.07	.07	.13	.08

Table J4: Control variables for the relationship between OVS and ET

OVS	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.51	1.41	1.60	1.72	1.32
	High	1.67	1.70	1.62	1.90	1.38
High	Low	1.36	1.19	1.32	1.74	1.20
	High	1.40	1.30	1.35	1.62	1.33
ANOVA	F	8.91	16.83	13.05	2.04	.89
	Sig.	.003	.000	.000	.154	.346
Eta		.15	.20	.18	.07	.05
OCP						
Low	Low	1.28	1.25	1.25	1.49	1.13
	High	1.89	1.83	1.98	2.11	1.57
High	Low	1.19	1.11	1.15	1.37	1.12
	High	1.64	1.46	1.58	2.02	1.49
ANOVA	F	9.26	17.20	13.52	2.21	.94
	Sig.	.002	.000	.000	.138	.334
Eta		.15	.20	.18	.07	.05
ICP						
Low	Low	1.30	1.32	1.23	1.41	1.11
	High	1.81	1.72	1.88	2.09	1.54
High	Low	1.17	1.11	1.17	1.28	1.13
	High	1.66	1.46	1.58	2.10	1.50
ANOVA	F	7.37	14.36	10.40	1.91	.75
	Sig.	.007	.000	.001	.168	.386
Eta		.14	.20	.17	.07	.05

Table I5: Control variables for the relationship between OVI and ET

OVI	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.46	1.41	1.54	1.69	1.34
	High	1.69	1.68	1.66	1.94	1.39
High	Low	1.42	1.21	1.44	1.82	1.20
	High	1.35	1.29	1.28	1.54	1.30
ANOVA	F	9.91	14.00	12.55	3.50	2.14
	Sig.	.002	.000	.000	.062	.145
Eta		.16	.19	.18	.094	.07
OCP						
Low	Low	1.28	1.23	1.28	1.50	1.11
	High	1.88	1.82	1.91	2.10	1.62
High	Low	1.20	1.13	1.15	1.35	1.15
	High	1.60	1.44	1.57	1.97	1.41
ANOVA	F	9.93	14.10	12.55	3.57	2.06
	Sig.	.002	.000	.000	.060	.152
Eta		.16	.19	.18	.10	.07
ICP						
Low	Low	1.29	1.30	1.27	1.38	1.11
	High	1.81	1.71	1.83	2.13	1.56
High	Low	1.18	1.13	1.16	1.29	1.15
	High	1.65	1.50	1.61	2.01	1.48
ANOVA	F	7.14	9.68	8.39	3.70	1.12
	Sig.	.008	.002	.004	.055	.291
Eta		.15	.17	.16	.11	.058

Table J6: Control variables for the relationship between OVH and ET

OVH	ECP	ET	ETP	ETPR	ETU	ETC
Low	Low	1.55	1.41	1.65	1.76	1.37
	High	1.71	1.69	1.69	1.93	1.44
High	Low	1.34	1.19	1.30	1.67	1.17
	High	1.38	1.31	1.31	1.60	1.29
ANOVA	F	15.46	15.44	24.76	5.09	4.88
	Sig.	.000	.000	.000	.025	.028
Eta		.19	.19	.24	.11	.11
OCP						
Low	Low	1.29	1.21	1.29	1.52	1.14
	High	1.93	1.85	2.04	2.13	1.65
High	Low	1.17	1.11	1.12	1.32	1.11
	High	1.62	1.49	1.54	2.01	1.43
ANOVA	F	15.49	15.54	24.76	5.16	4.77
	Sig.	.000	.000	.000	.024	.029
Eta		.19	.19	.24	.11	.11
ICP						
Low	Low	1.28	1.25	1.23	1.42	1.11
	High	1.89	1.76	2.0	2.20	1.63
High	Low	1.17	1.12	1.16	1.25	1.12
	High	1.61	1.48	1.51	2.00	1.44
ANOVA	F	12.14	10.8	18.51	5.81	3.23
	Sig.	.001	.001	.000	.016	.073
Eta		.19	.18	.23	.13	.10

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