



**UNIVERSITY OF ZIMBABWE**

**MBA PROGRAM**

**NAME: ANDREW FUNGAI MAPAMBA**

**REG N0: R056435N**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE MASTER OF  
BUSINESS ADMINISTRATION DEGREE**

**TITLE: THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND  
INNOVATION IN THE ZIMBABWEAN IT INDUSTRY: CASE OF MILTER (PVT) LTD**

**SUPERVISOR: DR C. GUMBO**

## DECLARATIONS

I, **Andrew Fungai Mapamba**, declare that this research study is my own effort and is a true reflection of research executed by me. This research in full or part thereof has not been submitted for examination for any degree at any other university/institution.

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form, or by any means (e.g. electronic, mechanical, photocopying, recording or otherwise) without the prior express permission of me the author, or University of Zimbabwe on my behalf.

I, **Andrew Fungai Mapamba**, grant University of Zimbabwe permission to reproduce this dissertation in whole or in part, in any manner or format, which University of Zimbabwe may deem fit.

**Andrew Fungai Mapamba**

Name of Student

.....

Signature

06 MARCH 2020

Date

## **DEDICATION**

This dissertation is dedicated to my wife and my children and all who have inspired me to study Strategic Leadership programme. They all have my love and deepest gratitude.

## **ACKNOWLEDGEMENTS**

This report was made possible because of the time, dedication, effort, cooperation and support of many individuals who enabled the researcher to get much more than what he could have achieved on a personal capacity.

Firstly, I would like to thank the Milter Private Limited, management for giving me the opportunity to use Milter Private Limited as a case study.

Secondly, my humble gesture of appreciation goes to my supervisor Dr Gumbo for his valuable guidance, support and mentorship that he imparted so that I can be a better person professionally and academically.

Thirdly I would like to thank all my lecturers; their assistance is of paramount importance in moulding the researcher's skills and grasp of work related concepts.

Above all I would like to give due thanks to my Lord Jesus Christ who made everything possible for me up to this day of my life. I give Him praise for granting me such a favour to pursue my dream.

I thank you all.

God bless you.

## **ABSTRACT**

The purpose of this study was to explore the relationship of organisational culture creativity and innovation and their overall effect on organizational performance. A case study was guided by the following objectives: to establish the key features of Milter (Pvt) Ltd Organisational culture, to assess the impact of culture on organizational innovation, to explore on the key leadership traits that influence organisational culture and to recommend cultural elements that should be adopted and developed to enhance organizational innovation at Milter (Pvt) Ltd. The study adopted survey design which was used to obtain data to describe the existing phenomena. The target population was more than 250 both male and female employees of Milter Private Limited. The estimated sample size was 100 from the target population. The study employed convenience sampling and stratified random sampling in order to include every possible candidate within the areas studied; proportionate allocation was used to determine the number of participants from the area that would be the respondents in the study. Content validity was used where the researcher shared the research instrument with his supervisor to assess its appropriateness in content. A questionnaire with structured questions was prepared and distributed to the respondents in every area that was targeted by the researcher. The questionnaires were then collected after one week. 95% of the questionnaires were filled and were used for analysis. Data was analysed using descriptive statistics, regression analysis, KMO and Bartlett's tests, and Total Variance Analysis. The study adopted SPSS version 25 for data analysis. The findings revealed that there are key features that could be adopted to organizational culture practices at Milter Private Limited, there is a positive impact of organizational culture on innovation, there are key leadership traits that influence organisational culture and there are cultural elements that should be adopted and developed to enhance organizational innovation at Milter (Pvt) Ltd. The management of Milter Private Limited must scan the environment before they implement any culture practice, strategic thinking is highly required in order to come up with sound and effective organisational culture that promotes innovation. The researcher recommends further research on the impact of corporate culture on organisational innovation.

# Contents

DECLARATIONS .....	i
DEDICATION .....	ii
ACKNOWLEDGEMENTS .....	iii
ABSTRACT.....	iv
List of Tables .....	ix
List of figures.....	xi
CHAPTER ONE .....	1
BACKGROUND TO THE RESEARCH PROBLEM .....	1
1 Introduction .....	1
1.1 A firm’s culture.....	1
1.2 Research Study Background.....	1
1.3 Statement of the problem .....	4
1.4 Objectives.....	5
1.5 Questions for Research.....	5
1.6 Research hypotheses .....	5
1.7 Research methodology .....	6
1.8 Scope of research.....	7
1.9 Significance of study .....	7
1.10 Chapters outline.....	7
1.10.1 Chapter One.....	7
1.10.2 Chapter Two.....	7
1.10.3 Chapter Three .....	8
1.10.4 Chapter Four .....	8
1.10.5 Chapter Five .....	8
1.10 Chapter summary.....	8
CHAPTER TWO .....	9
2 LITERATURE REVIEW .....	9
2.1 Introduction .....	9
2.2 A firm’s culture.....	9
2.2.1 Organizational culture classification.....	10
2.3 A firm’s culture and employee performance.....	11
2.4 Importance of A firm’s culture.....	13

2.5	Organisational Innovation.....	13
2.6	A firm’s culture and innovation .....	15
2.7	A firm’s culture and Leadership traits.....	16
2.8	Conceptual Framework.....	17
2.9	Research gap.....	17
2.10	Chapter summary.....	18
CHAPTER THREE .....		19
3	RESEARCH METHODS.....	19
3.1	Introduction .....	19
3.2	Research philosophy .....	19
3.3	Research Design .....	20
3.4	Research strategy.....	20
3.4.1	Case studies.....	21
3.4.2	Survey Strategy .....	21
3.5	Target population .....	21
3.5.1	Study population and sample composition .....	22
3.6	Sampling Method.....	22
3.7	Research Instruments .....	22
3.7.1	Questionnaire .....	23
3.8	Data Collection Procedure .....	23
3.8.1	Analysis of data and Methods of Presentation.....	23
3.9	Data Reliability and Validity .....	24
3.9.1	Reliability.....	24
3.9.2	Validity .....	25
3.10	Ethical Considerations.....	25
3.11	Summary of Chapter Three.....	26
4	DATA ANALYSIS .....	27
4.1	Introduction .....	27
4.2	Rate of response .....	27
4.3	Data on Demographics.....	27
4.3.1	Age.....	28
4.3.2	Sex.....	29
4.3.3	Educational Qualification .....	30

4.3.4	Hierarchical Level.....	32
4.3.5	Number of years at Milter Private Limited .....	34
4.4	Test of Reliability and Test of Validity.....	35
4.4.1	Reliability Statistics .....	36
4.4.2	Variable testing (Independent and Dependent).....	36
4.5	Normality Tests .....	37
4.6	Objective 1 .....	37
4.6.1	Descriptive Statistics.....	38
4.6.2	Analysis of Regression.....	40
4.6.3	Variance .....	41
4.6.4	Total Variance.....	43
4.6.5	Discussion of findings.....	43
4.7	Objective 2 .....	45
4.7.1	Descriptive Statistics.....	45
4.7.2	Regression Analysis .....	47
4.7.3	Discussion of findings.....	49
4.8	Objective 3 .....	50
4.8.1	Descriptive Statistics.....	51
4.9	Histogram.....	52
4.9.1	Regression Analysis.....	53
4.9.2	Discussion of findings.....	55
4.10	Objective 4 .....	56
4.10.1	Descriptive Statistics.....	56
4.10.2	Histogram.....	58
4.10.3	Normal Distribution .....	59
4.10.4	Analysis of Regression.....	59
4.10.5	Analysis of Variance.....	60
4.10.6	Total Variance.....	61
4.10.7	Discussion of findings.....	62
4.11	Hypothesis Testing .....	63
4.12	Chapter Summary .....	64
5	RECOMMENDATIONS.....	65
5.1	Introduction .....	65

5.2	Conclusion.....	65
5.3	Theoretical contribution .....	69
5.4	Contribution to Methodology .....	69
5.5	Contribution to Empirical Research .....	69
5.6	Recommendation towards Policy Formulation .....	70
5.7	Managerial recommendation .....	70
5.8	Generalisation of findings .....	71
5.9	Limitations observed.....	71
5.10.	Areas of further study .....	71
	References .....	72
	Appendices.....	79
	Appendix 1 .....	79
	QUESTIONNAIRE .....	79

## List of Tables

Table 1: Age range.....	28
Table 2: Gender.....	29
Table 3: Level of education .....	31
Table 4: Hierarchical level.....	33
Table 5: Number of years at Militer Private Limited.....	34
Table 6: Reliability Statistics .....	36
Table 7: Item Total Statistics .....	36
Table 8: Tests of Normality .....	37
Table 9: Descriptive statistics .....	38
Table 10: Model Summary .....	41
Table 11: ANOVA.....	41
Table 12: Coefficients.....	41
Table 13: KMO and Bartlett's Test .....	42
Table 14: Total variance test.....	43
Table 15: Descriptive statistics .....	45
Table 16: Model Summary .....	47
Table 17: ANOVA.....	48
Table 18: Coefficients.....	48
Table 19: KMO and Bartlett's Test .....	48
Table 20: Total variance explained.....	49
Table 21: Descriptive statistics .....	51
Table 22: Model Summary .....	53
Table 23: ANOVA.....	53
Table 24: Coefficient .....	53
Table 25: KMO and Bartlett's Test .....	54
Table 26: Total variance explained.....	55
Table 27: Descriptive statistics .....	56
Table 28: Model Summary .....	59
Table 29: ANOVA.....	60
Table 30: Coefficient .....	60
Table 31: KMO and Bartlett's Test .....	61

Table 32: Total variance explained.....	62
Table 33: Coefficient .....	63
Table 34: Hypothesis Testing .....	64

## List of figures

Figure 1: Age range .....	29
Figure 2: Gender .....	30
Figure 3: Level of education .....	32
Figure 4: Hierarchical level .....	33
Figure 5: Number of years at Milter Private Limited .....	35
Figure 6: Histogram .....	40
Figure 7: Histogram .....	47
Figure 8: Histogram .....	52

# **CHAPTER ONE**

## **BACKGROUND TO THE RESEARCH PROBLEM**

### **1 Introduction**

With the current economic challenges in Zimbabwe, innovation is a vital source of competitive advantage for any organisation. Naranjo-Valencia (2018) argues that a firm's culture is one of the most essential elements in innovation initiation. Influencing employee behaviour helps them accept innovation changes which brings about organizational value and employee commitment. As such Calderon-Hernández (2018), mentions that organizations should focus on promoting creative thinking which allows the institutionalization of innovation. A firm's culture is particularly vital when organisation undergo significant transformation or when introducing major changes which require new value traits than those shown in the past.

#### **1.1 A firm's culture**

A firm's culture exists at the intersection of Organisational memory, Organisational history, business context and operational effectiveness (Phillips 2012). A firm's culture is defined by what an organisation is, the things it does, and in various ways maintains its standing to the outside world. A firm's culture directs how employees work and interact, what motivates them to take risks and determines attitudes (Phillips 2012).

#### **1.2 Research Study Background**

The topic of a firms' culture generated a lot of interest in the late 1980s and mid 1990s as scholars explored the reasons behind the failure of Zimbabwean firms in competing with their African counterparts (Ojo, 2010). An organization's culture is considered to be a vital factor which contributes significantly to an organization's success or failure (Sawner, 2000). It is often held responsible for organizational ills and on occasions, praised for creating positive qualities (Baker, 2004; Shani & Lau, 2008). Further to organization hierarchy effects, the impact of organizational culture on key employee attitudes is well documented (Cameron & Quinn, 2011).

Presently, we are observing a rapid shift in different spheres of human life, to an extent that change is the only constant. The society is confronting massive technological, geographical, political, economic, and legal changes. Consequently, to deal with the changing aspects of society and to develop a balanced strategy towards change in the face of a force like culture, there is a need for a careful inspection of all these important factors. Empirical research has insignificant contribution to the universal theories of organizational effectiveness and how the effectiveness is measured. To a larger extent it is based on subjective measures (Lewin & Minton, 1986). Research is still being done to determine the measures of high organisational performance (Jeuchter, Fister & Alford, 1984). The measures are instrumental in a changing work environment and gain traction through clear visions, shared goals, creative collaborations, compatible policies, teamwork, employee loyalty and positive culture, which give rise to possibilities of success through competitive advantage. Culture embraces values, social interactions and beliefs that the members of a firm share. Organizations function within the scope of culture; therefore, positively built culture and association of its members with it, facilitates better organizational performance. To understand the fundamental ingredients of culture, it was imperative to recognize the magnitude of culture and its theory (Louis, 1985). Kotter and Heskett (1992) established that culture has a great effect on an organization's sustainability and economic performance. Culture in a wider sense includes transformation of values of a particular segment of a society from one generation to another for adoption.

A Firm embedded with cultural values, is characterized by the visible social strength in its manifestation (Mitroff & Kilmann, 1984). Managers are mindful of the cultural harmony and the manner in which it affects employees' outlook toward attainment of organizational objectives. Therefore, it becomes a subject of interest for a researcher to investigate the effects of culture on an organization. Howard (1990), the president of Levi Strauss, pointed out that company values were of paramount importance to its competitive advantages as it provided impetus in the success of business. The culture in the organization determines other aspects, such as performance in the organization. Primarily, founders of the organizations are the driving force behind the establishment of its culture, right at the initial stage. It is therefore, natural that the type of culture varies with the different founders of organisations. In pursuit of change in the culture, due to external environment, considerable resistance is experienced.

On the other hand, external well suited external leaders have a dynamic effect on the organization. Kotter et al., (1992) believe that firms with strong culture outperform the firms lacking in values and norms. According to Gupta (2001), Organizational Strategies have a bearing on the culture, which in turn affects performance (Lee & Yu, 2004). Gordon and Di Tomaso (1992) conducted research on different insurance companies in America and concluded that culture has a long term effect on the performance of an organization.

Robbins (2002) believes that the stronger the culture, the greater is its impact on organization perceptions and performance. Different intervening variables influence employee satisfaction, which in turn improves organisational performance. Chow, Haddad and Wu (2002) study in Taiwan revealed that performance standards of the organization can be enhanced by effectively managing, controlling and changing their culture. Kotter et al., (1992) also believe that values are associated with the organization performance for a prolonged period of time. A particular culture existing in an organization is evident from the style and the manner in which an organization performs its function. Employees, being an important organ, adopt perception of the organization and perform their duties accordingly. Employees working in an organization for a long time either become change agents or remain instrumental in retaining the prevalent culture. High performing organizations tend to employ new-comers with high skills and expect them to excel in their portfolio. Kilmann, Mary and Roy, (1985) suggest that pragmatic stability and practices followed by working groups are the reflection of the values, which are being promoted. The values are transmitted in external environments and spread around through interaction with the outer world. These values are predictive of the performance of the organization. People outside the organization, would look through their perceived image and easily predict the role being performed by the employees within the organization. Successful implementation of policies and plans, implementing of goals can be possible with appropriate shaping of values or culture by implementing appropriate strategies. Corporate culture has earned wide acclaim throughout the world due to its orientation towards performance. This has dealt a striking blow to the stagnated Zimbabwe technology industry, operating with management practices that seek to extend accountability of resources and cost effectiveness.

The employee performance has come under close scrutiny. Consequently, corporate culture is flourishing in most corporate and the phenomenon should agitate the information technology industry. There is evidence that culture is connected to organisational performance, as it provides job satisfaction, commitment, collaboration, and effective strategy implementation in the organization. The relationship of organizational culture and innovation in other industries provide an incentive for the researcher to study the philosophy from various angles, therefore the researcher seeks to assess the relationship between organizational culture and innovation in the Zimbabwean IT industry: case study of Milter (Pvt) Ltd

### **1.3 Statement of the problem**

A firm's culture has been found to be one of the most pillars that could help companies in IT industry to function well. The absence of the proper practices on a firm's culture may lead to a failure of the organisation the organisation of any kind. Milter private limited has been practising some negative practises such as lack of proper meetings between employees and management, no room entertain new ideas, lack of proper definition of roles between management and workers, conflict of interests between senior management. This has affected the general morale of the employees. The technical employees are always given a subtle reminder that the senior managers know 'everything' and are never encouraged to research on new technologies which may help the business. Ingenuity is promptly shot down as being dangerous and not the old way of doing things which has brought success in the past. Milter is still following the traditional top-down hierarchical structure which seems to limit the innovative potential of the employees. This research therefore attempts to identify the culture by conducting culture surveys of small employee groups which will observe the interactions of the employees and see what they think of the culture. Then assess its effect on organisational performance.

## **1.4 Objectives**

The objective of the research study is to assess the relationship of a firm's culture and innovation and their overall effect on the performance of the firm

- To determine key features of Milter (Pvt) Ltd a firm's culture.
- To assess the effect of culture on organizational innovation.
- To explore key leadership traits that influence a firm's culture
- To suggest cultural values that ought to be adopted and developed to reinforce innovation at Milter (Pvt) Ltd.

## **1.5 Questions for Research**

The study attempted to address the questions below:

- What are the key features of Milter organizational culture?
- What is the effect of culture on organizational innovation at Milter?
- What are the key leadership traits of the top management at Milter?
- What are the cultural values that ought to be adopted and developed to reinforce innovation at Milter (Pvt) Ltd?

## **1.6 Research hypotheses**

H<sub>0</sub>: There is no significant relationship between organizational culture and organizational innovation

H<sub>1</sub>: There is a significant relationship between organizational culture and organizational innovation

H<sub>2</sub>: There is a significant relationship between leadership traits and organizational culture

## 1.7 Research methodology

Research in social science is guided by suitable philosophies (Wahyuni, 2016). Collis and Hussey (2009) describe research philosophy as “a belief on way in which data related to a phenomenon should be collected, processed and used”. Research philosophies assist researchers to recognize and accept relevant research methods, designs, and data gathering methods (Wahyuni, 2016; Creswell, 2010; Neuman, 2011). According to Morgan (2018), philosophies refer to shared beliefs within a social setting of the researcher so that researchers will have faith in a particular model adopt appropriate methodologies to solve the research problem. The commonly applied philosophies in business research are:

1. Positivism:

Derived from natural sciences. Believe that knowledge is valid if it is derived from hypothesis testing that is taken from theory. Dependant on samples that are large and the data collection and assessment techniques are highly structured. Is associated with QUANTITATIVE approaches (Sandada, 2019).

2. Interpretivism,

Called anti-positivist or constructivist. Derived from social sciences. Researchers make inferences based upon experience, memories and expectations. Meaning of a phenomena is a result of experience that results in many different interpretations. Focus is to understand what respondents think and feel. Is associated with QUALITATIVE approaches (Sandada 2019).

3. Pragmatism.

Pragmatists do not agree with positivism due to an over-deterministic view of leaving very little room for choice due to a causal and effect relation. They disagree with interpretivism as well over a totally relativist view. Takes a mix of both positivism and interpretivism aspects. Associated with mixed methods or triangulation (Sandada, 2019).

The researcher adopted the positivism research philosophy. The research questions in the study required collection of quantitative data.

The researcher used a single methodology because it is a good way to improve the quality of research and it is less cumbersome than using of mixed approach (Mouton, 2009)

## **1.8 Scope of research**

The researcher carried out a research on Milter's culture. Milter has branches in more than one city, however the researcher concentrated on Harare as part of the research. Harare is the largest branch of the three, with 100 employees, Bulawayo has 90 employees and Mutare has 60 employees.

## **1.9 Significance of study**

Since Milter (Pvt) Ltd.'s inception in 1996, no one has ever done such a research to determine the importance of organizational culture on the overall performance of the organizational through innovative strategies. Schein (1992) posits that before any development comes in a firm there is need for a survey to know the recurring cultural aspects of a firm and the way they support implementation of goals in the firm. The study findings and recommendations will benefit Milter (Pvt) Ltd in assessing the useful nature of its cultural values and norms. The research recommendations will be used to recommend cultural traits that can be adopted and future developed to improve organisational effectiveness. The study will go on to assist partners within the industry and emerging companies to grow the industry.

## **1.10 Chapters outline**

### **1.10.1 Chapter One**

An introductory to the research and further goes on to give the problem statement and background study to the research. More so it looks into the reasons of carrying out the research, and determines the scope of the research.

### **1.10.2 Chapter Two**

Institutes a literature review on organizational culture and innovation, and focuses on conceptual frameworks that help in justifying a phenomenon which would have been previously introduced to the research area. The chapter highlights how other authors tackled the research area. Definitions of terms and explanation of strategy used for data collected in the past.

### **1.10.3 Chapter Three**

Elaborates on the methodology to be used which explains research design and data collection methods. Research philosophy issues was also discussed in this chapter. Ethical considerations and issues pertaining to sampling was also be covered in this chapter.

### **1.10.4 Chapter Four**

In this chapter data collected through a questionnaires was presented and analyzed. This chapter plays a critical role in the achievement of research aim and objectives. Findings of the literature review are compared to primary data findings of the research and discussions on each research objective

### **1.10.5 Chapter Five**

The chapter summation of the research purpose and outcomes. Suggests recommendations to the organization under study and also suggests room for improvement.

## **1.10 Chapter summary**

Presentation of research problems and delineation of the research problems, objectives and questions and hypothesis, the justification for the study and the scope of this study on organisational culture that can be adopted by companies in the information technology industry. The chapter also outlined the Dissertation outline.

## **CHAPTER TWO**

### **2 LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter seeks to identify gaps within the available literature on Organisational culture and innovation.

#### **2.2 A firm's culture**

The idea of organizational culture has attracted a critical measure of interrogation and assessment since the 1980s. Before the idea surfaced, the idea of organizational climate was common in the organizational and administration literature in the 1960s and 1970s. The terms climate and culture were used interchangeably until the idea of organizational culture established itself as a classifiable field of research (Hofstede, 2001). The vulgarisation of this idea owes a colossal deal to books such as *In Search of Excellence* by Peters and Waterman (1984, 2004), *Corporate Cultures* by Deal and Kennedy (1982), and *Theory Z* by Ouchi (1981) which showed that organizational culture could exercise a remarkable influence on organizations in areas such as accomplishment and employee relations (Lunenburg & Ornstein, 2011). Actually, authors have widely studied the importance of organizational culture in organizations (Alvesson, 2002; Cameron & Quinn, 2011; Cooper & Quinn, 1993; Fey & Denison, 2003; Martin, 2001; Schein, 1992). In spite of the fact that organizations have always had cultures, managing these cultures has been a fascinating and ambiguous task for business leadership (Druckman, Singer, & Cott, 1997). Cameron and Quinn (2011) argue that organizational culture has a strong affiliation with the organisation's sense of singularity, its values, mission, aims, goals and ways of building shared values. Also, organizational culture represents a system of nonphysical and unrestricted beliefs that justify how organizations behave. These beliefs, however, are taken for granted and are seldom declared or discussed ingenuously (Schein, 1992). Organizational culture is well regarded as one of the unique characteristics that differentiate successful organizations from others (Berson, Oreg, & Dvir, 2008). Consequently, understanding the idea of organizational culture is an all-important task for leaders because of its huge influence on dissimilar aspects of organizational behaviour. Ignoring organizational culture in plans for any changes within the organization would yield unanticipated and detrimental consequences (Cameron & Quinn, 2011).

Having established that organizational culture comprises a range of composite social phenomena, it is not surprising that scholars have identified corporate culture as a multi-layered construct which can be divided into layers according to these phenomena's observability and accessibility. Organizational culture has been defined as patterns of shared values and beliefs over time which produces behavioural norms that are adopted in solving problems (Owens 1987; Schein, 1990). The organisation's inner surroundings is represented by its culture and is construed by the assumptions and beliefs of the managers and employees (Aycan et al., 1999). Organizational culture manifested in beliefs and assumptions, values, attitudes and demeanour of its members is a necessary source of firms free-enterprise advantage (Hall, 1993; Peteraf, 1993) since it shapes organizational procedures, unifies organizational capabilities into a cohesive whole, provides solutions to the problems faced by the organization, and, thereby, impeding or facilitating the organisation's accomplishment of its goals (Yilmaz, 2008).

### **2.2.1 Organizational culture classification**

The organizational regulation alongside which an information system is enforced forms an inherent part of that organization Indeje and Zheng, (2010). Accordingly, it is vital to grasp and distinguish an organizational culture type and further, how this would raise or impede the analysis, development and execution stages of an information system. Legion literature are useable on organizational culture types and cannot be fatigued. Nevertheless, for purposes of this research, four types of culture were identified since it is widely recognised that most organizations fall under their description. These descriptions of culture types beneath are borrowed from Tharpe (2009).

#### **2.2.1.1 Clan**

Tharpe (2009) describes this as 'an affable and suitable area to work where employees share a lot amongst themselves'. The surroundings created with the culture type is that of a family unit. Employees are genuine to the employer while the leader plays the role of advisor. Processes are common to all and have been similar over the years.

### **2.2.1.2 Adhocracy**

This culture type promotes creative thinking and has a business approach to work. Employees are encouraged to be imaginative even where risks are apparent. This type relies on business activity transformations and challenges.

### **2.2.1.3 Hierarchy**

Coordination of processes is very vital. Functions are carried out alongside organized structures and use of policies is depended upon to give guidance. Procedures that provide high accomplishment results which are constant and efficient are the main aim of this culture type.

### **2.2.1.4 Market**

Employees contend and seek to meet organizational objectives in a super competitive manner. The organization enjoys high esteem and success in their marketplace environment putting vehemence on free-enterprise costs and being the corporate leaders.

## **2.3 A firm's culture and employee performance**

Aycan et al. (1999) argued that organizational culture at its pinnacle is an origin of competitive advantage for organizations, since it affects employee loyalty, both private and group processes of learning and capability development, which arises from the fundamental assumptions, beliefs, norms, values and attitudes. Pettigrew (1979), postulates that organizational culture affects how employees consider and make decisions which eventually influence the performance. Lund (2003) in discussing the employee performance variables, recommended that the administration of the organizations should distinctly describe the performance variables such as knowledge of job, expectation, extents of accomplishment and suitable levels of performance, and correlate these with the distinctly identified measurement of the corporate culture.

Furthermore, he implies that organizational culture prevails and moves in a coordinated direction only if the leaders distinctly establishes the culture measurement, elaborates it to the employees vividly, and all of them assent on their common benefit. Ogbonna and Harris (2000) research findings actually linked organizational culture with corporate performance. Researchers like Shahzad et al. (2013) interpret organization culture as a great influencer of the performance and establish that a strong organization culture is a major source of excellence and coherent achievements. Kozlowski and Klein (2000) stress the presence of strong organizational culture based on true value and belief systems in order to gain sustainable free-enterprise advantage. Denison (1990) links leadership decisions and behavioural practices to the outcome of shared norms, values and beliefs that an organization transforms and experiences from early stages. Brown (1998) establishes that organizations are the outcomes of experiences and experiences assist learning, which largely develops such norms, values and procedures that ensure a lasting presence of an organization in its field. The study of organizational culture has significance when it correlates with the performance in order to improve actions (Alvesson, 1990). Barney (1986) explains that core values encourage creative thought, innovation, and openness in firms. The most common definition of performance explains it as the degree or extent of achievement of pre-assigned goals (Shields & Brown, 2015) and each organization has to firstly, assign measurable goals; second, link the skills and competencies of the employees to these goals and; thirdly, provide the employees with the important resources to ensure the achievement of goals. Mathematically this can be described as  $\text{Performance} = (\text{Motivation} \times \text{Employee competence} \times \text{Resources})$  (Griffin & Moorhead, 2011). The organizations are supposed to train their employees in such a way that they are fully cognisant of the job demands from the organizations and they are talented to link their competencies to particular tasks in order to contribute to the performance of the organization. (Peter & Waterman, 1982) say that individual performance progress plans may work effectively if the organization manipulates organizational culture and commonly share such value system that encourages the employee, transparency and fairness. Thus, leaders ambitious to have better employees, high team performance, must strive to establish an inspiring work culture (Cameron & Quinn, 2011). Manetje and Martins (2009) recommend researchers to analyse and understand the cultural impacts on accomplishment before carrying out any studies, which measure organizational performances.

Al-Matari and Omira (2017) carried out a study in Saudi Arabia to examine the relationship between organization culture and performance in the public sector their findings indicated a positive relationship for the two variables. Kang and Stewart (2007) also highlight a positive correlation between work culture and high organizational performance as well as individual performance.

## **2.4 Importance of A firm's culture**

A firm's culture is pivotal in the operation of the organisation. It manifests itself as a force having a major influence on the conduct of employees in the organisation, due to the fact it can stimulate innovative tendencies of employees and thus provide a condition for the growth of ideas and their implementation. This occurs through a routine of functions attributed to a firm's culture integration, coordination and communication procedures (Martins & Terblanche, 2003). Culture can influence both the willingness and efficiency of employees to find innovation as a central value of the organisation, as well as their greater engagement (Hartmann, 2006). Consequently, it may contribute to generating new ideas. A firm's culture sets out the extent to which creative thinking will be stimulated, supported and enforced. Many studies regarding organisational innovation, which include a firm's culture, suggest other dimensions of culture (Wang & Ahmed, 2004). A firm's culture is an important construct that affects both private and organisational related process and outcomes (Cameron & Quinn, 2006). According to (Vincent et al., 2004), A firm's culture affect various outcomes related to the employees and organisations. A firm's culture transforms employee behaviour, development, creative thinking and innovative tendencies.

## **2.5 Organisational Innovation**

The primary definitions of innovation comes from Schumpeter, who accepts the view of novelty (Hansen, Wakonen, 1997). Innovation is defined "as the development and implementation of new ideas by people who over time engage in transactions with others inside an institutional order" (Van De Ven, 1986). According to Schumpeter, innovations are reflected in a fresh product, different output methods, emerging markets, new supply chain strategies, or the creation of a new organisational structure.

Innovation at an organisational level is defined as a new product, service, idea, technology, process or structure and it encompasses its design, evolution or implementation (Damanpour, 1991). A shift in innovation and its conceptual interpretation occurred at the end of the 20th century. Innovation is the execution of a completely new or significantly improved product or process, a new merchandising method or a new organisational design in a business practice, work organisation or in a firm's outside affairs (Oslo Manual, 2005). Innovation capabilities influence organisational performance in various ways. Capabilities that firm possess in general are essential in obtaining and sustaining free-enterprise advantage (Akman Yilmaz, 2008). Innovation is associated with various strategic advantages. For example, Shan and Zhang (2009) noted that sustained competitive advantage can be achieved by raising unrestricted innovation capabilities in the firm. Innovation is also associated with the organizational potential to transform new ideas into commercial and social value (Terziovski, 2007). The assertion that the definition of innovation has been expanded can be found in new definitions of innovation and its numerous typologies (Mayle 2006). Hamel classifies organisational innovation (OI) as a departure from old management principles, processes and practices (Hamel, 2006). Alternatively, organisational innovations are changes in how leaders manage the organisation. Therefore, OI refers to an organisation adopting new technologies, fresh ideas and processes to change in managerial section such as information technology based administrative innovations, new employee motivation schemes (Vijande & Gonzalez, 2007). New practices, processes, and structures that change the nature of managerial work at the firm level (Volberda, 2010). In the current state, innovation tends to be defined as the generation and implementation of meaningfully new solutions in the area of processes, procedures, techniques, and structures in an organisation's management which significantly change how the organisation's goals are achieved. The growing role of organisational innovations encourages research in this area (Oparanna, 2010). First, in the context of changes in the environment of modern firms and increasing global competition, innovations in management can become a major source of free-enterprise advantage. Second, they may play a pivotal role in adjusting the organisation to changing conditions in its environs, enabling its transparency and creating new competencies (Abu-Jarad et al., 2010).

It is also expected that they create conditions contributing to technological innovation and its launch through the absorption of external knowledge and the use of internal resources, thereby contributing to improved efficacy and efficiency of these processes. As a result, they may have an influence on the firm's attainment of set goals and objectives. Furthermore, the primary goal of innovative management is to create innovative tendencies that are strategic in nature, for instance new business models, which sufficiently account for the most accepted approaches to the innovativeness of organisations (Tseng, 2010).

## **2.6 A firm's culture and innovation**

A firm's culture also influence organisational innovation capability and initiation. Edwards et al., (2002) reflected that the organisation culture with values, norms and beliefs is a priceless enabler of innovation. Martins and Terblanche (2003) argued that a firm's culture appear to have an influence on the degree to which creativity and innovation are stimulated in an organisation. Values and beliefs influence innovation positively or negatively depending on how they affect employees in an organisations. Success of innovation is mostly determined by the appropriate organisational culture. (Dobni, 2008), says culture encouraging innovation brings trust and respect amongst employees, increases teamwork and is characterised by a search for solutions and fast decision-making. Organisational culture that fosters innovation the most is cultural development, typical of a flexible, entrepreneurial and outwardly leaning organization. Studies conducted in other countries support the fact that the employee's perception of organizational culture has an impact on the employees' innovative initiatives and performance (Malaviya & Wadhwa 2005). This is also confirmed by the results of studies on the relationship between organizational culture and innovation carried out in Poland. The research conducted by Pichlak (2012), in which organizational culture was treated as one of many factors affecting organizational innovation, confirms that the highest level of innovation occurs in organisations where a firm's culture fosters experimenting, creative problem solving as well as employee's initiative. (Cerović et al., 2011) says a strong, positive organizational culture is critical to learning, development and sharing (skills, resources, and knowledge). Martins and Martins (2002) seconded that researchers agree that a firm's culture is a contributing factor to the degree to which creative and innovative behaviour is found among employees in an organisation.

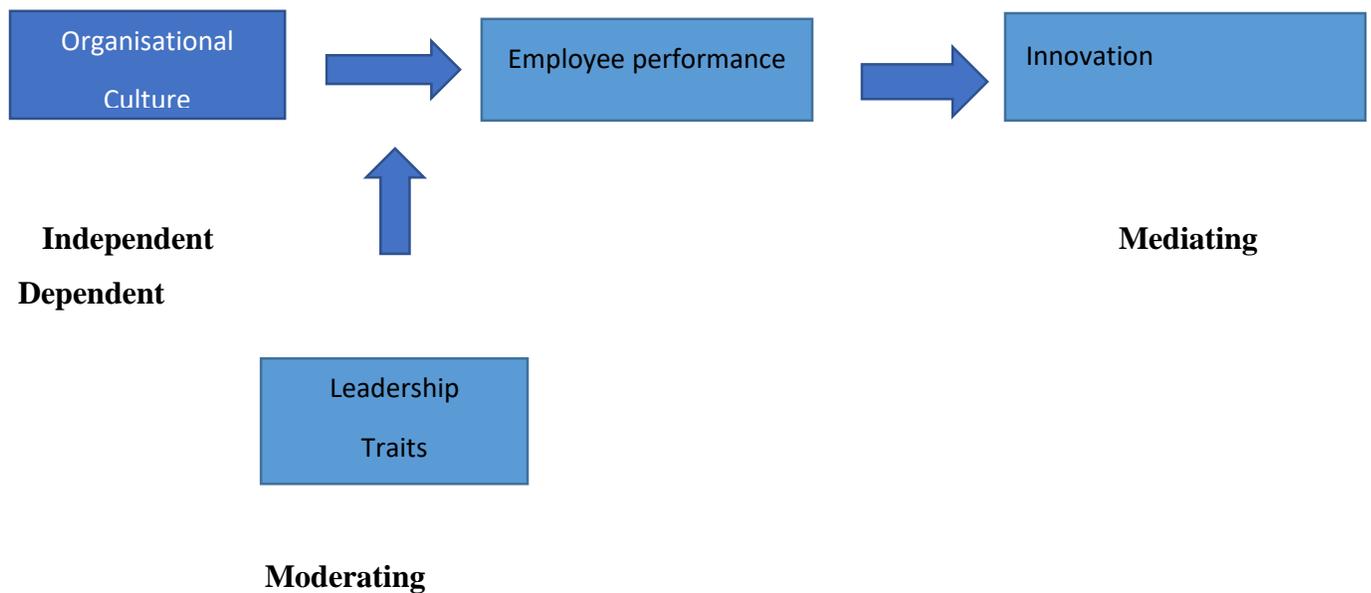
## **2.7 A firm's culture and Leadership traits**

There are number of organisational factors that researchers have investigated to understand their connection and impact on organisational performance, factors such as leadership and a firm's culture. In terms of leadership, according to (Bryman, 1992) the thinking in the area of leadership is mainly focusing on the role of leaders in either maintaining an existing firm's culture or in changing it to carry out a new vision. Bass (1985), argues that transformational and transactional leaders have different ways when dealing with the existing culture of an organisation. Transformational leaders usually tend to change the existing culture so that their vision can be accomplished, whereas transactional leaders focus more on how they can achieve their vision within the confines existing culture. Other researchers such as Avolio, Waldman and Yammarino (1991) concluded that a firm's culture, more than any other factor, can significantly affect an organisation ability to change, improve and prosper. Therefore, leaders who foster a firm's culture that encourages innovation and support professional development, can improve organisational creativity (Yukl, 2002) and thereby organisational performance. Schein (1992) believed that organisations that have strong or weak performance have different type of cultures. Cohen and Levinthal (1990) believe that success is directly linked to organisational effectiveness, which is a reflection on the leader. Every industry and profession demands leadership first and management second as leadership is essential to organisational effectiveness (Covey, 1989). Northouse (2003) defines leadership as a process whereby an individual influences a group of individuals to achieve a common goal. Burns (1978) identified two types of leadership styles, transformational and transactional leadership. Transformational leadership leaders enhance the leader/follower relationship with a sense of responsibility for the growth and development of the follower (Szewczak & Snodgrass, 2002). Transformational leaders seek to enhance the relationship by arousing and maintaining trust, confidence and desire, (Szewczak & Snodgrass, 2002). The main objective of transformational leaders is developing followers to a level where they can independently accomplish organisational tasks Einstein and Humphreys (2001). Bass (1985) stated that transformational leadership leads to performance beyond expectations. Transactional leaders on the other end are believed to be 'instrumental' and frequently focus on exchanging relationship with their subordinates (Bass and Avolio, 1993). Transformational leaders are argued to be visionary and enthusiastic, with an inherent ability to motivate subordinates (Howell & Avolio, 1993, Bycio, Hackett & Allen, 1995).

However, Bass and Avolio (1993) believed that transformational and transactional leadership are complementary and that the same leader could show similar patterns of leadership. Transformational leaders inspire followers to contribute over and above what is expected (Yukl, 1994; Bass & Avolio, 1993).

## 2.8 Conceptual Framework

The researcher showed by way of diagram a conceptual framework of the relationship between a firm's culture and innovation



The above framework implies that innovation is a function of culture mediated by employee motivation and moderated by the leadership traits.

## 2.9 Research gap

Based on the review of literature, McLean (2005) concluded that “the existing literature exploring the relationship between organizational culture/climate and creativity/innovation is relatively limited and the literature on organizational culture and creativity and innovation is not extensive”. Vincent et al. (2004) looked at the impact of environmental factors on innovation and pointed out that “there are only a handful of studies that attempt to understand the role of culture and strategic orientation on innovation”. Valencia et al., (2010) also suggested further studies to explore a firm's culture and innovation by using a firm's culture model of Cameron and Quinn

(1999). Accordingly, an empirical study investigating the association between a firm's culture and innovation capability would be a huge contribution to both a firm's culture and innovation literatures. The fact that this research is being carried out in a developing country it is expected to bring new insights in conceptualising a firm's culture and innovation.

Several individual and environmental factors are shown to affect innovation capabilities of the organisations. One of the most important organisational factor, a firm's culture is less studied in the area of innovation as pointed out earlier and thus is selected as the subject of this study.

## **2.10 Chapter summary**

This chapter sought to explore the relevant literature on organizational culture. The literature provided was guided by objectives in order to gain an understanding of organizational culture in IT industry. After the literature study, the conceptual framework knowledge gap was also recognized.

## **CHAPTER THREE**

### **3 RESEARCH METHODS**

#### **3.1 Introduction**

Looks at research methods used for the research study to provide answers to the research questions. It is in this area that the research design and procedures which were to be used for this research study are explained and supported.

#### **3.2 Research philosophy**

Research in social science is guided by suitable philosophies (Wahyuni, 2016). Collis and Hussey (2009) describe research philosophy as “a belief on way in which data related to a phenomenon should be collected, processed and used”. Research philosophies assist researchers to recognize and accept relevant research methods, designs, and data gathering methods (Wahyuni, 2016; Creswell, 2010; Neuman, 2011). According to Morgan (2018), philosophies refer to shared beliefs within a social setting of the researcher so that researchers will have faith in a particular model adopt appropriate methodologies to solve the research problem. The commonly applied philosophies in business research are:

4. Positivism:

Derived from natural sciences. Believe that knowledge is valid if it is derived from hypothesis testing that is taken from theory. Dependant on samples that are large and the data collection and assessment techniques are highly structured. Is associated with QUANTITATIVE approaches (Sandada, 2019).

5. Interpretivism,

Called anti-positivist or constructivist. Derived from social sciences. Researchers make inferences based upon experience, memories and expectations. Meaning of a phenomena is a result of experience that results in many different interpretations. Focus is to understand what respondents think and feel. Is associated with QUALITATIVE approaches (Sandada 2019).

## 6. Pragmatism.

Pragmatists do not agree with positivism due to an over-deterministic view of leaving very little room for choice due to a causal and effect relation. They disagree with interpretivism as well over a totally relativist view. Takes a mix of both positivism and interpretivism aspects. Associated with mixed methods or triangulation (Sandada, 2019).

The researcher adopted the positivism research philosophy. The research questions in the study required collection of quantitative data. The researcher used a single methodology because it is a good way to improve the quality of research and it is less cumbersome than using of mixed approach (Mouton, 2009)

### **3.3 Research Design**

A research design is a plan, strategy and structure of an investigation conceived to obtain answers to research questions (Creswell, 2009). The study adopted the cross sectional survey. Creswell (2009) defined survey research design as one which provides quantitative opinions, trends, or attitudes by studying a sample of a population. The researcher adopted a cross sectional survey because the variables involved required getting information from a large number of respondents concurrently (Creswell, 2009).

### **3.4 Research strategy**

According to Bryman (2004), research strategy is an action giving direction to the researcher's opinions and efforts, enabling one to carry out research in a holistic manner and produce quality results through detailed reports. They are different research strategies for one to choose from and they range from experiments, action research, grounded theory, ethnography and surveys (Creswell, 2009). For of this research, the researcher made use of a case study and a survey research strategy.

### **3.4.1 Case studies**

According to Reige (2003), case study research is about constructing theory and is also based on the need to understand an actual phenomenon, with the researchers obtaining new, systematic and in-depth concepts, explanations and interpretations about previous experiences which come from creative discovery. Case studies are involved in the observation of characteristics of an individual so as to perform further analysis. The researcher made use of a case study as the researcher is able to examine data at depth analysis, of culture at Milter private limited and also because a case study helped in understanding detailed behaviour of the topic of interest. The study carried out by the researcher focused on culture and innovation at Milter private limited.

### **3.4.2 Survey Strategy**

Survey research is the collection of data which is gathered by questioning individuals through different forms such as in person, online, on paper or by phone. Bryman and Bell (2015) define a survey research strategy as a plan to collect information that aid in the answering of research questions set by the researcher so as to reach credible conclusions. The researcher made use of a survey research as it uses a standardised instrument, standardised data, large number of respondents and also because it was cost effective. Despite numerous advantages the researcher noticed that the survey research is subject to bias from respondents and respondents may interpret questions differently. However, despite such disadvantages, survey research advantages overshadowed its shortcomings according to the researcher.

## **3.5 Target population**

Target population can also be referred to as the sample population that is taken into account in research study (Saunders et al., 2016). This research targeted workers at Milter (private) limited in Harare and other Information technology organisations. Table 3.1 below shows the workers of the organisations in different levels according to (Milter private limited, 2019).

### 3.5.1 Study population and sample composition

<b>Hierarchical level</b>	<b>Total Population</b>	<b>Sample</b>
Senior management	10	85
Management	15	12
Junior management	25	10
Supervisory level	40	20
General Workers	140	50
<b>Total</b>	<b>250</b>	<b>100</b>

*Source:* (Milter private limited, 2019)

### 3.6 Sampling Method

The researcher made use of the convenience sampling method and the stratified random sampling technique. The researcher had his population divided into groups which are senior management, management, junior management, supervisory level and general workers. An advantage noted by the researcher in dividing the population into strata is that a sample, that helped represent the population under study was quickly realised. The population was differentiated based on age and gender, this helped in considering views from both genders and from different age groups. Convenience sampling was utilised by the researcher, where the researcher had respondents based in Harare, though they are Milter private limited branches in other regions in Zimbabwe. The researcher is also based in Harare so issues of timeliness and costs were addressed.

### 3.7 Research Instruments

Oppenheim (1992) asserts that research instruments are tools for data collection necessary to find answers to the research questions stated in the study. The researcher used quantitative research method in this study. The researcher made use of a survey questionnaire as a research tool for primary data collection.

### **3.7.1 Questionnaire**

A structured questionnaire (See Appendix 1) with only closed-ended questions was adopted to enable quick turnaround from the respondents as information was gathered using work intercept method, the questionnaire structured this way provides a high response rate and data is much easy to interpret and analyse.

Moreover, with this type respondents offers information which can easily be transformed into quantitative data. Closed questions also provided ordinal data (which is ranked). The questionnaires for this research study had two sections

Section A - demographic characteristics.

Section B - Organisational Innovation.

Participants responded in the following:

1 = strongly disagree

2 = disagree

3= neutral

4= agree

5 = strongly agree

## **3.8 Data Collection Procedure**

Research questionnaires were administered in person and via email. Cohen et al. (2000), posit that online questionnaires are faster and convenient to administer and are also cost effective for the researcher. Administration of the questionnaires in person was time consuming (Creswell, 2009) but it had the advantage of ensuring that all age groups were represented in the study.

### **3.8.1 Analysis of data and Methods of Presentation**

The researcher presented the data with the aid of figures and tables as these display methods that enable comparison and understanding of the data that was collected (Few, 2004). This study sought to determine the impact of organizational culture on the innovation levels in the IT sector. Data analysis utilized regression analysis techniques. SPSS version 25 software was used for data collection analysis in which data was coded to enable the researcher to quickly retrieve data on thematic areas (Seidel, 1998).

## **3.9 Data Reliability and Validity**

### **3.9.1 Reliability**

Reliability is the degree of consistency and replicability with which an instrument measures the attribute it was designed to measure over a given period of time and over a group of respondents (Zikmund et al.; Polit & Hungler, 1993). Reliability is concerned with precision and accuracy and consistency is key to understanding reliability (Zikmund et al.). However, this only applies to quantitative data and data collection methods which are positivist in nature. For qualitative data and data collection methods which are realist in nature, the concept of reliability is misleading (Stenbacka, 2001). In qualitative data, the concept of credibility is more common and more meaningful as qualitative data takes into account subjectivity. To measure internal reliability of quantitative data, the researcher piloted the questionnaire to 20 respondents.

The researcher then used the Cronbach's alpha test to test for internal consistency and the results of this test will be presented in detail during the data presentation and analysis part of the research report.

There are issues in data collection that affect reliability. These are respondent error or bias, researcher error or researcher bias (Saunders, Thornhill & Lewis, 2009). Anonymity was observed to reduce bias in responding to questionnaires. The researcher also emphasised that data be collected through questionnaires was solely for research purposes. To reduce observer error, the researcher was the only one to conduct interviews and made an effort to exhibit standardised behaviour to all interviewees such as friendliness and making the respondents comfortable during the interview (McMillan & Schumacher, 2006). An effort was made by the researcher to ensure that the data collected was unambiguous and could be generalised to the rest of the population.

### **3.9.2 Validity**

Saunders et al. (2009), posit that validity is concerned with whether the findings are really about what they appear to be and if there is a causal relationship between the variables under study.

Saunders et al (2009) added on that qualitative research has in high validity but low in reliability since the same results cannot be obtained. There are two parts of validity that were of concern to the researcher, namely internal and external validity.

Internal validity refers to the true causes which result in an outcome, that is, the extent to which the designers of a study have taken into account alternative explanations for any causal relationships of the variables under study (Singh, 2007). External validity has to do with the extent to which the research can be generalized to other situations. To ensure internal validity, the researcher constructed research instruments (questionnaire and interview guide) based on the research topic and questions. Research instruments were also built on information gathered from other scholars highlighted in the literature review to ensure that questions asked during data collection represented findings depicted by other researchers on the research subject (Moss, 1992).

### **3.10 Ethical Considerations**

The researcher drafted a letter under the guidance of the Graduate School of Management to distribute to everyone involved in the research, highlighting the purpose of the study and the institution the researcher is carrying out his studies. The letter will be attached in the appendix section (See Appendix 1). Consent was sought from Milter Pvt Ltd (See Appendix 1)

Saunders et al. (2009) asserts that for over a decade, concerns about research ethics have grown considerably. Therefore, the researcher found it of high importance to consider ethical conduct in the duration of the research. Neuman (2003) notes that research ethics deal primarily with the interaction between researchers and the people under study. The researcher made sure the contents of the research questionnaire did not infringe on the rights of the respondents. The respondents that took part in questionnaire responses were given full and relevant information on the purpose and objectives of the study beforehand because failure to give full and adequate enough information about the research maybe seen as suspicious (Robson, 2002).

Participates were not coerced in any manner or form. During the data collection, the beliefs and opinions of participates were taken into consideration to maintain the respect and dignity of the respondents (Sekaran, 2003). Confidentiality was of the highest priority throughout the data collection process.

### **3.11 Summary of Chapter Three**

Chapter 3 focused on the philosophy used in the study as well as the research design that was applied to collect data. The research population, sample size determination and sample size was also covered under the chapter. The researcher discussed and justified research instruments to be used to collect data from the sample size selected. Issues regarding validity, reliability and ethics throughout data collection were also highlighted in the chapter. The next chapter focuses on presentation and analysis of data collected using the research instruments outlined in this chapter.

## **CHAPTER FOUR**

### **4 DATA ANALYSIS**

#### **4.1 Introduction**

Presentation of data collected for the research and proceeds to discuss the results. The main research objective of the study was to explore the relationship of a firm's culture creativity and innovation and their overall effect on organizational performance. The chapter provides the analysis from the sample population, rate of response and demographic data. Detailed analysis of the data collected presented tests for reliability, normality, validity and hypothesis testing as well as the regression analysis and conclusion of the study. The next section dwells on the results of the sample analysis.

#### **4.2 Rate of response**

The researcher administered 100 questionnaires to the participants under study. Of the 100 questionnaires, 95 were carefully filled out for analysis. This represented 95 % response rate which is considered as high. A response rate of over 50% was highlighted as sufficient to validate the research findings (Saunders et al, 2010).

#### **4.3 Data on Demographics**

The section provides demographics data for participants in the study. The data looks at the age, educational qualifications, hierarchical level and gender.

### 4.3.1 Age

Table 1: Age range

		Frequency	Percent	Valid Percent	Cumulative Percent
	Under 18 years	7	7.40	7.40	7.40
	19-24 years	16	16.80	16.80	24.20
	25-34 years	15	15.8	15.8	40.0
	35-44 years	33	34.7	34.7	74.7
	45-54 years	14	14.7	14.7	89.5
	55-64 years	6	6.3	6.3	95.8
	over 65 years	4	4.2	4.2	100.0
	Total	95.0	100	100	

The above table shows the results of age range from the population sample acquired from Milter workers. The table depicts frequency, percentage, valid percentage and cumulative percent. The above table was complimented by the bar graph below and the interpretation of the age range was fully expressed in the notes below.

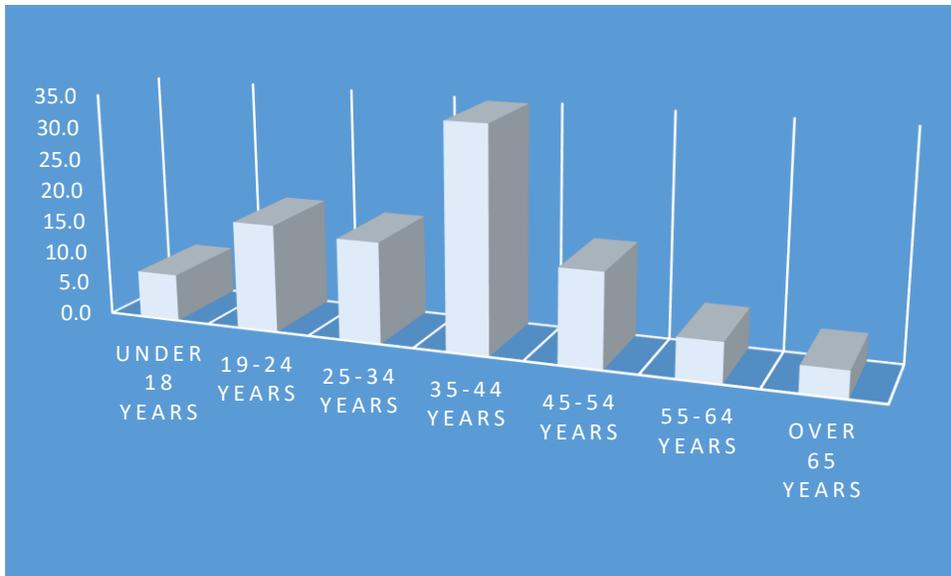


Figure 1: Age range

The statistics of age range presented above in form of a table and a bar graph shows the age from under 18 years up to above 65 years. The results shows that 7.4% represented by seven participants were 18 years, 16 participants which is 16.8% were in the age range of 19-24 years, 25-34 years had 15 participants (15.8%), the age range of 35-44 years had the highest frequency which was 34.7% (33 participants), 45-54 years range had 14 participants (14.7%), 55-64 had 6 participants and the age group of 65 years and above had 4 participants. The information above clearly shows that all age groups were represented which gives the study more validity in terms of the opinions of every age group towards organizational culture and its effect in innovation.

#### 4.3.2 Sex

The statistics below shows the sex of the participants at Milter private limited. Frequency, percentage, valid percentage and cumulative percentage were presented in the table below

Table 2: Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	63	66.30	66.30	66.30
	Female	32	33.70	33.70	100
	Total	95	100	100	

The above table shows two groups of participants, male and female. Milter private limited happens to have more male workers than female workers, this was proved by the statistics of the current study were male participants was totalling to 63 (66.3%) participants, and female participants were 32 (33.7%). The statistics in the table above was also presented in form of a pie chart below in order to make plain the results regarding gender at Milter private limited.

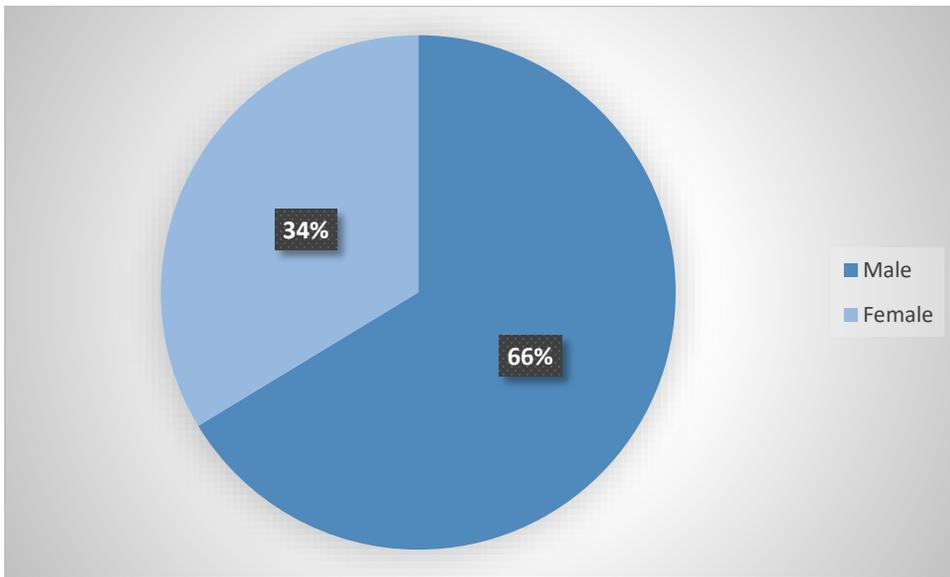


Figure 2: Sex

The pie chart above compliments the statistical table above regarding gender at Milter private limited. Female participants were 34% and male participants were 66%. The study covered all gender and it validates the results of this study, since the female participants were more than a third of the study population which gives the opinion of both gender towards organizational culture and there was an element of gender equality in the study.

#### **4.3.3 Educational Qualification**

Educational qualifications were included by the researcher to ensure requisite understanding of the questionnaire by the respondents in order to improve reliability of responses

Table 3: Level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ZJC	12	12.6	12.6	12.6
	Ordinary Level	3	3.2	3.2	15.8
	Advanced level	18	18.9	18.9	34.7
	Diploma	14	14.7	14.7	49.5
	Higher national diploma	7	7.4	7.4	56.8
	Degree	33	34.7	34.7	91.6
	Master's Degree	8	8.4	8.4	100.0
	Total	95	100.0	100.0	

The educational level was presented in form of a statistical table, it includes the Zimbabwe Junior Certificate, O level, A Level, Diploma Level, HND, First Degree and Masters Level of education. These were presented in form of frequency, percentage, valid percentage and cumulative percentage. The researcher made use of the percent column for easy interpretation and explanation of the educational level of Milter Private Limited workers. This presentation was complimented by a bar graph below.

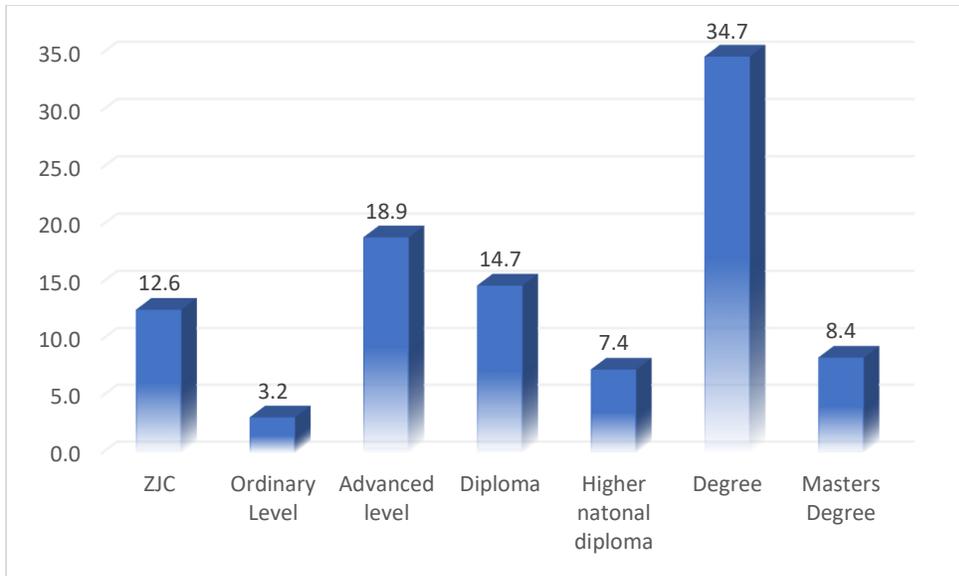


Figure 3: Level of education

The information above shows that 12.6% of the respondents had attained the lowest educational qualification i.e., Zimbabwe Junior Certificate (ZJC), O level had 3.2% of the participants. A level had 18.9% of the advanced level, Milter Private Limited had 14.7% of its workers who has attained diploma level, HND had participants totaling to 7.4%, most of the workers at Milter Private Limited had at least a degree which was totaling to 34.7% and master’s degree level had 8.4%. The above results shows that almost every employee at Milter has a better literacy level and the majority has a minimum level of education, which gives a better room for organizational culture to be well practiced while promoting innovation.

**4.3.4 Hierarchical Level**

Milter Private Limited has five levels of hierarchy in the study, for the purposes of the research and it includes general workers, supervisory level, junior management, management level and senior management.

Table 4: Hierarchical level

		Frequency	Percent	Valid Percent	Cumulative Percent
	General workers	43.0	45.30	45.30	45.30
	Supervisory level	23	24.2	24.2	69.5
	Junior management	12	12.6	12.6	82.1
	Management	12	12.6	12.6	94.7
	Senior Management	5.0	5.30	5.30	100
	Total	95.0	100	100	

General workers had 43 participants which 45.3% of the respondents, supervisory level has 24.2% of the participants, junior management has 12.6%, management level has 12.6% and senior management has 5.3% of the participants.

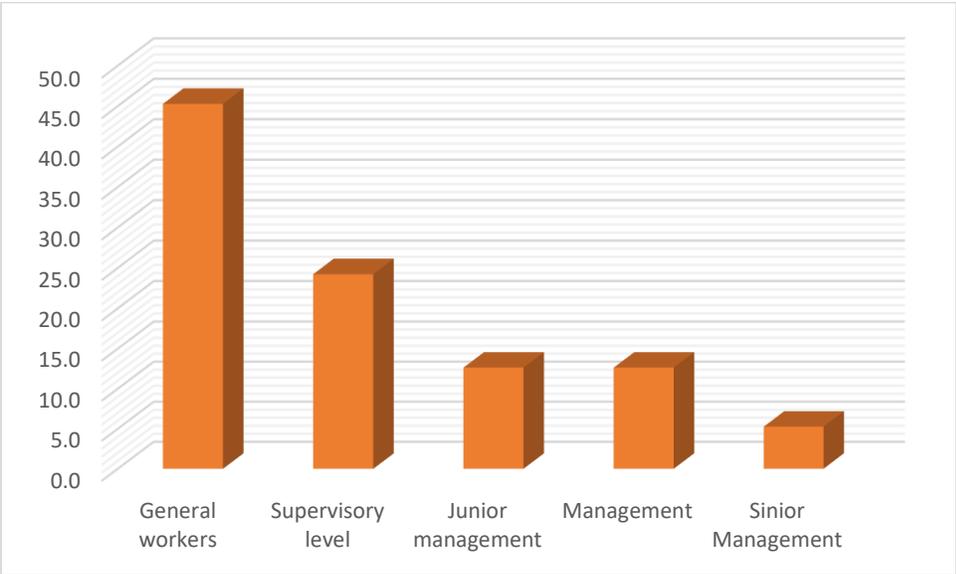


Figure 4: Hierarchical level

The information above shows that the majority of workers responded to the study were the lowest level in the organization's hierarchy. The management level has few responses but enough to articulate the issue of organizational culture. The study managed to get answers from every level of the organization, which gives the study a better chance of reliable results for the purposes of making decisions of other related purposes.

#### 4.3.5 Number of years at Milter Private Limited

The statistical table below shows the work experience of the employees at Milter Private Limited. The work experience was from less than one year to above ten years. This can be interpreted and analyzed in the following paragraphs.

Table 5: Number of years at Milter Private Limited

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 year	6	6.3	6.3	6.3
	2-4 years	12	12.6	12.6	18.9
	5-7 years	47	49.5	49.5	68.4
	8-10 years	24	25.3	25.3	93.7
	more than 10 years	6	6.3	6.3	100.0
	Total	95	100.0	100.0	

The majority of Milter workers was in a range of 5-7 years of working under the organisation which was 49.5% of the workers, followed by arrange of 8-10 years of work experience working under the same organisation. 2-4 years has 12.6% of the respondents, while the respondents under one year and above ten years has 6.3% each.

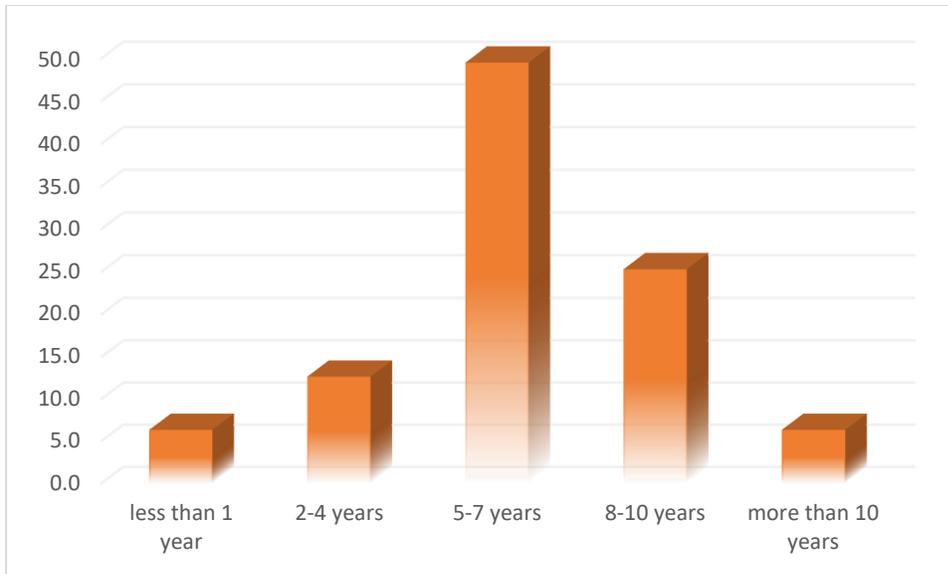


Figure 5: Number of years at Milter Private Limited

The information above shows that the workers of Milter Private Limited has enough experience to comment on the issues of organizational culture, relating it to the levels of innovation in the IT industry and Milter Private Limited in particular. The work experience of the organization has normal distribution curve which can give a room for balanced responses concerning the topic of discussion.

#### 4.4 Test of Reliability and Test of Validity

Reliability test was carried out to guarantee dependability of the questionnaire in order to secure consistent results for subsequent research areas of study. The procedure that was adopted in validating the research questionnaire and testing for reliability is explained in the section below.

The validity of the questionnaire was guaranteed through experts in the field and in the field of strategic planning to check for relevancy in questions.

The dependability of the scale is the standard to which a set of items measure the same construct (Hair et al, 2010). A scale is reliable provided Cronbach's Alpha values are equal to or exceed 0.70 threshold Malhotra (2007).

For Cronbach's Alpha, a significant statistic was observed for the research questionnaire, whilst the alpha statistics for the research variables were within the range of 0.70 at 0.932

#### 4.4.1 Reliability Statistics

Table 6: Statistics of Reliability

Cronbach's Alpha	N of Items
.932	22

#### 4.4.2 Variable testing (Independent and Dependent)

Both variables were tested. The independent and Predicted Variables had a Cronbach alpha exceeding 0.70 which implies reliability The Predicted Variable (innovation) had 0.781 and 0.7621 on key features, 0.778 on impact of culture and 0.710 on leadership traits and 0.755 on the elements of culture. Table below shows the results

Table 7: Item Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Key features	12.7761	1.571	.507	.762
Impact of culture	12.3432	1.571	.622	.778
Leadership traits	12.3361	1.850	.629	.710
Cultural elements	12.2477	2.115	.315	.755

## 4.5 Normality Tests

The size of the sample size under research determines which of the two to use. The Shapiro-Wilk test is used when the sample size does not exceed one thousand (<1000 samples) and the Kolmogorov-Smirnov (KS) handles larger sample sizes of more than one thousand (>1000). The normality test determines data distribution. For normality testing, normal distribution is observed when the p value is greater than 0.05 (**p>0.05**) which implies that the sample size approximates the population under study. Conversely, if the p value is less than 0.05, then the sample size does not approximate the population. 100 respondents participate in the study, which was the sample size. Appropriate for normality test.

Table below illustrates the normality test using SPSS.

Table 8: Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Key features	.168	95	.000	.876	95	.000
Impact of culture	.160	95	.000	.911	95	.000
Leadership traits	.151	95	.000	.938	95	.000
Cultural elements	.231	95	.000	.857	95	.000

From the table, the Sig. column showed that all the variables had a p-value less than 0.05. With significance levels less than 0.05, data was not normally distributed. Non-Parametric statistical tests in analysing the data had to be used.

## 4.6 Objective 1

### Organizational culture key features

The following section discusses and looks at descriptive statistics of the key features of a firm's culture at Milter Private Limited.

#### 4.6.1 Descriptive Statistics

This section provides the descriptive analysis of the key features of a firm's culture in the IT sector. The descriptive analysis shows the level of association on the questions describing key features for identifying a firm's culture. The Table below shows the findings

Table 9: Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Decision making practiced within the organisation are likely to achieve innovation capability	95	3.00	5.00	3.6947	.71569
Promoting of worker's performance by Milter private limited will result in highly motivated employees leading to better innovation	95	3.00	5.00	3.8211	.75764
The provision of quality customer service by information technology companies, as part of culture practise lead to customer loyalty that create a room for innovative ideas	95	3.00	5.00	3.7474	.78508

The hiring of qualified and experienced personnel by Milter private limited helps stimulate innovation	95	3.00	5.00	3.8211	.75764
Stakeholders respect in the organisation helps improve quality of services which in turn leads to improvement of innovation	95	3.00	5.00	3.8737	.63985
Valid N (list wise)	95				

Respondents agreed on the questions contained in the questionnaire pertaining to the key features of a firm's culture. This showed high awareness of the features that enhance a firm's culture practices in the organisation by the respondents. The average mean responses are shown in the next figure.

## Histogram

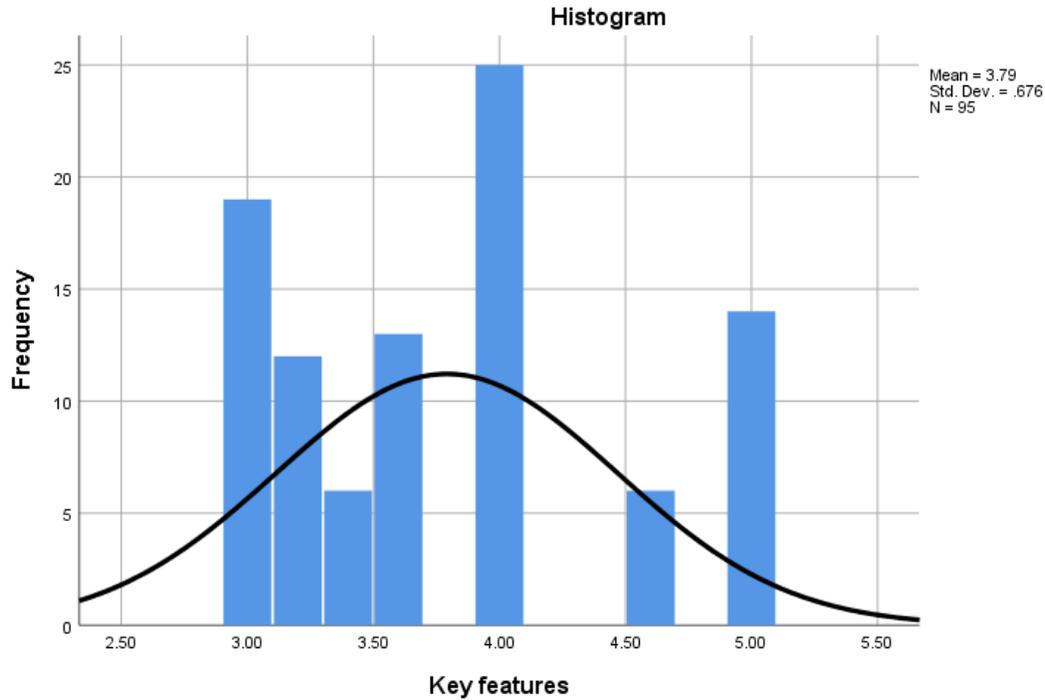


Figure 6: Histogram

The results from figure above show that respondents generally agreed given the overall mean response of 3.79. The normal distribution curve is skewed towards agree (4). The standard deviation of 0.676 show that there is a moderate variation of responses. Respondents generally shared similar views.

### 4.6.2 Analysis of Regression

This analysis technique tests the relationship between a firm's culture and innovation. The table on the next page, shows the model summary of the relationship between key features and innovation.

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772 <sup>a</sup>	.595	.591	.27158
a. Predictors: (Constant), Key features				

The results show the association of the key features and innovation with the regression coefficient of 0.595 and the adjusted R-square was 0.591 which implies that the model is a moderate predictor of innovation. This implies that key features explain 59.1% of the variation in the A firm’s culture practices that influences innovation. The other 40.9% is determined by other factors outside the scope of study. The table below shows the goodness of fit model.

#### 4.6.3 Variance

Table 11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.095	1	10.095	136.869	.000 <sup>b</sup>
	Residual	6.859	93	.074		
	Total	16.955	94			
a. Predicted Variable: Innovation						
b. Independent: (Constant), Key features						

The ANOVA table above was used to determine if the regression model was a good fit for the data. From the table, the in Predicted Variable was statistically significant in explaining the Predicted Variable,  $F(10.096) = 136.869$ ,  $p < 0.05$  ( $p=0.000$ ). The regression model was a good fit for analysing the key features on a firm’s culture that influences innovation at Milter Private Limited. The table below shows the model coefficient and significance of the in Predicted Variable.

Table 12: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.304	.160		14.438	.000
	Key features	.485	.041	.772	11.699	.000
a. Dependent Variable: Innovation						

One of the focal points of this study was to identify the impact of the key features of a firm’s culture that influences innovation. The p-value for the coefficients were used to ascertain the statistical significance of the variables under study. The standardized coefficients showed that key features of a firm’s culture have a positive significant impact on innovation [ $\beta = 0.772$ ,  $p < 0.05$  ( $p = 0.000$ )].

Table 13: KMO and Bartlett’s Test

KMO Measure of Sampling Adequacy.		.768
Bartlett’s Test of Sphericity	Approx. Chi-Square	633.713
	df	10
	Sig.	.000

The Bartlett’s Test of Sphericity was also considered which produced a p-value =0.000. This value was highly significant to make factor analysis appropriate. According to SCS (2011) and Field (2009), a p-value which is smaller than 0.05, is significant indicating a significant correlation structure which makes factor analysis appropriate. In this case  $p = 0.000$  signified a strong enough correlation structure telling us that the R- Matrix is not an identity matrix suggesting that there are some relationships between the variables the researcher intends to measure.

#### 4.6.4 Total Variance

The SPSS system output lists Eigenvalues with variance to be explained, associated with linear components under extraction and factor rotation. Table shows extracted values which have Eigenvalues greater than one, which implies large variance. The variance explained had a percentage of 85.122%.

Table 14: Total variance test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.256	85.122	85.122	4.256	85.122	85.122
2	.421	8.421	93.543			
3	.193	3.854	97.396			
4	.102	2.048	99.445			
5	.028	.555	100.000			
Extraction Method: Principal Component Analysis.						

From the above analysis, basing on a minimum eigenvalue threshold of 1 component was extracted and it was attributed to a variance of 85.122%.

#### 4.6.5 Discussion of findings

The research study findings showed that participants agreed with the key features of a firm's culture. The regression showed that key features of a firm's culture are predictors of innovation within the organisation. There was a statistically significant relationship between the key features and organisation's levels of innovation as was highlighted by the coefficient model. With beta=7.72 and p=0.00 to show a positive and very significant relationship between key features of a firm's culture and innovation at Milter Private Limited.

Therefore, H0 was rejected.

Cameron and Quinn (2011) supported the notion of identifying key features of the culture within organisations. They further seconded by the study in the decision making process that may lead to innovation. The research found that decision making practiced at Milter Private Limited as part of their culture are likely to achieve innovation capability. Standard deviation of 0.716 complimented by the average mean of 3.69 shows that, if an organisation makes sound decisions in the meetings at all level of production, including every worker from general employee to senior management can result in an increase in motivation and it boosts morale hence people will start to think outside the box which brings in innovation in the organisation. Lund (2003) states that the internal belief of the organisation is based on the culture practised such as promotion of worker's performance in the organisation creates a room for innovation. The study found that worker's performance also increases motivation and motivated workers are likely to be innovative.

The provision of quality customer service by information technology companies, as part of culture practise lead to customer loyalty that create a room for innovative ideas. The study shows that every technological company should be in a position of supporting the quality customer service, by so doing that these organisation end up thinking of unique services to offer which might create a room for innovative ideas. Ayca et al. (1999), argues on this notion, he says that customer service does not have a guarantee of improving innovation in an organisation but it creates customer loyalty, he further says that every organisation in any industry can be able to provide quality customer service but the innovation level can be very low or the organisation might not be innovative at all. However, the research found that every technological company has to have a key feature such as quality customer service, and this type of industry cannot achieve high quality customer service without introducing or improving innovation levels because of the nature of the industry. The research supported the idea proposed by (Akman & Yilmaz, 2008), which states that good quality customer service increases competitive advantage and it requires some form of innovation in order to differentiate the services, even if every industry focuses on improving quality customer service, it requires an extra effort of innovation in order to be unique and to enjoy the competitive advantage. The study complimented the issue of customer service by confirming that, hiring qualified employees can result in high levels of innovation and good quality of customer service requires knowledgeable employees.

## 4.7 Objective 2

### The impact of a firm's culture

The following section discusses and looks at descriptive statistics of the impact of a firm's culture on innovation at Milter Private Limited, the regression analysis.

#### 4.7.1 Descriptive Statistics

The analysis shows the extent of agreement on the questions that determine the impact of a firm's culture on innovation at Milter Private Limited. The Table below shows the results.

Table 15: Descriptive statistics

	N	Min	Max	Mean	Std. Deviation
Engaging and developing qualified employees is necessary to retain expertise and gain competitive advantage, leading to better performance.	95	3.00	5.00	3.9474	.68987
Improvement celebrating achievements by Milter private limited leads to an increase in employee morale which will result in growth	95	3.00	5.00	4.2105	.66676

A promotion of values at all levels helps companies in the information technology industry meet demand which in turn leads to positive performance.	95	3.00	5.00	4.2105	.66676
Favourable company's policies such as work based performance at Milter private limited leads to growth and innovation	95	3.00	5.00	4.2842	.69440
Respect everyone regardless of position at Milter private limited has a positive impact towards innovation	95	3.00	5.00	4.4105	.62730
Working with targets and giving employees flexible shifts are necessary for companies in the IT industry to achieve growth and innovation	95	3.00	5.00	4.2842	.69440
Valid N (list wise)	95				

The table shows that participants agreed to all questions asked about the impact of a firm's culture on innovation. The average response ranged from 3.95-4.41. The overall mean responses are shown in the histogram in figure that follows.

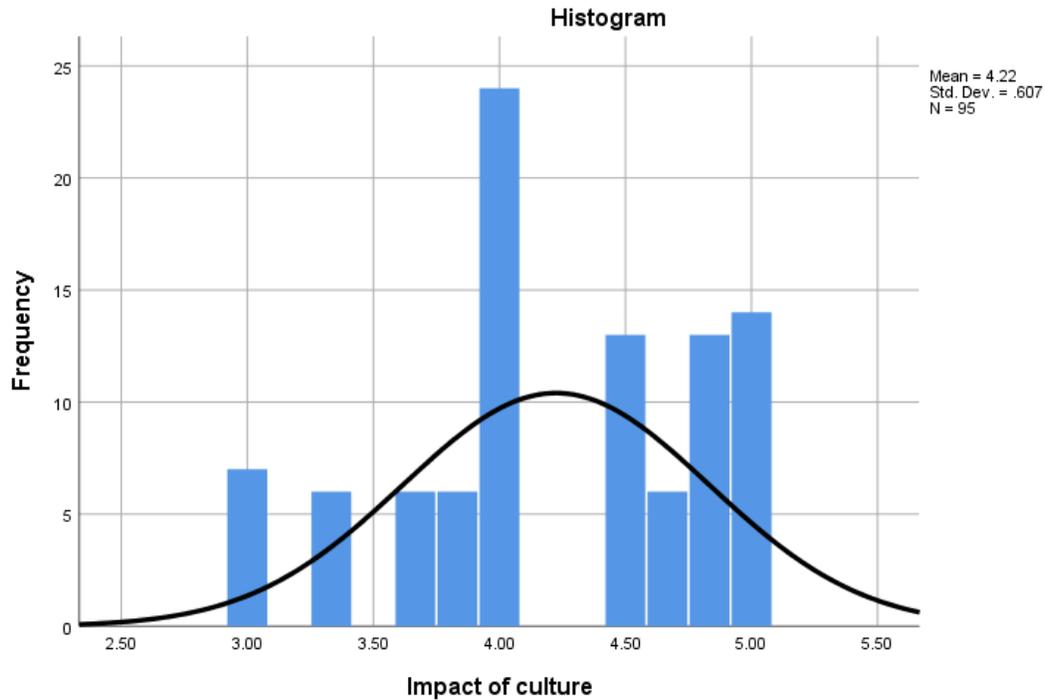


Figure 7: Histogram

The Figure above shows an overall mean score of 4.22 and the curve is skewed towards agree. There is a moderate variation in the responses with standard deviation of 0.607. The findings depict that the respondents were able to identify the impact of a firm’s culture on innovation at Milter Private Limited.

#### 4.7.2 Regression Analysis

Table 16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.816 <sup>a</sup>	.666	.663	.24671
a. Independent: (Constant), Impact of culture				

The results in Table above shows a regression coefficient of 0.666 for the association of the impact of the organizational culture and innovation.

The corresponding adjusted R-square was 0.663. The value of R-square (0.663) suggests the model to be a strong predictor of innovation. This implies that impact of culture explain 66.3% of the variation in the innovation of IT industry. The other 33.7% is explained by other factors outside the study. The table below shows the goodness of fit model

Table 17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.294	1	11.294	185.549	.000 <sup>b</sup>
	Residual	5.661	93	.061		
	Total	16.955	94			
a. Predicted Variable: Innovation						
b. Independent: (Constant), Impact of culture						

The Table presents the model of fit. The ANOVA table above determines whether the regression model is a good fit. The results show  $F(11, 294) = 185.549, p < .05 (p=0.000)$ . It follows that the regression model was a good fit for analysing the impact of a firm's culture on innovation at Milter Private Limited.

Table 18: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.730	.179		9.674	.000
	Impact of culture	.571	.042	.816	13.622	.000
a. Dependent Variable: Innovation						

The study shows that one of the crucial points of this research was to identify the impact of the culture that fosters innovation. The beta coefficients revealed that culture have a positive significant effect to the innovation of Milter Private Limited [ $\beta = 0.816, p < 0.05 (p=0.000)$ ].

Table 19: KMO and Bartlett's Test

KMO Measure of Sampling Adequacy.		.769
Bartlett's Test of Sphericity	Approx. Chi-Square	499.586
	df	10
	Sig.	.000

The values fall into the range in which a factor analysis is appropriate for this data. The Bartlett's Test of Sphericity was also considered which produced a p-value = 0.000.

Table 20: Total variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.088	81.769	81.769	4.088	81.769	81.769
2	.459	9.178	90.947			
3	.227	4.541	95.487			
4	.165	3.303	98.791			
5	.060	1.209	100.000			
Extraction Method: Principal Component Analysis.						

From the table, the component with eigenvalue greater than 1.0 was extracted, and explained of 81.769% of the total variation. The other four components had eigenvalues less than one and their aggregate variation were 18.231.

#### 4.7.3 Discussion of findings

The results of the study showed that the statistics highlighted that participants agreed to all variables that impact culture such as Engaging and developing qualified employees is necessary to retain expertise and gain competitive advantage, leading to better performance, a promotion of values at all levels helps companies in the information technology industry meet demand which in turn leads to positive performance.

This implies that all A firm's culture practiced by the organisation were conducive for fostering innovation.

The mode summary and the ANOVA highlighted that impact of culture were explaining variables of innovation in the organisation and are statistically significant between the variables with  $p < 0.05$  were  $p = 0.000$ . The total variance showed that impact of culture factors contribute 81.769% indicating a high significance level. The coefficient model indicated that the beta value for impact of culture was 0.816 and  $-p < 0.05$ .  $p = 0.000$ . Implies a positive significant relationship between a firm's culture and innovation. H1 was therefore accepted.

The study seconded (Hartmann, 2006) who states that A firm's culture has a positive impact towards innovation in any organisation. The study found that Milter Private Limited culture has a positive impact to innovation. A promotion of values at all levels helps companies in the information technology industry meet demand which in turn leads to positive performance and innovation, the research supports that organisations values as part of culture has a positive impact towards innovation. (Vincent et al., 2004) says a firm's culture affects employees at every level and he further says that culture might have negative impact towards innovation. (Vincent et al., 2004), critics that A firm's culture brings positive outcome, he states that some culture practices affect negatively the operations of the company and innovation may be negatively affected by such culture practices. The study discovers that working with targets and giving employees necessary shifts for companies in the IT industry to achieve growth and innovation. This has a positive impact at Milter Private Limited. (Oparanna, 2010) says that employees are likely to achieve positive results and to introduce innovative ideas when they are exposed to specific duties and to different shifts. The study supported (Oparanna, 2010), on his notion of dividing duties and responsibilities in order to create a room for innovation.

## **4.8 Objective 3**

### **Leadership Traits**

The following section discusses and looks at descriptive statistics of a firm's leadership traits that could be utilised to achieve a positive organisational culture and improve innovation. the regression analysis, ANOVA, coefficients, Bartlett test, Total variance and the discussion of findings of a firm's key leadership traits that could be utilised to achieve A firm's culture which influences innovation.

#### 4.8.1 Descriptive Statistics

This section describes the participants' agreement levels on the key leadership traits that could be utilised to achieve a firm's culture which influences innovation. The descriptive analysis is shown in table below.

*Table 21: Descriptive statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
Good leaders change the existing culture to introduce a new way of thinking.	95	3.00	5.00	4.3579	.59993
Good leaders are able to maintain a firm's culture to foster creative thinking.	95	3.00	5.00	4.1158	.69746
Good leaders do not change the old way of doing business	95	3.00	5.00	4.1579	.64107
Modern leadership traits, unlike traditional leadership skills, improves A firm's culture and creativity	95	3.00	5.00	4.2316	.67560
Good leadership characteristics are essential for companies in the IT industry to achieve required culture	95	3.00	5.00	4.2947	.69762

Good leadership skills such as the ability to evaluate market opportunities help companies in the IT industry achieve better A firm's culture	95	3.00	5.00	4.2316	.55453
Valid N (list wise)	95				

The results show that respondents generally agreed on the key leadership traits that determine the A firm's culture of Milter Private Limited, which influences innovation with mean responses ranging from 4.37 to 4.62. The overall means response is presented in the figure below.

#### 4.9 Histogram

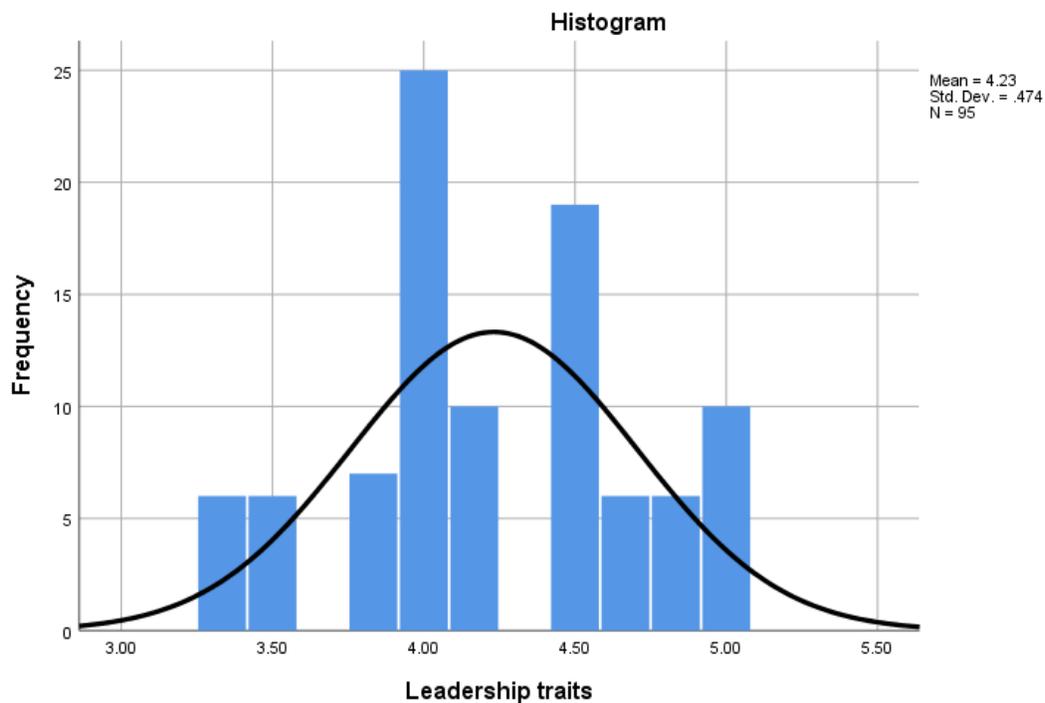


Figure 8: Histogram

The Figure above shows an overall mean score of 4.24 and the curve is skewed towards agree. There is a relative small variation in the responses with standard deviation of 0.474. The findings

mean that the respondents were able to identify the key leadership traits that promotes a firm's culture which influences innovative ideas within the organisation.

#### 4.9.1 Regression Analysis

Table 22: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783 <sup>a</sup>	.613	.609	.26567
a. Independent: (Constant), Leadership traits				

The results showed in table above highlight that the regression coefficient for leadership traits and innovation was 0.783 and the R-square statistic was 0.613. The Adjusted R-square (0.609) shows that the model explains the key leadership traits on a firm's culture, which influences innovation.

This implies that leadership traits explain 60.9% of the variation in organisation's innovation. The following section highlights the statistical significance of the regression model in table.

Table 23: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.391	1	10.391	147.214	.000 <sup>b</sup>
	Residual	6.564	93	.071		
	Total	16.955	94			
a. Predicted Variable: Innovation						
b. Independent: (Constant), Leadership traits						

The ANOVA table determines good fit of the data for the regression model. The predictor variables were statistically significant in determining the predicted variable,  $F(10.391) = 147,214$ ,  $p < .05$  ( $p=0.000$ ). The regression model was a good fit for analysing the leadership traits that effects a firm's culture on innovation.

Table 24: Coefficient

Model		Coefficients- Unstandardized		Standardized - Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.174	.246		4.772	.000
	Leadership traits	.701	.058	.783	12.133	.000
a. Dependent Variable: Innovation						

The p-value for the coefficients was used to determine whether if relationship between the variables was statistically significant. The beta coefficients revealed that leadership traits have a positive significant effect to the firm's culture that influences innovation at Milter Private Limited [ $\beta = 0.783$ ,  $p < 0.05$  ( $p = 0.000$ )].

Table 25: KMO and Bartlett's Test

KMO Measure of Sampling Adequacy.		.474
Bartlett's Test of Sphericity	Approx. Chi-Square	354.623
	df	15
	Sig.	.000

The KMO measure of sampling adequacy value of .474 was obtained, which was in the acceptable range of a factor analysis of this data. The total variance was provided in table below.

Table 26: Total variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.273	54.542	54.542	3.273	54.542	54.542
2	1.277	21.289	75.832	1.277	21.289	75.832
3	.734	12.228	88.060			
4	.390	6.496	94.556			
5	.261	4.353	98.908			
6	.066	1.092	100.000			
Extraction Method: Principal Component Analysis.						

The study identified that, from the foregoing, 2 components with eigenvalues greater than 1.0 were extracted, and all explained of 75.832% of the total variation. This indicates a better level of significance of leadership traits to organizational culture that influences innovation.

#### 4.9.2 Discussion of findings

The results showed that participants agreed to all the leadership traits that can be utilised on a firm's culture in promoting innovation at the organisation and within the IT industry at large. The findings implied that all the leadership traits were important to achieve innovation.

This was further emphasised by the regression analysis where it was highlighted that leadership traits are a determinant of sustainable innovative ideas and the ANOVA showed that it is statistically significant which is indicated in the coefficients model where the beta value of 0.783 and  $-p$  value =000. This implies that there is a positive significant relationship between leadership traits and a firm's culture that influences innovation. Therefore, H2 was accepted.

These findings concur with (Bryman, 1992), he states that good leadership traits and ability to manage human resources has a likelihood of achieving innovative ideas. Good leadership skills such as the ability to evaluate market opportunities help companies in the IT industry achieve better a firm's culture. The study found out that these traits brings more positive than negative results as far as innovation is concerned. (Bass and Avolio, 1993), argued that leadership traits do not affect innovation in IT companies because the nature of their operations has to do with

innovation regardless of the kind of leadership style they follow within an organisation. He further says that leaders are there just to maintain order in such companies but not necessarily creating innovation, however ever (Bass and Avolio, 1993) says that leaders are responsible of identifying employees who are innovative and support their ideas at whatever cost, as long as the ideas are creating value to the company.

## 4.10 Objective 4

### Recommend cultural elements

The following section discusses and looks at descriptive statistics of the cultural elements that could be implemented to promote organisational innovation at Milter Private Limited, the regression analysis, ANOVA, coefficient, Bartlett test, variances and the discussion of findings of cultural elements that could be implemented to promote organisational innovation at Milter Private Limited.

#### 4.10.1 Descriptive Statistics

This section provides the descriptive analysis of the cultural elements that could be used to promote organisational innovation. The analysis highlights the level of agreement on the questions that determine cultural elements for identifying organisational innovation. The Table on the next pages presents the results.

Table 27: Statistics

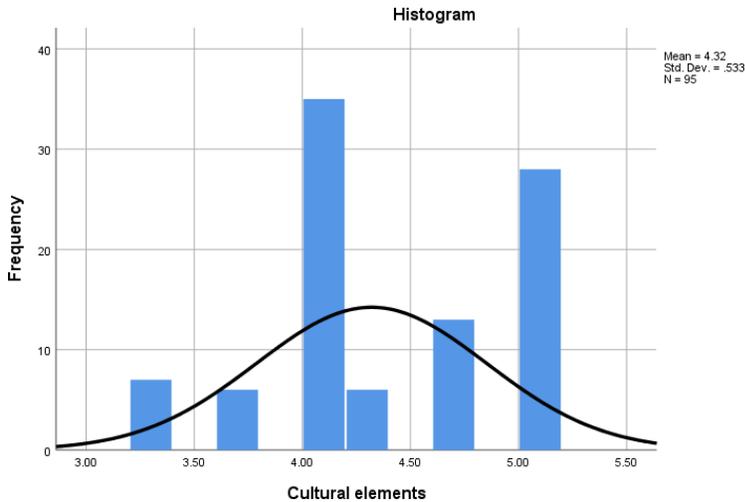
	N	Minimu m	Maximu m	Mean	Std. Deviation
--	---	-------------	-------------	------	-------------------

Availability of assistance of workers in need of help, for example contributions on funerals, weddings and other social activities within the organisation support innovation ideas	95	4.00	5.00	4.4947	.50262
Improvement in good culture practices by Milter private limited such as encouraging employees to avoid absenteeism, and to be at work place on time	95	3.00	5.00	4.2316	.55453
A promotion of good morale support at all levels such as full support of new idea generation by management and other workers	95	3.00	5.00	4.3579	.61740

A culture of encouraging employees to improve themselves by attending to seminars, workshops and furthering education can improve innovation at Milter private limited	95	3.00	5.00	4.1579	.64107
Hosting end of year parties and award best innovative employee of the year leads to an increase in innovation	95	3.00	5.00	4.3579	.61740
Valid N (list wise)	95				

Table above indicates that participants agreed on the questions on cultural elements that can be used in promoting organisational innovation. This shows high awareness of the cultural practices that enhances organisational innovation at Milter Private Limited by the participants. The figure shows the overall average responses.

#### 4.10.2 Histogram



### 4.10.3 Normal Distribution

The results from figure above show that respondents generally agreed with mean overall mean response of 4.32. The normal distribution curve is skewed towards agree (4). The standard deviation of 0.533 shows that there is a fair variation of responses. Respondents generally shared similar views.

### 4.10.4 Analysis of Regression

Regression analysis was done to test the relationship between two sets of variables, cultural elements of Milter Private Limited and innovation. The Table below, presents the regression analysis model between cultural elements and innovation.

Table 28: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 <sup>a</sup>	.340	.333	.34694
a. Predictors: (Constant), Cultural elements				

The table showed a regression coefficient for the relationship of the cultural elements that could be recommended and organizational innovation was 0.340 with a corresponding adjusted R-square statistic of 0.333.

The value of R-square (0.333) shows that the model is a weak predictor of organisational innovation. This implies that cultural elements explain 33.3% of the variation in the organisational innovation. The other 66.7% is explained by factors outside the scope of this study. The table below shows the goodness of fit model.

#### 4.10.5 Analysis of Variance

Table 29: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.761	1	5.761	47.858	.000 <sup>b</sup>
	Residual	11.194	93	.120		
	Total	16.955	94			
a. Dependent Variable: Innovation						
b. Predictors: (Constant), Cultural elements						

The F-ratio in the ANOVA table above was used to test whether the overall regression model was a good fit for the data. It is given then that the independent variable was statistically significant in predicting the dependent variable,  $F(5.761) = 47.858$ ,  $p < .05$  ( $p=0.000$ ). Therefore, the regression model was a good fit for analysing the cultural elements that could be adopted in order to attain better innovation levels in the company. The table below shows the model coefficient and significance of the independent variable.

Table 30: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.134	.292		7.300	.000
	Cultural elements	.465	.067	.583	6.918	.000

a. Dependent Variable: Innovation

This research focuses on several factors and one of the focal points of this study was to recommend the cultural elements that could be used to achieve better innovation levels. The beta coefficients showed that cultural elements have a positive significant effect on the organisations innovation

[ $\beta = 0.583$ ,  $p < 0.05$  ( $p = 0.000$ )].

Table 31: KMO and Bartlett's Test

KMO Measure of Sampling Adequacy.		.539
Bartlett's Test of Sphericity	Approx. Chi-Square	414.572
	Df	6
	Sig.	.000

The Bartlett's Test of Sphericity was also considered which produced a p-value =0.000. This value was highly significant to make factor analysis appropriate. According to Field (2009), a p-value which is smaller than 0.05, is significant indicating a significant correlation structure which makes factor analysis appropriate. In this case  $p = 0.000$  signified a strong enough correlation structure telling us that the R- Matrix is not an identity matrix suggesting that there are some relationships between the variables the researcher intends to measure.

#### 4.10.6 Total Variance

The SPSS output is shown in the table below with items extracted Eigenvalues greater than one suggesting high variance. The variance observed had a percentage of 81.274%.

Table 32: Total Variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.251	81.274	81.274	3.251	81.274	81.274
2	.506	12.657	93.931			
3	.211	5.281	99.213			
4	.031	.787	100.000			
Extraction Method: Principal Component Analysis.						

The above analysis, basing on a minimum eigenvalue threshold of 1.0, only 1 component was extracted, and it was attributed to a variance of 81.274%. The remaining components had an eigenvalue which was less than the threshold of greater than one and their cumulative percentage was totalling to 18.726%.

#### 4.10.7 Discussion of findings

The regression showed that cultural elements are predictors of organisational innovation. There was a statistically significant relationship between the cultural elements and innovation as was indicated by the coefficient model,  $\beta=5.83$  and  $p=0.00$  suggests a positive and significant relationship between cultural elements and innovation. The findings are similar to McLean (2005), who suggests that some cultural elements should be encouraged in order to achieve innovation on IT companies and at Milter Private Limited. The research found that cultural elements such as availability of assistance of workers in need of help, for example contributions on funerals, weddings and other social activities within the organisation support innovative ideas. Respondents agreed on this notion and they indicated that it is very important for the company to support its workers outside workplace. Valencia et al., (2010), encourages this cultural element to be implemented in IT industries.

## 4.11 Hypothesis Testing

A coefficient table was implemented to test for hypothesis.

Table 33: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.346	.000		.000	.000
	Cultural elements	.250	.000	.314	2.335	.000
	Key features	.250	.000	.398	1.557	.001
	Impact of culture	.250	.000	.357	2.558	.000
	Leadership traits	.250	.000	.279	1.889	.001
a. Dependent Variable: Innovation						

Coefficient correlation (column with red)

- Key features made the most significant effect on innovation.
- Impact of culture made the second most significant effect on innovation.
- Cultural elements made the third most significant effect on innovation
- Leadership traits made the least significant contribution to innovation

Predictor variables shown below can be quantified with regards to Organizational innovation:

(KF) Key Features

(IC) Impact of Culture

(CE) Culture Elements

(LT) Leadership Traits

(I) Innovation

Organizational Innovation can be quantified;  $\therefore I = k + \alpha KF + \beta IC + \mu, CE + \Omega LT$

Where  $\alpha, \beta, \mu, \Omega$  are regression coefficients, and  $k$ , is a constant

$$\therefore I = 2.346 + (0.398 \times KF) + (0.357 \times IC) + (0.314 \times CE) + (0.279 \times LT)$$

Hypothesis testing

The following table shows the decisions made on the hypothesis. The coefficients in the table above were used to test the hypothesis of the study.

Table 34: Hypothesis Testing

<b>HYPOTHESIS</b>	<b>DECISION</b>
H0: There is no significant relationship between organizational culture and organizational innovation	Hypothesis Rejected
H1: There is a significant relationship between organizational culture and organizational innovation	Hypothesis Accepted
H2: There is a significant relationship between leadership traits and organizational culture	Hypothesis Accepted

## 4.12 Chapter Summary

The chapter discussed the nature of responses of the study. The results indicated that the key features, cultural elements, leadership traits have a positive and significant effect on innovation.

## **CHAPTER FIVE**

### **5 RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents recommendations and conclusions of the research study using results data from the preceding chapters. The research contributes to theory, methodology and empirical, which were explored in this chapter to the contribution of the study. The recommendations of the study were directed to the management of the Information, Communication and Technology industry, management of Milter private limited.

Research Aim and Objectives.

The aim of the study was to explore the relationship of a firm's culture and innovation and their overall effect on organizational performance. The research objectives of the study were to identify the key features of Milter (Pvt) Ltd a firm's culture, to assess the impact of culture on organizational innovation, identify the key leadership traits that influence a firm's culture, recommend cultural elements that should be adopted and developed to enhance organizational innovation at Milter (Pvt) Ltd.

#### **5.2 Conclusion**

5.2.1 Research question 1: What are the key features of Milter organizational culture?

The research study makes numerous conclusions aligned to the key features of culture identified at Milter private limited that may promote innovation. These key features that Milter private limited has, are reflected in the ensuing concluding paragraphs.

Decision making is a key feature that the organization has been practicing as one of their culture at all levels.

The management at Milter private limited has tried their level best to involve every employee in the matters of the organization, the shop floor workers were presented by the head of worker's committee and the representative of the worker's committee could not only make decisions without consulting other fellow workers on what to say during such meetings.

Most of the access to innovation experienced so far by the organization and the industry at large has been adopted during such meetings, innovation levels increased because of the ability of including every level of the organizational hierarchy.

The research also concludes that promoting of worker's performance is another key feature that the organization has been implementing in their operations and it had been developed as part of the organizational culture. Performance based strategy used at Milter private limited, gives employees a sense of responsibilities, and they become motivated the minimum pressure to achieve things. Employees has been observed during such time and they create innovative ways to complete their tasks in order to perform better in time and quality. This practice has benefited the organization, since some of the innovative actions as well as ideas portrayed by the employees were adopted by the company and implemented on a larger scale.

Another key feature that the research identified, was the provision of quality customer service by the organization in order to gain large market share as well as customer loyalty. Milter private limited had made it a point to maximize on the quality of their service to their clients, this has been practiced continuously at all level in the organization, and it eventually became a culture of quality. The organization adopted the Japanese technic of total quality management. The organization has gained more innovation in trying to maintain the standard of quality they offer to their customers. Employees started to think beyond just quality service, but devoted themselves in new ideas that may sustain them in offering good quality of services which in turn improves their innovation levels on the organization at large.

Hiring of qualified and experienced personnel was another key feature identified as part of the organization's culture. Since the organization follows the total quality management technic, it started hiring skilled workers who are able to maintain the quality of service. The existing employees that were less experienced and less qualified were taken to on the job training and off the job training sessions.

The organization has achieved a lot by practicing such culture. The research also discovered that the organization respects every stakeholder regardless of their significance, by so doing that it created a room for more innovation and creativity.

The research concluded that key features contribute to innovation of Milter private limited and that there is a strong association between organizational culture key features and innovation.

5.2.2 Research question two: What is the impact of culture on organizational innovation at Milter?

The research established that impact of culture on organizational innovation is positive such as engaging and developing qualifies employees, improvement in celebrating achievements, encouraging to maintain values, favorable company policies and working with targets and having flexible shifts are significant determinants of the overall innovation levels.

Engaging and developing qualified employees has a strong positive impact on organization's goal of improving innovation levels. Once employees are engaged in every activity, they acquire sense of entitlement and they feel to be part of the organization which positively forces them to bring ideas. The research concluded that most of the new and innovative ideas are from non-management employees, they are creative given the chance some of them can outperform people who are at management levels.

The research also concluded that honoring and celebrating each other's achievements such as advancement in school or any other achievements gives employees high morale and it has a positive impact on the organization's operations. This factor can affect some employees if they are not celebrated, hence failure to celebrate such small achievements demoralizes employees and affects their performance and also such employees might be reluctant in participating in other decisions pertaining to the organization.

Favorable company policy has been found as another positive contributor to the organizational culture. The research has found that if a company policy is favoring employees on their working conditions, benefits and other related things, these employees ended up feeling secured and they feel at home.

The culture of recognizing employees in the internal company policy creates a room for new and better ideas, this results in innovation in information, communication and technological companies.

The research also found that working with targets and having flexible shifts has positive impact than working without a formula or just working. Milter private limited has eight hour shifts and their employees has at least two days of not working per week. The culture of giving every other employee some time to rest instills the mind of being appreciated and tolerated. Workers sees themselves as part of the company and not as machines used to achieve the company objectives. The sense of recognition by given time to rest and flexible shifts creates some level of innovation whenever the employees comes from their short holidays and or if they start their shift. The study concluded that there is a positive impact on culture practiced at Milter private limited which results in high innovation levels and better performance.

### 5.2.3 Research question 3: What are the key leadership traits of the top management at Milter?

Some conclusions were made based on the research question on the leadership traits that could be utilized to better performance and innovation levels. The research also concluded that the leadership traits that can be utilized by Milter private limited and IT industry are the capability to maintain the good organizational culture, the ability to achieve the organization's goals with current culture, the ability to apply modern leadership traits and ability to evaluate market opportunities and other skills.

The current leaders of Milter private limited has proved to have the capability to maintain good organizational culture. The research has concluded that every organization has its culture and once it has been accepted by everyone within the organization, it's difficult to break such culture. The managers in IT industry therefore have to acquire such skill of maintaining good culture whatsoever.

The research has found that the current management at Milter can achieve organizations goals with current culture and has the capacity to improve innovation levels and performance. The management/leaders are responsible in driving the vision of the company and other employees are responsible in working through the tasks they are given by their leaders.

The current management of Milter has proved that it has those leadership traits that can be used in order to achieve innovation, by simply applying the organization's current culture practices.

5.2.4 Research question 4: What are the cultural elements that should be adopted and developed to enhance organisational innovation?

Some conclusions were made based on the research question on the culture elements that could be utilized to realize performance and innovation levels. The research also concluded that the culture elements that can be utilized by Milter private limited and IT industry are hosting of end of year parties, encouraging employees to acquire more skills by going to school, attending workshops and seminars, promotion of good morale, improvement in good culture practices by Milter private limited such as encouraging employees to avoid absenteeism, and to be at work place on time and availability of assistance of workers in need of help, for example contributions on funerals, weddings and other social activities within the organisation support innovation ideas.

### **5.3 Theoretical contribution**

The study contributed to theory because it managed to test hypothesis that explains a firm's culture that improves performance and innovation in the IT industry

### **5.4 Contribution to Methodology**

The research made use the survey method. However different strategies can be used in the subsequent research to widen the collection of data. Methods like interviews, can also be employed to gather research data.

### **5.5 Contribution to Empirical Research**

The study's aim was to provide purely academic and practical aspects to the existing literature on a firm's culture that lead to high levels of innovation.

## **5.6 Recommendation towards Policy Formulation**

- The recommendations of the research are that the national authorities must create a conducive investment environment that complements innovative ideas that are profitable for the IT companies in the country.
- The government to stabilize the fiscal environment which impacts on the cost of doing business as a result of arbitrage tendencies in the economy. This will help making the purchase of imported equipment easier and also encourage setting up of manufacturing plants for computer equipment
- IT is a resource hungry industry, with initial costs of set –up (purchase of laptops, printers, servers etc.) high. Therefore assistance in access to financial would alleviate the financial burden in order to grow their business.
- Crafting of laws and genuine administrative procedures to facilitate setting up of IT companies
- The government must reduce taxes on imported IT consumables so that total costs are reduced

## **5.7 Managerial recommendation**

- Managers and line supervisors to lead in the innovative arena in their service provision to the market in order to remain a sort after brand in .the market.
- Provide consistent products that increase loyalty and satisfaction from the client is important to Milter private limited.
- The management of Milter private limited must be proactive strategy formulation and implementation in order to come up with sound and effective culture practises.
- The research identified the need for continuous learning as an organisation in order to adjust up with the ever changing world.
- Attend global conferences on different IT product offerings, to gain exposure on international systems and lead in the change of the local markets.

## **5.8 Generalisation of findings**

This research was limited to Milter private limited in Harare due to time constraints and financial implications. The research applies to all IT companies even though it was a case study of a specific company was the major assumption.

Therefore, researcher suggested that other researches be done which cover other geographical locations and come up with different theories that would enhance this research.

## **5.9 Limitations observed**

The sample was drawn from employees from one city. A broader sample would have offered more insight to the innovation theory. Due to financial challenges on the part of the researcher the sample was limited to 100 which can be widened resources permitting. A quantitative approach was used which blocks out other perspectives. To widen the scope of data collected, a mixed approach can be used in future studies.

## **5.10. Areas of further study**

The research study came up with numerous vantage points, which can be used by future researchers. The research recommended a study of emerging theories on culture that can impact corporate innovation and creativity on company performance. This study only adopted quantitative research methods, a further study can be carried out using the qualitative research with the hope of bringing out more detailed information to be explored.

## References

- Abu-Jarad, I. Y. (2010). The organizational performance of housing developers in Peninsular Malaysia. *International journal of housing marketing*, 3(2):146-162.
- Akman, G and Yilmaz, C (2008). Innovative capability, innovation strategy and market orientation. *International*
- Abraham M, C. J. (1999). Int J Qual Reliab Manag. *Key factors predicting effectiveness of cultural change and improved productivity in implementing total quality management*, 16(2):112–132.
- Ahmed, W. (2004). The Development and Validation of the Organizational Innovativeness Construct Using Confirmatory Factor Analysis. *European journal of innovation management*, 7(4).
- Alvesson, M. (1990). On the Popularity of Organizational Culture .
- Alvesson, M. (2002). *Understanding organizational culture*,. London, UK: SAGE. .
- Avolio, B. (1993). Transformational leadership and organizational culture,, . *Public Administration Quarterly*, spring, 112-121.
- Avolio, B. (1991). The Four I's of Transformational Leadership. *Journal of european industrial training*, 0309-0590.
- Aycan, Z. K. (1999). Organizational culture and human resource management practices. *the model of culture fit. Journal of Cross- Cultural Psychology*, 30(4), 501-526.
- B.M, T. (2009). Organisationl culture. *White paper*.
- Bass, B. (1985). Transformational Leadership Theory.
- Berson, Y. O. (2008). CEO values, organizational culture and firm outcomes. *Journal of Organizational Behavior*, 29(5), 615-33.
- Bless, C. H.S. (2006). *Fundamentals of social research methods. An African perspective. 4th. ed.* . Cape Town: Juta.

- Brown, S. (1998). A firm's culture. *Financial times management* .
- Brown, S. (2015). *Managing Employee Performance and Reward*. Cambridge University Press.
- Bryman, A. (1992). Leadership and Organisational Transformation. *Management research news*, 0140-9174.
- Burns, J.M. (1978). *Leadership*. New York : Harper & Row.
- Bycio, H. (1995). TRANSACTIONAL AND TRANSFORMATIONAL LEADERSHIP.
- Calderon-Hernández, G. (2018). Model of Culture for Innovation.
- Cameron, K. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework (3rd ed.)*. San Francisco: CA: Jossey-Bass.
- Chow, H. (2002). Organizational Culture Impact on Information Systems Success. 42-55.
- Cohen, L. M. (2000). *Research Methods in Education (5th Edition)*. London: Routledge Falmer.
- Cooper, R. &. (1993). *Implications of the competing values framework for management information systems. Human Resource Management*,.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rd ed.)*. Thousand Oaks,: CA: Sage Publications.
- Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators . *The Academy of Management Journal*, pp. 555-590.
- Deal, T.(1982). *Corporate cultures: The rites and rituals of corporate life*. Reading, Mass: . Addison : Wesley Publishing Co.
- Denison, D. R. (1990). Corporate Culture and Organizational Effectiveness. *The academy of management review*, 16(1):203.
- DiTomaso, G. (1992). Predicting Corporate Performance from Organizational Culture. *Journal of management studies*, 29(6):783 - 798.

- Dobni, C. (2008). Measuring Innovation Culture in Organizations: The Development and Validation of a Generalized Innovation Culture Construct Using Exploratory Factor Analysis. *European Journal of Innovation Management* , 11(4), 539-559.
- Dobni, C. (2008). Measuring innovation culture in organizations: The development of a generalized innovation culture construct using exploratory factor analysis. *European journal of innovation management*, 1460-1060.
- Druckman, D. S. (1997). *Enhancing organizational performance*. Washington, DC:: National Academy Press. .
- Edwards, P. (2002). Increasing response rates to postal questionnaires. *systematic review*, 18;324(7347):1183.
- Fey, C. (2003). Organizational culture and effectiveness:.. *Can American theory be applied in Russia?*. *Organization Science*,, 14(6), 686-706.
- Gonzalez, V. (2007). TQM and Firms Performance: An EFQM Excellence Model Research Based Survey. *International Journal of Business Science and Applied Management*, 2, 21-41.
- Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal*, 14(8), 607–618.
- Hansen, W. (1997). Innovation, a winning solution.
- Harris, O. (2000). Leadership Style, Organizational Culture and Performance.
- Hartmann, A. (2006). The role of organizational culture in motivating innovative behaviour in construction firms. *Construction innovation*, 6(3):159-172.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations (2nd ed.)*. . Thousands Oaks,CA: SAGE.
- Humphreys, E. (2001). Matching Diagnostics to Leader Behaviors. *Journal leadership and organisational studies*, 8(1).

- Kilmann, M. (1984). Predicting corporate performance from A firm's culture. *Journal of management studies*, 0022-2380.
- Kilmann, M. (1985). *Gaining control of the corporate culture*. San Francisco: Jossey-Bass.
- Klein, K. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes.
- Kotter, J. P. (1992). *Corporate Culture and Performance*. New York: Free Press.
- Lau, S. (2008). *Behaviour in organisation 9th edition*. McGraw-Hill Education.
- Leedy, P. D. (1997). *Practical research: Planning and design (6th Edition)*. New Jersey: Prentice-Hall.
- Louis, T. A. (1985). Journal of planning and inference. *Controlling error rates using prior information and marginal totals to select tumor sites*, 297-316.
- Lund, D. V. (2003). Organizational Culture and Job Satisfaction. *Journal of business and industrial marketing*, 18(3):219-236 .
- Lunenburg, F. (2011). *Educational administration: Concepts and practices*. . Mason, OH: : Cengage Learning.
- Manual, O. (2005). The Measurement of Scientific and Technological Activities .
- Martin, J. (2001). *Organizational culture: Mapping the terrain*. Thousand Oaks,: CA: SAGE.
- Martins, M. (2009). The Relationship Between Organizational Culture and Organizational Commitment.
- McLean, L. D. (2005). Organizational Culture's Influence on Creativity and Innovation.
- McMillan, J. H. (2006). *Research in education: Evidence-based inquiry (6th ed.)*. Boston, MA: Allyn and Bacon.

- Minton, L. A. (1986). *Management Science: Determining Organizational Effectiveness: Another Look and an Agenda for Research*, 32(5).
- Moorhead, G. (2011). *Organisational behaviour : managing people and organizations*.
- Naranjo-Valencia, J.C (2018). Organizational Culture as Determinant of Product Innovation. *European journal of innovation*, 13(4):466-480.
- Neuman, W. (2003). *Social Research Methods: Qualitative and Quantitative Approaches*. New York: Allyn and Bacon.
- Neuman, W. (2014). *Social Research Methods: Qualitative and Quantitative Approaches*. Essex, UK: Pearson,.
- Northouse, P. (2003). *Theory and Practice 3rd Edition (Third Ed.)*.
- Ojo, O. (2010). *The Relationship Between Service Quality and Customer Satisfaction in the Telecommunication Industry*. Nigeria.
- Omira, A.M. (2017). The Mediating Effect of Organizational Commitment on the Relationship between Organizational Culture and Organizational Performance in Public Sector. *International journal of business science and applied management*, 7(1).
- Oppenheim, A. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. London: Pinter. Pp 303. £14.99 paperback, £39.50 hardback. ISBN 185567 0445 (pb), 185567 0437 (hb).
- Ouchi, W. (1981). *Theory z : How American business can meet the Japanese challenge?*. Reading, MA: . Addison: Wesley. .
- Owens, R. (1987). *Organizational Behavior in Education*. Englewood Cliffs, NJ: Prentice-Hall.
- Peteraf, M. (1993). The cornerstones of competitive advantage. A resource-based view. *Strategic Management Journal*, 14(3), 179– 191.
- Peters, T. ( 2004). *In search of excellence: Lessons from America's best-run companies (2nd ed)*. London: Profile Books.

- Peters, T. (1984). *In search of excellence*. New York, NY: : Warner Books.
- Peters, T. (1982). *In Search of Excellence: Lessons from America's Best-Run Companies*. New York: Harper & Row.
- Pettigrew, A.M. (1979). On Studying Organizational Cultures . pp. 570-581.
- Robbins, S. P. (2002). *Organizational Behavior*.
- Sandada, M. (2019). *Business Research Methods: Lecture Notes*. University of Zimbabwe
- Saunders, M. L. (2007). *Research Methods for Business Students. 4th Edition*., Edinburgh Gate, Harlow: Financial Times Prentice Hall,.
- Saunders, M. L. (2009). *Research Methods for Business Students*. New York: Pearson.
- Sawner. (2000). The influential of A firm's culture on organisational performance in information technology sector. *Journal of business management*, 56-64.
- Schein, E. (1990). *Organizational Culture and Leadership*. San Francisco: Jossey-Bass.
- Schein, E. (1992). *Organizational culture and leadership (2nd ed.)*. . San Fransisco : CA: Jossey-Bass Publishers.
- Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach. 4th Edition*. New York: John Wiley & Sons.
- Shahzad, F. (2013). Impact of organizational culture on employees' job performance. *International journal of commerce and business*, 24(3):219-227.
- Terziovski, M. (2007). Preface to Building Innovation Capability in Organizations. *An International Cross-Reference Perspective*.
- Tseng, S. M. (2010). The Correlation between Organizational Culture and Knowledge Conversion on Corporate Performance. *Journal of Knowledge Management*, 14, 269-284.

- Volberda, H.W. (2010). Perspective—Absorbing the Concept of Absorptive Capacity: How to Realize Its Potential in the Organization Field . *Organization Science*, 21, 931-951.
- Wilson, N. (1994). *Questionnaire Design: A Practical Introduction*. . Newtown Abbey: University of Ulster Press.
- Yilmaz, C. (2008). Organizational culture and firm effectiveness: An examination of relative effects of culture traits and the balanced culture hypothesis in an emerging economy. *Journal of World Business*, 43, 290–306.
- Yu, K. (2004). Corporate culture and organizational performance. *Journal of managerial psychology*, 19(4):340-359.
- Yukl, G.A. (2002). *Leadership in Organizations. 5th Edition*, . Upper Saddle River.: Prentice Hall,.
- Zheng, I. (2010). Organizational Culture and Information Systems Implementation: . A *Structuration Theory Perspective*.

## Appendices

### Appendix 1

#### QUESTIONNAIRE

##### Introduction

The information obtained from this research shall only be used for academic purposes. Anonymity and confidentiality will be highly regarded on this research. Also participation in this research shall be voluntary.

Greetings, my name is **Mapamba Andrew** I am a student at University of Zimbabwe studying for a Master's Degree in Strategic Leadership. I am kindly requesting for your time and participation in carrying out a research on the topic: **The relationship between organizational culture and innovation in the Zimbabwean it industry: Case of Milter (Pvt) Ltd.** Your voluntary participation in this research will be greatly appreciated.

.....

##### SECTION A: DEMOGRAPHICS

*Please tick appropriate Box*

- Age Range

- |   |  |
|---|--|
| <input type="checkbox"/> under 18 years | <input type="checkbox"/> 45 – 54 years |
| <input type="checkbox"/> 19 – 24 years  | <input type="checkbox"/> 55 – 64 years |
| <input type="checkbox"/> 25 – 34 years  | <input type="checkbox"/> over 65 years |
| <input type="checkbox"/> 35 – 44 years  |  |

- Gender

- |                               |                                 |
|-------------------------------|---------------------------------|
| <input type="checkbox"/> Male | <input type="checkbox"/> Female |
|-------------------------------|---------------------------------|

- Level of Education

- |  |                                  |
|--|----------------------------------|
| <input type="checkbox"/> ZJC                     | <input type="checkbox"/> Diploma |
| <input type="checkbox"/> Higher National Diploma | <input type="checkbox"/> Degree  |



practise lead to customer loyalty that create a room for innovative ideas.

- |            |  |          |          |          |          |          |
|------------|--|----------|----------|----------|----------|----------|
| <b>1.4</b> | The hiring of qualified and experienced personnel by Milter private limited helps stimulate innovation.                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>1.5</b> | Stakeholders respect in the organisation helps improve quality of services which in turn leads to improvement of innovation. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

Specific objective 2: To assess the impact of culture on organizational innovation.

**Instruction:**

Read the statements, variables below and give your response by circling an appropriate response which best describes your feelings, attitude or beliefs.

- |            |   | (1)<br>Strongly<br>Disagree | (2)<br>Disagree | (3)<br>Neutral | (4)<br>Agree | (5)<br>Strongly<br>Agree |
|------------|---|-----------------------------|-----------------|----------------|--------------|--------------------------|
| <b>2.1</b> | Engaging and developing qualified employees is necessary to retain expertise and gain competitive advantage, leading to better performance.         | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>2.2</b> | Improvement celebrating achievements by Milter private limited leads to an increase in employee morale which will result in growth.                 | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>2.3</b> | A promotion of values at all levels helps companies in the information technology industry meet demand which in turn leads to positive performance. | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>2.4</b> | Favourable company's policies such as work based performance  | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |

at Milter private limited leads to growth.

- |            |   |          |          |          |          |          |
|------------|---|----------|----------|----------|----------|----------|
| <b>2.5</b> | Respect everyone regardless of position at Milter private limited has a positive impact towards innovation                  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>2.6</b> | Working with targets and giving employees flexible shifts are necessary for companies in the IT industry to achieve growth. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

Specific Objective 3: To identify the key leadership traits that influence organizational culture

**Instruction:**

Read the statement, variables below and give your response by highlighting on the appropriate number which best describes your feelings, attitude or beliefs about the statement or variable.

- |            |  | (1)<br>Strongly<br>Disagree | (2)<br>Disagree | (3)<br>Neutral | (4)<br>Agree | (5)<br>Strongly<br>Agree |
|------------|--|-----------------------------|-----------------|----------------|--------------|--------------------------|
| <b>3.1</b> | Transformational leaders normally changes the existing culture so that their vision can be realised                          | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>3.2</b> | Good leaders are able to maintain an organisational culture that encourages innovation and support professional development. | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>3.3</b> | Good leaders focus more on how they can achieve their vision within the boundaries of an existing culture                    | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>3.4</b> | Modern leadership traits, unlike traditional leadership skills, improves organisational culture and creativity               | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |
| <b>3.5</b> | Good leadership characteristics are essential for companies in the IT industry to achieve required                           | <b>1</b>                    | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                 |

culture.

- |            |  |          |          |          |          |          |
|------------|--|----------|----------|----------|----------|----------|
| <b>3.6</b> | Good leadership skills such as the ability to evaluate market opportunities help companies in the IT industry achieve better organisational culture. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|------------|--|----------|----------|----------|----------|----------|

Specific objective 4: To recommend cultural elements that should be adopted and developed to enhance organizational innovation and effectiveness at Milter (Pvt) Ltd.

**Instruction:**

Read the statements, variables below and give your response by highlighting on the appropriate number which best describes your feelings, attitude or beliefs.

- |            | (1)   | (2)      | (3)      | (4)      | (5)            |          |
|------------|---|----------|----------|----------|----------------|----------|
|            | Strongly Disagree   | Disagree | Neutral  | Agree    | Strongly Agree |          |
| <b>4.1</b> | Availability of assistance of workers in need of help, for example contributions on funerals, weddings and other social activities within the organisation support innovation ideas | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b>       | <b>5</b> |
| <b>4.2</b> | Improvement in good culture practices by Milter private limited such as encouraging employees to avoid absenteeism, and to be at work place on time                                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b>       | <b>5</b> |
| <b>4.3</b> | A promotion of good morale support at all levels such as full support of new idea generation by management and other workers.   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b>       | <b>5</b> |

- |            |  |          |          |          |          |          |
|------------|--|----------|----------|----------|----------|----------|
| <b>4.4</b> | A culture of encouraging employees to improve themselves by attending to seminars, workshops and furthering education can improve innovation at Milter private limited | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| <b>4.5</b> | Holding end of year parties and award best innovative employee of the year leads to an increase in innovation  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

<b>Thank you for your corporation.</b>
--