



Cape Peninsula
University of Technology

**INVESTIGATING THE USE OF ELECTRONIC COMMUNICATION AND ITS
IMPACT ON FACULTY STAFF MEMBERS AT A SELECTED UNIVERSITY OF
TECHNOLOGY IN SOUTH AFRICA**

by

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ABSTRACT

The Fourth Industrial Revolution has entrenched the use of communication technologies in the workplace owing to their advantages. However, these same technologies can also present challenges for organisations, especially when employees become too dependent on them, for example, using emails as a sole form of communication. Consequently, this impacts staff interaction, their interpersonal communication, as well as staff cohesion negatively. The main objective of this research study was to establish if faculty staff rely excessively on email communication, resulting in reduced interpersonal communication, staff cohesion, and staff interaction.

The researcher used an interpretive phenomenological quantitative research approach in a case study at the Faculty of Business and Management Sciences at UoT X with the aim to understand participants' email experiences. The sample frame comprised 438 staff members, while the study adopted a non-probability sampling method. The findings revealed that a majority of the employees rely on electronic communication to communicate important information to other staff members in spite of the fact that they did not receive any formal training to use email in a professional business environment. Moreover, the research found that over-reliance on email communication impacted negatively on relationships amongst faculty staff, whilst poor interpersonal communication was a major cause of conflict and misunderstandings, as shown in the literature.

Faculty staff should be encouraged to interact with their colleagues on a face-to-face basis, and should only resort to using electronic communication in urgent contexts. Staff relations are built and strengthened by sharing experiences, interacting both formally and informally, resolving disagreements, and encouraging interpersonal dialogue, diversity and tolerance through interactions. Furthermore, faculties should create social environments such as off-campus research retreats, university sports events, conferences, recreational tours, and subject clusters to aid sharing experiences, and staff cohesion.

Keywords: Electronic communication; interpersonal communication; over-reliance; social cohesion; staff interaction; Universities of Technology.

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TABLE OF CONTENTS

Declaration	ii
Abstract	iii
Acknowledgements	iv
List of figures	vii
List of tables	vii
Appendices	vii
Abbreviations	viii

CHAPTER ONE: Introduction and background to the study

1.1	Background	1
1.1.1	Staff interpersonal communication	2
1.1.2	Staff cohesion	3
1.1.3	Staff interaction	3
1.1.4	Internal organisational communication	4
1.1.5	Electronic communication	4
1.2	Background to the research problem	5
1.3	Statement of the research problem	6
1.3.1	Research questions	7
1.3.2	Objectives of the research	7
1.4	Delineation of the research	8
1.5	Significance of the research	8
1.6	Chapter layout	9
1.7	Summary	10

CHAPTER TWO: The role of e-communication within a university of technology

2.1	Introduction	11
2.2	Organisational communication	11
2.2.1	Theoretical approaches to organisational communication	12
2.2.2	Communication models	15
2.3	Electronic communication	20
2.3.1	Theoretical grounding for interpersonal communication technology	21
2.3.2	The usage of electronic communication	23
2.3.2.1	Advantages of email	23
2.3.2.2	Disadvantages of email	25
2.3.3	The impact of email communication on human resources	29
2.3.3.1	Interpersonal relationships	32
2.3.3.2	Job demands and resources	37
2.3.3.3	Social cohesion and teamwork	39
2.4	The South African higher education system	42
2.4.1	Mergers within South African higher education	43
2.4.2	University of Technology (UoT) multi-campus models	47
2.4.3	Internal organisational communication within multi-campus environment	49
2.4.3.1	Communication model for South African multi-campus universities	54
2.5	The case study context: UoT X	56
2.6	Summary	58

CHAPTER THREE: Research methodology

3.1	Introduction	61
3.2	Research design	61
3.3	Population and sampling techniques	63
3.4	Data collection method and instrument	64
3.5	Data collection procedure	66
3.6	Ethical considerations	68
3.7	Data analysis	68
3.8	Validity and reliability	69
3.9	Summary	70

CHAPTER FOUR: Presentation and discussion of research results

4.1	Introduction	72
4.2	Questionnaire results	72
4.2.1	Demographic results	73
4.2.2	Questionnaire statement results	78
4.2.2.1	Factor analysis	78
4.2.2.2	Factor results	89
4.3	Discussion of research results	97
4.3.1	Preference for using e-communication	97
4.3.2	Staff relations	99
4.3.3	Interpersonal communication	107
4.3.4	Staff cohesion	112
4.4	Summary	117

CHAPTER FIVE: Conclusions and recommendations

5.1	Introduction	120
5.2	Concluding remarks with respect to the objectives of this study	120
5.2.1	Main research objective	120
5.2.2	Research sub-objective 1	122
5.2.3	Research sub-objective 2	122
5.2.4	Research sub-objective 3	123
5.2.5	Research sub-objective 4	124
5.3	Recommendations	125
5.3.1	Recommendation 1	125
5.3.2	Recommendation 2	126
5.3.3	Recommendation 3	126
5.3.4	Recommendation 4	126
5.4	Study limitations and implications	126
5.5	Suggestions for further study	127
5.6	Significance and contribution of this research	128
5.7	Conclusion	128

REFERENCES	130
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LIST OF FIGURES

Figure 2.1: Shannon-Weaver model of communication	15
Figure 2.2: Interactive model of communication	16
Figure 2.3: Framework of effective communication	18
Figure 2.4: Model of impact electronic communication systems from implementation of email systems	30
Figure 2.5: Rosen's two-dimensional model of communication modalities	34
Figure 2.6: An internal communication model for multi-campus higher education institutions in South Africa	55
Figure 4.1: Age of the respondents	73
Figure 4.2: Gender of the respondents	74
Figure 4.3: Race of the respondents	74
Figure 4.4: Language of the respondents	75
Figure 4.5: Occupation of the respondents	75
Figure 4.6: Job location of the respondents	76
Figure 4.7: Length of service of the respondents	76
Figure 4.8: Highest qualification of the respondents	77

LIST OF TABLES

Table 2.1: Barriers to organisational communication	52
Table 4.1: Kaiser-Meyer-Olkin and Bartlett's test	79
Table 4.2: Factor loading of indications representing staff members' views on the effects of e-communication	79
Table 4.3: Alpha method of extraction factoring	82
Table 4.4: Factors for Cronbach Alpha Coefficient	85
Table 4.5: Factor significance	86
Table 4.6: Descriptive statistics for Factor 1	89
Table 4.7: Descriptive statistics for Factor 2	91
Table 4.8: Descriptive statistics for Factor 3	93
Table 4.9: Descriptive statistics for Factor 4	95

APPENDICES

Appendix A: Questionnaire with participant informed consent form	153
Appendix B: Statistics certificate	158

ABBREVIATIONS

CPUT	Cape Peninsula University of Technology
CUT	Central University of Technology
DUT	Durban University of Technology
E-COMMUNICATION	Electronic communication
EMAIL	Electronic mail
FBMS	Faculty of Business and Management Sciences
GCM	Graduate Centre for Management
HEI	Higher Education Institution
JD-R	Job Demands-Resources
KMO	Kaiser-Meyer-Olkin
LMS	Learner Management System
NWU	North West University of Technology
PCA	Principal Component Analysis
SMCR	Sender-Message-Channel-Receiver
TUT	Tshwane University of Technology
UFS	University of Free State
UJ	University of Johannesburg
UoT	University of Technology
VDT	Video Display Terminal
VUT	Vaal University of Technology

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Background

Communication is of the utmost importance to any business, therefore if an organisation wants to have a competitive advantage, their internal communication in particular needs to be effective. Historically, businesses used the traditional way of communicating with their staff members by means of internal memorandums, company newsletters and telephone calls (Blizard, 2012). The evolution of technology and traditional offices evolving into electronic and virtual offices resulted in organisations using electronic communication (emails) to communicate with staff members (Kock, 2001). In workplaces, the latest technology, such as iPads, notebooks and virtuality, have rendered email the single most important mode of communication (Nardi, 2015). Today, there are other means of e-communication which are commonly used in organisations, such as short message services, Blackberry messenger, WhatsApp and social media domains such as Facebook and Twitter. Employees therefore do not need to pick up the telephone and make a call to their managers informing them of their absence (Jackson, Dawson & Wilson, 2001). Thus, the advancement of technology has made it easier for managers and employees to communicate and stay in contact at all times, regardless of space or location.

According to Visagie and Steyn (2011), organisational communication continues to evolve in this dynamic world which is characterised by the amelioration of technologies, intense competition at a global level and by sudden changes in the ways business is conducted. In addition, internal communication is the key variable in all efforts involving change and, in all initiatives, involving diversity and innovation. Verma (2013) posits that the main purpose of communication is to effect change to influence action. Hence, communication is the lifeblood of any organisation and no organisation or business can develop in the absence of an effective communication system. Elving (2005) adds that, in any organisation, one of the main challenges faced is maintaining effective communication processes as communication is the mortar that holds organisations together, no matter their business or size. To improve communication, many institutions have launched mobile applications as more and more businesses seek to enhance communication and service delivery.

The use of email and electronic messaging is the most significant change in the medium of communication in business since the introduction of the telephone which became an integral part of the development of the modern business era during the last century (Taylor, Fieldman & Altman, 2008). However, communication in the new millennium has presented new concerns and challenges, which this research study aims to explore within a University of Technology (UoT) context. Taylor et al. further acknowledge that, in all areas of work and work-related domains, email has become the primary source of communication. Ramsay and Renaud (2012) concur that email is also rapidly becoming the preferred medium for employees to communicate in organisations, as evidenced by the steep rise in personal computers and home-based internet communication. However, Ambra, Toorn and Dang (2007) argue that the move towards this new era of communication has been driven more by the immediate, practical advantages and the availability of the technology rather than a rational assessment of its advantages and disadvantages.

Cloete (2014) asserts that the development of email technology has created complex problems, such as deteriorating staff cohesion and interpersonal communication. Emailing allows mass communication to numerous recipients through simultaneous multiple messaging. The audience is usually too large for the communicator to interact with individuals face-to-face. Hence, this study investigates the impact of electronic communication on staff cohesion, interpersonal relationships and staff interaction in the Faculty of Business and Management Sciences at a University of Technology, UoT X. This UoT operates on six different, geographically dispersed campuses which need to communicate frequently. Thus, email communication has become the preferred method of communication among UoT employees. It is, however, common that university employees have been communicating for a number of years via email without meeting each other face-to-face. It is therefore hypothesised in this study that the development of email communication has led to the erosion of staff cohesion, interpersonal communication and staff interaction.

1.1.1 Staff interpersonal communication

Interpersonal communication is the communication that takes place between people who are in some way connected, for example, between an employer and an employee, between a teacher and a student (Erozkan, 2013). Davis (2013) further suggests that interpersonal communication does not only take place between connected individuals, but rather the communicating parties are also interdependent, as the actions of one person have consequences for the other person in the communication process (and

vice versa). This interdependency between communicating parties implies that interpersonal communication is inevitably relational in nature as it takes place in a relationship, affects that relationship and defines it. Individuals communicate differently with their best friend, siblings, neighbours, colleagues or casual acquaintances. Messages are therefore tailored for individual recipients; and the chances of successful communication are enhanced in great part by the kind of relationship that exists between the two parties. DeKay (2012) expounds that the way individuals communicate interpersonally determines whether their relationship develops or deteriorates.

1.1.2 Staff cohesion

According to Fruhen and Keith (2014), cohesiveness is the extent to which team members unite and work together in the pursuit of a common goal. A key trait of team cohesion is that its members possess bonds linking them to one another and to the team as a whole. It is the bonds that create group members' loyalty and high morale and which often lead to greater effectiveness from individuals in the group. Members of a highly cohesive team are focused on the process of achieving a common goal rather than on individual persons (Van der Meer, 2014). There is respect for one another, while individuals create and assume accountability, assume good motives and are fully committed to the team's decisions and strategies. Team morale is often high in cohesive groups because of increased member communication, the friendly environment, team loyalty and member contributions in the decision-making process (Wise, 2014). For these reasons, it is pertinent to improve employee cohesion as a way to strengthen staff loyalty, enhance staff morale and encourage greater effectiveness among individuals.

1.1.3 Staff interaction

Rothmann and Baumann (2014) describe employee interaction as the studying of interpersonal matters established between employees, colleagues and managers. Employee interactions may, however, have either negative or positive effects on employees' performance, productivity, motivation and attitude. Konijn et al. (2008) identify two major levels of employee interaction, which are formal and informal relations. Konijn et al. (2008) expound that humans are social animals that need to feel respected and confident as part of a collective in their professional roles (formal level) or in their personal traits (informal levels). According to Burgoon, Berger and Waldron (2000), the common sources of friction among employees in the workplace are usually

limited resources, conflicts of interest and insufficiently-defined responsibilities. Disagreements often escalate if there are no interpersonal dialogues, diversity and tolerance through day-to-day interactions amongst workers. It is therefore imperative for employees to interact for them to solve problems effectively. Companies with employees that interact effectively overcome stereotypes and misconceptions to work more productively. Thus, in this highly volatile global business environment, successful companies maintain their competitive edge by ensuring that their employees develop interactive skills to communicate and integrate with others from diverse backgrounds and cultures.

1.1.4 Internal organisational communication

Verma (2013) states that there are many definitions of organisation communication, each capturing different elements of the process, such as the sender, the receiver, the message, the channel and feedback. Essentially, organisational communication is an endless process that allows people to work together, to co-operate and to interpret dynamic organisational needs. Organisational communication therefore holds an organisation together, enabling coordination and cooperation through interpretation of organisational needs. Hence, communication creates an organisation, gives meaning to an organisation and influences the way it is perceived by its members and the public. In a recent study, Itri and Lawson (2016) assert that efficient internal communication contributes to the increase in employees' workplace satisfaction, morale, productivity, commitment, trust and learning. Furthermore, Verma (2013) finds that efficient communication improves the organisational work environment and interpersonal relationships, while increasing the quality of work and returns.

1.1.5 Electronic communication

Electronic mail, or email, has been widely used since the early 1990s in various professions (Dabbish, Kraut, Fussell & Kiesler, 2005). In large organisations, email is used to communicate with large groups of employees whilst, in small organisations, it is used to market products and services (Durga, 2015). As technology has advanced in the modern era, communication in the form of emails, telecommunications and short message services has become more convenient for the masses. Durga explains that email is a computer-generated text that is used to send and receive written information promptly, inexpensively and efficiently, from a sender's computer to a recipient's computer. Nardi (2015) posits that the workplace of today is fast developing and demonstrating more features of a virtual workplace. Over the years, equipment has

become mechanised, automatic and increasingly electronic. Thus, the process of mechanisation and automation evolved into a process of electronic communication (e-communication) in which files and data is transferred by means of networks and modems which are becoming common workplace practices.

It is telecommunications technology that makes it possible to assemble teams comprising of individuals dispersed across the globe (Pfaff, 2012). It has therefore become essential to understand how teams function differently when they do not meet face to face or in person (Przybylski & Weinstein, 2013). However, Berghel (1997) argues that the extent to which email and videoconferencing are either beneficial or distracting for virtual teams needs to be determined. Banerjee and Singh (2015) state that telecommuting via voice mail, personal digital assistants and email has become the standard medium in many workplaces and that an average employee receives more than one hundred emails daily. Therefore, it is evident that a wide range of businesses are increasingly using electronic media to disseminate their messages.

1.2 Background to the research problem

Institutions of higher education are responsible for creating and disseminating knowledge; and these institutions are governed by rules, regulations, policies and procedures (Frølich, Waagene & Aamodt, 2011). These (rules, regulations, policies and procedures) are followed to accomplish goals through performing day-to-day operations (Kushlev & Dunn, 2015). Communication, in its various written, verbal and non-verbal forms, is the cornerstone of organisational competency through which tasks are accomplished (Mason & Leek, 2012). Similarly, in higher education institutions, communication is an extremely important process in maintaining internal and external relationships (Ceulemans, Lozano & Alonso-Almeida, 2015). Internal communication takes place between the academic staff and students, whereas external communication involves potential students and academic stakeholders. Thus, communication is the link between a vast network of relationships, both inside and outside the organisation.

In 2005, a new higher education system emerged to transform South Africa's tertiary institutions, resulting in the merger of selected universities and technikons. Ten years into the mergers, many challenges are noted for the institutions of higher education as a result of the large staff complements, diverse cultures and restructuring of institutions that also resulted in multiple, geographically separated campuses (Badat, 2010). The new merged institutions of higher education are: the University of Johannesburg (UJ);

Cape Peninsula University of Technology (CPUT); Central University of Technology (CUT); Tshwane University of Technology (TUT); University of Free State (UFS); Vaal University of Technology (VUT); Durban University of Technology (DUT); and North West University of Technology (NWU). These new institutions all have a common model of multi-campus that are geographically distant, which make email the most preferred norm for daily communication between and among campuses.

Although the multi-campus universities model in South Africa means that these institutions continue to face challenges to communicate effectively with staff members at various geographically dispersed campuses, a key concerning factor is that geographic locations makes it difficult for staff from various campuses to interact in person. It has been noted that email communication is beneficial as it is easy to use and instantly disseminates information in the workplace (Ramsay & Renaud, 2012). However, verbal, non-verbal communication and staff interaction are equally important for human relations (Davis, 2013). Employees spend more time in the workplace; hence staff interaction and human relations are an important part of work life. Davis (2013) is concerned that an overreliance on email communication evades staff interaction and may negatively affect human relations in the workplace.

1.3 Statement of the research problem

Electronic communication and social networking have changed the way people communicate and interact, both in social leisure contexts and in the workplace (Van Dijck & Poell, 2013). Previously, people communicated face-to-face only; however, this has now been replaced with chat rooms, tweets and social network pages (Maíz-Arévalo, 2015). Thus, the 21st century workplace is positioned in the information era so the use of technology for communication, specifically email, is a permanent fixture.

Owing to the 2005 higher education institution mergers, particularly effective communication is required to ensure that staff members are kept informed of pertinent decisions. The multi-campus model of higher education mergers has made it inevitable that the preferred mode of communication would be emailing as a cheap and quick way of conveying messages. University of Technology X (UoT X), which was established on 1 January 2005 as a result of the merger between Technikon A and Technikon B, operates on six different geographically dispersed campuses, with a staff complement of 1,948 permanent and 2,244 contract staff. During and just after the merger process of UoT X, there was a high exodus of academic, research, professional and support staff who were terminating their services. A Self Evaluation report (2010) pointed out

that the main reasons for this mass termination of services were: a lack of recognition; insufficient feedback channels; a lack of team work; and a lack of trust between management and employees.

Although staff termination of services was attributed to merger-related issues, it is evident that UoT X was also experiencing a lack of sufficient communication and proper feedback among employees, which further fuelled the feeling of a lack of recognition among staff members. In the process, teamwork and the trust relationships between management and employees was eroded. The major source of these challenges was that the main channel of communication among university staff members situated at different campuses was email. This supports Berghel (1997) who argues that email creates a lack of interaction between personnel and departments due to its being a form of non-personal communication. In addition to the bureaucracy, confusion, hierarchy, silo mentality and information hoarding during the merger process at UoT X (Delport, 2008), the increase in electronic communication might also have contributed towards cultural entropy. Therefore, it can be argued that overreliance on email as a form of communication could have negatively affected staff cohesion, interpersonal relations and staff interaction. It is on this premise that this research study investigates the use of electronic communication and its impact on faculty staff members at the selected UoT X by testing the following hypothesis:

Instead of physically interacting with colleagues, university employees prefer email as their medium of communication. This has led to university staff members over relying on emails, to the extent that emails have replaced face-to-face interaction. Thus, email communication leads to the erosion of staff interpersonal communication, staff interaction and staff cohesion.

1.3.1 Research questions

To examine the research problem, the following four key research questions were developed:

- 1) Why is email the preferred communication medium amongst faculty staff instead of physically interacting with colleagues?
- 2) To what extent do emails replace staff interpersonal communication?
- 3) Does email enable staff relationship-building?
- 4) To what extent does interpersonal communication facilitate staff cohesion?

1.3.2 Objectives of the research

The main objective of this research study is to establish if there is an overreliance on email communication amongst faculty staff which could have resulted in the reduction of interpersonal communication, staff cohesion and staff interaction.

In exploring the main objective, this research study envisioned the following sub-research objectives:

- 1) To identify the reasons why email is the preferred communication medium over physical interaction amongst faculty staff.
- 2) To determine the extent to which emails replace staff interpersonal communication.
- 3) To determine if emails can be utilised to build relationships.
- 4) To clarify the extent of interpersonal communication needed to improve staff cohesion.

1.4 Delineation of the research

This research study was limited to the Faculty of Business and Management Sciences at UoT X. The rationale for this selection of the study population was motivated by the researcher's belief that the subjects were from a diverse demographic background. Additionally, the culture, calibre and traits of staff at universities of technology in South Africa are fairly linked to each other. It is thus common for UoT staff to easily switch jobs across the country's universities. Riordan and Louw-Potgieter (2011) argue that the academic environment in South Africa is highly networked and fluid and that most academics either have links or a direct interest in activities happening at UoT's.

1.5 Significance of the research

The purpose of this research study was to investigate the use of electronic communication and the impact it had on university of technology staff. There has been debate on whether an overreliance on email erodes staff cohesion, interpersonal communication and replaces staff face-to-face interaction.

1.6 Chapter layout

The following is a layout and summary of each chapter:

Chapter One has introduced the research by giving a background to the problem and highlighting the importance of communication in any organisation. It has outlined the background of how the development of electronic communication might have led to negative outcomes, such as eroding staff cohesion, interpersonal communication and staff interaction as employees may spend years communicating without meeting each other face-to-face. Thereafter, the chapter has defined the problem statement, the research purpose, objectives and questions. The chapter has presented a delineation of the study and its empirical contribution.

Chapter Two reviews past literature on the role of electronic communication in organisations and, more specifically, within a University of Technology. Furthermore, the literature review explores the theoretical grounding for communication technology through an analysis of the key theories underpinning communication technology. The literature review concludes by examining electronic communication as a change agent within learning institutions and communication policies in Universities of Technology.

Chapter Three describes the research design and research methodology, including a definition of the population, sample and research tools employed. It also gives an overview of how the questionnaire was designed and how data was collected from the selected sample. The issues of validity, reliability and ethical considerations were also addressed.

Chapter Four discusses the findings of this study, highlighting literature that supported or conflicted with the research findings, allowing the researcher to draw insights from the findings. Analysed data is presented in the form of tables and graphs. The Principal Component Factoring analysis was used and the results were presented together with the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests that measured how suitable the data were for the Factor Analysis and their adequacy for each variable in the model.

Chapter Five presents conclusions and makes recommendations on ways of utilising electronic communication to promote a sense of belonging and cooperation amongst faculty staff, thereby strengthening staff interaction and cohesion that service quality dimensions within the Faculty of Business and Management Sciences. The chapter

concludes with the significance and contributions of the research and makes suggestions for further research.

1.7 Summary

This chapter has outlined the problem statement which necessitated this study on the challenges posed by the use of email within an organisation. There are many communication challenges that higher education institutions are faced with due to the mergers, large staff counts, and geographic location of staff members on multi-campuses. As a solution to these challenges, emails arose as a preferred medium of communication. However, the rise of email as the preferred form of communication also generated negative unintended outcomes, such as a lack of staff interaction, reduction of staff cohesion and limited interpersonal communication. This chapter also defines the problem statement and research purpose, as well as objectives and questions to be addressed. The delineation of the study was presented and the research design and methodology have been described to demonstrate how the research objectives and questions are to be achieved. In the following chapter, a comprehensive literature analysis is presented to define the role of electronic communication in organisations.

CHAPTER TWO

THE ROLE OF E-COMMUNICATION WITHIN A UNIVERSITY OF TECHNOLOGY

2.1 Introduction

A brief overview of this study and clarification of basic terms and concepts analysed in this study, as well as the importance thereof, was presented in Chapter 1. The key terms include: staff interpersonal communication; staff cohesion; staff interaction; internal organisational communication; and electronic communication. The chapter explored how electronic communication has made it possible for assembled teams of individuals dispersed across the globe to function without meeting in person. Reference was made to the complex and bureaucratic nature of higher education institutions, as well as the lack of effective internal communication amongst faculty staff, which often results in a lack of staff interaction and interpersonal communication at multi-campus universities. The interpersonal communication in higher education institutions was influenced by factors such as large staff numbers, geographically dispersed campuses, and merged organisational structures that made face-to-face communication difficult, resulting in a reliance on e-communication.

This chapter focuses on the key roles of email within the context of South African higher education institutions. The chapter is structured as follows: firstly, an overview of organisational communication, which outlines theoretical approaches to organisational communication, as well as communication models, is explored. Next, theoretical approaches to electronic communication are considered and analysed, including an exploration of the origin of electronic communication and its usage. This is followed by an analysis of its impact on human resources. Thereafter, the broader contexts of the structure of the South African higher education system, the mergers within that system, and the University of Technology (UoT) multi-campus models, are discussed. Chapter 2 concludes with an explanation for the selection of the case of UoT X.

2.2 Organisational communication

Verma (2013: 67) defines communication as “the act of conveying intended information and meanings from one person, entity or group to another through the use of commonly understood signs and semiotic rules”. Fay (2011: 221) adds that communication is one of the most dominant activities in organisations, central both to the growth of organisational relationships and the proper functioning and survival of

any type of organisation. In support of this, Poole (2011: 253) states that positive relationships among individual employees and organisational capabilities are developed through a strong and effective communication processes. Keyton, Caputo, Ford, Fu, Leibowitz, Liu and Wu (2013: 156) further explain that effective communication helps organisations to coordinate activities to achieve goals, through employee socialisation, management decision-making and problem-solving. Through effective communication, employees are provided with important information about their jobs, the organisation, the environment and other employees (Rothmann & Baumann, 2014: 517). Moreover, individuals can express their emotions, share hopes and ambitions, celebrate milestones and remember certain accomplishments. Hence, effective communication is a catalyst for employee motivation, building trust, creating a shared identity and establishing productive engagements, all important factors in building staff relationships and cohesion.

To understand how organisational communication has evolved, theoretical approaches to it will be elucidated in the next section, followed by a description of communication models.

2.2.1 Theoretical approaches to organisational communication

Coleman (1990: 996), a social theorist who traced the growth of established organisations, asserts that large organisations have changed their communication practices in the 21st century through personal relationships and through interactions. Besides the government and the military, large organisations were relatively rare in the early 20th century. Hence, as large organisations emerged, theories were developed to explain how such organisations worked in trying to achieve their goals. The following five theories have evolved in the past century: classical theories; human relations theories; human resources theories; systems theories; and cultural theories.

First, classical theories (Yang, Liu & Wang, 2013: 4470) are sometimes equated with ‘the machine metaphor’ because of how, in early large organisations, employees were viewed as interchangeable parts. This theoretical approach is grounded in scientific management theories of work and workers. Frederick Taylor and Henri Fayol are the best-known proponents of this approach whose followers believed that operational efficiency could be improved through better managerial practices. Fayol further introduced the “*Scalar Chain*” – a chain of supervisors ranging from the ultimate authority to the lowest rank - as a representation of organisational hierarchy and asserted that effective organisational communication should follow the scalar chain to

reduce instances of misunderstanding. However, during times of emergency, employees could communicate directly with each other across the organisation - the first notion of horizontal communication which Fayol termed "*Fayol's bridge*." The two key communication features of this theoretical approach are these: firstly, the communication goal is to prevent misunderstandings, which might impair productivity or quality; and, secondly, the intent is to convey decisions and directives of top management. Thus, the formal organisational structure guides top-down communication, primarily through print channels, whose communication content is mostly task- and rule-orientated. However, in this theoretical approach, the social side of organisational communication was largely ignored, and employees relied greatly on 'the grapevine' for information.

Second were the human relations theories (Bruce & Nyland, 2011: 384) whose major proponent was Elton Mayo. He argued for the importance of work groups and human relationships amongst colleagues. Mayo (1933), cited by Bruce and Nyland (2011: 384), discovered that employees who work in friendly teams with supportive supervisors tend to outperform those that work in less favourable conditions. This theoretical approach highlights the functions of organisational executives and their role in communication. They emphasise the importance of formal and informal communications to the success of an organisation. They further argue that cooperation among workers and supervisors is crucial to improving organisational productivity. Although this theoretical approach includes more face-to-face communication and acknowledges the importance of internal communications, downward communication still dominates.

Third, the human resources theories (Turner & Stets, 2006: 30) were widely adopted by organisations in the 1960s to advocate for a participative and team approach to managing employee relations so that employees could contribute their labour effectively, both physically and mentally. Within this theoretical approach, communication should be multidirectional and relational. Hence, there should be clear channels of feedback to enhance problem-solving and stimulate sharing of ideas. This approach encourages innovation, which is another way of gaining employee trust and commitment as employers start to include employees in decision-making discussions.

Fourth, the systems theories (Cordon, 2013: 15) emerged in the 1970s when some system theorists began to view organisations as complex organisms competing to survive and thrive in challenging environments. Thus, systems theory assumes that an organisation is a group of parts that are arranged in complex ways and which interact

through processes to achieve goals. An average business usually consists of a number of departments or units (such as marketing, finance, human resources), each of which includes individuals and teams. These units are interdependent as they function as subsystems that rely on others in the organisation; they are also part of a larger supra industry system. Hence, communication is vital for exchanging information in and among subsystems through multidirectional channels; and the feedback process helps the systems to adjust, change and maintain control to survive.

Lastly, the cultural theories (Movius, 2010: 8) that dominated in the 1980s and 1990s in the wake of increasing competition in the global marketplace emphasised the importance of an organisation's distinct identity - the shared beliefs, values, behaviours and artefacts that an organisation holds - which determines how it functions and adapts to its environment. These theories claim that companies could improve their performance by developing a strong organisational culture based on shared values, celebrating its heroes and through the performance of rites and rituals, among others. More recently, Jumbe and Gerwel Proches (2016: 296) have highlighted the importance of face-to-face and supervisory communication during cultural changes or other major organisational initiatives. Hence, they argue that a strong organisational culture enhances communication, seeing that sharing information, creating relationships and shaping organisations is a culturally-based process. On the other hand, communication that develops the culture of an organisation helps create and influence others through formal and informal channels: through stories, shared experiences and social activities. Therefore, the culture of the organisation directly influences communication, because employees interact through shared interpretive frameworks of that culture, such as the distinctive company vocabulary, valued media channels and its established protocols and practices.

These five theoretical approaches demonstrate how effective communication changes as organisations grow, evolve and adapt. As the role of employees has evolved over the years, from that of being conveyors of information to being strategic business partners, communication experts are now focusing on connecting employees to the business and equipping leaders with the skills and tools to ensure effective communication. However, the development of email and new dialogue-creating social media has changed organisational communication structures and practices.

2.2.2 Communication models

Blizard (2012: 319) states that an effective communication model is complex, as it reflects a dynamic process. One of the pioneers of effective communication models, the Shannon-Weaver Model (1948: 379), demonstrates that effective communication involves an information source, a transmitter, a channel, a reception, a destination and a feedback.

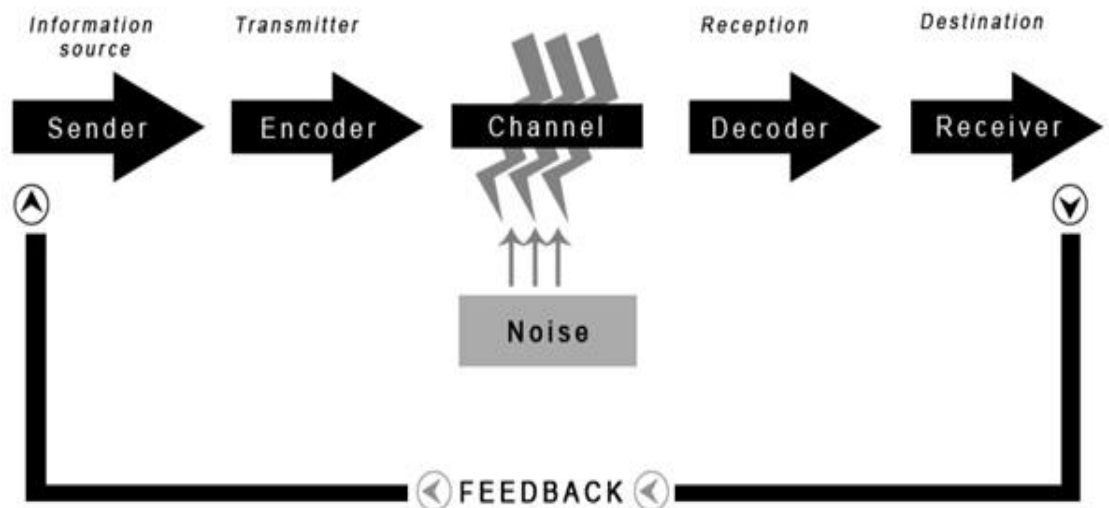


Figure 2.1: Shannon-Weaver model of communication

Source: Shannon and Weaver (1948: 379–423).

Berlo (1960: 15) developed the model further to design the Sender-Message-Channel-Receiver (SMCR) model that described factors affecting individual components in the communication process. The early effective communication models suggest that the whole meaning is contained in the message itself and would be understood when it is received (Al-Fedaghi, 2012: 13). Cobley and Schulz (2013: 21) caution, however, that the early models were sender-focused with poor interactional perspective.

Later models such as Interactive Model, the Transactional Model and the Communication Cycle all unanimously emphasise the importance of maintaining close relationships between the message source and receiver for effective communication to take place consistently (Golding & Murdock, 1978: 339).

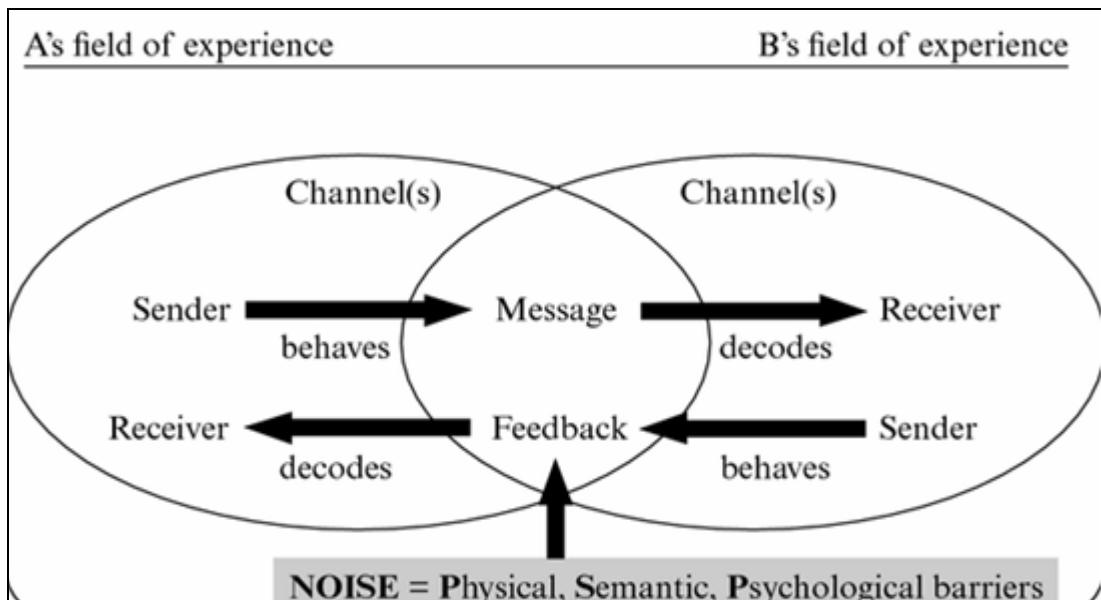


Figure 2.2: Interactive model of communication

Source: Golding and Murdock (1978: 339–356).

According to Golding and Murdock (1948: 340), on each end of the communication model, there is a sender and a receiver. A sender becomes a receiver when the initial receiver responds to a message. Consequently, it can be concluded that effective communication is a result of a two-way transaction that affects both parties. As such, Rubenstein (2001: 371) suggests that the process of effective communication depends more on the knowledge and skills of the sources and receivers to effectively encode and decode a message. The significant influence on the communication model of culture conveyed through the attitudes of senders and receivers, and their selection of channel was also acknowledged.

The modern communication model is more complex owing to more recently introduced technological media, and high-speed and multi-directional communications (Castronovo & Huang, 2012: 118), where the core components lie in the planning and implementation of organisational goals and strategies (Pignata, Lushington, Kurt, Sloan, Jeremy, Buchanan and Fiona (2015: 163). Pignata et al. (2015: 163) posits that the leaders and communication specialists of an organisation first develop strategies to achieve objectives, then construct relevant messages and, finally, transmit the message through diverse suitable channels to stimulate conversations with employees and members. Thus, Dăneci-Pătrău (2011: 489) highlights that effective organisational communication in the modern era is grounded in receivers' needs and concerns.

The development of technological media, high-speed and multi-directional communications has left organisations and their employees with wide access to many

communication channels (Lunenborg, 2010: 2). The greatest challenge in ensuring effective communication now lies in selecting the most appropriate medium, once management and communication specialists have determined objectives, strategies, assessed relevant audiences and constructed messages (Husain, 2013: 44). Amongst the studies debating the importance of the medium of communication, that of McLuhan (2011: 44) claims that “the medium chosen is the message.” He argues that every medium selected to transmit the message engages receivers in different ways and it affects both the scale and the pace of communication. McLuhan (2011: 45) further distinguishes between “hot” and “cool” mediums, according to the degree of how they involve different receiver participation. A hot medium is referred to as a medium of communication that does not require much active participation and involvement, such as print media, film, lecture and radio. In contrast, cool medium are more segmented, linear, and require more participation for them to be understood, such as television, comic books and many other face-to-face media.

The process of selecting a medium of choice that matches the expectations and addresses the concerns of the receiver is also a complex one. Daft and Lengel (1986: 560) developed the Media Richness model to explain the process selecting a communication medium. They point out that the medium of choice should always match the double possible meaning of any communication task with the richness of the channel selected to transport the medium. According to their model, it is difficult to interpret and understand messages when they are ambiguous. Thus, ambiguity is clearly not desirable, because the message becomes difficult to interpret and convey. Therefore, the richness of communication media is evaluated by its capability to effectively convey the message being transmitted. Furthermore, Kock (2005: 119) indicates that the capability of a medium is differentiated by whether or not that medium has a channel for feedback and how fast that feedback can be received by the sender. Kock (2005: 120) also points out that the use of multiple cues and natural language to facilitate understanding of a message, as well as the focus of the message, reinforces the richness of the communication medium. Thus, Daft and Lengel (1986: 561) proposed a framework of media choices based on the communication medium's ability to reproduce the message sent through it without loss or distortion. On one hand, this framework offers face-to-face communication as the richest medium to convey effectively complex information and easily resolve conflicts. On the other hand, there are lean media that are impersonal as they constitute unaddressed messages, such as simple announcements, data reports and posters. The middle spectrum of this framework consists of electronic mailing, phone calls, personified written communications and radio, as illustrated in Figure 2.3.

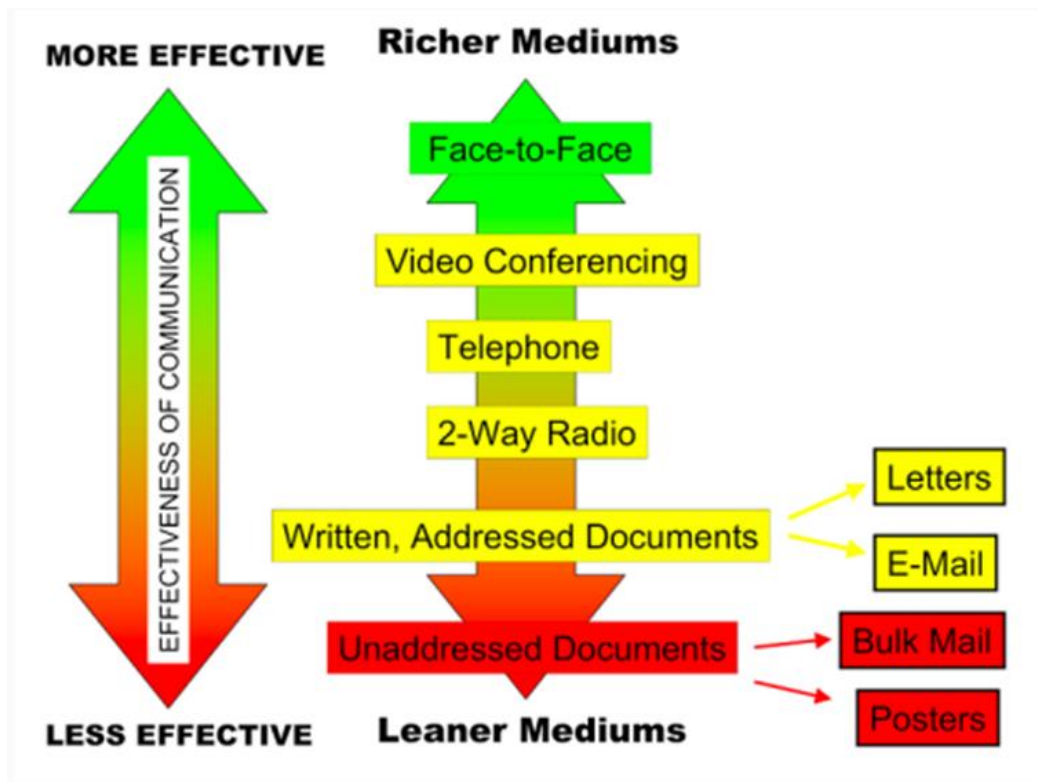


Figure 2.3: Framework of effective communication
Source: Daft and Lengel (1986: 554-571).

It is deduced from the preceding discussion that, for organisational communication to be effective, cognisance must be given to (1) the knowledge and skills of the sources and receivers that is influenced by (2) the culture and attitudes of those senders and receivers (Rubenstein, 2001: 371). The later, in turn, is grounded in (3) receivers' needs and concerns (Dăneci-Pătrău, 2011: 489); and this influences (4) the selection of an appropriate communication medium (Husain, 2013: 44). These factors will assist this research study to investigate why there is an overreliance on email as a form of e-communication and why this overreliance negatively affects staff interaction and cohesion.

There is consensus amongst communication studies that effective communication is an essential aspect of organisational success. A growing body of literature presents evidence that effective communication is a fundamental driver of business performance. In addition, communication literature further demonstrates that effective communication helps increase employee commitment, trust, learning, job satisfaction, morale and productivity (Van den Broeck, Van Ruysseveldt, Vanbelle, & De Witte, 2013: 84). However, Ambra, Toorn, and Dang (2007: 674) point out that the concept of effective communication is evolving with new technologies, growing competition and rapid change, just as the working environment is also changing. Thus, employees'

interpersonal skills, staff interaction and the kind of cohesion expected in the workplace for effective communication to occur is also evolving. Sproull and Kiesler (1986: 1496) developed a filter model of computer mediated communication in the mid-1980s. This model states that computer-mediated communication is an impoverished form of social communication which does not usually lead to effective communication when compared to face-to-face interaction. The model suggests that computer-mediated communication causes people to act in more self-centred ways and behave in a less socially accepted way than they would act in face-to-face interaction. Subsequently, more usage of computer-mediated communication has had a negative impact on employee interpersonal communication, employee relations and staff cohesion, as the politeness, etiquette and manners are often forgotten or disregarded during computer-mediated conversations.

Liebert (2001: 394) and Moody (2001: 396) argue that the frequent use of the internet to communicate interpersonally leads to high levels of loneliness and low relationship satisfaction. In support of this contention, Isbister and Nass (2000: 256) refer to Sproull and Kiesler's (1986: 1496) filter model and point out that computer-mediated communication leads to a deterioration of interpersonal communication, employee relations and staff cohesion due to the medium's lack of communicative abilities, lack of facial expression, direction of gaze, posture. Furthermore, Lo (2008: 595) finds support for Sproull and Kiesler (1986: 1496) and present evidence that internet communication lacks 'personalness' and warmth as a result of not only the technical social absence of the communicator, but also from an absence of the social norms that display warmth. This absence, in turn, depreciates interpersonal communication, employee relations and staff cohesion. Lo (2008: 595) continues that it is for this reason that a number of studies have advocated against the use of electronic mailing for social, intuitive and emotional tasks, except for simple exchanges of information. Butler and Wang (2012: 1001) find that, when communicating over electronic channels people express more antisocial behaviour, or the message may be interpreted as '*cold*', when the sender of the message does not intend to be '*cold*'. As a consequence of these arguments, the current study investigates whether the use of emails has a negative impact on interpersonal communication, employee relations and staff cohesion.

Literature sources on investigations into the effects of email on social cohesion and teamwork shows that such studies gained momentum in the early 1980s, with researchers attempting to assess the extent of employees' overreliance on email. There is, however, no consensus in the debate in the empirical studies on the impact of email on interpersonal communication, staff cohesion and teamwork. Thus, in this

study, the researcher will describe an investigation into the impact of electronic mailing on employees' social cohesion, interpersonal relationships and interpersonal communication at the UoT's Faculty of Business and Management Sciences. This study aims to contribute to understandings of the reasons behind the use of email as a communication medium, as compared to physical interaction with fellow colleagues. Specifically, the study aims to ascertain whether the use of emails is chosen purely for considerations of convenience, for record-keeping, or for deliberately avoiding unwanted social interactions.

2.3 Electronic communication

The electronic mail (email) system began in 1978 when a 14-year-old New Jersey University of Medicine and Dentistry research fellow, V.A. Shiva Ayyadurai, invented the first electronic system to replicate the inter-office and inter-organisational paper-based mail system (Fulk & DeSanctis, 1995: 341). According to Sarbaugh-Thompson and Feldman (1998: 685), the inter-office, inter-organisational paper-based mail system was managed by office workers who, before the invention of email, used the typewriter, an Inbox to receive mail, an Outbox for outgoing mail, a Drafts box for work in progress, and Folders, a file for storage, etcetera. Life within the office environment was paper-based and work was done manually, as memorandums were placed into an inter-office mail envelope to be transported to the desired location. Transport of the envelope was done by workers who delivered it on foot. Hence, due to manual, paper-based communication, office workers interacted more with one another to reach organisational goals, while the system facilitated interpersonal communication among employees and so improved staff relations and staff cohesion.

Office workers were important to the functioning of the inter-office, inter-organisational paper-based mail system for a number of reasons. They played a critical role in the inter-office and inter-organisational mail system; however, their functioning was problematic owing to the following challenges: firstly, it was inefficient to convey urgent messages to intended recipients on foot and created a time delay; secondly, most offices handle a bulk of different communications on a daily basis, hence it requires extra care to avoid mixing up paper trails in a single receiving office; thirdly, there was no security for information being communicated, as paper files could easily be intercepted, lost in fire, accident or floods, in between the communicating parties; and, lastly, storage space was a key challenge, since offices were receiving and dispatching paper-based communications on a daily basis.

Email solved several key challenges faced during the paper-based communication paradigm, which attests to its importance in modern business communication where millions of emails are exchanged between companies, customers, suppliers, employees, managers and amongst co-workers. Cleary, Harran, Lück, Potgieter, Scheckle and Van der Merwe (2008: 32) confirm that the pressures for paperless offices led to a significant increase in the use of email; and the low-cost advantage, speed and ability to convey information to multiple audiences made electronic mail increasingly popular. However, Cleary et al. (2008: 32) caution that, although the high speed in email communication is perceived to be almost like face-to-face conversations, it still lacks face-to-face cues and is still regarded as a one-way communication medium. Thus, it is debatable whether it has facilitated interpersonal communication among employees, or improved staff relations and staff cohesion.

2.3.1 Theoretical grounding for interpersonal communication technology

There are four key theories that explain the choice of media for communication technology: the Information Richness Theory, Social Presence Theory, Social Influence Theory and the Media Naturalness Theory. The Information Richness Theory (Daft & Lengel, 1984: 192) suggests that communication choice decisions are made among available media and proposes that the choice of communication media ranges from lean to rich. In terms of this theory, managers of organisations choose rich media (such as face-to-face meetings, which allow for immediate feedback and communication cues clear to both the sender(s) and the receiver(s) of messages) to address ambiguity problems, whereas lean media (such as memos and other written documents with fewer communication cues) are selected to deliver factual information on management decisions.

The Social Presence Theory (Short, Williams, & Christie, 1976: 33), originally developed by Williams and Christie in 1976, explains the effects that telecommunications media have on employees' communication and socialisation. They define social presence as the degree of salience and the quality of being present, between two communicators using a communication medium. They thus posit that communication media differ in their degree of social presence and that these differences play an important role in how people interact. Gunawardena (1995: 148) concurs that social presence is primarily a quality of a communication medium that can determine the way people interact and communicate. Therefore, people perceive some media as offering a higher degree of social presence (such as videos), while other media offer a lower degree of social presence (such as audios). Subsequently, it can

be concluded that a medium with a high degree of social presence is more sociable, 'warm', and personal, whereas a medium with a low degree of social presence is seen as less personal.

The Social Influence Theory (Cialdini & Trost, 1998: 154) explains how an individual's emotions, opinions or behaviours are affected by others. Social influence takes many forms and is usually witnessed in conformity, socialisation, peer pressure, obedience, leadership, persuasion, sales and marketing. Cialdini and Goldstein (2004: 618) further explain that their psychological needs lead humans to conform to the expectations of others. Thus, the need to be right (informational social influence) and the need to be liked (normative social influence) lead individuals either to change their behaviour or conform to be accepted by others. Informational influence or social proof is an influence to accept information from another as evidence about reality and it comes into play when people are uncertain, either because stimuli are intrinsically ambiguous, or because there is social disagreement. In contrast, normative influence is an influence to conform to the positive expectations of others. Thus, normative influence leads to public compliance, whereas informational influence leads to private acceptance.

The Media Naturalness Theory (Kock, 2001: 10, 2005: 123) was developed on the basis of human evolution ideas and has been proposed as an alternative to the Information Richness Theory. Media Naturalness Theory argues that, since the Stone Age, people have communicated primarily face-to-face, and it is evolutionary pressures that led to the development of a brain that is consequently designed for the new technological forms of communication. Therefore, using email as a media suppresses key elements found in face-to-face communication, as many email media end up posing cognitive obstacles to communication. This is usually the case in the context of complex tasks such as business process redesign, new product development and online learning, which require more intense communication over extended periods of time.

These theories therefore attempt to address the association between technology and communication in organisations. Hence, they explore the relationship between societal behaviour and the development of technology in aiding communication. Communicating in the form of emailing has been at the centre of the communication revolution. While it was surmised that emails positively reduced the manually delivered, paper handwritten form of communication (Sproull & Kiesler, 1986: 1505), this communication medium has also negatively reduced face-to-face interaction amongst

employees (Drago, 2015: 17). Although email responses between sender and receiver usually occur instantaneously, it is considered to be a one-way mode of communication, as physical interaction and non-verbal cues between the parties are absent (Judd, 2010: 102). It is thus a concerning factor for psychologists that, in the long term, the absence of physical interpersonal communication among workplace staff could erode staff cohesion (Walther, Deandrea, & Tong, 2010: 381). It is on this premise that this research study aims to investigate the extent to which an overreliance on e-communication (emails) impacts staff interpersonal communication and staff cohesion.

2.3.2 The usage of electronic mail

Electronic mailing (email) is the most widely used method of exchanging messages between people using electronic devices through the internet. It allows users to send and store their information on computers and exchange it through telecommunications. More specifically, email communication for instant messaging and response may contain text, files, images and other attachments that can be exchanged through a network with a specified individual or group of individuals.

2.3.2.1 Advantages of email

It is undeniable that emails have become of great importance in modern business communication (Dabbish, Kraut, Fussell, & Kiesler, 2005: 691). Millions of emails are exchanged between individuals and companies, between customers and suppliers, and between employees and managers (Judd, 2010: 102).

An analysis of relevant literature shows that there are several reasons for the preponderance of email as compared to other methods of communication. Bodnaruk and Simonov (2015: 515) state that managers must have timely access to accurate information to be most efficient in decision making; and they must be able to communicate effectively with others within and outside the organisation. Consequently, many organisations realised the importance of computerised office communication systems to meet the objectives of performance improvement. Email communication is rapid, as information is sent and received almost instantaneously, whether the recipient is a few doors away, or thousands of miles distant (Berghel, 1997: 11). The use of email streamlines both internal and external communication, facilitating sending and disseminating of important information and allowing for (almost) real time information updates (Downes, 2007: 391). It may also support quicker problem-solving and more streamlined business processes. As a result, small

business owners can accomplish more in less time (Keller, Powell, Horstmann, Predmore, & Crawford, 2005: 10).

Communicating through the internet is one of the cheapest modes of conveying messages efficiently and rapidly (Jackson, Dawson, & Wilson, 2001: 82). Moving away from physical mail to email can result in significant savings in postage costs, shipping supplies and employee resources. Businesses can also decrease customer service support costs by focusing on email customer support options rather than phone-based services. In turn, the continuous flow of relevant information makes employees and executives alike more efficient and productive, enabling quick responses to any issue that may arise (Jerejian, Reid, & Rees, 2013: 991). In addition, the overhead cost of maintaining a dedicated email server is relatively low and small businesses can also easily sign up for free email with providers such as Gmail, Yahoo or Hotmail.

Wentz and Lazar (2009: 335) posit that accessibility and easy information organisation is one of the greatest advantages of using email because it can be accessed from anywhere, at any time and through a multitude of devices – computers, laptops and even cell phones. Individuals can check email from any location, as long as an active internet connection is available. Also, notification of new email arrivals can be set up so that the receiver gets a notification through sound or a flash of light when new messages arrive in their inbox. Durga (2015: 30) extends Wentz and Lazar's (2009: 335) discussion to note that nearly all the steps in the emailing process can be automated such that an email program can check the birthday and the name of a recipient from a list, formulate a message from a template and send it to an individual on their birthday. Its organising function extends to segregating messages into folders and organising them properly, just like cleaning an office desk and filing office work (Whittaker & Sidner, 1996: 35). However, with email, there is no usage of physical space except that on a hard disk. Also, any email client has an inbuilt search utility to search for archived emails (Michel & Weber, 2009: 1107).

According to Kanungo and Jain (2008: 309), email can help increase efficiency and productivity as businesses and employees communicate with established distribution lists, automatically forward information based on specific topics, or send information to selected individuals, as needed. Alberts (2013: 3) finds support for Kanungo and Jain (2008: 309) by adding that email software provides customisation features that can be tailored to the type of work performed, volume of daily email messages and

the needs of the communicator. Therefore, effective email use can reduce reliance on face-to-face consultations and meetings, as well as create new links with people. Furthermore, Butler et al. (2007: 101) also believe that the use of electronic media increases both personal and organisational productivity through increased communication efficiency, as information is quickly shared amongst specific individuals when they need it. Butler et al. (2007: 101) further suggest that emails may promote relationship building and maintenance by allowing individuals to communicate from opposite ends of the world. As such, most individuals prefer online communication as opposed to in-person (interpersonal, face-to-face) communication.

Email has become an important business tool in record keeping, as many of the email messages that are created and received constitute records because they provide evidence of and information about the business transactions (Tausczik, Chung, & Pennebaker, 2016: 391). Featherstone (2006: 592) concurs with Tausczik et al. (2016: 391) and adds that emails remain in the user's inbox unless deliberately deleted. Furthermore, both stand-alone email software and webmail services offer a search function and filters that make possible the tracking and locating of a specific message in merely a matter of seconds. Thus, emailing creates a virtual paper trail that is far more efficient than printed documents filed away in a drawer, making it extremely easy to extract important information from email communication.

The development of technology has led many businesses to use email as part of their marketing strategy (Durga, 2015: 30). This mode of communication allows companies to spread information about their products and services efficiently and effectively, both to existing and potential customers. Companies usually set up an email list to which anybody can subscribe, then send weekly emails to everybody on the list to detail new additions to the product list. Similarly, businesses have used email to contact their customers as well as other companies directly to survey and inquire whether they may find their services useful. Thus, emails allow businesses to market themselves directly to targeted audiences. Customers can opt in to receive email communications about a company's products, sales or new items.

2.3.2.2 Disadvantages of email

The shift to email has impacted on many lives, both at work and at home, and has changed the way businesses are run. However, the efficacy of email communication depends on a number of factors, key amongst which is the ability of communicators to "master grammatical composition, organizing and editing skills, synthesizing data and reports" (Burgess, Jackson, & Edwards, 2005: 78). Although the use of email has

many positive facets, some studies argue that its use negatively affects people's well-being, both at home and in the workplace.

Kushlev and Dunn (2015: 225) assert that email leads to tension and psychological stress as people spend more time on electronic devices, either reading or expecting to receive messages, both in the workplace and at home. Reinke and Chamorro-Premuzic (2014: 503) argue that it is paradoxical that people believe that emails save people from stress, while they are in themselves the cause of stress. Kushlev and Dunn (2015: 225) reported that emailing, unlike other traditional communication channels, exerts a powerful hold on its users so that many computer users end up experiencing stress as a direct result of email related pressure. A study by Jerejian, Reid, and Rees (2013: 994) found that 80% of employees spend over 20% of their day dealing with emails. Considering that it is common for an employee to receive hundreds of emails daily, they usually end up psychologically stressed. Thus, dealing with high volumes of email correspondence every day may contribute to stress.

Reinke and Chamorro-Premuzic (2014: 503) propose that the development of technology reaches an optimum point where any marginal addition of new technology results in diminishing marginal returns, which they refer to as 'technology crowding' or 'technology overload'. According to Karr-Wisniewski and Lu (2010: 1065), there are three salient dimensions to technology overload: system feature overload, information overload and communication overload. In the context of the current study, the focus is on communication overload, which occurs when a third party solicits the attention of an employee through electronic means such as email, instant messaging or mobile devices. However, the increasing diffusion of email in organisations increases the volume of messages received by individuals, which contributes to employees' information overload (Reinke & Chamorro-Premuzic, 2014: 503). Subsequently, employees end up experiencing a large amount of information that exceeds their information processing capacity (Lee, Son, & Kim, 2016: 55). Evidence shows that information overload due to excessive email communication is related to increased psychosomatic complaints and to less job satisfaction (Harris, Harris, Carlson, & Carlson, 2015: 412).

Ambra, Toorn and Dang (2007: 676) provide evidence that email communication impairs productivity, especially when the communicating parties find it difficult to understand the message being conveyed. Furthermore, Franssila (2013: 181) is of the opinion that, although email communication is rapid, immediate and accessible, it has a negative impact on productivity because employees constantly interact via

electronic media, become distracted and take longer to complete simple tasks. Hence, compared to face-to-face interaction, email is far less efficient in the context of productivity. Moreover, Ramsay and Renaud (2012: 587) assert that workers that conduct much of their work through email are not compelled to be more productive because electronic interaction reduces paralinguistic and social context cues, and prevents the full exchange of views as well as feedback, such as would be the case in face-to-face interaction. According to Mark, Iqbal, Czerwinski, Johns, Sano and Lutchy (2016: 1717), email and technology interrupt smooth work flow and negatively affect an employee's work day. Mark et al. (2016: 1718) find that an estimated 28% of employees' work day is consumed by interruptions propagated by technology, which is costing the world economy billions of dollars a year. Hanrahan, Pérez-Quiñones and Martin (2016: 261) posit that, although firms continue to invest in computer-based technologies (such as email tools, decision support systems, and business intelligence tools) to improve efficiency of their knowledge workers, the increased use of technology tools is, instead, interruptive and counter-productive. According to Klemets and Evjemo (2014: 677), any email that makes an employee stop their planned activity becomes an interruption. Monsell (2003: 134) examine the time and cost implications of task familiarity and complexity in task-switching following email interruptions. They present evidence that switching between tasks results in a delay before engaging effectively in a new task, even if the employee had previously been engaged in the task. Each fragmentation of a task adds to the total time required to complete it. Similarly, Klemets and Evjemo (2014: 134), while acknowledging that communication technologies often produce the intended benefits, also show that technology may have unanticipated consequences. For example, the continuous availability of means of communication ensures that information is exchanged quickly to minimise work delays, which leads to increased organisation efficiency. However, this same continuous availability leads to an increase in work interruptions by information that may not be task related, which in turn leads to increased disorganisation and inefficiency.

Jett and George (2003: 498) argue that email interruptions affect task performance both negatively and positively. They point out that interruptions generally facilitate employees' speed and accuracy, especially on routinised and monotonous, well-learned tasks. In addition, Jett and George (2003: 499) argue that not every recipient experiences incoming messages as an interruption. Derks and Bakker (2010: 19) identified two type of message responders: those that respond immediately after receiving an email (constant responders), compared to those that wait until a number of -mails have accumulated (batched responders). In case of constant responders,

with constant synchronization of email, technology becomes a distraction, especially if they have a big network of colleagues and friends.

A study conducted by Alberts (2013: 2) concurs that email is replacing face-to-face and telephonic communication. Erhardt, Gibbs, Martin-Rios and Sherblom (2016: 245) argue that email is destroying team cohesion in the workplace. In support of Erhardt et al. (2016: 245), Pfaff (2012: 566) affirms that employees who interact face-to-face more frequently like and enjoy their workmates more than those that interact via computers. Face-to-face social and interactive relationships in the workplace are therefore important for employees, supervisors and colleagues to build work teams that understand one another better. Thus, according to Reinke and Chamorro-Premuzic (2014: 504), excessive email communication usually creates a hostile working environment, as workmates are isolated and may become morbid, which may pose a health risk.

Communication through electronic devices is usually characterised by pronouns, popular jargon, abbreviations and short descriptions, which can often lead to an email message being misunderstood or misinterpreted (Szóstek, 2011: 725). A survey done by Morar, Baber, Starke and Fournier (2015: 200) among email users shows that, of the 26,000 email users surveyed, more than half struggled to interpret personal emails, which caused difficulty in understanding and responding to messages. The respondents pointed out that the absence of facial expressions, voice tone and gesture to aid understand the message made it difficult to interpret the intended meanings of the communication. Sayer (2013: 743) supports the finding that using email communication diminishes the full understanding of a message and feedback, as opposed to face-to-face communication. Thus, Sayer (2013: 743) argues that facial expressions are key to understanding emotional states.

In summary, one group of studies concludes that the use of email has brought many positive contributions to modern communication through instantaneous message delivery, easier archiving and enhanced security. Conversely, other studies argue that email has been a key contributor to high stress levels in the workplace, information overload, message distortion, and decreased productivity. Despite the conflicting evidence presented in these studies, they commonly agree that email has changed the way business is conducted. In this research study, both the positive and negative aspects of email communication will be considered as the study aims to investigate the use of email and its impact on employees at a selected South African UoT.

2.3.3 The impact of email communication on human resources

The development of technology has not only changed the way people communicate on a daily basis, it has also affected the way people interact and socialise (Davis, 2013: 2288). Most adults and teenagers now move around with their communication devices in hand which allows them to communicate directly at any point in time (Van Dijck & Poell, 2013: 13). These cell phones or smartphone devices have an Android system which allows emails, text messages, phone calls, and internet browsing to be available all the time (Lenhart, Ling, Campbell, & Scott, 2010: 31). With all the technology available, it is therefore up to users to decide how they use it, as well as how often they use it. This section discusses the impact that email communication has on social and interpersonal relationships within and outside organisations.

Lurie and Swaminathan (2009: 324) assert that managers who have access to timely and accurate information are efficient in decision-making, as they are able to communicate effectively and timeously with others within and outside the organisation. As such, most organisations are realising the importance of computerised information exchange to meet the objectives of performance improvement. Lurie and Swaminathan acknowledge that, through email systems, document preparation and transmission is expedited, and immediate information access and electronic document storage is possible. However, they point out the following problems concerning the trend in email: firstly, the office systems personnel hold a negative view of the impact of email systems on organisational communication in the next decade; and secondly, office systems personnel feel the email environment will change traditional communication patterns. These perceptions emanate from the recent developments in artificial intelligence which suggests the replacement of personnel with automations.

Computerised automation is increasingly replacing human resources, especially in high-risk industries where humans are often blamed for causing harm and increasing the chance of failures through human error (Sheridan & Parasuraman, 2005: 100). Hence, it is argued that, as the current paradigm of physical interaction and staff interpersonal communication being replaced by email is passing, another paradigm of automation will completely replace routinised office work (Durga, 2015: 30). As current studies continue to criticise the impact of email on the organisation and its effectiveness, focus has been on its ability to deal effectively with conflict and stress among employees using email technology. Other studies have also questioned the ability of email in overcoming the lack of psychological need satisfaction among

employees resulting from decreased face-to-face (personal) communication experience.

Derks and Bakker (2010: 16) state that, although email systems can positively or negatively affect an organisation, its ultimate success depends on how the organisation approaches change within the organisation when implementing a system. They illustrate a model outlining the organisational impact of implementing an email system, demonstrating the areas that must be considered when implementing changes to the system.

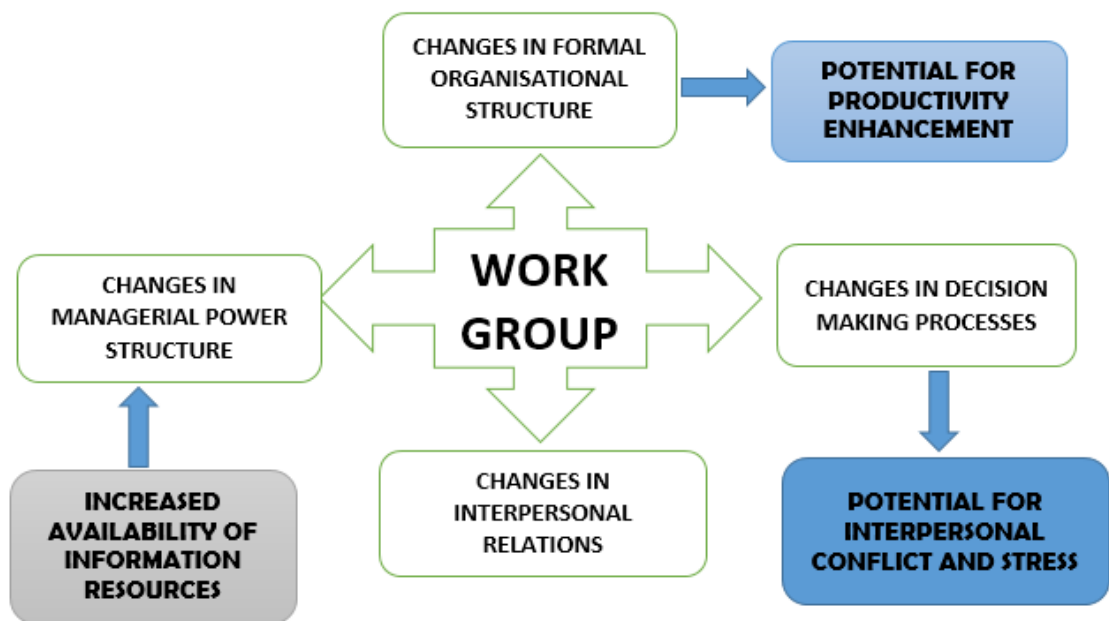


Figure 2.4: Model of impact electronic communication systems from implementation of email systems

Source: Mitchell, Crawford and Madden (1985: 9-16).

The model by Mitchell et al. (1985: 15) demonstrates the areas that must be considered when implementing change to an electronic communication system. It also outlines the organisational impact of implementing an electronic communication system and states that, although electronic communication systems can positively or negatively affect an organisation, the ultimate success of such systems depends on how the organisation approaches change when implementing a system.

Further examining the impact of email, Kock (2005: 118) explains the relevance and understanding of the process that led to the evolution of what he called “the biological communication apparatus” and its effect on the dynamics of email. Kock (2005: 118) explains that human beings have been engineered by evolutionary forces to

communicate primarily in a co-located and synchronous manner through facial expressions, body language and speech. In line with the Media Naturalness Theory, Kock (2005: 119) expounds that a communication medium that is created by email technology has a high degree of selective suppression in conveying facial expressions, body language and speech.

Tălpău (2014: 47) suggests that new ways of communication are developed because of the way electronic mail is organised. Messages are also sent to spatially and organisationally distant, as well as proximate, people; and distance does not seem to have a systematic effect on the message traffic. Hence, email and computer conferencing systems increase communication and new communication links are created. Tălpău points out these features in a negative light because people end up sharing information with others that they may never meet in their lifetime. However, others such as Judd (2010: 101) and Minsker (2014: 141) support the positive attributes of email communication, including easy and rapid exchange of information that simplifies communication in large and geographically distributed organisations.

Despite the criticism of limited interpersonal communication and decreasing social cohesion, in a case such as that of University X's Faculty of Business and Management Sciences, which operates on five different campuses, it is inevitable that email communication becomes the preferred method of communicating with and among staff.

Ramsay and Renaud (2012: 589) believe that the use of electronic media increases both personal and organisational productivity. Many researchers and individuals are thankful for the innovations, suggesting they may promote relationship building and maintenance and allow individuals to communicate from opposite ends of the world. Therefore, it is no surprise that research has found that 20% of individuals prefer online communication or texting as opposed to in-person communication. The positives, such as increased productivity, creating new links with people and increased communication, as well as communicating with others spatially and organisationally distant, indicates why email is used and preferred. It is on this premise that this study investigates whether the use of electronic mailing has a negative impact on employees' social cohesion, interpersonal relationships and interpersonal communication in the context of the modern UoT X's largest and most geographically dispersed Faculty of Business and Management Sciences.

2.3.3.1 Interpersonal relationships

Interpersonal communication accounts for most informal, everyday communication transactions, including personal relationships, intimate relationships and business situations. Communication messages are also tailored for individual audiences and the chances of successful communication are enhanced by the match between the medium and audience (McLuhan & Fiore, 1964: 16). Furthermore, Jin and Park (2010: 612) point out that interpersonal communication concerns face-to-face communication and a healthy interpersonal relationship enables people to communicate sensitively and appropriately with others. However, Karr-Wisniewski and Lu (2010: 1067) posit that technological development is changing the way people think and behave as it influences the nature and quality of people's relationships.

In support of Karr-Wisniewski and Lu (2010: 1067), Morgan-Thomas and Veloutsou (2013: 23) conclude that, as long as people do not expect anything more from online relationships than they can give, then they can safely enjoy the convenience of electronic media to connect to others. However, they also caution that there could be many troubles for organisations if people substitute electronic relationships for physical ones. Some of such troubles are social isolation, and that eventually the difference between cyber and real may become distorted. Tomasi (2007: 413) concurs that technology cannot replace intimacy, because human beings need physical contact to maintain a real connection. Thus, it can be concluded that, at some point in an interpersonal relationship, human beings need physical interaction and face-to-face contact. From these studies, it is clear, therefore, that technology can neither replace face-to-face confrontation nor be used to convey emotional communication.

To maintain satisfying interpersonal relationships both online and offline, Leung and Lee (2012: 123) advise that people should never say anything online that they would never say or feel uncomfortable saying to someone in person. It is highly possible that people can easily misinterpret feeling or be hurt by what is written online. According to Leung and Lee (2012: 123), relationships are usually affected negatively by email and the increased likelihood of misunderstanding can injure interpersonal relationships. Thus, people need to balance email time with face-to-face contact time to maintain stable interpersonal relationships. In addition, Rastgar, Abdollahi and Shahgholian (2015: 166) state that the quality of communication is more important for satisfaction and intimacy in a relationship than the quantity of the information exchanged. Conversely, Drago (2015: 14) contends that the number of exchanges between two people and their total face-to-face time are also equally important.

In line with previous studies, Coombs (2015: 144) agrees that managers can use a variety of media for transmitting messages and that the choice of medium has a direct impact on communication effectiveness. Furthermore, the choice of communication medium should be determined by the situation and context of the message communication. Thus, researchers have general consensus that face-to-face interaction is usually the best method of transmitting emotions and convincing the receiver of the importance of the message due to vocal intonation, while the use of other body language emphasises the message being sent. An additional benefit is that feedback from the receiver is immediate.

Traditionally, social skills are intentionally repeatable, goal-directed behaviours and behaviour sequences that human beings are conditioned to build into their lives from the moment they are born (Erozkan, 2013: 741). According to Frisby and Martin (2010: 323), there are six motives for interpersonal communication, defined as follows: the relaxation motive, driven by the need to relax and rest; the escape motive, used for diversion or avoidance of other activities; the inclusion motive, in which individuals want to feel linked to other people through expressing their emotions; the affection motive, as people express feelings such as love or care for others; and the pleasure motive, which drives people to communicate for enjoyment and excitement. However, in the social context, communication is interdependent and can effectively be accomplished through symbolic interaction with others (Gunawardena, 1995: 149). Thus, people depend on social skills to interact, using typical social cues, verbal and non-verbal, to live effectively in this social world (Jin & Park, 2010: 615).

According to Spitzberg (2006: 631), in a social context, the goals of communication are interdependent, meaning they can only be accomplished through symbolic interaction with others. This was supported by Spitzberg, Segrin (2000: 382) who clarifies that people depend on their social skills to live effectively in this social world, because human beings began communicating in single shared spaces through face-to-face interaction. Whilst communication began as an interpersonal face-to-face exchange, the rapid growth of technology in the last century has enabled people to communicate in many other ways that do not demand spatial proximity (Baugut & Reinemann, 2013: 25). For example, email allows people to exchange information over significant distances by electronic means, eliminating the distance between continents, countries, neighbourhoods and people. Although the development of technology has forced people to adapt their skillset to interact without the help of

social cues, they still rely on face-to-face interaction to develop their social skills (Jin & Park, 2010: 615). Thus, the purpose of email is to exchange information over significant distances by electronic means, eliminating the distance between continents, countries, neighbourhoods and people.

Mason and Leek (2012: 322) report that between email, texting, social networking, instant messaging and Skype, people now have the resources that would make it possible to spend days or months without coming face-to face with another person, yet still remain connected with the world. As traditional voice-based methods of communication have diminished, the use of these new methods has reduced communication to as few textual characters as possible (Isbister & Nass, 2000: 253). Brown (2013: 678) adds that, as people spend more time on the internet, their face-to-face socialisation with others is clearly decreasing. A study by Sampathirao (2016: 58) shows that the more time people spend using the computer and gadgets, the less time they spend in person with family and friends. Berger (2013: 296) argues that it is owing to this background that employees now lack interpersonal communication skills. Consequently, good interpersonal skills have been pushed to the top of the list of qualities required by employers in their job applicants. Figure 2.5 below demonstrates the relationship between technological communication frequency of use and the number of social cues.

			MANY CUES		
					Face to Face
		Video Podcast			Video Conference
		Voice Mail			Telephone
		ASYNCRHONOUS			SYNCHRONOUS
	Social	Email			Text Message
	Networking				Instant Message
		Handwritten Letter			
			FEW CUES		

Figure 2.5: Rosen’s two-dimensional model of communication modalities

Source: Brown (2013: 26).

From this figure, it can be deduced that the technological communication people use most frequently has the fewest number of social cues. This has a directly negative impact on people’s interpersonal skills and face-to-face interaction. Brown (2013: 26),

however, argues that it should be noted that social skills differ according to the nature of the situation, the relationship and the function of the social interaction. It follows that the more people are consumed with technology, the larger the lack in social skills and social interaction, because they cannot express emotions in the same way they would when speaking face-to-face. One of the key reasons is that people are unable to make eye contact, nor observe body language and gestures of the person with whom they are communicating. Alberts (2013: 3) points out that organisations need to implement email policies to which staff members must adhere. Alberts argues that email and text messages can be misconstrued; and, because messages are brief, they could be perceived as abrupt by the receiver. Organisational policies would indicate to staff members what is acceptable and unacceptable when communicating electronically, as well as what is acceptable communication to receive. As a precautionary measure, Alberts (2013: 3) believes that restrictions and limitations on the usage of email should be implemented to ensure that less time is spent on personal emails and all for more time to increase productivity in the workplace.

Przybylski and Weinstein (2013: 238) also report that, despite the availability of social media and other modes of communication such as email, texting, instant messaging, and Skype, people may avoid face-to face communication, but still be connected with the outside world. Przybylski and Weinstein (2013: 238) add that, as individuals spend more time on the internet, their face-to-face socialisation with others is considerably decreasing. Hence, the more time members of our society spend using the computer and other electronic devices, the less time they spend with family and friends. Davis (2013: 2284) adds that the use of these new methods of communication has reduced communication to a few textual characters, as opposed to the traditional voice-based methods. There is therefore a lack of interpersonal communication skills among employees of modern organisations (Erozkan, 2013: 743).

Drago (2015: 15) suggests that 39% of technologically-conscious people spend more time socialising online than in face-to-face interaction; and in the last five years, there has been an erosion in people's ability to focus consistently and even in their ability to engage in face-to-face interaction. "Psychologists, teachers and writers have theorised that society is becoming an autistic society that no longer values face-to-face interaction" (Baym, Zhang & Lin, 2004: 300). Thus, there is consensus in these studies that, although the development of technology has made life easier in the workplace, as more time is being spent online, this has had a negative impact on the social and interpersonal relationships amongst employees.

Another study by Sponcil & Gitimu (2013: 5) suggests that 39% of people aged between 18 and 50 years spend over 60% of their time socialising online rather than face-to-face. In support of this, Erozkhan (2013: 743) argues that, in the past five years, there has been erosion in employees' ability to focus and even in their ability to engage in face-to-face interaction due to electronic interruptions. Subsequently, excessive use of email via the internet to communicate interpersonally on a frequent basis has been found to lead to high levels of depression, loneliness and low relationship satisfaction (Kushlev & Dunn, 2015: 223).

More recently, Adibifar (2016: 65) recommends that office technology can assist people to be more efficient, but it also alienates. According to Adibifar (2016: 65), this alienation is mainly due to the amount of time people spend engrossed on their computers, rather than conversing in person with colleagues and managers in the workplace. Hence, there are upsides and downsides to making use of technology. He advises that for people to make use of technology and maintain contact with colleagues at work, they first need to get acquainted in person and learn to trust and respect each other. This is very difficult to achieve through email.

Himmelboim, Lariscy, Tinkham and Sweetser (2012: 94-95) posit that it is very difficult for people who make use of technology to maintain contact and learn to trust and respect each other, a situation which is diminishing work relationships. They state that office technology easily assists people to be more efficient, but alienates them from others. Whiting and Williams (2013: 67) caution society against excessive electronic usage, as users end up connecting with so many individuals that they do not know personally. Hence, the more connected people are, the less interpersonal connection they have with one another. Thus, this study aims to determine the effects of email communication on staff interpersonal communication within the Faculty of Business and Management Sciences at UoT X. Furthermore, the study makes recommendations on the appropriate usage of emails, whilst creating ways to build and improve staff cohesion amongst faculty members.

In summary, there is consensus in the literature on email and interpersonal relationships that email has many advantages, key amongst which is its ease in conveying message quickly. It also eliminates distances between communicating parties, who can still be in contact, although not face-to-face. However, other studies raise concerns about how people are losing face-to-face contact and interpersonal relations because they spend more time on the internet. Their socialisation time

diminishes and face-to-face communication decreases due to prolonged internet usage. In some cases, it is also observed that communicating more via electronic media leads to loneliness and increases the chances of depression. These debates in the literature are congruent with this research study in which the researcher aims to determine the extent to which emails have affected interpersonal communication among staff within the Faculty of Business and Management Sciences at UoT X.

2.3.3.2 Job demands and resources

The Job Demands-Resources (JD-R) Model gives a clear overview of how interpersonal relations may be affected in the field of email communication and organisational life. The core assumption of the JD-R model is that every occupation has its own job characteristics; nevertheless, these characteristics can be categorised into two general, overarching categories: job demands and job resources (Bakker & Demerouti, 2007: 312). These authors point out that every job has demands associated with psychological and physical costs. For instance, some jobs involve high work pressure, emotionally demanding interactions with colleagues or clients, and have an unfavourable physical environment. Job resources are meant to reduce the impact of job demands and associated costs to help employees to achieve work goals comfortably, to learn and develop. In short, Bakker and Demerouti (2007: 312) explain that job demands are related to work stress, whilst job resources have some motivational potential.

The JD-R model states that job resources lead to high employee engagement and optimal organisational performance. In contrast, job demands that are too high may exhaust employees, leading to a depletion of energy and accompanying health problems (Demerouti, Bakker, Nachreiner, & Schaufeli 2001: 506). Hence, job demands and resources interact and produce combined positive effects towards the achievement of goals. In addition, job resources become salient and have the greatest impact on engagement and performance when job demands are high (Brown, 2013: 679). In the spectrum of the JD-R model, computers and internet are considered as resources, because they were developed to make communication easier; and, in the workplace, they are considered as facilitators of organisational goals. However, when an employee receives an excessive amount of email and all the senders expect an immediate answer, much of the employee's workday is dominated by email alerts that requires immediate attention. Demerouti et al. (2001: 506) note that answering emails is usually something that is assumed, but not part of an employee's job description. Hence, answering emails does not add financial

benefits to employees, neither does it bring any extra bonuses, nor a positive recommendation.

Boswell and Olson-Buchanan (2007: 593) point out that needing to attend to emails makes it more difficult for employees to manage work-home balance. Organisations usually provide personal computers to their employees to increase employees' flexibility, productivity and communication efficiency (Adkins & Premeaux, 2014: 86). Empirical studies have, indeed, proven that email can lead to increased productivity and to enhanced collaboration (Wajcman, Rose, Brown, & Bittman, 2010: 261). Wajcman et al. (2010: 261) identify the key attributes of email as: improved responsiveness; real-time information exchange; faster decision-making; and more flexible work schedules. However, a major drawback of email is that it is difficult for employees to manage a work-home balance (Boswell & Olson-Buchanan, 2007: 594). It is thus difficult for owners of personal computers to maintain a satisfactory balance between work and personal life, as companies increase expectations regarding employee availability, whilst the employees themselves also feel compelled to respond immediately to work-related messages, even during leisure time.

Koubova and Buchko (2013: 716) contribute to the email and interpersonal relationships debate by pointing out that many employees report great psychological pressures to respond to email messages, whether or not they want to. Although some of them fear that they may become enslaved to the electronic machines and devices at the expense of their interpersonal relationships, email has made it much easier for employees to work longer hours (Park & Jex, 2011: 136). On the other hand, Reddy, Vranda, Ahmed, Nirmala and Siddaramu (2010: 113) find that the use of email can be very demanding, since the employees experience closer monitoring and supervision, hence it increases work pressure and employees' inability to separate or keep distance from work, leading to work-life stress. Subsequently, Adkins and Premeaux (2014: 88) concluded that email can lead to increased productivity, but that productivity is often achieved at the cost of higher stress levels and lower employee satisfaction which, in the long run, can lead to impaired performance.

Notably, Reinke and Chamorro-Premuzic (2014: 504) point out that email leads to information stress due to the inability of employees to escape from computers and information as the internet has become increasingly available. It follows, therefore, that technology and the internet is generating more information faster than most people can process it, leading to information overload. Consequently, people often find themselves unable to cope with an increasing amount of information (Harris et

al., 2015: 412). This information overload is leading to reduced productivity and has negative effects on health and well-being. By contrast, Lee et al. (2016: 55) indicate that the use of email outside employees' conventional work setting is beneficial, as employees are able to spread their workload over more time. In support of email use, Lee et al. (2016: 55) expound that the assertion that email leads to intrusion of work into interpersonal relationships has an acceptable trade-off between personal productivity and flexibility benefits. Hence, it is everyone's duty to balance completing their tasks as expected, how long they need to do that, and at what intensity.

In a study conducted by Gie, Slabbert and Haydam (2017: 433-434) at University X, in the same case study context as the current research, it was found that constant job deadlines, linked with unreliable network and internet connection, and overreliance on email communication, contributed to university staff's perception of work overload. University staff frequently took work home, which prolonged their exposure to technological devices and inadvertently contributed to their video display terminal (VDT) stress. The latter refers to the negative physiological and psychological effects of excessive exposure to laptops and other technological devices (Dubrin, 1994: 531). Moreover, frequently taking work home negatively impacted on quality of work-life balance of university staff. Owing to work overload, VDT stress and poor work-life balance, Gie et al. (2017: 433-434) concluded that "technology has become a double-edge sword in the modern university workplace": on the one hand, it was meant to ease work; but, on the other hand, it has had negative side effects. This current research study thus goes further to investigate if an overreliance of email communication has eroded the social cohesion, interpersonal relationships and interpersonal communication of the university staff.

2.3.3.3 Social cohesion and teamwork

Wise (2014: 708) defines social cohesion as the degree of social integration and inclusion in communities and in the society at large. Social cohesion can also be explained in the context of the extent to which mutual solidarity is expressed among individuals and communities (Fruhen & Keith, 2014:2 4). Thus, a society is cohesive to the extent that it can eliminate inequalities, exclusions and disparities based on demographic distinctions that engender divisions, distrust and conflict. In the workplace, employees who participate and work together for the attainment of shared goals that are designed and agreed upon, are more cohesive (De Jong, Curşeu, & Leenders, 2014: 517).

Most modern organisations include people of different nationalities, cultures and races, as well as different languages (Pagani, 2014: 306). Many individuals find it difficult to interact with others from a different culture or race, but rather feel more comfortable with someone who shares the same culture or race (Suransky & van der Merwe, 2016: 579-581). For this reason, Suransky and Van der Merwe (2016: 581) assert that diversity erodes social cohesion if diversity is not fully embraced. Consequently, employees who do not trust one another usually find it difficult to interact socially. In contrast, Wise (2014: 708) submits that, if the work environment implements teamwork as a necessity, the barriers of diversity are ultimately overcome. It is surmised by Wise that social cohesion and teamwork are interdependent.

Fruhen and Keith (2014: 23) posit that differences in understanding the concept of social cohesion are a result of the fact that it is measured differently in different studies. In most cases, it is measured by trust, because people from different countries differ in nationality, race, culture and the languages spoken. These demographic differences could be the reason why there is a lack of trust and therefore limited social cohesion in most organisations. In that respect, Pagani (2014: 306) investigated how diversity affects social cohesion and social capital, and how people from different cultures who speak different languages, who differ in race, colour and creed, interact socially. According to Pagani (2014: 306), social capital refers to the how people connect, interact and network within work relationships in the same environment, enabling that society to function effectively and for a good purpose. According to Portes and Vickstrom (2011: 466), social capital is the ability of an organisation to create, maintain and use diverse relationships to achieve desired goals. Social capital thus accrues through communication, interaction and development of relationships inside and outside of the organisation. The use of social capital gained through effective communication increases employee satisfaction, commitment and productivity, as well as customer satisfaction (Letki, 2008: 115-117).

Pagani (2014: 306) concurs with Fruhen and Keith (2014: 23) on the findings that social cohesion arises from trust. There is, however, no consensus on the ways that trust either differs or connects with social capital. Fruhen and Keith (2014: 23) back up the assertion that trust is an important part of social capital.

Gretry, Horváth, Belei and van Riel (2017: 83) assert that, if people do not have trust in each other, they will find it difficult to interact socially; and, in an organisation consisting of different nationalities, cultures, races, as well as the different languages,

there is likely to be lack of trust amongst workmates. Therefore, without trust, it is difficult for colleagues to interact. Cox and Trotter (2016: 152) assume that people from different cultures or races would feel more comfortable with someone sharing the same culture or the same race. For this reason, Ariely (2014: 576) asks whether diversity erodes social cohesion. Portes and Vickstrom (2011: 466) add to the debate by outlining that successful organisations have strength in managing internal employee relations based on social capital. However, Letki (2008: 116) adds that trust is the basis on which productive relationships, cooperation and communication are built. Therefore, Letki (2008: 115-117) argues that trust is social capital which directly affects an organisation's ability to deal with change and crisis. In support, Ariely (2014: 576) finds that trust impacts the organisation's financial status, because it influences job satisfaction, productivity and team building; and it is also linked to most of the lower incidents of litigation and legislation.

Email has been at the centre of resolving the challenge of attempting to engage employees more fully in their work (an important issue facing most organisations). Professional communicators have been studying how organisations can best align words with actions, build relationships and converse with employees, rather than communicating 'at' them, and help guide authentic executive actions which reflect organisational purpose (Kim, Magnusen & Andrew, 2016: 631). New technologies have therefore been recommended to help organisations to engage employees by personalising executive communications and reinforcing face-to-face initiatives (Alberts, 2013: 3). Kim et al. (2016: 631) find that organisations with engaged and committed employees are 50% more productive than those whose employees are not engaged; also, employee retention rates are approximately 44% higher in organisations whose employees are engaged. Furthermore, Kim et al. (2016: 631) find that companies with more engaged employees produce greater financial returns, as engaged employees contribute discretionary efforts, which they may otherwise withhold if they are not satisfied.

Fruhen and Keith (2014: 23-24) argue that the use of email leads to erosion of social cohesion and teamwork. Van der Meer and Tolsma (2014) observe negative social effects of email technology that are often attributed to the characteristics of the technology itself. Van der Meer and Tolsma (2014: 461-462) attest that electronic mail filters out personal and social cues and provides new capabilities not found in traditional media which leads to consequences such as depersonalisation. Fruhen and Keith (2014: 24) also claim that email holds risks for social life at work, because it can often result in misinterpretations, uninhibited exchanges, and feelings of isolation

or depersonalisation among its users. Both studies agree that users select email deliberately when they wish to avoid unwanted social interactions, or when users want to avoid negative outcomes with their colleagues or subordinates.

With the development of technology, employees now make use of email as a communication medium (Durga, 2015: 30). However, as the UoT has become a hub hosting different cultures, beliefs, races and a blend of languages, the issues of social cohesion have become of paramount importance (Marti, Bolibar & Lozares, 2017: 194). Due to geographically dispersed locations, staff tend to interact face-to-face with others on the campus where they are based, therefore there is very little face-to-face contact with staff members at other campuses (Mohd Saleh, 2014: 32-34). In this study, it is therefore assumed that, due to the large, diverse staff at the Faculty of Business and Management Sciences of UoT X, combined with the use of email as a communication medium, very little to no social cohesion nor does staff interaction occur.

The impact of email on employees' social cohesion, interpersonal relationships and interpersonal communication remains a challenge. This research study aims to recommend innovative ways of utilising email to promote a sense of belonging and cooperation amongst faculty staff, thereby strengthening staff interaction and cohesion.

2.4 The South African higher education system

Generally, the purpose of higher education institutions (HEIs) is to meet the learning needs and aspirations of young individuals through a variety of functions (Council on Higher Education, 2016: 796-798). Firstly, higher education equips individuals to make the best use of their talents and the opportunities offered by society for self-fulfilment, therefore meeting the learning needs and aspirations of individuals through the development of their intellectual abilities and aptitudes (Bozalek & Boughey, 2012: 689). Secondly, it addresses the developmental needs of society and provides the labour market with the high level competencies and expertise necessary for the growth and prosperity of modern society (Badat, 2010: 10-11). Hence, it teaches and trains people to fulfil specialised and social functions, enter the learned professions, or pursue vocations in administration, trade, industry and the arts. Thirdly, it also contributes to the socialisation of responsible and constructive critical citizens (Botha, 2010: 204). Hence, higher education also encourages the development of a reflective capacity to review and renew current policies, ideas and practices based on a

commitment to the common good. Lastly, it contributes to the creation, transmission and evaluation of knowledge by ensuring continued pursuit of academic scholarship and intellectual inquiry in all fields of human understanding (Shrivastava & Shrivastava, 2014: 818).

2.4.1 Mergers within South African higher education

In South Africa, the new democratic government established in 1994 commenced with a transformation agenda to reshape South African society (Shrivastava & Shrivastava, 2014: 819). Higher education institutions were a key prospect in this transformation agenda (Beckmann, 2008: 775-776). As part of the change, in 2005, a new higher education system emerged to transform South African higher education institutions which resulted in mergers of universities and technikons. However, these mergers and restructuring brought many challenges for the higher education institutions that combined into a single system those institutions that had previously existed independently: large staff complements; diverse cultures; and multiple campuses significantly separated geographically (Leibowitz & Bozalek, 2014: 97) .

The rationale for mergers or incorporation of colleges into universities was a quest by the post-apartheid government in South Africa to get rid of the apartheid era's segregated education system (Suransky & Van der Merwe, 2016: 581). According to Suransky and Van der Merwe (2016: 581), there was a past to be resolved through the creation of a single, coordinated system of higher education that purposively dissolved the racialised inequalities that existed among institutions. This change was also motivated by the need to incorporate the South African higher education system within the context of fast-changing, technology-driven and information-based economies described under the rubric of globalisation (Chisholm, 2012: 81). There was a need to dissolve the apartheid legacy in higher education while, at the same time, incorporating the higher education system within the context of a competitive, globalised economy in the unfolding globalisation process affecting nation-states and their policies (Chisholm, 2012: 81).

The restructuring of the South African higher education system resulted in the number of public higher education institutions being reduced from 36 to 23 through the mechanism of mergers (Council on Higher Education, 2016: 797). In January 2005, the country had 11 traditional universities, 6 universities of technology (formerly technikons) and 6 comprehensive universities (which offered both university and technikon-type programmes). The mergers resulted in an increased number of student

enrolments, especially from previously disadvantaged communities, as well as provided national and global opportunities (Mouton, Louw & Strydom 2013: 128). It also helped to meet the need for transition from racial discrimination and oppression towards a democratic order and to address challenges, promote research and training, and respond to changing societal interests (Raju, 2013: 16).

Mouton et al. (2013: 128) note that the mergers and restructuring of the higher education was important to avoid duplication of efforts, to broaden access, redress staff and student racial imbalances, and create new institutional forums. However, although the reasons for the mergers and incorporations proposed by government were positive, Geldenhuys and Oosthuizen (2015: 205) argue that most of the merged institutions have experienced, and continue to experience, many challenges. Firstly, Cox and Trotter (2016: 151) note that the disparate organisational cultures and race issues manifested in diverse ways at different institutions. Cox and Trotter (2016: 150) claim that mergers and restructuring are stressful life-events, even in institutions with similar organisational cultures. In some instances the employees of organisations going through restructuring have their relationship with the organisation changed, leading to a decrease in employee commitment (Mouton et al., 2013: 128). Czerniewicz and Brown (2009: 125) also find that mergers and restructuring negatively impact employees' relationships with management of their organisation because of issues of job security, job position and promotion, communication and performance standards. Secondly, the mergers put pressure on staff at these institutions as they were then required to upgrade their qualifications, whereas previously they had been complacent in their current academic status (Van der Schyf, 2008: 15-16).

The merging of higher education institutions in South Africa is riddled with many controversies, structural inefficiencies and, to some extent, far-reaching strategic imperfections (Delpont, Hay-Swemmer, & Wilkinson, 2014: 33). Incidences of deep-rooted mistrust and suspicion were reported during the pre- and post-merger periods (Hay & Fourie, 2002: 121). Mohuba and Govender (2016: 6) reported that, as soon as the merger process was officially launched, the relationships between the merging institutions' employees was characterised by mistrust and allegations of forceful bargaining. According to Mohuba and Govender (2016: 6), the breakdown in trust was fuelled because highly sensitive information about the merger was not tactfully communicated to people who were most likely to be affected by the merger. Allegations of failure to conduct a comprehensive and coherent skills audit which would, in turn, be factored into an inclusive human resources structure, were cited by staff as one of the daunting challenges that has haunted successive leaders of the university.

The redeployment of employees of the two institutions was cited as one of the daunting tasks that the merged institutions faced. Thus, one of the worst challenges that the merged institutions faced was the issue of integrating the employees using due labour processes. According to Mohuba and Govender (2016: 6-7), five factors made the integration process more complex. Firstly, the employees came from different cultural institutional settings, were of different nationalities and races, as well as spoke different languages. Thus, according to Pagani (2014: 306), most individuals found it difficult to trust or interact easily with others from a different culture or race, but rather felt more comfortable with those sharing the same culture or race. Secondly, the employees' value and belief systems were different and employees who did not trust each other usually find it difficult to interact socially (Suransky & Van der Merwe, 2016: 583). Thirdly, the university transition team was embroiled in controversial redeployment glitches, key amongst which was that employees from the previous institutions were forcibly reassigned to different divisions, neither following communication channels nor conducting proper consultations. Fourthly, the re-organisation in the merged institutions introduced an atmosphere of uncertainty and confusion. The transition committees driving the merger process failed to agree on a coherent formula to distribute vacant posts evenly among the former employees of the dissolved institutions. Many key university management positions were left unfilled after the merger due to a lack of skilled and experienced personnel. Lastly, the transition committee members lacked vital change management skills, such that important information was not formally and tactfully communicated to employees and other key stakeholders like students and workers' unions. There was thus no pragmatic communication strategy and the tensions between the employees and the transition teams who were spearheading the merger increased remarkably. These problems have had a direct impact on the effectiveness of the institution's communication.

Millar, Hind and Magala (2012: 493) define organisational change as the process in which an organisation changes its structures, strategies, culture, operational methods or technologies as a way of making the transition from a current state to a desired future state. Organisational change is a continuous process, as the business environment requires companies to undergo changes almost constantly if they are to remain competitive (Elving, 2005: 132). In the case of the South African education system, the process of organisational change occurred when the merging of technikons and universities took place. Elving (2005: 132) points out that, although organisational change is inevitable, there are many instances of organisational failures as a result of failure to manage the change process and resistance to change.

Grant (2014: 263) submits that the effect of change within organisations depends on the kinds of changes that are implemented within an organisation: minor, major and transformative. Barnard and Stoll (2010: 11) also note that the different types of organisational changes include these processes: operational, strategic, cultural and political change. However, Georgalis, Samaratunge, Kimberley and Lu (2015: 93) point out that introducing organisational change usually raises resistance from those who have the most to lose. Furthermore, they established that resistance to change emanates from many sources, key amongst which are: fear of the unknown; lack of information; threats to status; fear of failure; and a lack of perceived benefits. Boohene and Williams (2012: 138) add that people resist being treated as pawns, particularly where an organisational reshuffle is involved. They like to feel that they are in control of what is happening to them. Hence, organisational change that is imposed from the outside by others makes them feel threatened and change would likely be resisted. According to Lozano (2013: 281), many organisational change efforts are resisted because of the organisational culture, the timing of the change effort and the role of the change agents. Hence, organisational change has a direct impact on the effectiveness of the institution's communication.

Seminal studies, organisational theorists and practitioners agree that communication is vital to the effective implementation of planned organisation change (Lundberg, 1990; Daly, Teague, & Kitchen, 2003: 157; Elving, 2005: 132). In most organisation, the process of change begins with key decision makers and it up to them to pass along the details to team members and subordinates, and to ensure that all questions and complaints are handled before changes go into effect (Millar et al., 2012: 493). Millar et al. (2012: 494) comment that, if the news about intended organisational change disseminates through unofficial channels in the hierarchy, details are sometimes skewed and members receive inaccurate, second-hand information. Poorly managed change communication therefore results in rumours which tend to exaggerate the negative aspects of the change, which creates resistance to change (Elving, 2005: 132). Verma (2013: 67) states that effective communication is therefore vital in successful implementing organisational change to avoid or minimise resistance to change.

As a change agent, effective communication can be managed through a number of ways. First, by encouraging participation from as many employees as possible, addressing their concerns in the change programme, and ensuring that leaders act as role models for the changes (Brazier, 2014: 5). Second, organisations and managers

should openly share information and encourage bi-directional communication to ensure a higher rate of employee job satisfaction and an improved sense of well-being (Millar et al., 2012: 494). Third, any form of ambiguity and uncertainty should be resolved by providing information to those who are the subject of change for them to understand why the change is necessary and reduce their fears (Banerjee & Singh, 2015: 772). Four, by opening communication channels, people can freely express their doubts about the effectiveness of the proposed changes and can understand the necessity for the new ideas (Brazier, 2014: 5).

South African higher education institutions are governed by rules, policies and procedures that are important for the day-to-day operations and the future of higher education (Shrivastava and Shrivastava, 2014: 816). The mergers and restructuring of the higher education landscape had an impact on the policies and structures of universities, universities of technology and other higher education institutions. The governance of these institutions was affected, and changes had to be implemented for institutional structure to be aligned with the new higher education system. Workplace communication policies were created to establish boundaries for acceptable behaviour and guidelines for best communication practices in certain work situations (Czerniewicz & Brown, 2009: 125). Such policies also offer clear communication processes to employees regarding what is expected of them. Thus policies contribute to the overall culture of the workplace because they instil norms and values (Cox & Trotter, 2016: 152).

Cloete (2014: 1362) explains that higher education policies in South Africa have two main functions: to provide and account for the cultural norms which are considered by the state as desirable in education; and to institute a mechanism of accountability against which student and lecturer performance can be measured. Therefore, according to Cloete (2014: 1362), university policies are necessary to offer clear guidelines to employees and staff members for them to know what is expected of them and how to perform daily operations. However, Shrivastava and Shrivastava (2014: 816) contend that the policies in higher education institutions are bureaucratic by nature and they tend to hinder effective communication.

2.4.2 University of Technology (UoT) multi-campus models

Universities of Technology (UoTs) are institutions of higher learning which are credited with the ability to be innovative and adaptive to fast changing industry demands through education, research and technology transfer. UoTs are responsive to the

needs of industry and prepare students with professional knowledge and skills required for the labour market. This study makes use of three UoT examples to explain the context of the structure and campus model of the UoTs.

The Central University of Technology (CUT), which converted its status from a technikon to a university in March 2004, has its main campus in Bloemfontein, the capital of Free State Province. It has two campuses: Welkom campus, in the heart of the Free State goldfields, and the Kimberley campus that has been incorporated into the National Institute of Higher Education in the Northern Cape New Park Campus. The university also offers both contact and distance learning in a wide range of qualifications in its four faculties, namely Faculty of Engineering and Information Technology, Faculty of Health and Environmental Sciences, Faculty of Management Sciences, and Faculty of Humanities.

The Cape Peninsula University of Technology (CPUT) which resulted from the merger between the Cape Technikon and Peninsula Technikon has eight campuses geographically spread around Cape Town. These campuses include District Six, Bellville, Granger Bay, Mowbray, Athlone, Worcester, George and Wellington. The university consists of six faculties, also distributed around its multi-campus: Applied Science, Business and Management Sciences, Health and Wellness, Education, Engineering and Informatics and Design.

The Vaal University of Technology (VUT), which resulted from the conversion of Vaal Triangle Technikon into a university in 2004, has four campuses: Vanderbijlpark campus, and three other satellite campuses in Secunda, Kempton Park, and Upington in the Northern Cape. An extension to the main campus is also located in Educity, Sebokeng, which the university is developing into a Science and Technology Park. The university houses four faculties: Faculty of Applied and Computer Science, Faculty of Human Sciences, Faculty of Management Sciences, and Faculty of Engineering and Technology.

This overview of the structure of the UoTs shows that it is common for these universities to have multi-campus with those campuses geographically separated. It is not surprising that staff members rely on email, specifically emails, to communicate effectively and convey messages within and among campuses.

Considering the discussed merger-related challenges and their effects on staff members, this study will investigate if the overreliance on email communication

negatively impacts staff interpersonal communication and social cohesion at a selected UoT in South Africa.

2.4.3 Internal organisational communication within multi-campus environment

Erozkan (2013: 742) explains that communication holds organisations together and is vital for their survival: without communication and the channels involved, the various parts (departments or units) of the organisation would be unable to work together. Thus, an organisation would not be able to interact with, or respond to, its environment without proper internal and external communication channels. Mann (2015: 163) notes that an organisation's management style directly affects the communication structure within that organisation. Hence, a comprehensive communication structure enables coordination and cooperation through interpretation. These studies therefore clearly show the importance of a communication structure within an organisation which involves human interaction between staff so that particular organisation can reach its organisational goals and objectives.

In the context of UoTs, their communication structures share common values, culture and traits that are distinctive to the higher education learning environment. This emanates from the three dominant communities in the sector: students (current and alumni); academic staff; and administrative staff. Each of these communities has its own perspective on how to convey, receive and interpret communications. According to Meintjes and Steyn (2006: 163), the structure of communication at universities is not like that in other organisations, as the university environment uniquely allows academic freedom. This means that the university environment allows both academics and students freely to teach, learn, conduct research and disseminate findings, with no regard to either established doctrines or acceptable truth. Meintjes and Steyn (2006: 163-164) further argue that, to perform their duties effectively, university communities need liberty to tackle controversial debates and freely communicate their minds without fear of being misunderstood.

Although the formal structure and lines of communication remain if good management communication is practised successfully in a higher education institution, employees experience communication dissatisfaction which in turn will have an impact on the institution's effectiveness (Husain, 2013: 46). Meintjes and Steyn (2006: 160) note that it is usually not one-way communication that motivates university employees and makes them more productive, but rather two-way communication with their immediate

supervisors and senior managers. According to Verma (2013: 67), improving the communication between employees and senior executives is the most cost-effective way to improve employees' satisfaction with communication in their organisations.

In keeping with this research case study context, the Faculty of Business and Management Sciences is very diverse in character, as it hosts different cultures, beliefs, races and a blend of languages. Most of the faculty communication takes place via email, which is conveniently necessary when dealing with the six campuses that are geographically distant. Due to these separate locations, staff tend to interact with people on the campus where they are based, therefore they experience very little face-to-face contact with other staff members based at the other campuses. The researcher is of the opinion that, due to the large, diverse staff count, as well as the dominant use of email as a communication medium, very little to no social cohesion and staff interaction occurs. To demonstrate further reasons for the erosion of social cohesion and teamwork, studies by Gretry, Horváth, Belei and Van Riel (2017: 79-80) and Spitzberg (2006: 644) state that, due to the importance of communication within organisations, the choice of communication medium used for employee communication is important, but organisations can also choose to communicate face-to-face, or through various other forms of mediated communications. The selection of communication medium is based on how effective they are in achieving the business goal and how they fit into the strategic internal communication processes of that organisation.

Studies on email, the use thereof and its effects on social cohesion and teamwork, date back to an article by Markus (1994: 133), who notes that the occasionally observed negative social effects of email technology are often attributed to the characteristics of the technology itself. Markus (1994: 133) adds that electronic mail filters out personal and social cues and provides new capabilities not found in traditional media; and it has been argued that these factors have consequences, such as depersonalisation. Markus also refers to Sproull and Kiesler (1986: 1497) who argue that email holds risks for social life at work because it may result in misinterpretation, angry and uninhibited exchanges, and feelings of isolation or depersonalisation among its users. Taylor, Fieldman and Altman (2008: 163) explain that these effects can be attributed to the technological characteristics of electronic media, such as inability to transmit gestures, tones of voice and eye movements that people use to regulate their interactions in face-to-face communication.

Most UoTs employ a broad range of internal communication strategies, including vertical, horizontal, formal, and informal communication. Vertical communication occurs within the formal university hierarchical structure. In this form of communication, a message originates from the most senior level and is transmitted down to each level of the hierarchy until it reaches the most junior level, and vice versa (Verma, 2013: 67). Communication responses therefore flow up and down the same chain of command (Mason & Leek, 2012: 324). For instance, when the Vice Chancellor announces a change in academic policy and sends a circular to each of the Faculty Deans, the latter pass the circular to Heads of Schools, who then pass it to the Heads of Departments; and they convey the message to their academic staff. Unlike this vertical system, Kim, Magnusen and Andrew (2016: 630) state that horizontal communication occurs when the transmission of information occurs between people within the same level of the organisational hierarchy. This form of internal communication can be very effective when different divisions need to corroborate on the same project, because they do not have to wait for communication from one division to flow to the top level before it can be filtered down to the other divisions (Beigi & Mozayani, 2016: 165).

Maíz-Arévalo (2015: 143) explain that formal communication is any organisational communication that uses the organisation's formally-recognised channels of communication and takes place through the pre-planned or the officially designated channels of communication. Maíz-Arévalo (2015: 143) add that the context of a conversation is also prepared before the communication occurs; and communication mostly flows in hierarchical order. Because the context of the conversation has already been chosen in this form of communication, more work-oriented discussions occur. For example, formal communication takes place through meetings, presentations, workshops, memos, orders, requests, commands and reports. During this type of communication, certain types of rules, regulations, conventions and styles are followed and the conversations are usually documented as a record is kept as evidence for official purposes (Pitkänen & Lukka, 2011: 129). Thus, formal communication is a time-consuming but reliable process (Fitch, 2016: 103) from which evidence can even be provided in a law court (Roozen, 2010: 411). The parties in this type of communication assure the privacy and confidentiality of the information exchanged, and do not leak it to unintended recipients (Lunenborg, 2010: 3).

Conversely, informal communication, also known as 'grapevine' communication, takes place at the workplace between and amongst employees (Fay, 2011: 221). It does not follow any officially designated channels, as the context of the conversations or information is stretched in all directions and the topics of discussion are usually broader than those of formal communication (Gretry et al., 2017: 80). According to Baugut and

Reinemann (2013: 35), this mode of communication usually takes place when colleagues interact with each other, for instance, at the canteen during a coffee break, or while sitting in the garden area of the office. Newman (2014: 198) explains that there are no rules and regulations that are followed in this type of communication, as it can occur in any convention or style (Newman, 2014: 198); and, though the conversation may be purposeful regarding work, it mostly revolves around personal life, and may include gossip about office staff or other social topics. Contrary to formal communication that is mostly written, informal communication is mostly oral with no privacy, nor is there any official record of it, as it can occur at any time and in any place (Abdollahi, Ali & Kandlousi, 2010: 54).

Itri and Lawson (2016: 852) assert that ineffective communication within organisations leads to informal communication, via the grapevine. Itri and Lawson (2016: 852) define grapevine as a “proposition for belief that is disseminated without official verification”. Banerjee and Singh (2015: 772) believe that rumours generally arise under ambiguous and unclear circumstances which are created by ineffective or inadequate downward communication. Thus, ineffective communication creates an information vacuum, which is then usually filled by rumours. Rumours may occur when staff members are uninformed of decisions are taken within the organisations without their knowledge, leading to speculation and imagination. However, employees usually then spread inaccurate information amongst fellow staff members that could lead to low productivity and morale (Banerjee & Singh, 2015: 772).

Lockwood (2015: 132) highlights that communication breakdowns may occur at any point in the communication process due to several reasons. First, breakdowns happen when the sender fails to influence the receiver in ways that are intended. Second, communication breaks down when the receiver of the information fails to influence the sender in ways that are intended. Under these circumstances, Klimova and Semradova (2012: 209) point out barriers and interruptions that happen in many forms throughout the communication process. Klimova and Semradova (2012: 209) posit that communication barriers can be interpreted through the following types of ‘noises’ that interfere with the message in communication:

Table 2.1 Barriers to organisational communication

<p>Process barriers</p>	<ul style="list-style-type: none"> • Decoding barrier: For example, a manager’s choice of words may be vague, so the employee is therefore unable to respond. • Feedback barrier: Non-verbal and verbal cues may
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	<p>lead the sender to think that the receiver understands the message. Misinterpreting body language may lead to miscommunication.</p>
<p>Personal barriers</p>	<ul style="list-style-type: none"> • Status differences: Power and organisational hierarchy pose status differences between manager-employee pairs. Also, managers, because of their power, give orders to employees without always checking whether they understand the meaning of the instruction. • Value judgments or assumptions: When the receiver evaluates or interprets the worth of a sender's message before the sender has finished transmitting it. This may result in a distorted understanding of the real message. This barrier is exacerbated in electronically transmitted communication. • Distrust and level of interpersonal trust: A lack of interpersonal trust on the part of either the sender or the receiver can induce many of the barriers already discussed. Senders may filter out important information if they distrust receivers. • Gender differences: Males and females have different ways of communicating. This is a result of the socialisation process and the different communication styles could pose insurmountable barriers.
<p>Physical, situational or structural barriers</p>	<ul style="list-style-type: none"> • Physical distance between employees and the formal structure of the organisation can interfere with effective communication. • The lack of proper communication infrastructure, poor quality telephone connections, or computer networks that are down, also represent physical barriers and contribute to the separation of messages between senders and receivers. • The situation is worse when an organisation grows and employees are more widely dispersed but the communication system does not keep abreast of the change.

<p>Defensive versus non-defensive communication</p>	<ul style="list-style-type: none"> • Defensive communication includes the physical manifestation of aggression, verbal attacks, anger, or passive and withdrawal behaviour. It leads to a range of problems, such as injured feelings, communication breakdowns, alienation in working relationships and destructive behaviours. • Non-defensive communication is communication that is assertive, direct and powerful. It is the constructive, healthy alternative to defensive behaviour in organisational communication.
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Source: Klimova and Semradova (2012: 207–211).

Klimova and Semradova (2012: 209) suggest that, in order to minimise communication barriers, they should be re-conceptualised as opportunities by making use of the organisation’s vision. The underlying assumption is that effective communication is necessary to achieving an organisation’s vision. Since the vision provides information about the organisational goals, it builds employee expectations and increases the confidence of those employees to believe in their ability to reach those goals.

Coombs (2015: 143) argues that, ultimately, the manager or supervisor is responsible for establishing and opening the lines of communication. In support of Coombs (2015: 143), Delport et al. (2014: 34) propose a model for South African multi-campus universities, aimed at improving the effectiveness of internal communication.

2.4.3.1 Communication model for South African multi-campus universities

Delport et al.'s (2014: 34) proposed communication model for South African multi-campus universities aims at improving the effectiveness of internal communication. The development of the model was brought on by three key challenges in higher education institutions: their bureaucratic nature (Czerniewicz & Brown, 2009: 125); the restructured higher education arena in South Africa, consisting of multi-campus geographically distant; and the shortcomings and internal weaknesses within the internal institutional communication practices. Delport et al. (2014: 35) remark that higher education institutions are known for their academic nature and for being managed by academics who are not always familiar with the best means of communicating effectively on a managerial level. Due to the complexity of higher education institutions and the communication challenges posed by the complexity of their structure, there was a need to find effective communication models that could

improve the efficiency of internal communication, especially in the South African multi-campus university environment.

According to Delpont et al. (2014: 35)'s findings, email received the highest rating with regard to preference for communication channels, followed by face-to-face communication. With regard to ease of use, efficiency, and timeousness of communication media, email communication was regarded as the easiest to use, and most efficient and timeous, followed by face-to-face communication. Furthermore, Delpont et al. (2014: 35) found that communication was hampered due to the fact that in universities with multiple campuses, institutional communication was not fully aligned on all campuses; and dissemination of information from management to employees was also a problem. Staff with access to internet preferred email as their internal communication medium because of the lack of two-way communication between management and staff members.

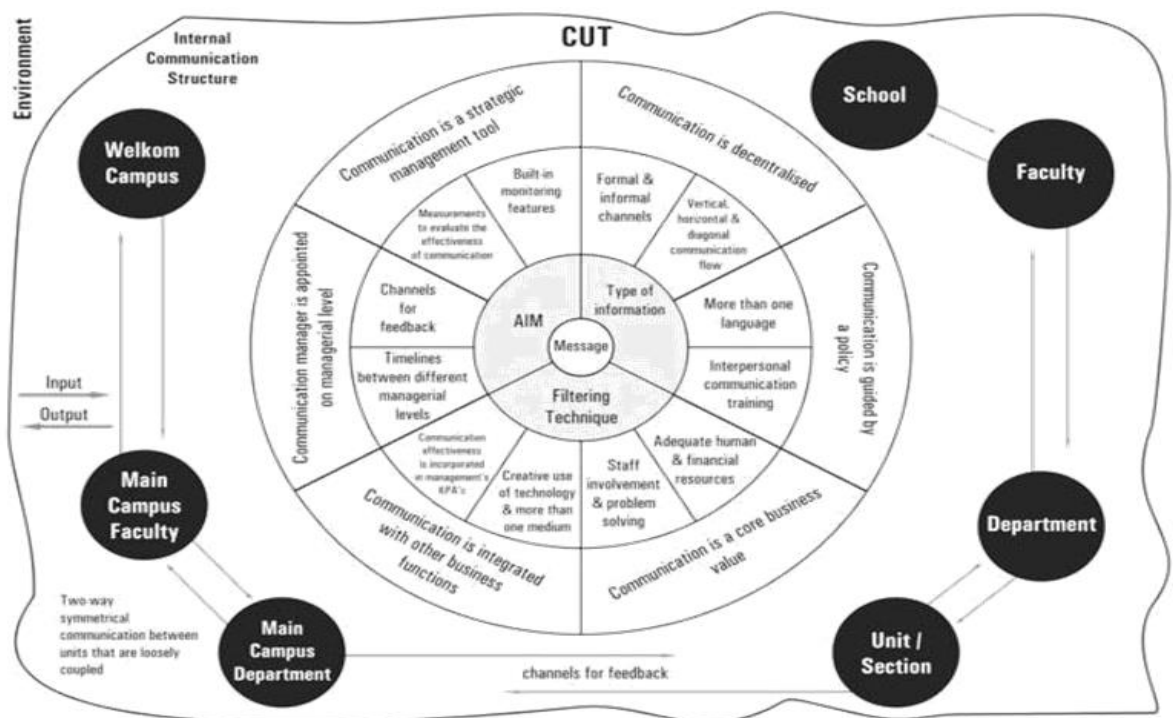


Figure 2.6: An internal communication model for multi-campus higher education institutions in South Africa

Source: Delpont, Hay-Swemmer and Wilkinson (2014: 21–46).

According to Delpont et al. (2014: 35), the model in Figure 2.6 was designed to improve the effectiveness of internal communication within multi-campus universities, after shortcomings were identified within the internal communication practices at the Central University of Technology in the Free State Province of South Africa. The model depicts the following: first, there is continuous exchange of information between the university and the environment; second, the internal structure or system

consists of various departments, faculties, schools and campuses; third, there is two-way, symmetrical communication; fourth, in higher education institutions, there is an extensive vertical hierarchy and organisational communication is characterised by a narrow span of control; fifth, communication is guided by a policy, while internal communication is depicted as a core business value, and the communication function is integrated with other managerial functions; sixth, formal and informal channels are used to communicate information to staff members, but clear guidelines are set for communicating messages of a social or personal nature; and, lastly, the model portrays the creative use of technology, as well as more than one medium, especially for reaching part-time staff and service workers more effectively, plus a built-in monitoring feature to measure or evaluate the communication process.

2.5 The case study context: UoT X

This study selected the case study of UoT X as this institution is the only UoT in the Western Cape where the researcher resides; it is also the largest university in the region, with student enrolment of more than 30 000 students.

UoT X's vision is: "To be at the heart of technology education and innovation in Africa". This vision is achieved through four aims, which include the mission and core values. First, to build a university that is highly efficient, sustainable and environmentally conscious. Second, to be known for the high quality of teaching and learning and curriculum relevance. Third, to create a vibrant and well-resourced living and learning environment for students. Lastly, to deal with others in a spirit of *Ubuntu*, a spirit of mutual respect, including the principle of equity and upholding of the principle of accountability for every action.

UoT X has several campuses and service points that need to communicate constantly via emails. In addition, apart from the two main university campuses in Bellville and Cape Town, the university has infrastructure sparsely dotted around the Western Province in Granger Bay, Mowbray, Wellington, Athlone, Worcester, George and in the two major hospitals in the region.

The Communication Strategy Draft 3 of UoT X (CPUT, n.d.) also points out that the university must maintain an effective and open dialogue with a diverse range of audiences which includes staff, students, prospective students and staff, parents, press, businesses, government and strategic partners. The vision, mission and core values of UoT X are incorporated in the communication objectives of the

Communication Strategy Draft 3. Point number 2, page 2 of the communication objectives states “To promote a strong sense of pride in UoT X’s achievements among employees and students through the development of and delivery of an integrated internal and external communication strategy and meaningful communication programme”. Point number 6, page 2 of the communication objectives states, “To promote the transformation objectives of the university through targeted communication”.

For UoT X to uphold their vision, mission and core values as outlined requires effective communication internally and externally. Staff members will be more efficient in their tasks and produce high quality teaching and learning if their communication channels are effective (Husain, 2013). Blizzard (2012) point out that transparency in an organisation is built through effective communication which instils confidence, as staff members know what is expected of them regarding their core functions. Consequently, effective communication is required between management, subordinates and colleagues who work together if UoT X foresees the core values being implemented. Adopting a positive attitude to implement and adhere to the vision, mission and core values of UoT X will enable the organisation to reach its objectives and goals.

Of the six faculties at UoT X, the Faculty of Business and Management Sciences (FBMS) was selected, as it is the largest faculty and constitutes approximately a third of the university’s total enrolment. The FBMS is under intense pressure every year to admit more students than it had planned due to transformation targets. The Business programmes are also in high demand because of the wider availability of related jobs than in many other programmes. In addition, according to the University’s annual report of 2016, the number of permanently employed academic staff has grown sharply from 774 in 2014 to 842 in 2016, slightly above the target of 835. However, the proportion of permanent academic staff with either a doctoral or master’s qualification has been declining slightly over the period 2014-2016. Hence, the ratio of full-time equivalent students to full-time equivalent academic staff was between approximately 23:1 and 24:1 from 2014 to 2016. The high number of staff and students shows why there is a high volume of reliance on email, as there is need for frequent communication among all these academics and this is nearly impossible through interpersonal platforms.

The year 2015 and 2016 were marred by violent protests as students were demanding a number of reforms, key amongst which was free education. It was therefore difficult for university staff to convey information amongst themselves or to students. To continue with the academic processes and administrative services, university staff had to work long hours and find creative ways to communicate both with their colleagues

and with students via email and other electronic platforms. Lecturers fully adopted the university's electronic learning management system (LMS), emails and social media to keep in contact with their students from various off-campus locations. It was via email that management continued to manage the university activities and staff communicated with each other to perform their duties. Hence, the reliance on electronic communication had a direct impact on staff cohesion, interpersonal communication and interaction, as staff member were forced to share information without meeting face-to-face. These events could have had an impact on staff, academic projects and on the university's reputation. Under these circumstances, the risk of a decrease in academic standards due to poor integration and consolidation across all campuses was noted, which could also have led to increased operating expenses due to non-integration of various campuses at a business level. These possible outcomes raised questions about the effectiveness of over-reliance on electronic communication as the sole means of sharing information in a multi-campus UoT model. There is consensus in the analysed literature that effective communication is required between management, subordinates and colleagues who work together. However, during student protests, there were challenges of information distortion, information manipulation, and limited access for intended recipients, plus a lack of control in coordinating staff activities. For UoT X to uphold their vision, mission and core values, required – and continues to require – effective communication internally and externally. It is therefore important for the university to maintain an effective and open dialogue with a diverse range of audiences which includes staff, students, prospective students, parents, press, businesses, government and strategic partners.

2.6 Summary

The review of the literature started by exploring the context of organisational communication and considering why communication is one of the most dominant activities in organisations, central both to the growth of organisational relationships and to the proper functioning and survival of any type of organisation. Positive relationships grow among individual employees and organisational capabilities are developed through effective communication processes, all of which helps organisations coordinate activities to achieve goals. Employee socialisation, management decision-making and problem-solving are all enhanced.

In organisational communication, the five theoretical approaches developed explain how organisations work in trying to achieve their goals and have evolved in the past

century: the classical theories, the human relations theories, the human resources theories, the systems theories and the cultural theories were also analysed.

Thereafter, the researcher provided a detailed account of the development of email as counter to media that were inefficient in conveying urgent messages to intended recipients. The key points focused on the role of email in addressing previous challenges, such as these: most offices handle a bulk of different communications on a daily basis, requiring care to avoid confusing paper trails in a single receiving office; there was a lack of security protecting information communicated (paper files could easily be intercepted, lost in fire, accident or floods); and the required storage space was a key challenge since offices were receiving and dispatching paper-based communications on daily basis. It is against this background that the literature review concluded that email therefore solved some of the key challenges faced during an era of paper-based communication, and which pointed to the great importance that email plays in modern business communication.

Next, the literature review provided a theoretical grounding for communication technology by analysing the key theories that explain the choice of media for that technology: the Information Richness Theory, the Social Presence Theory, the Social Influence Theory and the Media Naturalness Theory.

Furthermore, studies suggest that it is very difficult for people who communicate using technology to maintain contact and learn to trust and respect each other, which is diminishing the value of work relationships. Office technology easily assists people to be more efficient, but also alienates them from others. It is generally agreed that excessive electronic usage results in users eventually connecting with many individuals that they do not know personally. Hence, the more connected people are, the less interpersonal connection they have with one another. In addition, most modern organisations comprise employees of different nationalities, cultures, races as well as different languages. Many individuals find it difficult to interact with others from a different culture or race, as they feel more comfortable with someone who shares their culture or race. For this reason, most social cohesion studies assert that diversity erodes social cohesion if it is not fully embraced. Consequently, employees who do not trust each other usually find it difficult to interact socially. By contrast, a few studies submit that, if the work environment implements teamwork as a necessity, the barriers of diversity are ultimately overcome.

Studies on the impact of email communication on human resources are also examined. With electronic mail increasingly being used because of its low-cost advantage, speed and ability to convey information to multiple audiences, questions about the impact of email on employees' social cohesion, interpersonal relationships and interpersonal communication remain unanswered.

Furthermore, the chapter describes the South African higher education system that was adopted by the new democratic government established in 1994 and which commenced with a transformation agenda to reshape South African society. Under the South African education system, mergers occurred within South African higher education, with University of Technology (UoT) multi-campus models developing. The internal organisational communication within multi-campus environments was analysed. This chapter concludes with an analysis of why the case of UoT X was selected.

The main theme of this chapter has been to establish the importance of internal and external communication within organisations and in the higher education sector. Most studies in the literature reveal consensus that email has impacted the way business is done due to its rapid and efficient ability to convey messages. There is, however, disagreement about the nature of the impact that email has brought to organisations. Hence, some studies argue that email has negatively impacted organisational operations, because it is interruptive and has led to a dissolution of social cohesion and teamwork. However, the extent of the impact of email on interpersonal relationships and staff cohesion in institutions of higher learning remains inconclusive. Thus, this study investigates whether the use of electronic mailing has had an impact on employees' social cohesion, interpersonal relationships and interpersonal communication using data from UoT X's Faculty of Business and Management Sciences.

The next chapter presents the research methodology that was applied during the research study, commencing with the research design, followed by the population and sampling techniques, data collection methods and instruments, data collection procedure and, lastly, data analysis.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter contextualised the role of e-communication within a University of Technology, highlighting its impact on staff interpersonal relationships and social cohesion. In this chapter, the research methodology that was applied during the research study will be explained, commencing with the research design, followed by a description of the population and sampling techniques, data collection procedure, and data analysis.

In Chapter 2, the researcher deduced that the lack of physical (that is, face-to-face) interpersonal communication among staff could, in the long term, erode staff cohesion in the workplace. It was on this premise that this research study aimed to investigate the extent to which an overreliance on e-communication (emails) affected interpersonal communication and cohesion among staff. The foregoing led to the following research objectives:

- To identify the reasons why email is the preferred communication medium over physical interaction amongst faculty staff.
- To explore the extent to which emails replace staff interpersonal communication.
- To establish if emails can be utilised to build relationships.
- To clarify the extent of interpersonal communication needed to improve staff cohesion.
- To recommend appropriate usage of emails while creating a platform for building staff cohesion.

3.2 Research design

The purpose of this research study is to investigate the use of electronic communication and its effect on interpersonal communication and cohesion among faculty staff within the Faculty of Business and Management Sciences at UoT X. This research study followed an interpretive phenomenological approach (Leedy & Ormrod, 2001: 157) and employed a case study design with quantitative research methods. The purpose of an interpretive phenomenological research approach is to understand experience from the participant's point of view (Leedy & Ormrod, 2001: 157), focusing on the participant's perceptions of an event or situation and attempting to answer the

question of their experience. The researcher aimed to investigate how the use of email influenced staff interpersonal communication, staff interaction and cohesion. The focus was on how email communication (independent variable) influenced the social cohesion of faculty staff and their interpersonal communication (dependent variables).

It is assumed from literature that an overreliance on email erodes social cohesion and interpersonal relations amongst staff (Sproull and Kiesler, 1986: 1496; Cleary et al., 2008: 32). To achieve the research objectives, an explanatory form of case study was followed so as to explain what happened in a particular case and why it happened. Thus, the analysis focused on a systematic and in-depth investigation of a particular case in context in order to generate knowledge (Rule & John, 2011: 8). The choice of applying a case study is motivated by Yin (2009, 2013) who justified that case studies are more suitable where there is relatively small sample and the study is interested in exploring a particular phenomenon in depth, but not particularly concerned about generalising across other populations although generalisation may be possible, depending on the context and findings. Furthermore, Yin (2009: 220, 2013: 175) argues that the singularity of focus of a case study can make it more manageable than a large-scale survey or a wide-ranging policy review. It is for this reason that this study focus only on the Faculty of Business and Management Sciences and not the UoT X as a whole. The case study design in this research study employed quantitative methods: numerical data and statistical analysis provided quantitative information (Lund, 2005: 128; Thiétart, 2007: 48). Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment to support or refute alternate knowledge claims Creswell, Vicki, Michelle, & William (2003: 203). Creswell et al. (2003: 230) state that quantitative research employs strategies of inquiry, such as questionnaires, experiments and surveys; and data are collected using predetermined instruments that yield statistical data.

According to Leedy and Ormrod (2001: 157), research is at times mistaken for gathering information, documenting facts and rummaging for information. However, research is the process of collecting, analysing and interpreting data in order to understand a phenomenon. This research study followed an interpretivist or phenomenological approach because the researcher's aim was to observe and understand the human environment within a workplace, specifically staff interaction, social cohesion and interpersonal communication amongst the faculty staff. This approach enabled the researcher to investigate whether an overreliance on email communication affected staff interaction, social cohesion and interpersonal communication amongst the faculty staff at UoT X.

3.3 Population and sampling techniques

According to Welman, Kruger and Mitchell (2005: 52-53), the population refers to all the study objects that can potentially participate in a research study; and from it, a sample is taken. The merger between two former technikons in January 2005 resulted in the largest university within a South African province. This institution is referred to in this research study as 'University of Technology X' (or 'UoT X'), for ethical reasons. The study population included the entire staff complement of UoT X, both academic and non-academic administrative staff whose work involves the use of a computer. The singularity of focus of a case study can make it more manageable than a large-scale survey or wide-ranging policy review. For this reason, the Faculty of Business and Management Sciences was selected and not UoT X as a whole (Rule & John, 2011: 8). The Faculty of Business and Management Sciences is the largest faculty within UoT X, consisting of the largest staff complement and student numbers. The faculty operates on five different, geographically dispersed campuses. It is assumed that, owing to staff being separated like this, email communication (emails) is relied upon and used to disseminate information to and among staff across the five campuses.

Permanently employed and contract staff within the Faculty of Business and Management Sciences were selected as the target research sample. The Faculty of Business and Management Sciences has members of staff whose offices are situated at some of the five satellite campuses, namely, Campus A, Campus B, Campus C, Campus D and Campus E, hence there is need for them to communicate via email more frequently. The sample frame consisted of all 438 staff members in the Faculty of Business and Management Sciences, thereby meeting the sampling guidelines recommended by Yin (2009: 220, 2013: 175) and hosting the target research sample. Purposive sampling, a non-probability sampling method, was used for this research study owing to the fact that faculty staff members typically possess similar attributes and shared experiences (De Vos, Strydom, Fouché & Delpont, 2011: 232) regarding e-communication. The sample was composed of academic staff (lecturers, professors, researcher fellows) and administrative staff (administrative assistants, managers, deans).

3.4 Data collection method and instrument

According to De Vos et al. (2011: 166) the fundamental objective of a quantitative data collection method is to "obtain facts and opinions about a phenomenon from people who are informed on a particular issue". Quantitative research therefore deals with

numerical data and their statistical analysis to provide quantitative information (Lund, 2005: 128; Thiétart, 2007: 78). It is characteristic of a quantitative research method to make use of questionnaires (Yin, 2009: 223). Furthermore, Monette, Sullivan, DeJong and Hilton (2011: 164) state that, in survey research, a way to collect data without the aid of an interviewer is through a questionnaire of that people respond to directly on the questionnaire itself. The use of a questionnaire as a research instrument also has advantages (Muijs & Reynolds, 2001: 38-39; Wilkinson & Birmingham, 2003: 39; Best & Kahn, 2006: 313), as outlined here:

1. It is familiar to use and allows respondents to complete the questionnaire at their own convenience, while allowing time to think about their answers.
2. Questionnaires facilitate the collection of large amounts of data with minimum effort.
3. The availability of a number of participants in one place makes possible to save resources and provides a high proportion of useable responses.
4. As research instruments, questionnaires can be used time and time again to measure differences and similarities between people. Therefore, questionnaires are reliable data gathering tools.
5. The person administering the instrument has the opportunity to establish a connection with respondents, explain the purpose of the study and provide more meaning of items that may not be clear.
6. Well-designed questionnaires can allow relationships between data to be identified. They are particularly useful to show relationships with data that are easily quantifiable.

De Vos et al. (2011: 166) list five types of questionnaires, namely mailed questionnaires, telephonic questionnaires, self-administered questionnaires, questionnaires delivered by hand, and group-administered questionnaires. The primary source of gathering data for this research study was by means of using a quantitative, self-administered questionnaire. The questionnaire was distributed to staff within the Faculty of Business and Management Sciences at UoT X via email owing to the large staff count of the faculty and the geographical dispersion of its campuses. Before the questionnaires were distributed, permission was requested and obtained from the office of the Acting Executive Director of Human Capital, the office of the Assistant Dean of Research and Innovation in the Faculty of Business and Management Sciences, and its Research Ethics Committee (as will be explained later under section 3.6, 'Ethical considerations' in Methodology).

The questionnaire was compiled to examine the perception of staff members regarding the use of email and its effect on staff interaction, social cohesion and interpersonal communication. The objective of the research questionnaire was to establish the reasons why email was the preferred communication medium over physical interaction amongst faculty staff members; to investigate to what extent email replaced interpersonal communication amongst staff; and how staff cohesion could be improved within the faculty.

The 25-question survey questionnaire was designed to be self-administered and completed anonymously by the respondents. It consisted of a covering letter (Page 1) that explained the purpose of the research study, information about how to complete the questionnaire, the required return date of the questionnaires, plus the researcher's contact details. Page 2 of the questionnaire constituted an informed consent form, which respondents were required to complete and sign should they wish to partake in the survey, as well as the date the survey was returned to the researcher (see Appendix A).

Before the questionnaires were distributed to faculty staff, permission was requested and obtained from the office of the Acting Executive Director of Human Capital, office of the Assistant Dean of Research and Innovation in the Faculty of Business and Management Sciences, and its Research Ethics Committee (as will be explained under Section 3.6, 'Ethical considerations'). Page 3 included Section A, with eight questions which focused on the biographical information on age group, gender, race, language, occupation, job location and highest qualification. Page 4 consisted of Section B, which focused on 25 statements concerning e-communication. In Section B, a Likert Scale (1-4) (Kulas, Stachowski, & Haynes, 2008: 253) was used to design the quantitative questionnaire instrument. Statements 1-25 used the scale as follows: 1- strongly disagree; 2- disagree; 3- agree; and 4- strongly agree. The reason for using a four-point-scale was to eliminate any neutral responses in case of tiredness or boredom, laziness or lack of time (Muijs & Reynolds, 2001: 42; Gravetter & Forzano, 2012: 42).

3.5 Data collection procedure

A literature search (Chapter 2) provided insight into other studies whose findings form a backdrop to which explain the phenomenon of staff dependence on email communication. Literature also justifies the case study methodology - choice of research design, method for data gathering and data analysis. Literature from different sources, for example, books, journals, the internet and computer databases, as well as

professional articles and dissertations focusing on perceptions and thoughts on the use of e-communication or email was analysed. The researcher conducted the literature search to gain knowledge about the other studies that have focused on the use of email and the effects it has on staff interaction, social cohesion and interpersonal communication.

In collecting primary data, on 23 September 2016, questionnaires were sent to 438 staff on the Faculty of Business and Management Sciences' email distribution list, including staff across the five campuses. On 30 September 2016, a second follow-up email was sent to the staff to request their participation and remind them of the due date for submissions (10 October 2016). The research participants were given two weeks (14 working days) to complete the questionnaire and return it to the researcher, either by scanned email or hand delivered. A total of 46 questionnaires were returned via email, as well as hand delivered; and 53 emails were received in the researcher's mailbox stating "email undeliverable", "mailbox full" or "email delivery failure". The researcher is of the opinion that the "undeliverable", "mailbox full" and "email delivery failure" could have been as a result of problems with the email server, hence 53 staff members did not receive the questionnaire. The 46 completed and returned questionnaires were calculated as a 18% response rate. However, various studies, such as those of Nulty (2008: 309), Schouten, Cobben & Bethlehem (2009: 109-110) and Rindfuss, Choe, Tsuya, Bumpass & Tamaki (2015: 812-813) indicate that small low response rates are still able to produce representative results.

McLoughlin and Messier (2004: 1667) define sampling error as the distortions caused by observing a sample instead of the whole population. Hence, the sampling error is the difference between the sample statistic estimate of the population parameter and the actual but unknown value of the population parameter. The sample was an adequate representation of the population since the size of the sampling error can generally be controlled by taking a large random sample from the population, according to Sandelowski (1995: 180) and Boddy (2016: 429). Even though the intended sample size for this study was not as large as the researcher had hoped, the sample size was an adequate representation.

The researcher used an explanatory interpretative phenomenology, with questionnaires being the research instrument and the research site being the Faculty of Business and Management Sciences within UoT X. The questionnaires were sent by way of email to 302 staff members on the Faculty of Business and Management Sciences on 23 September 2016. Of the 438 staff members employed by that faculty, only 302 had

either an active email address or were accessible via their workstations. The staff members contact emails were obtained from the Faculty of Business and Management Sciences' email distribution list. Participants were given fourteen (14) working days in which to complete and return the questionnaires, rendering the due date 10 October 2016. A follow-up email was sent on 30 September 2016, after which 46 completed and returned questionnaires were received. In addition, 53 emails were received of which 16 were entitled, "undeliverable / mailbox full"; eight were entitled, "email could not be delivered"; two indicated that the recipient's mailbox was full; and 27 communicated, "email delivery failure". The questionnaires were returned to the researcher electronically via email, as well as hand delivered in some cases. The 46 completed and returned questionnaires comprises a 18% response rate, which was below the 30% norm (Fincham, 2008: 45-46). However, according to Fincham (2008: 45-46), if a sample includes more than 15 responses, the researcher may continue with the statistical analysis.

According to Huysamen (1991: 183-190), generally, researchers should not use any sample with less than 15 unit of analysis but preferably one with more than 25 units of analysis. In addition, Yin (2009: 223) suggests that case study samples may report fewer than 50 cases. Hence, as this research study applied a case study design where small sample sizes are sufficient, the researcher could continue with the statistical analysis. Welman et al. (2009: 73) clarify that, in case studies, non-responses are likely to occur; and non-responses are different from the rest of the population because the participants may refuse to be involved in the research for various reasons. Welman et al. (2009: 73) identify four reasons for non-responses as follows:

- Refusal to respond
- Ineligibility to respond
- Inability to locate respondent
- Respondent located but unable to make contact

3.6 Ethical considerations

The research study was conducted within the Faculty of Business and Management Sciences at UoT X. The researcher obtained clearance and approval from the Executive Director Human Capital at UoT X. Ethical clearance was also obtained from the Faculty of Business and Management Sciences' Research and Ethics Committee.

An informed participant consent form was attached to the questionnaire and emailed to the participants explaining the purpose of the research study. Owing to ethical and confidentiality reasons, the questionnaire was designed to be completed anonymously by the respondents, therefore research participants were not required to provide any personal information. This was intended to encourage the participants to be honest, as the researcher aimed to collect data regarding the staff members' views on using email (e-communication) as the preferred method of communication, the effects email had on staff cohesion, staff interaction, interpersonal communication and relationships within the workplace.

3.7 Data analysis

A quantitative questionnaire was used in this research study. Data analysis was conducted by means of statistical techniques to investigate the relationships amongst the variables, as well as patterns of involvements within the faculty. Descriptive statistics was used to summarise the quantitative data while inferential statistics was used to interpret the research findings (Welman et al., 2005: 231).

Responses to a total of 46 returned questionnaires were captured on an Excel spreadsheet, recording each questionnaire as R1 to R46 (respondent 1-46). After data capturing, the document was sent to a registered SPSS statistician to be analysed. To assist the researcher with statistical analysis of each participant's perception on the effect of email communication on their interpersonal relationships, staff cohesion staff interaction, the Principal Component Factor Analysis, a data reduction technique that uses correlations between data variables, was conducted. This form of analysis assumes that some underlying factors exist that explain the correlations or inter-relationships among observed variables (Abdi & Williams, 2010: 443).

3.8 Validity and reliability

According to Golafshani (2003: 598), validity refers to the extent to which the findings represent what is happening in the real situation being measured. Borsboom, Mellenbergh and Van Heerden (2004: 1066) add that validity is concerned with whether the data and findings give a true picture of what is being studied and accurately assess what it intends to assess.

To ensure construct validity, the structured questionnaire was designed to capture all the three variables being analysed: staff interpersonal communication, staff interaction

and staff cohesion. The size and characteristics of subject population, the sample selection process, the time given for completion of questionnaires and the data collection adequately ensured that this entire research process and the findings obtained would meet internal and external validity required for a scientific research method. Furthermore, the questionnaire instrument was checked and verified by a registered statistician (ensuring that the questions link to the research problem, research questions and objectives) before sending to research participants. Validity was further verified in the data analysis through significance statistical proof in factor analysis. The Principal Component Factor Analysis with Varimax rotation (Bro & Smilde, 2014: 2815), the results of the Kaiser-Meyer-Olkin (KMO) test for sample adequacy, the Bartlett test of Sphericity and the t-statistic significance test all indicated that the sample and method of analysis was appropriate.

In scientific studies, reliability relates to the degree to which research tools produce a stable and consistent result (Roberts, 2006: 43). Roberts adds that research findings can only be deemed reliable if another researcher can duplicate the tests and derive the same results. To test the credibility of the research findings in this study, Cronbach's alpha was applied to test if the questions in the Likert scale survey instrument were reliable and correctly grouped. Cronbach's alpha analysed the participants' conscientiousness and openness, which are unobservable latent variables. Cronbach's alpha further measured if the survey instrument was designed accurately to measure the variable of interest (Peterson, 2013: 384).

Reliability and validity were further tested through a pre-test questionnaire pilot study aimed at identifying any shortcomings to be certain that the questionnaire was properly understood as intended. The pre-test questionnaire was distributed via email to 10 faculty staff members and their feedback requested. The majority of the participants in the pilot study noted the arrangement of questions and the length of questions as problems with the survey questionnaire. Feedback from the pilot study also pointed out sections of the questionnaire that the respondents were hesitant to answer, or where they had made mistakes; and three overlapping questions were rephrased. Thus, this feedback was used to improve the survey questions and their logical flow so that the questions would be clearly understood.

3.9 Summary

The main theme of this chapter is an outline of how variables to be measured were empirically tested. This chapter began by outlining the purpose of this study: to

investigate the use of electronic communication and its impact on communication among faculty staff within the Faculty of Business and Management Sciences at UoT X. An interpretive phenomenological quantitative approach to research was applied in a case study with the aim of understanding participants' experience from their point of view. The Faculty of Business and Management Sciences was selected as it is the largest faculty within UoT X, comprising the largest staff complement and student numbers; and it operates on five different, geographically dispersed campuses. It is assumed that, owing to staff being distant, email communications would be much relied upon to disseminate information to staff across the five campuses.

From the Faculty of Business and Management Sciences, a purposive sampling method was used to select a sample of 438 participants to which questionnaires were administered. The research participants were given two weeks (14 working days) to complete the quantitative self-administered questionnaire distributed to staff within the Faculty of Business and Management Sciences at UoT X and 46 completed questionnaires were returned via scanned email or hand delivery.

The 25-question survey questionnaire was designed to determine the perception of staff members regarding the use of email and the effect it has on staff interaction, social cohesion and interpersonal communication. To ensure that the study adheres to acceptable ethical standards, the researcher obtained clearance and approval from the Executive Director Human Capital, ethical clearance from the Faculty of Business and Management Sciences Research and Ethics Committee, and an informed participant consent form was attached to each questionnaire to explain to participants the purpose of the research study.

Data analysis was conducted by means of statistical techniques to investigate the variables (staff interaction, social cohesion and interpersonal communication), as well as their effect, relationships and patterns of involvement within the faculty staff. Descriptive statistics was used to summarise the quantitative data, while inferential statistics was used to interpret the research findings. Further statistical analysis using the Principal Component Factor Analysis was conducted to analyse and understand participant's perceptions of the effect of email communication on their interpersonal relationships, staff cohesion and staff interaction.

The chapter concludes by discussing the issues of validity and reliability to ensure that the study satisfies the expectations of scientific research methods. For construct validity, a registered statistician reviewed the structured questionnaire and the research

sample attributes to ensure that all three variables being analysed (staff interpersonal communication, staff interaction and staff cohesion) were adequately captured. Validity was further verified during the data analysis through employing significance statistical proof in factor analysis, the Kaiser-Meyer-Olkin (KMO) test, the Bartlett test of Sphericity and the t-statistical significance test. These indicated that sample size and method of analysis was appropriate and adequate. Cronbach's alpha and a pre-test questionnaire pilot study ensured reliability of the questionnaire.

The next chapter will present the findings obtained from a number of statistical tests carried out on the primary data collected from the survey questionnaires to establish empirical results.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESEARCH RESULTS

4.1 Introduction

Chapter Three presented an overview of the interpretivist research approach and descriptive design with quantitative data applied in this study. A detailed presentation followed, describing the process of questionnaire design based on the three key variables being measured: staff cohesion, interpersonal communication and staff relations. The chapter further outlined the process of sample selection from the target population, the sampling procedure and data collection method. In addition, the methods of data analysis and testing through Kaiser-Meyer-Olkin (KMO) and Principal Component Analysis (PCA) were discussed, along with the issues of validity and reliability.

This chapter first presents the research findings in the form of tables and graphs. The findings were obtained from a number of statistical tests applied to the primary data. Thereafter, there will be an interpretation and discussion of the results. The discussion of results is structured to correlate the findings of this study via the four factors within the literature review to indicate how the findings either concur with or differ from those of past research studies. Inferences were drawn in an attempt to address the extent to which overreliance on e-communication (emails) affected staff interpersonal communication and cohesion. Empirical evidence is offered to answer the following four research questions:

- 1) Why is email the preferred communication medium amongst Faculty staff instead of physically interacting with colleagues?
- 2) To what extent do emails replace staff interpersonal communication?
- 3) Does email enable staff relationship-building?
- 4) To recommend appropriate usage of emails while creating a platform for building staff cohesion.

4.2 Questionnaire results

A total of 438 questionnaires was distributed to staff; 46 were returned, representing a response rate of 18%, which is lower than the acceptable norm of 30%. Welman et al. (2009: 73) posit that it is not uncommon for participants to refuse to return their questionnaire responses. Certain researchers concur that small sample sizes could

produce research results: Grinnell and Williams (1990: 127) note that 30 units of analysis would be sufficient for a basic statistical analysis; Mouton (2008: 149) indicates that 50 units would be sufficient for a case study; whereas De Vos et al. (2013: 225) propose between 20 to 30 cases for a small population. Huysamen (1991: 183–190) suggests that 15 units of analysis would be the smallest size for any analysis. The researcher therefore considered the number of returned questionnaires (46) sufficient for conducting statistical analysis.

The SPSS Version 25 statistical package was used to analyse the effect of e-communication use on university staff. To examine this, the questions in the survey questionnaire were grouped into four factors, namely: preference for email; staff relations; interpersonal communication; and social cohesion.

The findings presented in this chapter focus first on frequencies of the demographics of respondents, followed by the results of the factor analysis. To accomplish the objectives of the study, the analysis was further divided into sub-dimensions to enable in-depth inferences to be drawn and statistical proof established about the impact of emails on staff.

4.2.1 Demographics of respondents

The demographics of respondents are presented in Figures 4.1 to 4.8. These focus on age, gender, race, language, occupation, job location, length of service and highest qualification.

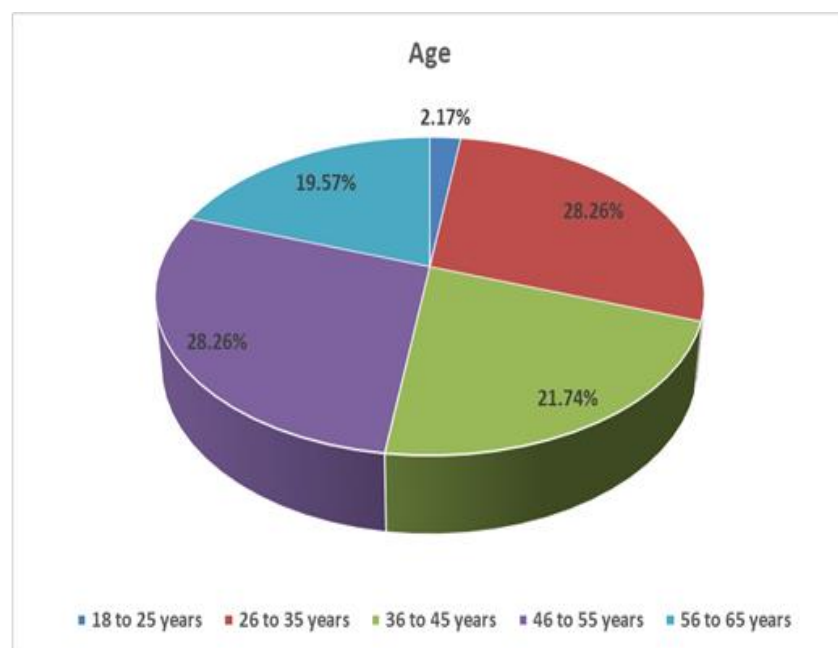


Figure 4.1: Age of respondents

The results are ordered as follows: two equally sized groups of respondents (29.26% each) comprised the majority (age groups 26–35 and 46–55); the next largest group (21.74%) was aged 36–45 years; then (19.57%) the group aged 56–65 years; and the smallest group (2.17%) comprised those aged 18–25 years.

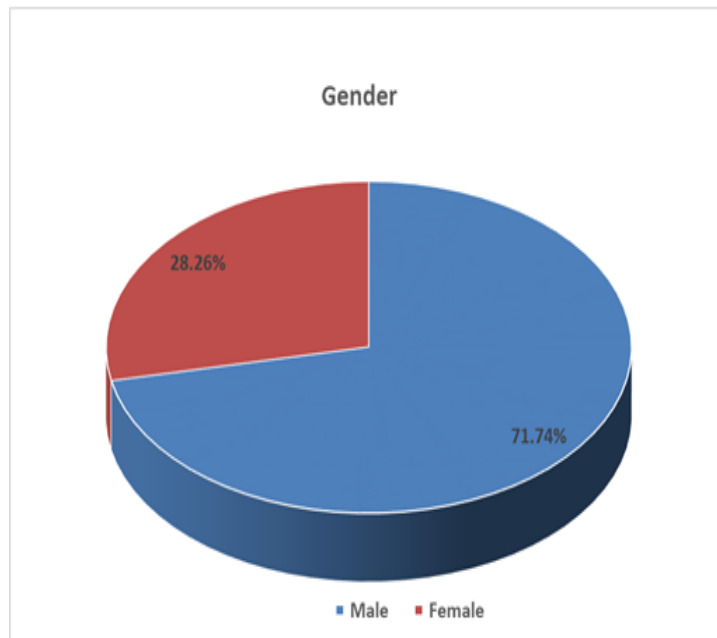


Figure 4.2: Gender of respondents

The sample study consisted of more female (71.74%) as opposed to male respondents (28.26%).

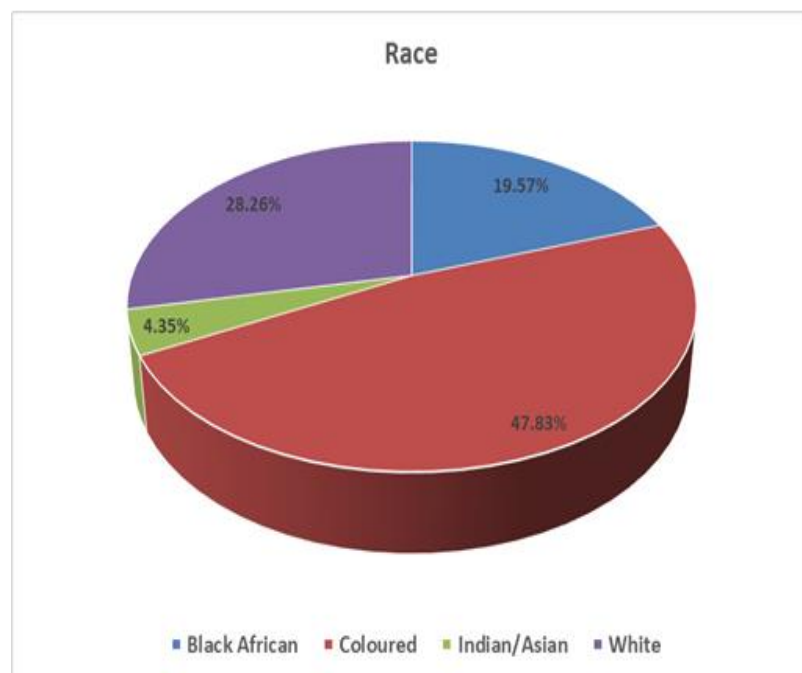


Figure 4.3: Race of the respondents

Figure 4.3 depicts the race of the respondents: 4.35% Indian/Asian 19.57% Black African; 28.26% White and 47.83% Coloured.

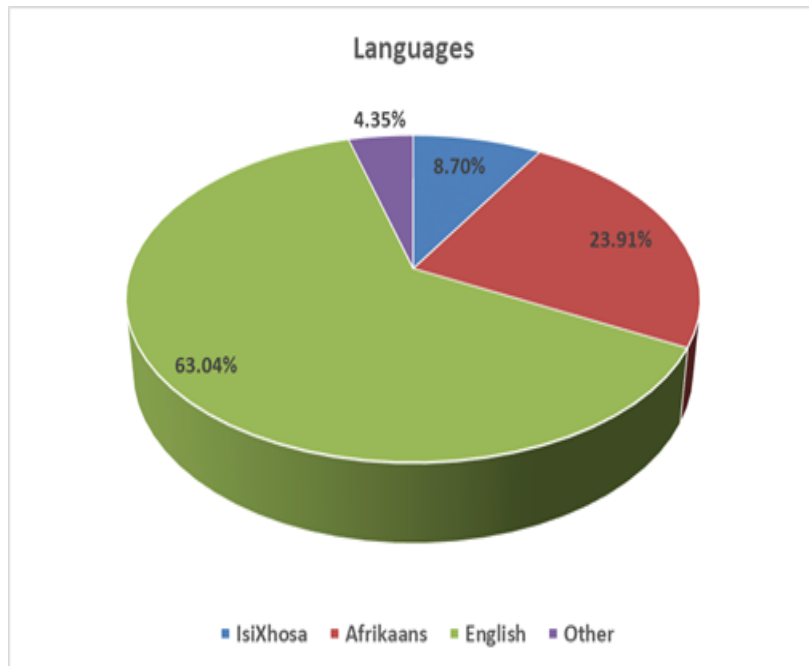


Figure 4.4: Language of the respondents

Figure 4.4 depicts respondents' languages. The majority communicated in English (63.04%); other languages were Afrikaans (23.91%); IsiXhosa (8.70%); and Other languages (4.35%).

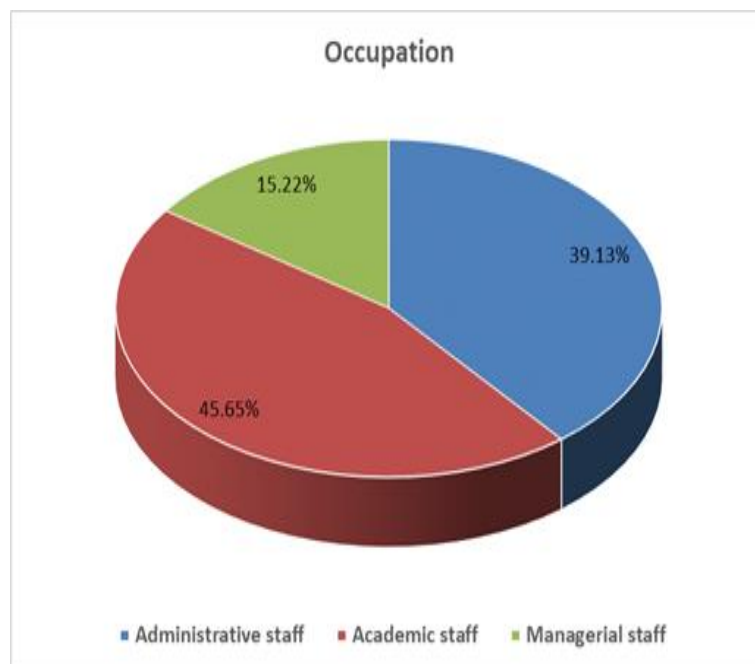


Figure 4.5: Occupation of the respondents

Figure 4.5 illustrates that the occupation of the majority of the sample was Academic Staff (45.65%), followed by Administrative staff (39.13%) and Managerial staff (15.22%).

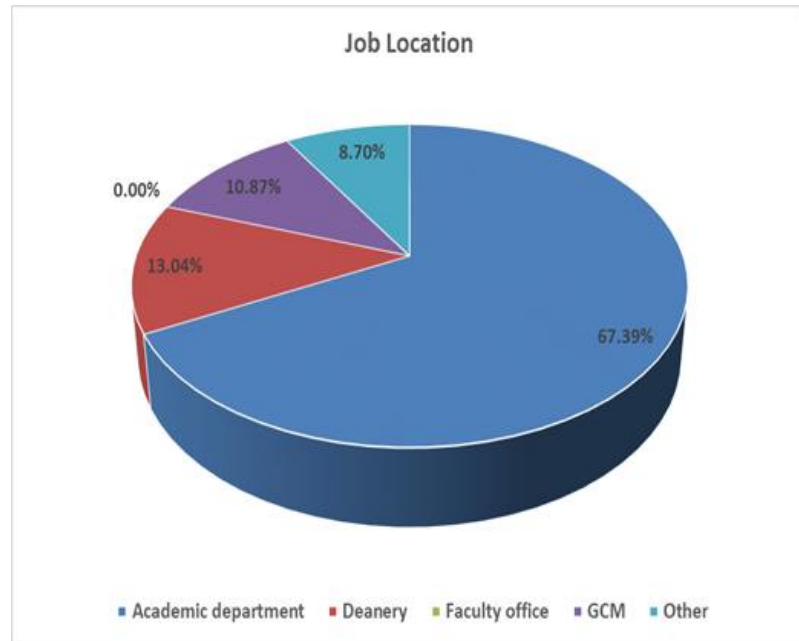


Figure 4.6: Job location of the respondents

Figure 4.6 depicts that the majority of the sample came from Academic departments (67.39%); Deanery (13.04%); GCM (Graduate Centre for Management) 10.87%; and Other (8.70%). The sample included nobody (0%) from the Faculty Office.

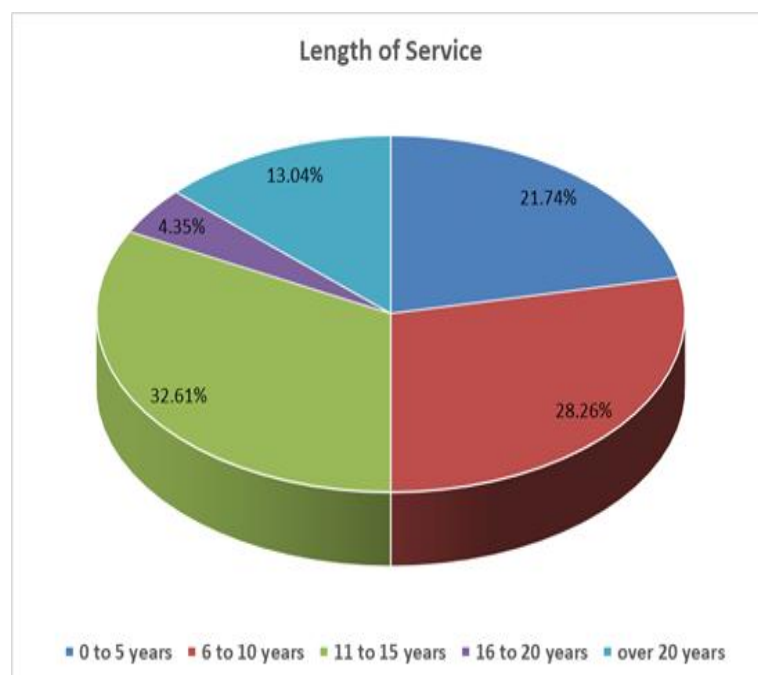


Figure 4.7: Length of service of the respondents

The length of service for the majority of respondents (32.61%) was 11–15 years, whilst the fewest (4.35%) had served for 16–20 years. The rest of the sample are represented by these figures: 0–5 years (21.74%); 6–10 years (28.26%); and over 20 years (13.04%).



Figure 4.8: Highest qualification of respondents

Figure 4.8 indicates that the majority of respondents (36.96%) had obtained a Master’s degree; 15.22% possessed a Postgraduate degree; an equal number (13.04% each) had a Diploma or a Doctoral degree; and an equal number (10.87%) had an Undergraduate degree or a National Senior Certificate.

In summary, from the results presented, only 19.57% of the respondents were 55 years and older, whilst 80.43% were aged 26–55 years, implying that majority of the respondents grew up during the ‘internet age’ and were technologically conscious.

With regard to gender, 71.74% of the respondents were female and 28.26% were male. This does not necessarily mean that there were more females than males in the faculty but that rather that more females decided to complete the survey questionnaire.

Regarding the racial groups, the majority group of respondents represented in the study were Coloured (47.83%), followed by White (28.26%), Black African (19.57%) and a minority of Indian/Asian (4.35%).

The results indicate that the dominant language spoken by the majority of respondents as their first language was English (63.04%), followed by Afrikaans (23.91%). Only 13.05% of the respondents had isiXhosa and other languages as their first language.

Most of the respondents (45.65%) were academic staff, whereas 39.13% were administrative staff, followed by 15.22% managerial staff. With regard to their job location, 67.39% of respondents worked in academic departments, whilst the remaining 32.61% were in the deanery, the graduate school and other locations within the Faculty.

On length of service, the results showed that many respondents (32.61%) had been employed at the UoT X for between 11 and 15 years, whereas only 17.39% had been employed for more than 15 years. Half of the respondents who completed the questionnaire (50%) had been employed by the university over a period of fewer than 10 years.

Lastly, on staff qualifications, 36.96% of the respondents had a Master's qualification, 13.04% had Doctoral degrees or Diplomas; and the balance possessed a Postgraduate degree and a National Senior Certificate, Diploma or an Undergraduate degree.

4.2.2 Questionnaire statement results

The questionnaire consisted of 25 statements linked to the research problem. This section commences with the various factor analyses completed, followed by a presentation of the results for each factor.

4.2.2.1 Factor analysis

The following section will illustrate the KMO and Bartlett's Test, Principal Component Factor Analysis, Variance analysis with eigenvalues and the Cronbach Alpha Coefficient for the four factors.

(a) KMO and Bartlett's Test

The Kaiser-Meyer-Olkin (KMO) test is a measure of how suited the research data were for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might be a common variance. The lower the proportion, the more suited the research data were for Factor Analysis.

Table 4.1: Kaiser-Meyer-Olkin and Bartlett's test

Impact dimension	Adequacy	Chi-Squared	Significance	df
Factor 1: Preference for using e-communication	0.8112	2188.38	0.0005	36
Factor 2: Staff relations	0.8443	669.284	0.0081	6
Factor 3: Interpersonal communication	0.8315	1089.377	0.0002	10
Factor 4: Staff cohesion	0.8769	658.026	0.0015	24

The result of sampling adequacy and Sphericity indicated that the principal component factor analysis method was appropriate and the data were adequate for the tests. The Adequacy of above 0.8 (rule of thumb), Chi-squared above 500 and significance of less than 0.0500 validates that the Factor Analysis was an appropriate test and was significant, and also showed that the sample was adequate.

(b) Principal Component Factor Analysis

To assist the researcher with quantitative statistical analysis of each variable determining the impact of e-communication on staff members and to validate the findings presented above, the Principal Component Factor Analysis, a data reduction technique that uses correlations between data variables, was conducted. It assumes that some underlying factors exist that explain the correlations or inter-relationships among observed variables. The Principal Component Factor Analysis with Varimax rotation, the results of the Kaiser-Meyer-Olkin (KMO) test for sample adequacy, the Bartlett test of Sphericity and the t-statistical significance test indicated that the factor analysis method was appropriate. The statistical data analysis for this study followed the approach in Abdi and Williams (2010: 435) to understand the general impact reflected by different answers received from the respondents about every dimension of e-communication. Table 4.2 shows the factor loadings and descriptive statistics of all the sub-dimensions considered in this study.

Table 4.2: Factor loadings of indicators representing staff members' views on the effects of e-communication

Code	Impact dimension	Factor loadings	Mean	STDEV
	Factor 1: Preference for using e-communication			
Q1	I prefer to use e-communication to communicate important information to other	0.911	2.31	1.402

	staff members.			
Q2	E-communication should remain the preferred method of communication in a multi-campus environment.	0.901	2.01	0.864
Q3	I have been trained to use email in a professional business environment.	0.903	1.29	0.954
Q4	Professional e-communication is distinctly different from social media communication.	0.934	1.91	0.935
Q5	Communication is quick and accurate via e-communication.	0.963	1.92	0.944
Q6	I am satisfied that email is used for all communication purposes within the Faculty.	0.828	2.11	0.866
	Factor 2: Staff relations			
Q7	Poor communication is a major cause of conflict and misunderstandings amongst Faculty staff.	0.937	3.97	0.802
Q8	E-communication results in less interpersonal communication amongst Faculty staff.	0.833	4.00	1.803
Q9	Interpersonal communication is an integral part of my job.	0.831	4.00	0.935
Q10	Staff interpersonal communication and interaction result in a better working environment.	0.852	1.65	0.665
Q11	Interpersonal communication helps me to get to know other Faculty staff members.	0.995	2.42	0.991
Q12	I prefer staff interpersonal communication instead of e-communication as a means to communicate with my colleagues in the workplace.	0.978	2.43	0.977
	Factor 3: Interpersonal communication			
Q13	Staff interaction is important in the workplace as a means to increase productivity.	0.860	3.78	0.791
Q14	Interacting with fellow staff members is important to me.	0.965	2.42	0.838
Q15	I do not see the need for staff to interact with each other.	0.534	2.23	0.837
Q16	Staff interaction could support cultural	0.907	2.14	0.872

	diversity amongst Faculty staff.			
Q17	E-communication results in less staff interaction in the workplace.	0.844	4.00	0.897
Q18	Staff interaction helps to build human relations by sharing experiences.	0.905	3.98	0.898
	Factor 4: Staff cohesion			
Q19	Social gatherings are important in my organisation.	0.954	3.46	1.141
Q20	Social cohesion will improve staff working relationships in the workplace.	0.893	2.64	1.244
Q21	Faculty staff share a willingness to cooperate with one another.	0.968	3.54	1.011
Q22	E-communication could be used to promote a sense of belonging amongst Faculty staff.	0.942	3.98	1.601
Q23	Negative, destructive e-communication is frequently used amongst Faculty staff members.	0.684	2.20	0.998
Q24	Hostile e-communication deteriorates social cohesion amongst Faculty staff.	0.651	3.74	1.103
Q25	E-communication should reflect the ICARE culture of the university.	0.742	3.98	1.028

Results of the standardized factor loadings of the 4-dimension variables for each of the staff e-communication factors were greater than 0.50, which indicates the content validity. Based on the questionnaire, a Likert scale, where 1 represents “strongly disagree” and 4 represents “strongly agree”, was analysed in relation to the four factors. Factor 4 (Staff Cohesion) had a high mean score of 3.98, showing that e-communication could be used to promote a sense of belonging amongst faculty staff. Factor 3 (Interpersonal communication) had the highest mean score of 4.00, showing that e-communication results in less staff interaction in the workplace. This result shows that the respondents perceived that e-communication strongly affects staff interaction in the workplace.

Factor 2 (Staff relations) also had a high mean score which showed that e-communication results in less interpersonal communication amongst Faculty staff (4.00). The preference for using e-communication, Factor 1, had an average mean score of 2.31, where respondents agreed that they preferred to use e-communication to communicate important information to other staff members. This indicated that staff

valued and appreciated the convenience of using e-communication to convey messages in the workplace. Considering the standard deviation of the responses, there was consistency in the perception of e-communication usage, which had the lowest standard deviation of 0.665. However, the respondents tended to agree that staff interpersonal communication and interaction results in a better working environment. In contrast, there was a wide variation in responses for Factor 2 (staff relations) where the respondents did not agree on whether e-communication is the main cause of less interpersonal communication amongst Faculty staff members. However, a large number acknowledged that some respondents were uncertain about whether e-communication is the main cause of less interpersonal communication amongst Faculty staff members.

(c) Variance analysis with eigenvalues

The Principal Component Factor Analysis summarises information in a correlation matrix such that the total amount of variance in the correlation matrix can be calculated by adding the values on the diagonal. Gregson (2002: 154) elaborates that each element on the diagonal of the correlation matrix has a value of 1; and the total amount of variance also corresponds to the number of observed variables. Therefore, the total amount of variance is partitioned into different parts, where each part represents the variance of each component. Then the eigenvalues represent the amount of variance associated with each component. Table 4.3 presents results of the total variances in the Alpha method of extraction factoring, as well as the extraction of sum of squared factor loadings.

Table 4.3: Alpha method of extraction factoring

		Variance explained (eigenvalues)	
		Total	% Variance
Code	Impact dimension		
	Factor 1: Preference for using e-communication		
Q1	I prefer to use e-communication to communicate important information to other staff members.	7.312	81.281
Q2	E-communication should remain the preferred method of communication in a multi-campus environment.	1.123	12.234
Q3	I have been trained to use email in a professional business environment.	0.216	2.293
Q4	Professional e-communication is distinctly different	0.132	1.522

	from social media communication.		
Q5	Communication is quick and accurate via e-communication.	0.071	0.924
Q6	I am satisfied that email is used for all communication purposes within the Faculty.	0.058	0.622
	Extraction Sums of Squared Loadings: Total = 8.799; % of Variance = 70.8901		
	Factor 2: Staff relations		
Q7	Poor communication is a major cause of conflict and misunderstandings amongst Faculty staff.	3.437	86.190
Q8	E-communication results in less interpersonal communication amongst Faculty staff.	0.344	7.844
Q9	Interpersonal communication is an integral part of my job.	4.278	84.794
Q10	Staff interpersonal communication and interaction result in a better working environment.	0.462	9.104
Q11	Interpersonal communication helps me to get to know other Faculty staff members	0.144	2.987
Q12	I prefer staff interpersonal communication instead of e-communication as a means to communicate with my colleagues in the workplace.	1.123	2.598
	Extraction Sums of Squared Loadings: Total = 3.214; % of Variance = 83.6721		
	Factor 3: Interpersonal communication		
Q13	Staff interaction is important in the workplace as a means to increase productivity.	0.115	1.345
Q14	Interacting with fellow staff members is important to me.	0.102	1.344
Q15	I do not see the need for staff to interact with each other.	0.088	1.250
Q16	Staff interaction could support cultural diversity amongst Faculty staff.	0.050	1.145
Q17	E-communication results in less staff interaction in the workplace.	0.026	0.103
Q18	Staff interaction helps to build human relations by sharing experiences.	0.021	0.023

	Extraction Sums of Squared Loadings: Total = 3.354; % of Variance = 78.6148		
	Factor 4: Staff cohesion		
Q19	Social gatherings are important in my organisation.	3.652	91.270
Q20	Social cohesion will improve staff working relationships in the workplace.	0.179	4.533
Q21	Faculty staff share a willingness to cooperate with one another.	0.158	2.970
Q22	E-communication could be used to promote a sense of belonging amongst Faculty staff.	0.150	1.280
Q23	Negative, destructive e-communication is frequently used amongst Faculty staff members.	0.078	1.261
Q24	Hostile e-communication deteriorates social cohesion amongst Faculty staff.	0.063	1.100
Q25	E-communication should reflect the ICARE culture of the university.	0.058	1.081
	Extraction Sums of Squared Loadings: Total = 4.384; % of Variance = 88.318		

In the presented variance test results, the 25 items concerning the impact of e-communication on staff at UoT X are categorised into four factors with eigenvalues. For Factor 1, staff preference for using e-communication, the extraction sums of squared loadings totalled 8.799, explaining the item variance of 70.89%. For Factor 2, staff relations, the extraction sums of squared loadings totalled 3.214, explaining the item variance of 83.67%. On Factor 3, interpersonal communication, the extraction sums of squared loadings totalled 3.354, reflecting an item variation of 78.61%. Lastly, for Factor 4, staff cohesion, the extraction sums squared loadings totalled 4.384, 88.32% of the total variation. The total extraction sums of squared loadings were above 1.00 and variances close to 100%, which accounts for considerable variation in the e-communication impact. The four factors and the loadings are accepted as significant, showing that the overall model of the scale used in this study was satisfactory (Cronbach Alpha coefficient = 0.944).

Cronbach's Alpha was used to measure the internal consistency of the data collection tool. According to De Vos et al. (2013: 177), the Cronbach Alpha coefficient ranges between zero and one. Connelly (2011: 45) indicates a scale has internal consistency when all the items measure the same attribute or construct. A reliability coefficient of 0.70 to 0.80 is regarded as satisfactory, especially for comparing groups; and a

reliability coefficient of 0.60 or higher is considered as “acceptable” for a newly developed construct (Bland & Altman, 1997: 572; Groves et al., 2009: 285; Connelly, 2011: 45).

Table 4.4: Factors for Cronbach Alpha Coefficient

Factors	Cronbach’s Alpha Coefficient
Factor 1: Preference for using e-communication	0.59
Factor 2: Staff relations	0.64
Factor 3: Interpersonal communication	0.80
Factor 4: Staff cohesion	0.69

Factor 1

The Cronbach Alpha was computed for all six items together (items 1 to 6) and the Cronbach Alpha was found to be 0.53. However, item 4 was found to be negatively correlated with the other items. Upon removing this item, the Cronbach Alpha increased to 0.59, that is, to almost 0,6 and this could be considered within the acceptable level range of reliability.

Factor 2

Items 7 to 12 make up this scale. The Cronbach Alpha was found to be 0.64, an acceptable measure of reliability. It is also noteworthy that no item was discarded, i.e., all items belonged together.

Factor 3

Items 13 to 18 constitute this scale. The Cronbach Alpha was very low at 0.078, if all items were included, and this is partly explained by items 15 and 17 which were found to be negatively correlated with the other items within this scale. After the removal of items 15 and 17, the Cronbach Alpha increased to 0.80, a significantly high level of reliability.

Factor 4

This scale is represented by item 19 to 25. The initial investigation revealed that items 19 to 22 were negatively correlated with the other items. The alpha level was very low at 0.28. When the Cronbach Alpha was re-calculated after excluding these aforementioned items, the reliability improved to 0.69.

(d) Factor significance

Table 4.5 examines the relationship between each of the four e-communication factors and their overall impact on staff in relation to respondents' perceptions. Thus, it gives a summary of how each dimension contributes to the overall impact of e-communication on staff.

Table 4.5: Factor significance

Code	Dimension	Coefficient	Std. Error	Significance
Preference for using e-communication				
Q1	I prefer to use e-communication to communicate important information to other staff members.	0.175	4.343	0.000
Q2	E-communication should remain the preferred method of communication in a multi-campus environment.	-0.071	3.247	0.032
Q3	I have been trained to use email in a professional business environment.	0.006	0.056	0.912
Q4	Professional e-communication is distinctly different from social media communication.	-0.212	0.063	0.882
Q5	Communication is quick and accurate via e-communication.	-0.144	1.335	0.007
Q6	I am satisfied that email is used for all communication purposes within the Faculty.	0.296	7.044	0.000
	$R^2 = 0.881$; $DW = 0.251$; $F\text{-stat} = 63.920$			
Staff relations				
Q7	Poor communication is a major cause of conflict and misunderstandings amongst Faculty staff.	0.136	2.081	0.004
Q8	E-communication results in less interpersonal communication amongst Faculty staff.	0.430	3.140	0.002
Q9	Interpersonal communication is an integral part of my job.	-0.177	6.055	0.001
Q10	Staff interpersonal communication and interaction result in a better working environment.	0.182	4.068	0.008
Q11	Interpersonal communication helps me to get	0.250	2.062	0.000

	to know other Faculty staff members.			
Q12	I prefer staff interpersonal communication instead of e-communication as a means to communicate with my colleagues in the workplace.	0.081	3.047	0.784
	$R^2 = 0.813$; $DW = 0.334$; $F\text{-stat} = 28.873$			
Interpersonal communication				
Q13	Staff interaction is important in the workplace as a means to increase productivity.	0.547	2.053	0.000
Q14	Interacting with fellow staff members is important to me.	0.077	1.988	0.001
Q15	I do not see the need for staff to interact with each other.	0.875	0.112	0.987
Q16	Staff interaction could support cultural diversity amongst Faculty staff.	0.523	3.478	0.002
Q17	E-communication results in less staff interaction in the workplace.	0.035	2.347	0.012
Q18	Staff interaction helps to build human relations by sharing experiences.	0.014	1.982	0.003
	$R^2 = 0.914$, $DW = 0.347$, $F\text{-stat} = 74.382$			
Staff cohesion				
Q19	Social gatherings are important in my organisation.	0.024	4.053	0.006
Q20	Social cohesion will improve staff working relationships in the workplace.	0.144	4.052	0.006
Q21	Faculty staff share a willingness to cooperate with one another.	0.416	2.077	0.000
Q22	E-communication could be used to promote a sense of belonging amongst Faculty staff.	0.090	-2.076	-0.003
Q23	Negative, destructive e-communication is frequently used amongst Faculty staff members.	-0.575	0.000	-0.116
Q24	Hostile e-communication deteriorates social cohesion amongst Faculty staff.	0.350	2.053	0.008
Q25	E-communication should reflect the ICARE culture of the university.	-0.318	2.025	0.000
	$R^2 = 0.978$, $DW = 0.344$, $F\text{-stat} = 74.348$			

Under 'Preference for using e-communication', respondents indicated that they preferred to use e-communication to communicate important information to other staff members. Further, they significantly indicated that e-communication should remain the preferred method of communication on a multi-campus environment. Moreover, the analysis further showed that communication is quick and accurate via e-communication and that staff members are satisfied that email is used for all communication purposes within the Faculty. This is illustrated by the highly significant p-values of less than 0.05. However, respondents significantly rejected the assertion that they had been trained to use email in a professional business environment and that professional e-communication was distinctly different from social media communication. The R-squared of 88%, the Durbin Watson coefficient of 0.25 and the F-statistic of 63.92, show that the factors regarding preference for using e-communication were generally significant in the regression model of the overall impact of e-communication on staff.

On 'Staff relations', respondents emphasised that poor communication was a major cause of conflict and misunderstandings amongst Faculty staff. In addition, they agreed that e-communication resulted in less interpersonal communication amongst Faculty staff. These dimensions are highly significant in terms of the overall impact of e-communication on staff because their p-values are less than 0.05 and their test statistics above 1.96. The R-squared of 81%, the Durbin Watson coefficient of 0.334 and the F-statistic of 28.873, show that staff relations are also significant in the regression model of overall impact on staff.

In the factor category of 'Interpersonal communication', the results showed that there was significant consensus among respondents that interpersonal communication is an integral part of their job. The findings further show that staff interpersonal communication and interaction result in a better working environment. Subsequently, interpersonal communication helps employees to get to know other Faculty staff members. The responses showed that staff interaction is significantly important in the workplace as a means to increase productivity; and that interacting with fellow staff members was important to these staff members. The respondents also believed that staff interaction could support cultural diversity amongst Faculty staff and e-communication results in less staff interaction in the workplace. Thus, staff interaction helps staff to build human relations by providing opportunities for sharing experiences. On the contrary, respondents rejected the idea that they preferred staff interpersonal communication instead of e-communication as a means to communicate with their colleagues in the workplace and that they do not see the

need for staff to interact with each other. The R-squared of 91%, the Durbin Watson coefficient of 0.347 and the F-statistic of 74.382 showed that interpersonal communication is also significant in the regression model of the overall impact of e-communication on staff.

On the last aspect, 'Staff cohesion', respondents agreed that social gatherings were important in their organisation and social cohesion subsequently improved staff working relationships in the workplace. These results show that Faculty staff shared a willingness to cooperate with one another and e-communication could be used to promote a sense of belonging amongst Faculty staff. Significantly, it was agreed that hostile e-communication deteriorates social cohesion amongst Faculty staff. Hence, e-communication should reflect the ICARE culture of the university. However, it was rejected that negative destructive e-communication is frequently used amongst Faculty staff members, as the p-value of this dimension was more than 0.05. The R-squared, the Durbin Watson coefficient and the F-statistic showed that these aspects are also significant in the regression model of the overall impact of e-communication on staff.

4.2.2.2 Factor results

Results for each factor are presented in the tables below, showing frequencies and percentages of responses, followed by a brief interpretation of the main findings.

(a) Factor 1

Table 4.6: Descriptive statistics for Factor 1

Question no.	Question statement	Frequency		Percentage (%)	Cumulative (%)
Factor name: Preference for using e-communication					
Q1 (a)	I prefer to use e-communication to communicate important information to other staff members.	Strongly disagree	4	8.7	8.7
		Disagree	3	6.5	15.2
		Agree	18	39.1	54.3
		Strongly agree	21	45.7	100.0
Q2 (b)	E-communication should remain the preferred method of communication in a multi-campus	Strongly disagree	3	6.5	6.5
		Disagree	2	4.3	10.9
		Agree	20	43.5	54.3
		Strongly agree	21	45.7	100.0

	environment.	agree			
Q3 (c)	I have been trained to use email in a professional business environment.	Strongly disagree	7	15.2	15.2
		Disagree	10	21.7	37.0
		Agree	18	39.1	76.1
		Strongly agree	11	23.9	100.0
Q4 (d)	Professional e-communication is distinctly different from social media communication.	Strongly disagree	2	4.3	4.3
		Disagree	1	2.2	6.5
		Agree	13	28.3	34.8
		Strongly agree	30	65.2	100.0
Q5 (e)	Communication is quick and accurate via e-communication.	Strongly disagree	0	0	0
		Disagree	7	15.2	15.6
		Agree	21	45.7	62.2
		Strongly agree	17	37.0	100.0
Q6 (f)	I am satisfied that email is used for all communication purposes within the Faculty.	Strongly disagree	4	8.7	8.7
		Disagree	10	21.7	30.4
		Agree	23	50.0	80.4
		Strongly agree	9	19.6	100.0

The preference for using e-communication at University of Technology X is shown in Table 4.6. As can be seen, the majority of respondents (84.8%) indicated that they preferred to use e-communication to communicate important information to other staff members. In addition, the majority of the staff members strongly agreed that e-communication should remain the preferred method of communication in a multi-campus environment. However, a small percentage of the respondents (15.2%) strongly disagreed that they had been trained to use email in a professional business environment and 4.3% disagreed that professional e-communication was distinctly different from social media communication. Furthermore, the respondents generally agreed that communication was quick and accurate via e-communication. As a consequence, respondents were satisfied that electronic mailing was used for most of the communication purposes within the Faculty.

Having observed the outcome of the staff's preference for using e-communication at UoT X, the analysis then examined the impact of e-communication on staff, as summarised and presented in the tables below. The questions in the questionnaire were grouped according to the four key variables being measured: preference for email; staff relations; interpersonal communication; and social cohesion. In order to summarise and give the overall impression about impact of e-communication on these four variables, the tables presented below depict an overview on the average impact on each aspect of staff welfare. All the sub-dimensions in each factor are summed up and averaged according to the options in the questionnaire.

(b) Factor 2

Table 4.7: Descriptive statistics for Factor 2

Question no.	Question statement	Frequency		Percentage (%)	Cumulative (%)
Factor name: Staff relations					
Q7 (g)	Poor communication is a major cause of conflict and misunderstandings amongst Faculty staff.	Strongly disagree	0	0	0
		Disagree	2	4.3	4.3
		Agree	14	30.4	34.8
		Strongly agree	30	65.2	100.0
Q8 (h)	E-communication results in less interpersonal communication amongst Faculty staff.	Strongly disagree	2	4.3	4.3
		Disagree	5	10.9	15.2
		Agree	26	56.5	71.7
		Strongly agree	13	28.3	100.0
Q9 (i)	Interpersonal communication is an integral part of my job.	Strongly disagree	0	0	0
		Disagree	3	6.5	6.5
		Agree	12	26.1	32.6
		Strongly agree	31	67.4	100.0
Q10 (j)	Staff interpersonal communication and interaction result in a better working	Strongly disagree	0	0	0
		Disagree	2	4.3	4.3
		Agree	22	47.8	52.2

	environment.	Strongly agree	22	47.8	100.0
Q11 (k)	Interpersonal communication helps me to get to know other Faculty staff members	Strongly disagree	0	0	0
		Disagree	1	2.2	2.2
		Agree	27	58.7	60.9
		Strongly agree	18	39.1	100.0
Q12 (l)	I prefer staff interpersonal communication instead of e-communication as a means to communicate with my colleagues in the workplace.	Strongly disagree	4	8.7	8.7
		Disagree	21	45.7	54.3
		Agree	16	34.8	89.1
		Strongly agree	5	10.9	100.0

Rothmann and Baumann (2014: 517) explain that the study of employee relations is the study of interpersonal matters established between employees, colleagues and managers. The nature of employee relations may, however, have either negative or positive effects on employees' performance, productivity, motivation and attitude. Konijn, Utz, Tanis and Barnes (2008: 33) identify two major levels of employee relations, which are formal and informal relations. Konijn et al. (2008: 33) expound that humans are social animals that need to feel respected and a confident part of a collective in their professional roles (formal level) or in their personal traits (informal level). Disagreements often escalate if there are no interpersonal dialogues, diversity and tolerance through day-to-day interactions amongst workers.

An overwhelming majority (95.6%) of respondents felt that poor communication is a major cause of conflict and misunderstandings amongst Faculty staff members. However, a low 15.2% believed that e-communication did not result in less interpersonal communication amongst Faculty staff members. These results imply that the use of e-communication was indeed perceived to have a negative impact on the relationships amongst Faculty staff members.

(c) Factor 3

Table 4.8: Descriptive statistics for Factor 3

Question no.	Question statement	Frequency	Percentage (%)	Cumulative (%)	
Factor name: Interpersonal communication					
Q13 (m)	Staff interaction is important in the workplace as a means to increase productivity.	Strongly disagree	0	0	0
		Disagree	7	15.2	15.2
		Agree	21	45.7	60.9
		Strongly agree	18	39.1	100.0
Q14 (n)	Interacting with fellow staff members is important to me.	Strongly disagree	0	0	0
		Disagree	3	6.5	6.5
		Agree	24	52.2	58.7
		Strongly agree	19	41.3	100.0
Q15 (o)	I do not see the need for staff to interact with each other.	Strongly disagree	27	58.7	58.7
		Disagree	18	39.1	97.8
		Agree	1	2.2	100.0
		Strongly agree	0	0	0
Q16 (p)	Staff interaction could support cultural diversity amongst Faculty staff.	Strongly disagree	0	0	0
		Disagree	4	8.7	8.7
		Agree	21	45.7	54.3
		Strongly agree	21	45.7	100.0
Q17 (q)	E-communication results in less staff interaction in the workplace.	Strongly disagree	3	6.5	6.5
		Disagree	15	32.6	39.1
		Agree	18	39.1	78.3
		Strongly agree	10	21.7	100.0
Q18 (r)	Staff interaction helps to build	Strongly disagree	0	0	0

	human relations by sharing experiences.	Disagree	1	2.2	2.2
		Agree	29	63.0	65.2
		Strongly agree	16	34.8	100.0

Interpersonal communication is the communication that takes place between people who are in some way connected, for example, between an employer and an employee, or between a teacher and a student (Erozkan, 2013: 741). Davis (2013: 2285–2286) further adds that interpersonal communication not only takes place between connected individuals, but rather that communicating parties are also interdependent, as one person usually has an effect on the other person. Hence, the actions of one person have consequences for the other person in the communication process. This interdependency between communicating parties means that interpersonal communication is inevitably relational in nature: it takes place in a relationship, so it affects and defines the relationship. Individuals communicate differently with different people and messages are tailored for individual recipients. Thus, the chances of successful communication is enhanced in great part by the kind of relationship that exists between the two parties. DeKay (2012: 450) advocates that the way individuals communicate interpersonally determines whether their relationship develops or deteriorates.

A large majority (93.5%) of the respondents agreed that interpersonal communication was an integral part of their job and that good interpersonal communication resulted in a better working environment. A significant percentage (39.1%) of respondents agreed that e-communication results in less staff interaction in the workplace. Moreover, 41.3% of respondents strongly agreed that interacting with fellow staff members are important to them. Only 15.2% disagreed that staff interaction was important in the workplace as a means to increase productivity. These results imply that interacting with fellow staff members is important to employees who see the need to interact with each other. Furthermore, there was a general agreement that staff interaction helped to build human relations as individuals shared experiences; and this communication could support cultural diversity amongst Faculty staff members, whereas e-communication resulted in less staff interaction in the workplace.

(d) Factor 4

Table 4.9: Descriptive statistics for Factor 4

Question no.	Question statement	Frequency	Percentage (%)	Cumulative (%)	
Factor name: Staff cohesion					
Q139 (s)	Social gatherings are important in my organisation.	Strongly disagree	10	21.7	21.7
		Disagree	15	32.6	54.3
		Agree	14	30.4	84.8
		Strongly agree	7	15.2	100.0
Q20 (t)	Social cohesion will improve staff working relationships in the workplace.	Strongly disagree	0	0	0
		Disagree	4	8.7	8.7
		Agree	27	58.7	67.4
		Strongly agree	15	32.6	100.0
Q21 (u)	Faculty staff share a willingness to cooperate with one another.	Strongly disagree	9	19.6	19.6
		Disagree	15	32.6	52.2
		Agree	18	39.1	91.3
		Strongly agree	4	8.7	100.0
Q22 (v)	E-communication could be used to promote a sense of belonging amongst Faculty staff.	Strongly disagree	1	2.2	2.2
		Disagree	14	30.4	32.6
		Agree	22	47.8	80.4
		Strongly agree	9	19.6	100.0

Q23 (w)	Negative, destructive e-communication is frequently used amongst Faculty staff.	Strongly disagree	1	2.2	2.2
		Disagree	15	32.6	34.8
		Agree	20	43.5	78.3
		Strongly agree	10	21.7	100.0
Q24 (x)	Hostile e-communication deteriorates social cohesion amongst Faculty staff.	Strongly disagree	1	2.2	2.2
		Disagree	0	0	0
		Agree	24	52.2	54.3
		Strongly agree	21	45.7	100.0
Q25 (y)	E-communication should reflect the ICARE culture of the university.	Strongly disagree	0	0	0
		Disagree	1	2.2	2.2
		Agree	18	39.1	41.3
		Strongly agree	27	58.7	100.0

According to Fruhen and Keith (2014: 23), staff cohesion refers to the extent to which team members unite and work together in the pursuit of a common goal. Thus, it is the bond that creates loyalty and high morale of group members, and which often leads to greater effectiveness among individuals in the group. Hence, members of a highly cohesive team are focused on the process of achieving a common goal rather than on individual persons (van der Meer & Tolsma, 2014: 463-464). Table 4.8 reflects the responses of participants relating to staff cohesion at UoT X.

As can be seen from the results, 45.6% of the respondents agreed that social gatherings were important in the organisation. Furthermore, respondents generally agreed that social cohesion improved staff working relationships in the workplace. The majority of respondents also strongly agreed that Faculty staff members shared a willingness to cooperate with one another. However, 32.6% disagree that e-communication could be used to promote a sense of belonging amongst Faculty staff.

There was overwhelming consensus (97.9%) that hostile e-communication was frequently used amongst Faculty staff members and it negatively affects social cohesion amongst Faculty staff. The results (97.8%) also imply that e-communication should reflect the culture of caring and oneness in an organisation.

4.3 Discussion of research results

The following section discusses the research results according to its factors with reference to the literature review in order to draw inferences in attempting to achieve the research objectives.

4.3.1 Preference for using e-communication

The analysis in this study showed that a high number (84.8%) of staff relied on emails as the main channel of communication between and among them. There was a need for frequent communication among all these stakeholders; and this would probably be impossible via other interpersonal platforms. Results (84.8 %) further reflected that staff in the Faculty of Business and Management Sciences at UoT X preferred using e-communication to communicate most of the important information to other staff members as well as to students. In addition, the findings (89.2 %) showed that Faculty staff members were of the opinion that e-communication should remain the preferred method of communication in a multi-campus environment. Although there had been no formal training for staff to use email communication in a professional business environment, there was a general view among staff members that learning to use professional e-communication channels was not distinctly different from social media communication as it could also be self-taught.

The respondents generally agreed that they relied on email communication because it is quick and accurate to communicate via this electronic platform. Hence, they were satisfied that electronic mailing was used for most of communication purposes within the Faculty of Business and Management Sciences at the UoT X.

From the analysis of literature and the profile of the Faculty of Business and Management Sciences at UoT X, the staff's overreliance on email communication could have been necessitated by the complex and bureaucratic nature of multi-campus, higher education institutions like UoT X, as well as the lack of effective internal communication amongst Faculty staff (which, in turn, often resulted in limited staff interaction and interpersonal communication). Also, in higher education

institutions, overreliance on email communication could have also been influenced by other factors, such as large staff numbers, geographically dispersed campuses, and merged organisational structures that made face-to-face communication difficult. Therefore, email communication could have been one of the few communication platforms available to maintain effective communication and create new links with people in such an institution, compared to face-to-face consultations and meetings.

The negative consequences of overreliance of staff on email communication is echoed a study conducted by Gie et al. (2017: 433–434) at University X, in the same case study context as the current research. Gie et al. also found that overreliance on emails could also be caused by constant job deadlines, linked with unreliable network and internet connection, which contribute to university staff's perception of work overload. University staff frequently took work home, which prolonged their exposure to technological devices and inadvertently contributed to their video display terminal (VDT) stress; and, subsequently, according to Dubrin (1994: 531), excessive exposure to laptops and other technological devices leads to physiological and psychological effects. Furthermore, frequently taking work home negatively impacted on quality of work-life balance of university staff. This finding is in line with the conclusion by Gie et al. (2017: 433–434) that overreliance of staff on e-communication exposed them to work overload, VDT stress and poor work-life balance. Hence, email has both positive effects because, on the one hand, it eases work; but, on the other hand, it also carries negative effects of work overload, stress, eroding social cohesion, reduced interpersonal relationships and limited interpersonal communication among the university staff.

These findings clearly show that overreliance on e-communication has a direct impact on the variables being analysed in this study: staff cohesion, interpersonal communication and staff interaction, as staff member are forced, either by circumstances or personal preference, to share information without meeting receivers of their communication face-to-face. This, in turn, could have an adverse impact on staff, academic projects and on the university's reputation. Under these circumstances, there is a risk of a decrease in academic standards owing to poor integration and consolidation across all campuses, as noted by Himelboim et al. (2012: 94–95) who pointed out that overreliance on email communication has led to increased operating expenses due to non-integration of various campuses at a business level. These possible outcomes raise questions about the dangers of overreliance on e-communication as the sole means of sharing information in a multi-campus UoT model.

Results show that staff overreliance on email communication is less by choice but more by circumstances and the need to complete their responsibilities. There is consensus in the analysed literature that effective communication is required between management, subordinates and colleagues who work together. However, on an average day, every staff member would need to communicate with other staff on different campuses and students in different locations, which can only be accomplished by communicating via email. The need for email communication becomes more apparent during student protests when there are challenges of information distortion and manipulation, and limited access for intended recipients, plus a lack of control in coordinating staff activities. At such times, for UoT X to uphold their vision, mission and core values, it required – and continues to require – effective communication internally and externally. It is therefore inevitable that staff members and the university continue to rely on emails to maintain, at all times, an effective and open dialogue with a diverse range of audiences which includes other staff, students, prospective students, parents, the press, businesses, government and strategic partners.

Contradictory to the findings, Himelboim et al. (2012: 94–95) posit that it is very difficult for people who make use of technology to maintain contact and learn to trust and respect each other, a situation which is diminishing work relationships. They argued in their findings that office technology facilitates communication channels such as emails and so easily assists people to be more efficient, but also alienates them from others. Thus, Whiting and Williams (2013: 67), in support of Himelboim et al. (2012: 94-95), caution institutions against excessive electronic usage, as staff members ultimately connect with so many individuals that they do not know personally. Hence, the more technologically connected people are and the more they rely on e-communication, the less interpersonal connection they have with one another.

4.3.2 Staff relations

Results (95.6%) showed that poor communication is perceived to be a major cause of conflict and misunderstandings amongst Faculty staff members. Staff members (84.8%) further agreed that e-communication resulted in less face-to-face interpersonal communication amongst Faculty staff. These results imply that the use of e-communication has a negative impact on relationships amongst Faculty staff members. The interdependency between communicating parties means that interpersonal communication is inevitably relational in nature: as it takes place in a relationship, it affects and it defines the relationship. As defined by DeKay (2012: 450), individuals communicate differently with different people and messages are tailored for individual

recipients. Thus, the chances of successful communication are enhanced in great part by the kind of relationship that exists between the two parties. In line with what DeKay (2012: 450) expounds, the results prove that the way individuals communicate interpersonally determines whether their relationship develops or deteriorates.

On the other hand, there was overall agreement in the results (97.8%) that face-to-face staff interaction helps to build human relations by sharing experiences and could support cultural diversity amongst Faculty staff members, as e-communication results in less staff interaction in the workplace. Moreover, respondents (39.1%) strongly agreed that interpersonal communication helps them to get to know other Faculty staff members; hence, for the sake of staff employee connection, they prefer interpersonal communication instead of e-communication as a means of communicating with colleagues in the workplace. This finding concurs with Butler et al. (2007: 101), who suggest that email communication may promote relationship building and maintenance by allowing individuals to communicate from opposite ends of the world. This could be the main reason why most individuals prefer online communication, as opposed to in-person (interpersonal face-to-face) communication.

These results align to the description by Erozkhan (2013: 741) of how interpersonal communication can effectively take place between people that are in some way connected. It further concurs with Davis (2013: 2285–2286) who adds that interpersonal communication not only takes place between connected individuals, but rather the communicating parties are also interdependent, as one person usually has an effect on the other person. However, the actions of one staff member would have consequences for other staff members in an academic faculty. This interdependency among communicating staff members means that interpersonal communication is inevitably relational in nature, as it takes place in a relationship, it affects the relationship and it defines the relationship. Hence, it proves that staff members communicate differently with different colleagues and their messages are tailored for individual staff recipients. Thus, the observation by DeKay (2012: 450) that the chances of successful communication are enhanced in great part by the kind of relationship that exists between the two parties is important in determining whether staff relationships develop or deteriorate.

The results of the current study are in line with Brown (2013: 26), who finds that staff members that use technological communication most frequently use the fewest number of social cues, which has a directly negative impact on their interpersonal skills and face-to-face interaction. However, Brown (2013: 26) further argues that social skills

differ, according to the nature of the situation, the relationship and the function of the social interaction. It follows, therefore, that the more staff members are consumed with technology, the larger their lack of social skills in social interaction, because they cannot express emotions in the same way they would when speaking face-to-face. To support this finding further, Brown (2013: 26) indicates that the staff members may be less comfortable making eye contact, and may be less accustomed to interpreting the body language and gestures of the person with whom they are communicating. Thus, it is against this finding that Alberts (2013: 3) recommends that organisations need to implement email policies to which staff members must adhere, as email and text messages can be misconstrued. Organisational policies would indicate to staff members what is acceptable and unacceptable when communicating electronically, as well as what is acceptable communication to receive.

The findings indicate that e-communication contributed immensely towards the effective communication of the organisation, as the Faculty staff are provided with important information about their jobs, the organisation, the environment, as well as other employees. This, supported by the literature (Fay, 2011: 221) proves that communication is one of the most dominant activities in organisations, central both to the growth of organisational relationships and the proper functioning and survival of any type of organisation. In support of this view, Poole (2011: 253) also states that positive relationships among individual employees and organisational capabilities are developed through strong and effective communication processes. Keyton et al. (2013: 156) further find that effective communication helps organisations to coordinate activities to achieve goals, through employee socialisation, management decision-making and problem-solving. This finding also concurs with those of Rothmann and Baumann (2014: 517) who suggest that employees can express their emotions, share hopes and ambitions, celebrate milestones and remember certain accomplishments. Hence, there is consensus in the literature that effective communication is a catalyst for employee motivation, building trust, creating a shared identity and establishing productive engagements, all important factors in building staff relationships.

Results of the current study are also related to human relations theories, whose major proponent was Elton Mayo. Mayo (1933) argued that it is important for employees to work in groups as a way of building human relationships amongst work colleagues. In line with the assertions of Mayo (1933), who was also cited by Bruce and Nyland (2011: 384), the findings of the current study confirm that employees who work in friendly teams with supportive supervisors tend to outperform those that work in less favourable conditions. Thus, it highlights the functions of organisational executives,

along with their role in supporting effective communication and building staff relationships. The results therefore emphasise the importance of formal and informal communication, both to the success of an organisation and for improving staff relationships. The results further imply that staff relationships and cooperation among workers and their managers is crucial to improving organisational productivity.

In line with human resources theories which suggest the adoption of effective communication by organisations as a strategy for advocating participation of all employees in team building, as well as building more lasting relationships, the results of this study support a team approach for managing employee relations so that employees contribute their labour effectively, both physically and mentally. Within this theoretical approach, it is envisaged, therefore, that e-communication enables effective communication through multidirectional and relational dimensions. Hence, the literature emphasises the need for clear channels of feedback to enhance problem-solving and stimulate sharing of ideas. Therefore, this approach encourages innovation, which is another way of gaining staff trust and commitment as managers start to include them in decision-making discussions.

As suggested by Butler et al. (2007: 101), the findings also show that emails may promote relationship building and maintenance of those relationships by allowing individuals to communicate frequently from opposite ends of the world. In these circumstances, most individuals prefer online communication, as opposed to in-person (interpersonal face-to-face) communication. Ramsay and Renaud (2012: 589) show consensus with the findings and other literature in believing that the use of electronic media increases personal and organisational productivity and further suggest that it promotes relationship building and maintenance through its attribute of allowing individuals to communicate from opposite ends of the world. Therefore, it is no surprise that this study also found that a significant percentage of staff members in the Faculty of Business and Management Sciences at UoT X prefer online communication using emails as opposed to in-person communication. In support of the role of email communication in building staff relationships, Butler et al. (2007: 101) pointed to more positives, such as creating new links with other employees, increased communication, as well as communicating with others spatially and organisationally distant, which indicates why email is used and preferred at UoT X's largest and most geographically dispersed Faculty of Business and Management Sciences.

In another study by Karr-Wisniewski and Lu (2010: 1067), it is posited that technological development is changing the way people think and behave as it

influences the nature and quality of people's relationships. They advance that, since interpersonal communication accounts for most informal, everyday communication transactions, including personal relationships, intimate relationships and business situations, communication messages are tailored for individual audiences and the chances of successful communication are enhanced by the match between the medium and audience, hence the email as a channel of communication satisfies these expectations. Furthermore, Jin and Park (2010: 612) expound the role of email communication in building interpersonal relationships, complementing face-to-face communication and supporting healthy interpersonal relationships enables people to communicate sensitively and appropriately with others.

Contrary to the findings in this analysis, Morgan-Thomas and Veloutsou (2013: 23) present evidence showing that the role of e-communication in building staff relationships depends on a number of other variables. They conclude that, as long as employees do not expect anything more from online relationships than they can give, then they can safely enjoy the convenience of electronic media to connect to others. However, they also caution that there could be many troubles for organisations if people substitute electronic relationships for physical ones. Some such troubles are social isolation, and that eventually the difference between cyber and real may become distorted. Tomasi (2007: 413) concurs with Morgan-Thomas and Veloutsou (2013: 23) in contradicting the findings in this study and concluding that technology cannot replace intimacy, because human beings need physical contact to maintain a real connection. Thus, it can be concluded from these perspectives that, at some point in an interpersonal relationship, human beings need physical interaction and face-to-face contact. It is therefore clear that technology can neither replace face-to-face confrontation nor be used to convey emotional communication.

Leung and Lee (2012: 123) concur with the findings in this study, namely that email communication is preferred to other communication channels and that it plays a role in moulding employee relationships. However Leung and Lee (2012: 123) add a condition under which email communication can assist employees to destroy, build and maintain satisfying interpersonal relationships, both online and offline. Leung and Lee (2012: 123) advise that employees should never say anything online that they would never say or feel uncomfortable saying to someone in person. It is highly possible that staff members can easily misinterpret feeling or be hurt by what is written online. According to Leung and Lee (2012: 123), emails have a higher chance of destroying relationships than building and maintaining them because relationships are usually affected negatively by emails and there is an increased likelihood of misunderstandings which

can injure interpersonal relationships. Thus, it is recommended from this study that staff need to balance email time with face-to-face contact time to maintain stable interpersonal relationships.

In line with findings in this study, Coombs (2015: 144) agrees that managers can use a variety of media for transmitting messages and that the choice of medium has a direct impact on communication effectiveness. Furthermore, the literature iterates that the choice of communication medium should be determined by the situation and context of the message. Thus, there is a general consensus that face-to-face interaction is usually the best method of transmitting emotions and convincing the receiver of the importance of the message due to vocal intonation, while other body language emphasises the message being sent. An additional benefit is that feedback from the receiver is immediate. In addition, Rastgar et al. (2015: 166) acknowledge that the quality of email communication is more important for satisfaction and intimacy in a relationship than the quantity of the information exchanged. Drago (2015: 14) also contends that the number of email exchanges between two people and their total face-to-face time are also equally important in building their relationship.

In harmony with the results, Erozkán (2013: 741) concluded that traditionally, social skills are intentionally repeatable, goal-directed behaviours and behaviour sequences that human beings are conditioned to build into their lives from the moment they are born. Hence, according to Frisby and Martin (2010: 323), the contribution of email communication to employees' interpersonal relationships depends on the following six motives: the relaxation motive, driven by the need to relax and rest; the escape motive, used for diversion or avoidance of other activities; the inclusion motive, in which employees want to feel linked to other staff members through expressing their emotions; the affection motive, as employees express feelings such as love or care for others; and the pleasure motive, which drives them to communicate for enjoyment and excitement. However, Gunawardena (1995: 149) observed that, in the social context, email communication is interdependent and can be accomplished effectively through symbolic interaction with other employees. Thus, the impact of email communication on employees' relationships depends on their social skills to interact, using typical social cues, verbal and non-verbal, to live effectively in this socialised world.

According to the literature by Spitzberg (2006: 631), human beings began communicating in single shared spaces through face-to-face interaction, whilst communication began as an interpersonal face-to-face exchange. The rapid growth of technology in the last century has enabled people to communicate in many other ways

that do not demand spatial proximity. Hence, email communication allows people to exchange information over significant distances, eliminating the distance between continents, countries, neighbourhoods and people. In contrast to the findings, Spitzberg (2006: 631) also illustrates that e-communication cannot support relationship-building amongst employees that either work together or work far from each other. Thus, he concludes that, although the development of technology has forced people to adapt their skillset to interact without the help of social cues, they still rely on face-to-face interaction to develop their social skills and establish solid and long lasting relationships. Therefore, the purpose of emails remains to exchange information over significant distances by electronic means, eliminating the distance between continents, countries and people, without emphasising on its role to build relationships.

Mason and Leek (2012: 322) agree with the findings that e-communication results in less interpersonal communication amongst Faculty staff and that the use of e-communication indeed has a negative impact on the relationships amongst Faculty staff members. Mason and Leek (2012: 322) report that the excessive availability of internet resources making it possible for employees to communicate daily but spend days or months without coming face-to-face with another person, yet still remain connected with information. Mason and Leek (2012: 322) note that the traditional voice-based methods of communication have diminished as the use of these new methods has reduced communication to as few textual characters as possible. Thus, it is observed that employees spend more time on the internet, while their face-to-face socialisation with others is clearly decreasing. Hence, studies by Mason and Leek (2012: 322) and Sampathirao (2016: 58) both show that the more time employees spend using the computer and gadgets, the less time they spend in person with family and friends. Owing to this background in their personal lives, employees now lack the kinds of interpersonal communication skills needed in the workplace and their commitment in maintaining relationships has significantly deteriorated. Consequently, the ability to work as part of a team and good interpersonal skills have been escalated to the top of the list of qualities required by employers in their job applicants.

Another study by Brown (2013: 26) concurs with the findings in this study as he presents that e-communication has a directly negative impact on people's interpersonal skills and face-to-face interaction. However, Brown (2013: 26) argues that it should be noted that social skills differ according to the nature of the situation, the relationship and the function of the social interaction. In agreement with the majority of literature, as well as the observation of this study, Brown (2013: 26) notes that, the more employees are consumed with technology, the larger the lack in social skills and social interaction,

because they find it difficult to express emotions in the same way they would when speaking face-to-face. One of the key reasons that online text messages may be misinterpreted, Brown (2013: 26) mentions, is that employees are unable to make eye contact, nor observe body language and gestures of the person with whom they are communicating. Thus, Alberts (2013: 3) recommends that organisations need to implement email policies to which staff members must adhere as email and text messages can be misconstrued; and, particularly because email messages tend to be brief, their tone could be perceived as abrupt by the receiver. The organisational policies would indicate to staff members what is acceptable and unacceptable when communicating electronically, as well as what is acceptable communication to receive. As a precautionary measure, Alberts (2013: 3) recommends that restrictions and limitations on the usage of email should be implemented to ensure that less time is spent on personal emails and all for more time to increase productivity in the workplace.

In agreement with the findings of this study, another study by Drago (2015: 15) finds that 39% of technologically-conscious employees spend more time socialising online than in face-to-face interaction. Moreover, in the last five years, there has been an erosion in employees' ability to focus consistently on one work task on their personal computers without being tempted to open other tabs for e-communication; and even their ability to engage in face-to-face interaction has deteriorated. Baym et al (2004: 300) further argue that psychologists, teachers and writers have theorised that society is becoming an autistic society that no longer values face-to-face interaction and maintaining long-term relationships. Thus, there is consensus in these studies that support the findings of the current study that, although the development of technology and the use of email has made life easier in the workplace, as more time is being spent online, this has had a negative impact on the social and interpersonal relationships amongst employees. Subsequently, Kushlev and Dunn (2015: 223) conclude that excessive use of email via the internet to communicate interpersonally on a frequent basis has been found to lead to high levels of depression, loneliness and low relationship satisfaction.

The results in the current study also concur with a more recent finding by Adibifar (2016: 65) who recommends that office technology, such as email communication that employees may also access after office hours, can assist employees to be more efficient, but it also alienates them. According to Adibifar (2016: 65), this alienation is mainly due to the amount of time employees spend engrossed on their computers, rather than conversing in person with their colleagues and managers in the workplace.

Hence, the findings conclude that there are upsides and downsides to making use of email technology. Adibifar (2016) advises that, for people to make use of technology and maintain contact with colleagues at work, they first need to get acquainted in person and learn to trust and respect each other. This is very difficult to achieve through e-communication technology.

The findings according with Koubova and Buchko (2013: 716) who also contribute to the debate about the impact of emails and interpersonal relationships by pointing out that many employees report great psychological pressures to respond to email messages, whether or not they want to. Koubova and Buchko (2013: 716) observed that employees ended up feeling enslaved by e-communication technology. However, although some of the employees feared that they might become enslaved to the electronic machines and devices at the expense of their interpersonal relationships, emails have made it much easier for employees to work longer hours. On the other hand, Reddy et al. (2010: 113) find that the use of email can be very demanding, since employees experience closer monitoring and supervision, hence it increases their work pressure and increases their inability to separate or keep distance from work, again leading to work-life stress. Subsequently, Dubrin (1994: 531) and Adkins and Premeaux (2014: 88) concluded that email can lead to increased productivity, but that productivity is often achieved at the cost of higher stress levels and lower employee satisfaction which, in the long run, can lead to impaired performance.

4.3.3 Interpersonal communication

A moderate number of respondents agreed that interpersonal communication is an integral part of their job and that good interpersonal communication results in a better working environment. This falls in line with Jin and Park (2010: 612) who also point out that since interpersonal communication concerns face-to-face communication, a healthy interpersonal relationship enables employees to communicate sensitively and appropriately with others. In line with Leung and Lee (2012: 123), who advise that people strive to avoid saying anything online that they would never say or feel uncomfortable saying to someone in person, the findings imply that striving to satisfy interpersonal relationships both online and offline results in a better working environment. On the other hand, as Leung and Lee (2012: 123) note, it is highly possible that people can easily misinterpret a message or be hurt by what is written online. The findings show that interpersonal relationships can easily be affected negatively by email communication and there is a high chance of misunderstanding which can injure interpersonal relationships.

The respondents that view emails as having replaced interpersonal communication, view this development as positive because the workplace, as an environment of work, should be kept formal and professional, whilst interpersonal communication accounts for most informal, everyday communication transactions, including personal relationships rather than business situations. Therefore the findings that good interpersonal communication results in a better working environment contradicts findings from a previous study by Coombs (2015: 144) who argues that managers can use a variety of channels for transmitting messages and that the choice depends on the nature of the message being communicated and the context of the message. Thus, both literature and results indicate that, although email communication has many advantages, there is general consensus that face-to-face interaction is usually the best method of transmitting emotions and convincing the receiver of the importance of a message due to the possibility of the receiver of a message interpreting vocal intonation and other body language; and feedback from the receiver is immediate.

Segrin (2000: 382) clarifies that people depend on their social skills to live effectively in this social world, because human beings began communicating in single shared spaces through face-to-face interaction. The respondents showed that, whilst communication began as an interpersonal, face-to-face exchange, email communication is essential in enabling people to communicate in many other ways that do not demand spatial proximity. The frequency of communication increased as emails allow staff to exchange information over significant distances by electronic means, eliminating the distance between continents, countries, neighbourhoods and people. However, Segrin (2000: 382) points out that the number of employees in an organisation also determines the impact of emails on the working environment. The evidence from this study shows that interpersonal communication in higher education institutions is influenced by factors such as large staff numbers, geographically dispersed campuses, and merged organisational structures that make face-to-face communication difficult, resulting more in a reliance on e-communication.

The findings further show that staff interaction is important in the workplace as a means to increase productivity. These results imply that interacting with fellow staff members is important to employees who see the need to interact with each other. This result also accords with views of Bodnaruk and Simonov (2015: 515) who argued that it is important for managers to have timely access to accurate information to be most efficient in decision making; and they must be able to communicate effectively with others within and outside the organisation. In support of this finding, Berghel (1997: 11) also stated that email communication is rapid, as information is sent and received

almost instantaneously, whether the recipient is a few doors away, or thousands of miles distant. It is therefore evident that the use of email communication in the Faculty of Business and Management Science at UoT X streamlines both internal and external communication, according to Downes (2007: 391) and increase productivity by facilitating sending and disseminating of important information and allowing for (almost) real time information updates. The instantaneous exchange of messages also supports the results of a study by Keller et al. (2005: 10) who add that it also supports quicker problem-solving and more streamlined business processes; and, as a result, even small businesses can accomplish more in less time.

In line with the findings that email communication increases efficiency, Kanungo and Jain (2008: 309) also observed that emails can help increase efficiency and productivity, as businesses and employees communicate with established distribution lists, automatically forward information based on specific topics, or send information to selected individuals, as needed. In the same spirit, the study by Alberts (2013: 3) also finds support for this finding by adding that email software provides customisation features that can be tailored to the type of work performed, volume of daily email messages and the needs of the communicator. Therefore, effective email use can also reduce reliance on face-to-face consultations and meetings, as well as create new links with people. Furthermore, results concur with Butler, Aasheim and Williams (2007: 101) who also believe that the use of electronic media increases both personal and organisational productivity through increased communication efficiency, as information is quickly shared amongst specific individuals when they need it.

In support of productivity, Ramsay and Renaud (2012: 589) also found that 20 percent of individuals prefer online communication or texting as opposed to in-person communication and that the use of electronic media increases both personal and organisational productivity. In their conclusion, they suggested that email communication promotes relationship-building and maintenance and allow individuals to communicate from opposite ends of the world. Furthermore, because email communication increases productivity, allows for the creation of new links with people and increases the amount of communication, including with others spatially and organisationally distant, email is the preferred means of communication.

Contrary to this finding, Ambra et al. (2007: 676) provide evidence that email communication impairs productivity, especially when the communicating parties find it difficult to understand the message being conveyed. The findings in the current study support that emails improves productivity. However, Franssila (2013: 181) is of the

opinion that, although email communication is rapid, immediate and accessible, it has a negative impact on productivity because employees constantly interact via electronic media, become distracted and take longer to complete simple tasks. Contrary to the notion that emails aid productivity, Franssila (2013: 181) supports Ambra et al. (2007: 676) in arguing that, compared to face-to-face interaction, email is far less efficient in supporting productivity. Moreover, Ramsay and Renaud (2012: 587) assert that workers that conduct much of their work through email are not compelled to be more productive because electronic interaction reduces paralinguistic and social context cues, and prevents the full exchange of views as well as feedback, such as would be the case in face-to-face interaction.

Opposing the findings from this study that email communication is preferred for productivity, Mark et al. (2016: 1717) argue that using email interrupts smooth work flow and negatively affects an employee's work day. Mark et al. (2016: 1718) find that an estimated 28% of employees' work day is consumed by interruptions propagated by technology, costing the world economy billions of dollars a year. A further argument against email and productivity was advanced by Hanrahan et al. (2016: 261), who posits that, although firms continue to invest in computer-based technologies (such as email tools, decision support systems, and business intelligence tools) to improve efficiency of their knowledge workers, the increased use of technology tools is, instead, interruptive and counter-productive.

In addition to opposing findings, Klemets and Evjemo (2014: 677) argue that not all emails are interruptive to productivity but rather that any email that makes an employee stop their planned activity becomes an interruption. They present evidence that switching between tasks results in a delay before the employee can engage effectively in a new task, even if the employee had previously been engaged in that task. Each fragmentation of a task adds to the total time required to complete it. Similarly, Klemets and Evjemo (2014: 134) find both positive and negative effects of email communication. On one hand, the continuous availability of means of communication ensures that information is exchanged quickly to minimise work delays, which leads to increased organisation efficiency. On the other hand, this same continuous availability leads to an increase in work interruptions by information that may not be task related, which, in turn, leads to increased disorganisation and inefficiency.

Other findings against a preference for email communication are by Boswell and Olson-Buchanan (2007: 593) who point out that the need for employees to attend to emails frequently makes it more difficult for them to manage work-home balance.

Organisations usually provide personal computers to increase employees' flexibility, productivity and communication efficiency. It is thus difficult for owners of personal computers to maintain a satisfactory balance between work and personal life, as companies increase expectations regarding employee availability, whilst the employees themselves also feel compelled to respond immediately to work-related messages, even during leisure time. Subsequently, Adkins and Premeaux (2014: 88) conclude that emails can lead to increased productivity, but that such productivity is often achieved at the cost of higher stress levels and lower employee satisfaction which, in the long run, can lead to impaired performance.

Notably, in support of conflicting findings to this study, Reinke and Chamorro-Premuzic (2014: 504) find that email communication leads to information stress due to the inability of employees to escape from computers and information as the internet has become increasingly available. It follows, therefore, that technology and the internet is generating more information faster than most employees can process it, leading to information overload. Consequently, employees often find themselves unable to cope with an increasing amount of information. This information overload thus leads to reduced productivity and has negative effects on health and well-being. By contrast, Lee et al. (2016: 55) find that the use of email outside employees' conventional work setting is beneficial, as employees are able to spread their workload over more time. In support of the findings in this study on email use, Lee et al. (2016: 55) assert that email leads to an intrusion of work into interpersonal relationships and has an acceptable trade-off between personal productivity and flexibility benefits. Hence, it is every employee's duty to balance completing their tasks as expected, how long they need to do that, and at what intensity.

The findings, however, concur with those of Banerjee and Singh (2015: 772) and Itri and Lawson (2016: 852) who both find that employees usually then spread inaccurate information amongst fellow staff members that could lead to low productivity and morale if there are no effective and frequent communication methods. Thus, ineffective communication creates an information vacuum, which leads to rumours. Rumours may occur when staff members are uninformed of decisions taken within the organisation, leading to speculation and imagination. However, in their conclusion, they find imply that this challenge can be countered by having a channel of communication in which information is exchanged more frequently and effectively, suggesting emails as such a possible channel.

4.3.4 Staff cohesion

Results (45.6%) from the questions concerning the effect of interpersonal communication on staff cohesion show that social gatherings are important in the organisation. Results (91.3%) also show that social cohesion improves staff working relationships in the workplace. The respondents (47.8%) generally agreed that Faculty staff members shared a willingness to cooperate with one another. In addition, there was a lesser level (32.6%) of disagreement on whether e-communication could be used to promote a sense of belonging amongst Faculty staff. There was, however, overwhelming consensus from the majority (97.9%) of respondents that hostile e-communication was frequently used amongst Faculty staff members and this was the major reason that causes a deterioration in social cohesion amongst Faculty staff. Moreover, the results (97.8%) indicate that communication should reflect a culture of caring and oneness in an organisation.

Another aspect of staff cohesion was that social gatherings are important in their organisation and social cohesion subsequently improves staff working relationships in the workplace. The results showed that Faculty staff shared a willingness to cooperate with one another; and that e-communication could be used to promote a sense of belonging amongst Faculty staff. It was agreed that hostile e-communication degrades social cohesion amongst Faculty staff. Instead, e-communication should reflect the ICARE culture of the university. However, respondents rejected the notion that negative, destructive e-communication is frequently used amongst Faculty staff members. Since staff cohesion refers to the extent to which staff members cooperate and work together in the pursuit of a common organisational goal, results imply that staff members of a highly cohesive team are focused on the process of achieving a common goal rather than on individual persons. Van der Meer and Tolsma (2014: 463-464) and Fruhen and Keith (2014: 23) support that it is the bond linking individuals that creates loyalty and high morale among group members, which often leads to individuals being more effective in the group.

To support the findings, Morgan-Thomas and Veloutsou (2013: 23) caution that there could be many troubles for organisations if people substitute electronic relationships for in-person ones, such as social isolation; and that eventually the difference between cyber and real may become distorted. Tomasi (2007: 413) concurs that technology cannot replace intimacy, because human beings need physical contact to maintain a real connection. Thus, it can be concluded that, at some point in an interpersonal relationship, human beings need physical interaction and face-to-face contact. From

these studies, it is clear, therefore, that technology can neither replace face-to-face confrontation nor be used to convey emotional communication.

Wise (2014: 708), who defines social cohesion as the degree of social integration and inclusion in communities and in the society at large, finds that, in the workplace, employees who participate and work together for the attainment of shared goals that are designed and agreed upon, are more cohesive and accomplish more than isolated ones. In addition, Fruhen and Keith (2014:2 4) point out that such findings on social cohesion can also be explained in the context of the extent to which mutual solidarity is expressed among individuals and communities. Thus, a society is cohesive to the extent that it can eliminate inequalities, exclusions and disparities based on demographic distinctions that engender divisions, distrust and conflict.

In support of the finding in this study that Faculty staff members are willing to cooperate with one another, Suransky and Van der Merwe (2016: 579-581) observe that many employees find it difficult to interact with others from a different culture or race, but feel more comfortable with someone who shares the same culture or race. However, the Faculty of Business and Management Sciences at UoT X, like most other modern organisations, includes employees of different nationalities, cultures and races, as well as different languages. For this reason, Suransky and Van der Merwe (2016: 581) assert that diversity may erode social cohesion if that diversity is not fully embraced, because employees who do not trust one another usually find it difficult to interact socially. Fruhen and Keith (2014: 23) add that the difference the understanding of the concept of social cohesion is reflected in how it is measured in different studies; and, in most cases, Fruhen and Keith (2014: 23) find that it is measured by trust, because employees from different countries differ in nationality, race, culture and the languages spoken. These demographic differences, Fruhen and Keith (2014: 23) point out, could be the reason why there is a lack of trust and therefore limited social cohesion in most organisations.

Pagani (2014: 306) concurs with the findings in this study whose results show that social cohesion arises from trust and that diversity affects social cohesion, social capital, and how people from different cultures who speak different languages, who differ in race, colour and creed, interact socially. According to Pagani, social capital refers to the networks of relationships among people who work in the same environment, enabling that society to function effectively. There is, however, no consensus on the ways that trust either differs or connects with social capital in contributing to social cohesion. However, Pagani (2014: 306) adds that social capital is

about the way and how people connect, network and interact for a positive purpose. In support of the impact of social capital, Portes and Vickstrom (2011: 466) extends that social capital is the ability of an organisation to create, maintain and use diverse relationships to achieve desired goals. Social capital thus accrues through communication, interaction and development of relationships inside and outside of the organisation. Therefore, social capital gained through effective communication increases employee satisfaction, commitment and productivity, as well as employee satisfaction.

Another reason that supports the lack of social cohesion amongst employees besides the use of e-communication technology, Gretry et al. (2017: 83) concludes that email communication has no capacity to build social cohesion and asserts that, if people do not trust each other, they will find it difficult to interact socially. In an organisation consisting of employees of different nationalities, cultures, races and languages, there is likely to be a lack of trust amongst workmates. Without trust, it is difficult for colleagues to interact and build social cohesion. In support of this, Cox and Trotter (2016: 152) note that people from different cultures or races would feel more comfortable with someone sharing the same culture or race. For this reason, Ariely (2014: 576) concludes that diversity has the potential to erode social cohesion and that successful organisations have strength in managing internal employee relations, based on building trust as the basis on which productive relationships, cooperation and communication are built. Thus, Letki (2008: 115-117) argues that trust is social capital which directly affects an organisation's ability to deal with change, crisis and financial status, because it influences job satisfaction, productivity, social cohesion and team building.

The results shows that email communication is usually at the centre of resolving the challenge of attempting to engage employees more fully in their work. That is why, according to Kim et al. (2016: 631), professional communicators are studying how organisations can best align words with actions, build relationships and converse with employees, rather than communicating 'at' them, and help guide authentic executive actions which reflect organisational purpose. Kim et al. (2016: 631) find that organisations that use email communication more extensively have engaged and committed employees who are 50% more productive than those whose employees are not engaged; also, employee retention rates are approximately 44% higher in organisations whose employees are engaged. Furthermore, Kim et al. (2016: 631) support the findings in this study when they find that companies with more engaged employees produce greater financial returns, as engaged employees contribute

discretionary efforts which they may otherwise withhold if they are not satisfied. Wise (2014: 708) submits that, if the work environment implements social cohesion and teamwork as a necessity, the barriers of diversity are ultimately overcome.

In line with the results of this study, Van der Meer and Tolsma (2014: 461–462) find that the use of email leads to erosion of social cohesion and teamwork. Van der Meer and Tolsma (2014) observe negative social effects of using email technology that are often attributed to the characteristics of the technology itself. They argue that electronic mail filters out personal and social cues and provides new capabilities not found in traditional media which leads to consequences such as depersonalisation. In agreement with Fruhen and Keith (2014: 24), Van der Meer and Tolsma (2014: 461–462) also conclude that email holds risks for social life at work, because emails can often result in misinterpretations, uninhibited exchanges, and feelings of isolation or depersonalisation among users. That's, in line with previous studies, this study implies that users select email deliberately when they wish to avoid unwanted social interactions, or when users want to avoid negative outcomes with their colleagues or subordinates.

In agreement with the finding that email communication can be used to promote a sense of belonging amongst Faculty staff and that it is the major reason that causes the deterioration of social cohesion amongst Faculty staff, Liebert (2001: 394) and Moody (2001: 396) find that the frequent use of the internet to communicate interpersonally leads to high levels of loneliness and low relationship satisfaction. In support of this, Sproull and Kiesler's (1986: 1496) filter model in observing that computer-mediated communication leads to a deterioration of interpersonal communication, employee relations and staff cohesion due to the medium's lack of communicative abilities, lack of facial expression, direction of gaze, posture. Furthermore, Lo (2008: 595) finds support for these results and presents evidence that internet communication lacks 'personalness' and warmth, not only as a result of the technical social absence of the communicator, but also from an absence of the social norms that display warmth during face-to-face interactions. This absence, in turn, depreciates interpersonal communication, employee relations and staff cohesion. Lo (2008: 595) thus concludes that it is for this reason that a number of studies have advocated against the use of electronic mailing for social, intuitive and emotional tasks; rather, it should be reserved for simple exchanges of information. Furthermore, Butler and Wang (2012: 1001) find that, when communicating over electronic channels, employees express more antisocial behaviour, or the message may be interpreted as 'cold', when the sender of the message does not intend this.

The results of this study shows consensus with other communication studies in arguing that effective communication is an essential aspect of organisational success and that it is a fundamental driver of business performance. In addition, communication literature further demonstrates that effective communication helps increase employee commitment, trust, learning, job satisfaction, morale and productivity. However although the internet has positively contributed to effective communication, the finding that emails have caused a deterioration in social cohesion amongst faculty staff is supported by Ambra et al. (2007: 674) who also find out that effective communication is evolving with new technologies, growing competition and rapid change, just as the working environment is also changing. Thus, employees' interpersonal skills, staff interaction and the kind of cohesion expected in the workplace for effective communication to occur is also evolving.

In line with the findings in this study, Sproull and Kiesler's (1986: 1496) filter model of computer-mediated communication concludes that computer-mediated communication, such as emails, are an impoverished form of social communication which does not usually lead to effective communication when compared to face-to-face interaction. The model thus implies that computer-mediated communication causes employees to act in more self-centred ways and behave in a less socially accepted way than they would act in face-to-face interaction. Subsequently, using more computer-mediated communication has a negative impact on employee interpersonal communication, employee relations and staff cohesion, as the politeness, etiquette and manners are often forgotten or disregarded during computer-mediated conversations.

Drago (2015: 17) concurs that email communication has negatively reduced face-to-face interaction amongst employees because, although email responses between sender and receiver usually occur instantaneously, it is considered to be a one-way mode of communication, as physical interaction and non-verbal cues between the parties are absent. Drago (2015: 17) concludes that the deterioration of social cohesion is a concerning factor that, in the long term, the absence of physical interpersonal communication among workplace staff could erode staff cohesion. Another study by Alberts (2013: 2) concurs that email is replacing face-to-face and telephonic communication whilst, at the same time, destroying team cohesion in the workplace. In support of the findings of the effects of emails, Erhardt et al. (2016: 245) and Pfaff (2012: 566) affirm that employees who interact face-to-face more frequently enjoy the company of their workmates more than those that interact via computers. It can be concluded, therefore, that face-to-face social and interactive relationships in the

workplace are important for employees, supervisors and colleagues to build work teams that understand one another better. It implies that excessive email communication usually creates an inhospitable working environment, as workmates are isolated and become morbid, which may pose a health risk.

There is another study on the use of email and its effects on social cohesion and teamwork by Markus (1994: 133) who notes that the occasionally observed negative social effects of email technology are often attributed to the characteristics of the technology itself. Markus (1994: 133) adds that electronic mail filters out personal and social cues and provides new capabilities not found in traditional media; and it has been found that these factors have consequences, such as depersonalisation. Markus also refers to Sproull and Kiesler (1986: 1497) who argue that email holds risks for social life at work because it may result in misinterpretation, angry and uninhibited exchanges, and feelings of isolation or depersonalisation among its users. It can thus be concluded from these findings that the effects of email use on social cohesion can be attributed to the technological characteristics of electronic media, such as the inability of email to transmit gestures, tone of voice and eye movements that people use to regulate and interpret their interactions in face-to-face communication.

This section links the earlier research findings to the literature review to substantiate the research findings, show correlations with other research studies, and indicate differences in the findings that could provide a new and different view on employees' overreliance on email communication. To discuss thoroughly the objectives of this study, this section outlines all objectives and discusses findings in relation to literature to ensure that they were all achieved.

4.4 Summary

This chapter has presented results from demographic characteristics of respondents, the majority of whom were academic staff. Thereafter, results of the descriptive statistical test on quantitative statistical analysis of variables determining the impact of e-communication on staff members were presented. Based on the components of e-communication, results of the four dimensions principal component analysis, the KMO and Bartlett's Test of sample adequacy and sphericity of data were presented. The data presentation chapter also include results of the Variance Analysis with eigenvalues and the Factor significance. The chapter ends with the Factor results, as well as a discussion of research results. The results are consistent in proving that the data and statistical tests in this study were sufficient and valid.

On the preference of using e-communication at the Faculty of Business and Management Sciences at the University of Technology X, the majority of the respondents indicated that they preferred to use e-communication to communicate important information to other staff members. In addition, the majority of the staff members strongly agreed that e-communication should remain the preferred method of communication in a multi-campus environment. A small percentage of the respondents strongly disagreed that they been trained to use email in a professional business environment and that professional e-communication was distinctly different from social media communication.

Furthermore, the respondents generally agreed that communication is quick and accurate via e-communication. Hence, they were satisfied that electronic mailing is used for most of communication purposes within the Faculty.

With regard to social cohesion, most of the respondents agreed that social gatherings are important in the organisation. The majority of respondents also strongly agreed that Faculty staff members shared a willingness to cooperate with one another. There was also consensus from the majority that hostile e-communication was frequently used amongst Faculty staff members and that this degraded social cohesion amongst Faculty staff. The results imply that communication should reflect the culture of caring and oneness in an organisation. On interpersonal skills, respondents moderately agreed that interpersonal communication is an integral part of their job and that good interpersonal communication results in a better working environment; and a significant number strongly agreed that interpersonal communication helped them to get to know other Faculty staff members. These results imply that interacting with fellow staff members is perceived to be important to employees. There was also a general agreement that staff interaction helps to build human relations; and that sharing experiences could help overcome the barriers of cultural diversity amongst Faculty staff members as e-communication results in less staff interaction in the workplace. The results further imply that the use of e-communication, indeed, has a negative impact on relationships amongst Faculty staff members. On staff relations, respondents emphasised that poor communication is a major cause of conflict and misunderstandings amongst Faculty staff. In addition, they agreed that e-communication results in less interpersonal communication amongst Faculty staff.

The discussion of results with reference to the literature review correlates the findings of this study with the literature by showing how the findings either concur or differ with

past literature. It is concluded from the analysis on the overreliance of staff on e-communication that email communication is the preferred channel but it exposes staff to work overload, stress and contributes to poor work-life balance. Hence, it has both positive effects on the one hand, as it facilitates work; but it also has negative effects, on the other hand, such as work overload, stress, erosion of social cohesion, reduced interpersonal relationships and interpersonal communication among faculty staff. On the finding that emails have a positive effect on productivity and relationship-building, some studies suggest that email communication promotes relationship building and maintenance and allows individuals from opposite ends of the world or campuses to communicate. Hence, it increases productivity, creates new links among people and increases communication, as well as enables communication with others spatially and organisationally distant. By contrast, other literature shows evidence that email communication impairs productivity, especially when the communicating parties find it difficult to understand the message being conveyed. However, the findings of the current study support that emails improve productivity.

Studies also conclude that, as long as employees do not expect anything more from online relationships than they can give, then they can safely enjoy the convenience of electronic media to connect to others. However, researchers also caution that there could be many troubles for organisations if people substitute electronic relationships for physical ones. Troubles include social isolation; and that eventually the difference between the cyber and the real world may become distorted. Other studies contradicting the findings of this study conclude that technology cannot replace intimacy, because human beings need physical contact to maintain a real connection. Thus, it can be concluded from these perspectives that, at some point in an interpersonal relationship, human beings need physical interaction and face-to-face contact. It is therefore clear that technology can neither replace face-to-face confrontation nor be used to convey emotional communication.

Although the development of technology has forced people to adapt their skillset to interact without the help of social cues, they still rely on face-to-face interaction to develop their social skills and establish solid and long-lasting relationships. Therefore, the purpose of emails remains to exchange information over significant distances by electronic means, eliminating the distance between continents, countries, and people without emphasising on its role to build relationships.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter presented the research findings obtained from a number of statistical tests on the primary data collected from the survey questionnaires to establish empirical results. This chapter draws conclusions from key findings of this study, and thereafter makes recommendations and suggestions for further study.

This study investigated the extent to which the overreliance of e-communication (emails) impacted on staff interpersonal communication and cohesion. However, before conclusions and recommendations can be made, it is imperative to re-visit the study's following research objectives:

- 1) To identify the reasons why email is the preferred communication medium over physical interaction amongst faculty staff.
- 2) To determine the extent to which emails replace staff interpersonal communication.
- 3) To determine if emails can be utilised to build relationships.
- 4) To clarify the extent of interpersonal communication needed to improve staff cohesion.

5.2 Concluding remarks with respect to the objectives of this study

Findings from the analysis and discussions in Chapter 4 led to some key conclusions with respect to meeting the research objectives of this study. The following are specific conclusions drawn from this analysis in relation to each objective. In each case, there is a brief overview of the objective and detail of how it has been achieved in this study.

5.2.1 Main research objective: To establish if there is over-reliance on email communication amongst faculty staff

The main objective of this study was achieved through empirical analysis of data responses collected to investigate the extent to which the overreliance of e-communication (emails) impacted on staff interpersonal communication, staff relation and cohesion. Findings showed that, in the Faculty of Business Science at UoT X, a

high percentage of staff and students rely on emails as the main channel for communication between and among them, as there is need for frequent communication among all of them which is nearly impossible through other interpersonal platforms. The findings also showed that staff in the Faculty of Business and Management Sciences at UoT X preferred using electronic communication to communicate most of the important information to other staff members as well as to students. It is, however, difficult to conclude whether staff reliance on email communication can be called “over-reliance”, as there is no evidence of excessive use of emails, except for business communication.

In addition, the faculty staff members were of the opinion that electronic communication should remain the preferred method of communication in a multi-campus environment. Staff members preferred emails because, in a professional business environment, it is easy to use email without any formal training; and there is a general view among staff members that professional electronic communication is not distinctly different from social media communication as it can also be self-taught. It can therefore be concluded from the findings that there was staff reliance on email communication. Their rationale for their reliance on email was that it was quick and accurate to communicate via this electronic platform.

Another conclusion that was drawn from the findings was that there were several reasons for the choice of email as a means of communication. In an institution of higher learning, the environment, such as in the case of the Faculty of Business and Management Sciences at UoT X, necessitates reliance on a certain key mode of communication. The quest to overcome the complex and bureaucratic nature of a higher education institution, as well as the lack of effective internal communication amongst faculty staff (which often results when there is a lack of staff interaction and interpersonal communication at multi-campus universities), has contributed to the overreliance of staff on email communication. This overreliance has also been influenced by other factors, such as large staff numbers, geographically dispersed campuses and merged organisational structures that have made face-to-face communication difficult. Therefore, it can be concluded that email communication is one of the few communication platforms available to maintain effective communication in a large institution with multiple branches or campuses, compared to those where there are frequent face-to-face consultations and meetings. These conclusions imply that staff overreliance on email communication occurs less by choice than by circumstance and is also motivated by the need of staff members to fulfil their responsibilities.

5.2.2 Research sub-objective 1: To identify the reasons why email is the preferred communication medium over physical interaction amongst faculty staff

This sub-objective was achieved through collecting data from the staff of the Faculty of Business at UoT X on their preference for using electronic communication. The findings showed that the majority faculty staff members at UoT X preferred using emails to communicate important information to other staff members. The findings also showed that their preference for email communication was because it is quick and accurate in conveying messages; it is the cheapest mode of conveying messages efficiently; and it enables the continuous flow of relevant information. These characteristics, in turn, made staff and university managers alike more efficient and productive, and enabled quick responses to any issue that might arise. Findings also showed that emails were preferred as they are utilised extensively for managing diaries of meetings with automated reminders; they can be used to check staff birthdays, formulate a message from a template and send it individuals on their birthdays. These functions of email communication made it preferable as it streamlined the workload of both staff members, managers and students.

A further conclusion that can be drawn is that email communication can lead to increased productivity, although this is often achieved at the cost of high stress levels and lower employee satisfaction.

It is concluded from this overview that electronic communication will remain the preferred method of communication in a multi-campus environment due to its many advantages which outweigh its disadvantages.

5.2.3 Research sub-objective 2: To explore the extent to which emails replace staff interpersonal communication

This objective was achieved through analysing data collected from questions that related to interpersonal communication. Faculty of Business staff at UoT X were asked questions on whether interpersonal communication was an integral part of their job, whether interaction resulted in a better working environment (through their being able to get to know other faculty staff members) and if they preferred staff interpersonal communication instead of e-communication as a means to communicate with their colleagues in the workplace. Questions about whether staff

interaction in the workplace was important to increase productivity and if interacting with fellow staff members was important to them were also used to collect data.

The findings showed significant consensus that interpersonal communication was an integral part of the job and good staff interpersonal communication resulted in a better working environment. Hence, it can be concluded that good interpersonal communication helps employees to get to know each other.

Staff interpersonal communication also significantly increased productivity as it supported cultural diversity amongst faculty staff. A conclusion can be drawn from the finding that employees strive to avoid saying anything online that they would never say or feel uncomfortable saying to someone in person, hence it is implied that striving to develop satisfying interpersonal relationships, both online and offline, results in a better working environment.

Although email communication has many advantages, there was general consensus in the findings that face-to-face interaction was usually the best method of transmitting emotions and convincing the receiver of the importance of the message due to vocal intonation, while the use of other body language emphasises the message being sent; and feedback from the receiver is immediate. It can be concluded, therefore, against the view that email communication is replacing interpersonal communication, that, whilst emails cater for communication in formal environments, interpersonal communication remains as it accounts for most informal, everyday communication transactions, including those involving personal and intimate relationships, rather than business situations.

5.2.4 Research sub-objective 3: To establish if emails can be utilised to build relationships

This objective was achieved by analysing data collected through questions on whether poor communication is a major cause of conflict and misunderstandings amongst faculty staff, and if electronic communication results in less interpersonal communication amongst faculty staff. Findings showed that poor communication was a major cause of conflict and misunderstandings amongst faculty staff members. Staff members also agreed that electronic communication resulted in less interpersonal relationships amongst faculty staff. These findings imply that the use of electronic communication, indeed, has a negative impact on the relationships amongst faculty staff members. The interdependency between communicating parties means that

interpersonal communication is inevitably relational in nature; and, as it takes place in a relationship, it affects and it defines the relationship. Hence, it is concluded that staff members communicate differently with different colleagues and their messages are tailored for individual staff recipients.

The findings further showed a general agreement that staff interaction that involved sharing experiences helped to build relations and could support cultural diversity amongst faculty staff members, while electronic communication resulted in less staff interaction in the workplace. Because face-to-face interpersonal communication helps faculty staff members to get to know one another, it can be concluded that those staff members that prefer building relationships utilize more face-to-face interpersonal communication instead of electronic communication to communicate with their colleagues. Findings further proved that the actions of one staff member held consequences for other staff members in the Faculty. This interdependency among communicating staff members means that interpersonal communication is inevitably relational in nature as it takes place in a relationship, it affects the relationship and it defines the relationship.

5.2.5 Research sub-objective 4: To clarify the extent of interpersonal communication needed to improve staff cohesion

This objective was achieved through analysing data collected in response to the questions asked to establish if social gatherings were important to the staff members at UoT X and if staff members thought that social cohesion could improve staff working relationships in the workplace. The questions were also used to establish if faculty staff shared a willingness to cooperate with one another and if electronic communication could be used to promote a sense of belonging amongst faculty staff.

Findings on the effect of interpersonal communication on staff cohesion showed that social gatherings were perceived as important in the organisation and that social cohesion improved staff working relationships. The findings also showed that faculty staff members shared a willingness to cooperate with one another, although the extensive use of electronic communication did not promote a sense of belonging amongst faculty staff.

There was also consensus from the findings that hostile electronic communication was frequently used amongst faculty staff members and was perceived to be the major reason for the deterioration of social cohesion amongst faculty staff. It was

conclusively significant that hostile e-communication degrades social cohesion amongst faculty staff. It can thus be concluded from these findings that communication reflects the culture of caring and oneness in an organisation.

Another aspect affecting staff cohesion are social gatherings. Findings reflected that these are important; and, subsequently, social cohesion among staff improved. The findings further showed that faculty staff shared a willingness to cooperate with one another; and e-communication could also be used to promote a sense of belonging amongst faculty staff. Since staff cohesion refers to the extent to which staff members unite and work together in the pursuit of a common organisational goal, these results imply that staff members of a highly cohesive team are focused on the process of achieving a common goal, rather than on individual persons.

It is clear, therefore, that technology can neither replace face-to-face confrontation nor be used effectively to convey emotional communication. The negative effects of email use on social cohesion can be attributed to the technological characteristics of electronic media: it is unable to transmit gestures, tones of voice and eye movements that people use to regulate their interactions in face-to-face communication.

5.3 Recommendations

This study was important for providing a sound basis from which to make recommendations to the staff and management of the Faculty of Business and Management Sciences at UoT X concerning the use of electronic communication. Based on the findings and conclusions of this study, the following recommendations are made in relation to the research objectives to solve the research problem:

5.3.1 Recommendation 1:

With regard to overreliance on email communication, as the findings show, it is highly possible that people can misinterpret feelings or be hurt by what is written online; and because interpersonal relationships can easily be negatively affected by email communication, it is strongly possible that an overreliance on electronic communication leads to misunderstandings which injure interpersonal relationships. Thus, staff members need to balance email time with face-to-face contact time to maintain stable interpersonal relationships.

5.3.2 Recommendation 2:

With regard to staff interpersonal communication, the University should discourage over-reliance on email as the main mode of communication in all circumstances. When the message being conveyed is not urgent, instead of sending an email, faculty staff members should be encouraged to interact physically with their colleagues. To encourage this, UoT X should convene more events such as retreats, workshops, team buildings and other employee gatherings.

5.3.3 Recommendation 3:

Building positive staff relations should be achieved through sharing experiences and day-to-day interactions, both formal and informal, amongst faculty staff members. This would apply when there is a need to resolve disagreements, encourage interpersonal dialogue, promote the benefits of diversity and encourage mutual tolerance. Sharing teaching subjects, co-authoring books and journal articles, exchange programmes and community engagement programmes would ensure that staff members work together in organising and discussions. In such ways, staff relations are improved.

5.3.4 Recommendation 4:

With regard to staff cohesion, there is a need to create social environments where faculty staff members are encouraged to work together as teams. Platforms such as off-campus research retreats, university sporting events, university conferences, recreational tours and subject clusters could be implemented in order to encourage the sharing of experiences and building of staff cohesion.

5.4 Study limitations and implications

This study applied an explanatory interpretative phenomenology. It has inherent limitations as the research participants must be able to articulate their thoughts and feelings about the experience being studied. Due to the staff diversity at the Faculty of Business and Management Sciences at UoT X, with staff members from different backgrounds, it might have been difficult for them to express themselves owing to language barriers, age, cognition, embarrassment and other factors. Another limitation was that interpretative phenomenology requires researcher interpretation, making phenomenological reduction an important component to reduce biases, assumptions

and pre-conceived ideas about an experience or phenomenon. To a larger extent, the results from an interpretative phenomenological analysis are not statistically reliable; so, even with a larger sample size, the study may not produce generalizable data.

To counter all the major limitations of interpretative phenomenology, the sample analysed in this study of staff members at the Faculty of Business and Management Sciences at UoT X are considered educated as their job has strict entry requirements. As such, all the participants in this study should have been able to articulate their thoughts and feelings about the research topic being studied. Language could not have been a key impediment to responses, as English is a single, universal language used for instructing at UoT X and it is a requirement to be able to communicate in that universal language as a staff member.

Reliability of the data and results were tested using the Kaiser-Meyer-Olkin (KMO) test and the Principal Component Analysis (PCA) to measure validity, reliability and a measure of suitability of research data. The use of both qualitative and quantitative approaches was important to reduce researcher bias, assumptions and pre-conceived ideas about an experience or phenomenon. Although the questionnaire response rate was low at 18%, which was below the 30% norm, Fincham (2008: 45-46) asserts that, if a sample includes more than 15 responses, within an interpretative phenomenology approach, the researcher may continue with the statistical analysis.

5.5 Suggestions for further study

The study investigated the use of electronic communication and its impact on staff interpersonal relationships, staff relationships and staff cohesion at a UoT. Further studies may consider the same variables at a different institution with different functionalities. Other considerations could be to include other variables, such as measuring organisational effectiveness in different circumstances of electronic communication usage. Another research focus could be to use a different methodology, such as focus groups or control experiments to determine the impact of the variable on organisational effectiveness and efficiency.

5.6 Significance and contribution of this research

The purpose of this research study was to investigate the use of electronic communication and the impact it has on university of technology staff. There has been debate on whether an overreliance on emails erodes staff cohesion, damages

interpersonal communication and replaces staff face-to-face interaction. Through the findings, this study has made the following three major contributions: 1) It has determined the net effect of using electronic communication on staff interaction, staff cohesion and interpersonal communication. Moreover, it has recommended innovative ways of utilizing electronic communication in order to promote a sense of belonging and cooperation amongst faculty staff, thereby strengthening staff interaction and cohesion; 2) The management of the Faculty of Business and Management Sciences would be able to implement the research recommendations of this study to promote workplace camaraderie which, in turn, can lead to enhanced Faculty performance; and 3) The insights gained from this research study contribute to a body of knowledge that future researchers can relate to and build upon. All these dimensions are beneficial for the long-term, proactive strategy of institutions of higher learning to remain highly competitive in executing their mandate of educating people.

5.7 Conclusion

This study has investigated the use of electronic communication and its impact on staff interpersonal relationships, staff relationships and staff cohesion. Studies reported in the literature argue that email communication increases efficiency, productivity and effectiveness of organisations through various means: through facilitating rapid communication via established distribution lists; by enabling information based on specific topics to be forwarded automatically; or through enabling the sending of information to specific individuals, as needed. Other studies contest that relying on email communication impedes efficiency, productivity and effectiveness, and leads to deterioration of employee relationships due to its lack of communicative abilities (absence of facial expression, direction of gaze, posture and verbal cues such as timing, pauses and accentuations). Analysis of data collected through questionnaires showed that employees of the Faculty of Business and Management Sciences at UoT X expressed more antisocial behaviour through email communication; and this has a direct and negative impact on their relationships, interpersonal communication and group cohesion.

The following conclusions are thus made in relation to the research objectives: Firstly, it is concluded that the faculty staff members at a selected University of Technology in South Africa over-rely on email as the preferred communication medium instead of physically interacting with faculty colleagues: and this is leading to a deterioration of interpersonal communication, staff relationships and staff cohesion. Secondly, email communication cannot replace interpersonal communication without compromising the

contribution of interpersonal communication, staff relationships and staff cohesion towards organisational goals. Thirdly, although emails offer many advantages, the high possibility that staff can more easily express antisocial behaviour through email communication does not contribute to the building of positive staff relationships. Lastly, since human interaction in the workplace helps to build better human relations through opportunities for sharing experiences, and electronic communication results in less such staff interaction, efforts are needed to enhance opportunities for interpersonal communication which, in turn, facilitates staff cohesion.

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APPENDICES

APPENDIX A: QUESTIONNAIRE WITH PARTICIPANT INFORMED CONSENT FORM

E-communication Questionnaire

This questionnaire is designed to determine how the reliance on e-communication impacts on staff interpersonal communication, staff interaction and cohesion.

This questionnaire is divided into two sections: biographical information in Section A; and communication questions/ statements in Section B. The e-communication questions / statements are designed to understand how e-communication affects human relations, performance and interaction.

The Likert scale of 1-4 is used for rating each research question / statement. Scoring should occur as follows:

1	2	3	4
Strongly disagree	Disagree	Agree	Strongly agree

If you wish to participate in this questionnaire, please read and sign the research participant informed consent form (next page of this document).

Please return the signed informed consent form and completed e-communication questionnaire to the researcher, Mrs Amiena Sallie, by no later than **DATE**. You may submit or email the response to:

Mrs Amiena Sallie
Room 4.32, 4th floor, Commerce Building or salliea@cput.ac.za
Cape Town Campus
Faculty of Business and Management Sciences
Cape Peninsula University of Technology

Thank you for making a difference in Higher Education.

Kind regards

Mrs Amiena Sallie
Magister Technologiae: Business Administration student

Research Participant Informed Consent Form

Research Title: Investigating the use of electronic communication and its impact on Faculty staff members at a selected University of Technology in South Africa

Researcher: Mrs Amiena Sallie

Supervisor: Dr Liiza Gie

Introduction:

I extend an invitation to you for participation in the e-communication questionnaire. Please note that taking part in this research is entirely voluntary. Should you wish to take part, please sign this form below, indicating your willingness to participate.

The purpose of this research study:

1. To identify the reasons why email is the preferred communication medium over physical interaction amongst Faculty staff.
2. To determine the extent to which emails replace staff interpersonal communication.
3. To determine if emails can be utilised to build relationships.
4. To clarify the extent of interpersonal communication needed to improve staff cohesion.
5. To recommend appropriate usage of emails while creating a platform for building staff cohesion.

Research method:

This is a quantitative, self-administered questionnaire, designed to determine how the overreliance on e-communication impacts on staff interaction, staff interpersonal communication and cohesion.

Potential benefits:

The research aims to reduce the overreliance on emails in order to stimulate interpersonal communication amongst Faculty staff, and, in doing so, improve staff cohesion.

Statement of ethics:

Confidentiality of response will be ensured and no person will be prejudiced for participating in this study, while quality control and secure storage of data will be maintained. All participants will remain anonymous and no probability of harm is expected.

Contact information for questions or concerns:

For any further information about this research, clarity on questions and / or concerns, please do not hesitate to contact the researcher, Mrs Amiena Sallie: (021) 460 3639 or salliea@cput.ac.za.

Participant: By signing this consent form, you indicate that you are voluntarily choosing to take part in this research.

Signature of Participant

Date returned

Please make an "X" in the appropriate block which reflects your answer.

SECTION A: Biographical Information

1. Age grouping:

18-25 26-35 36-45 46-55 56-65

2. Gender:

Female Male

3. Race:

African Coloured Indian/Asian White

4. Language:

isiXhosa Afrikaans English Other

5. Occupation:

Administrative staff Academic staff Managerial staff

6. Job location:

Academic department Deanery Faculty Office GCM Other

7. Length of service at current institution:

0-7 years 8-17 years 18-27 years 28-37 years 38-47 years

8. Highest qualification

National Senior Certificate Diploma Undergraduate Degree

Postgraduate Degree Masters Doctoral Other

SECTION B: E-communication Questions / Statements

Question / statement	1 Strongly disagree	2 Disagree	3 Agree	4 Strongly agree
a) I prefer using e-communication to communicate important information to staff.				
b) E-communication should remain the preferred method of communication in a multi-campus environment.				
c) I have been trained to use email in a professional business environment.				
d) Professional e-communication is distinctly different from social media communication.				
e) Communication is quick and accurate through e-communication.				
f) I am satisfied that email is used for all communication purposes within the Faculty.				
g) Poor communication is a major cause of conflict and misunderstandings amongst Faculty staff.				
h) E-communication results in less interpersonal communication amongst Faculty staff.				
i) Interpersonal communication is an integral part of my job.				
j) Staff interpersonal communication and interaction results in a better working environment.				
k) Interpersonal communication helps me to get to know other Faculty staff members.				
l) I prefer staff interpersonal communication instead of e-communication to communicate with my colleagues in the workplace.				
m) Staff interaction is important in the workplace to increase productivity.				
n) Interacting with fellow staff members is important to me.				

o) I do not see the need for staff to interact with each other.				
p) Staff interaction could support cultural diversity amongst Faculty staff.				
q) E-communication results in less staff interaction in the workplace.				
r) Staff interaction helps build human relations by sharing of experiences.				
s) Social gatherings are important in my organisation.				
t) Social cohesion will improve staff working relationships in the workplace.				
u) Faculty staff share a willingness to cooperate with one another.				
v) E-communication could be used to promote a sense of belonging amongst Faculty staff.				
w) Negative, destructive e-communication is frequently used amongst Faculty staff members.				
x) Hostile e-communication deteriorates social cohesion amongst faculty staff.				
y) E-communication should reflect the ICARE culture of the university				

Thank you for your participation

APPENDIX B: STATISTICS CERTIFICATE



To whom it may concern:

**Amiena Sallie (Student Number 205166202) – MTech dissertation titled:
Investigating the use of e-communication amongst faculty staff members at a
selected University of Technology in South Africa.**

This is to certify that I conducted the statistical analysis of the quantitative data in this research project.

My function was not to be involved in the interpretation thereof – that should be the student's own work.

C Uys.

CPGS Manager
Corrie Uys, DTech (Informatics), M.Sc (Statistics)
2 May 2019