AN ANALYSIS OF SYSTEMIC THINKING IN DECISION-MAKING PROCESSES IN THE MUNICIPALITIES WITHIN THE PROVINCE OF KWAZULU-NATAL

By

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DECLARATION

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DEDICATION

To:

1. My God, my creator who knew about this achievement long before I was born and further ordained me to be a prophet among the nations. Wow! It is suffice to say, indeed, you are **'*The Beginning and the End*';**

2. My Mother, Norah Lettie Ntuli for her support and prayers. "To me, Mom, you are a pillar of strength. Even though, mountains moved and the hills disappeared, but your faithful love was always there for me";

3. My Father, Bernard Bafana Ntuli for his teachings, wisdoms and to remain a man of high integrity and of good standing in society. "To me, Dad, you have instilled a culture of becoming a responsible and accountable citizen";

4. To all my children -to you I say **"The FUTURE belongs to those who believe in the beauty of their DREAMS"** Eleanor Roosevelt; and

5. To all the teachers who have taught and supported me from my primary level of education up to this highest level of education-to all of you I say:

   "Your contributions shall always be understood in the context of the fruit of God's grace in you, not as a result of your own efforts, but the greatest accomplishment of allowing God to carry out His plans through you".

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ABSTRACT

The purpose of this study was to investigate the understanding, application and effectiveness of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal. This study was based on the premised that the success or failure of the municipality is, among other factors, the product of the decision-making processes of its leadership-politicians, administrators and relations between them. These relations derive not only from conflict or cooperation, but also from the power and influence each side wields over strategic decision-making processes. A mixed method approach was used to collect data from 61 municipalities within the province of KwaZulu-Natal to test a plethora of theoretical paradigms of different erudite scholars on the discourse of systemic thinking in decision-making processes. A sample size of 183 senior managers from the population of 305 senior managers was chosen through the stratified random sampling techniques. The participants were Chief Financial Officers, Director Corporate Services and Municipal Managers. A response rate of 83% was attained. The key results indicated that the majority of respondents (88.1%) do not believe that the conventional ways of thinking are still relevant in resolving management challenges in municipalities, and the majority of the respondents (89.4%) believe that systemic thinking would be a better approach in managing the municipalities. This study contributes to the existing theory of systemic thinking in decision-making processes in the municipalities within South Africa, as a whole. The conclusions made out of this study, is that, there is a need for a development of a user-friendly manual on systemic thinking that will empower senior managers in municipalities with relevant systemic thinking skills and expertise, and this study further recommended that institutions of higher learning must incorporate systemic thinking in their management or leadership curriculum.

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GLOSSARY OF TERMS

Analytical Thinking	It is a practice or an ability of thinking about the parts or elements of a situation.
Category C : District Municipality	A municipality that has municipal executive and legislative authority in an area that includes more than one municipality.
Category A: Metropolitan Municipality	A municipality that has exclusive municipal executive and legislative authority in its area.
Category B: Local Municipality	A municipality that shares municipal executive and legislative authority in its area with a category C municipality within whose area it falls.
Perfect Information	A situation in which all data that is relevant to a particular decision is known and available to the decision maker.
Synthetical Thinking	It a practice or an ability of thinking about how the parts or elements of a situation work together.
Systemic Thinking	It is a simple thinking technique for gaining situation-wide insights into complex situations and problems.
Rational Decision-Making	A logical, multi-step model for choosing between alternatives that follow an orderly path from problem identification through to the solution.
Senior Manager	In relation to a municipality, means a manager referred to in section 56 of the Municipal Systems Act; or in relation to a municipal entity, means a manager directly accountable to the chief executive officer of the entity.

CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

Leaders and managers in private and public sector organizations are still stacked to conventional old ways of seeing the world with paradigms and worldviews that are largely mechanistic in nature. The literature revealed that, while some simply give lip service to new concepts and ideas, others appear incapable of escaping the bondage of linear thinking. This limited capacity or desire to understand, let alone actually enjoying the benefits of systemic and complexity thinking, prevents them from adopting systemic perspective, resulting in decision making based on the norm of conventional linear thinking. They fail to see the landscape by using distorted or inappropriate maps that lead them to repeat the errors that have often created the complex issues they face (Stevenson, 2012: 32).

Yet, in today's complex business environment, business managers are expected to accommodate pressures of external factors in making coherent, effective, efficient, economical and transparent decisions. This chapter provides an overview of this study. It focuses on the theory of systemic thinking and its relevance in managing municipalities, since it has been established from the literature that systemic thinking can be the most appropriate thinking technique for managers to deal with complex challenges faced by the municipalities. Further, discussions will take place on the conceptualisation of

systemic thinking, a brief background of the challenges faced by the municipalities, the problem statement, research question as well as the research sub-questions, objectives of the study, the geographical location of the study and the employed research methodology.

1.2 The Problem Statement

The problem is that leaders and managers both in private and public sector organizations are still stacked with old conventional ways of decision-making and of seeing the world with paradigms and worldviews that are largely mechanistic in nature (Stevenson, 2012:32). This problem is confirmed in the Local Government Sector Education and Training Authority (LGSETA) Report (2007:139) that 31% of municipal managers have qualifications other than those related to finance, legal, public administration, planning and development and 28% of chief financial officers do not hold finance-related qualifications. Equally, 35% of technical managers are without engineering qualifications. As a result, this state of affairs impacted negatively on the performance of municipalities in question as these senior municipal executives are expected to provide expert administrative views and opinions to the political structures and political office-bearers in municipalities. This problem of weak leadership in strategic decision makers, including corporate governance; shortage of skills to implement financial management; legislation; misplacement of skills within municipalities; political considerations in appointments of senior managers without required qualifications; had tremendously weakened the performance of municipalities (Kanyane, 2006: 123).

This problem in decision-making processes has been affirmed by the South African Auditor- General that 60% of the 283 municipalities cannot give evidence to account for the revenue they received (Nombembe, 2008 : 64). This means that the municipal managers and financial officers are unable to make sound systemic thinking decisions. Thus, in this study seeks to analyse systemic thinking in decision making processes in municipalities.

1.3 The Motivation for the Study

Municipalities are currently faced with complex challenges and problems pertaining to effective and sustainable provision of basic services; administrative capacity and institutional performance to drive service delivery and effective implementation of government policies and programmes (Koma, 2010:74). According to the National Capacity Building Framework (NCBF) for local government, capacity is regarded as the potential for something to happen. A three-pronged definition of capacity is succinctly provided in the framework touching on individual, institutional and environmental capacity factors.

Individual capacity refers to the potential and competency, or lack thereof, found within a person, normally reflected through his or her specific technical and generic skills, knowledge, attitudes and behaviour accumulated through forms of education, training, experience, networks and values (NCBF, 2008: 82).

Institutional capacity refers to the potential and competency, or lack thereof, found within organisations. It includes human resources, strategic leadership, organisational purpose, institutional memory, internal confidence, partnerships, intergovernmental relations and functions, infrastructure and financial capability (NCBF, 2008:82).

Environmental capacity refers to the potential and competency, or lack thereof, found outside of municipalities' formal structures. These include socio-economic composition and demographic composition, the political, legislative and social capital within communities and the natural and mineral resources available (NCBF, 2008:82).

Due to the lack of these competences and capacities, the Auditor General in South Africa has, in many instances, made adverse findings on most decisions taken by senior managers within a number of municipalities in South Africa. The completion of this study will provide those in charge of the municipalities with valuable information on the understanding, application and effectiveness of systemic thinking in decision-making processes in the municipalities. The beneficiaries of this study and the benefit it will derive are as follows:

- The municipal council of the municipalities will either retain the status quo of the current practice in decision-making processes or will adopt systemic thinking arising from the findings of this study;
- The municipality's senior managers will be able to measure themselves on how much they understand about systemic thinking and its effects thereof;

- The concept of systemic thinking will be tested in complex and social dynamic structure, such as the municipality. As a result, it will assist municipal managers to resolve different complex problems in running the municipalities;
- The findings of this study will be used as a benchmark or a model to assess, identify the skills gaps required and further assist in the development of a training programme of empowering managers to effectively manage organisation or business operations in any complex environment;
- The customers or members of the community will reap the benefits of quality decisions taken at the level of senior management of the municipality; and
- The quality of decision taken at strategic management of the municipality will improve the quality of leadership and management of municipalities and any other business sector.

1.4 The Focus of the Study

The focus of this study was on the analyses of systemic thinking in decision-making processes within the municipalities in the province of KwaZulu-Natal. This study targeted senior managers within the municipalities in the province of KwaZulu-Natal who were tasked with the responsibility of managing corporate services, municipal finances and the overall management of the municipality, in general. Thus, this study intended to establish the views of senior managers regarding their understanding, application and effectiveness of systemic thinking in decision-making processes and further explored the possibilities of developing a model on systemic thinking.

1.5 The Research Questions

The following research questions stimulated the research design processes and the investigation of the succeeding aim and the research objectives:

- What is the understanding of systemic thinking by senior managers of the municipalities within the province of KwaZulu-Natal?
- How is the application of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal?
- How effective is systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal?

1.6. The Research Hypothesis

Based on the objectives and the literature review of this study, the following null hypothesis were developed to guide research:-

- H_o1: There is no significant relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o2: There is no significant relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o3: There is no significant relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o4: There is no significant relationship between the number of years in current position and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o5: There is no significant relationship between the numbers of times participated in strategic decision making process and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o6: There is no significant relationship between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities.

- H_o7: There is no significant relationship between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace.

- H_o8: There is no significant relationship between the number of years in current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision making processes.

1.7. The Aim and Objectives of the Study

1.7.1. The Overall Aim of the Study

This study intended to analyse the understanding, application and effectiveness of systemic thinking in decision making processes by senior management of the municipalities within the province of KwaZulu-Natal.

1.7.2. The Objectives of the Study

This study sought to conduct a scientific study that seeks to gather empirical evidence on the following objectives:

- To determine the understanding of the concept of systemic thinking in decision-making processes by the senior managers within the Municipality in KwaZulu-Natal;
- To investigate the application of systemic thinking in decision-making processes within the municipalities in KwaZulu-Natal;
- To assess the effectiveness of systemic thinking in decision-making processes within the municipalities in KwaZulu-Natal; and
- To recommend a model of how systemic thinking can be incorporated and applied in the decision-making process.

1.8. The Research Methodology

A combination of quantitative and qualitative research approaches was conducted in this study. The population of the study was 183 senior managers in the municipalities within the province of KwaZulu-Natal. The province of KwaZulu-Natal has sixty-one municipalities that comprises of fifty local municipalities, ten district municipalities and one metropolitan municipality. A sample size of 183 senior managers was drawn from the whole population of 183 senior managers through the stratified random sampling. The sampling frame used was a list of senior managers from the KwaZulu-Natal Department of Cooperative Governance and Traditional Affairs (KZNCOGTA) within the municipalities in the province of KwaZulu-Natal.

A questionnaire was used as an instrument to collect data on the perceptions and practices of senior managers in decision-making processes. The instrument had 24 questions which were divided into 4 main sections (a full copy of the survey questionnaire is attached as Annexure 'D'). These 4 main sections were developed in line with the research objectives. The first section covered descriptive data relating to the participants. It included data on gender, qualification, position occupied and experience in strategic management and the number of times a participant has participated in strategic decision-making processes.

1.9. Outline of Study

This study is presented in a sequence that sought to give a clear and logical, understanding and conceptualization of the problem, a literature review, a description of the research design and methodology, discussion of the results, recommendations and conclusions. Hence, this study is presented in five chapters as follows:

- **Chapter One:** provides an introduction to the research problem, the motivation, focus of the study and the research question to be addressed. The objectives of the study were identified. The chapter also focuses on who the beneficiaries of this study are and how they will benefit from the study.

- **Chapter Two:** presents the literature review on the work of erudite scholars in the field of decision-making processes. It builds from the works of well-renowned scholars of systemic thinking and further considered and critiqued the assumptions of the rational decision-making process model.

- **Chapter Three**: focuses on the research methodology used to conduct this study. It explains the research methodology and sampling techniques adopted. The reason for a mixed method approach is explained as well the selection of a stratified random sampling. The reason for using a questionnaire as an instrument of data collection and how the questionnaire was administered, are explained.

- **Chapter Four**: presents the results and the interpretation of the empirical findings of this study. The analyses and discussion of the results are presented in corroboration with the literature. The results are presented in the form of figures, tables and cross tabulations. Descriptive and inferential statistics are used to attach meaning to the results of this study.

- **Chapter Five**: presents the recommendations and conclusions arising from the findings of this study. The identified limitations of the study and are discussed and areas of future research are also presented in this chapter.
-

1.10. Conclusion

In a nutshell, this chapter presented a clear and well thought of problem statement, motivation of the study, focus of the study, research questions, objectives and outline of the study. As a result, the next chapter presents the literature review, which forms the basis of this study.

CHAPTER TWO

THE LITERATURE REVIEW

2.1 Introduction

This chapter reviewed relevant literature in this study. Most of the literature reviewed were related to decision-making processes. The literature review included the theories underpinning decision-making processes in profit or non-profit organisations, the conceptualisation of systemic thinking and its meaning, the significance of systemic thinking in municipalities, the theory of the rational decision-making model, the assumptions of the rational decision-making model, the theory of rational decision-making processes and its relevance in managing a municipality, the posture of municipality in business community, complexity within the context of management practices, systemic thinking in complex business environment, the management challenges in municipalities, the strategies to mitigate the deficiencies of human capital and administrative challenges, the challenges of bureaucratic structures in municipalities and the socio-economic challenges.

2.2 The Underpinning Theories in Decision-Making Processes

2.2.1. The Theory of an Economic Man

This literature review was guided by the theory of riskless choices. Most importantly, the fundamental principle of maximization that suggested that economic man always chooses the best alternative from among alternatives open to the economic man, and as the economic man saw it (Edwards ,1954: 381). According to Edwards (1954: 194) and Creswell (2005:196), many business practitioners, other than psychologists, tried to account for individual and organisational behaviour. Economists and a few psychologists produced a large body of theory and a few experiments that dealt with individual and organisational decision making processes (Edwards, 1954: 380). Analogically, the kind of decision-making with which this body of theory deals with is better presented as follows: Say you are given two scenarios, *A* and *B, whereby* an individual chooses *A* in preference to *B* (or vice versa). The economic theory of decision making is a theory about how to predict such decisions.

Economic theories have been concerned with this theory since the days of Jeremy Bentham (1748-1832). In recent years, the development of the economic theory of individual's decision making has become exceedingly elaborate, mathematical and voluminous. Hence, it has influenced decision making processes of business management practices (Drucker, 2007: 221). The method of those theorists who have been concerned with the theory of decision-making is essentially an armchair method. They make

assumptions, and from these assumptions they deduce theorems which presumably can be tested, though it sometimes seems unlikely that the testing will ever occur. The most important set of assumptions made in the theory of riskless choices may be summarized by saying that it is assumed that the person who makes any decision to which the theory is applied is an economic man.

Edwards (1954:381) stated that an economic man has three properties, namely :-

i. that an economic man is completely informed;
ii. that an economic man is infinitely sensitive; and
iii. that an economic man is rational.

By complete information, an economic man is assumed to know not only what all the courses of action open to him are, but also what the outcome of any action will be. By infinite sensitivity, it is assumed that the alternatives available to an individual are continuous, infinitely divisible functions, that prices are infinitely divisible, and that economic man is infinitely sensitive, and by rationality, this means two things: that a decision maker can uncertainly order the states into which he can get, and makes his choices so as to maximise something (Edwards, 1954: 301). In simple analogy, this means that there are two things that are required in order for an economic man to be able to put all available states into a weak ordering. First, given any two states into which he can get, for example *A* and *B*, he must always be able to tell either that he prefers *A* to *B*, or that he prefers *B* to *A*, or that he is indifferent between them. If preference is operational defined as choice, then it seems unthinkable that this requirement can ever be empirically violated.

The second requirement for weak ordering, a more severe one, is that all preferences must be transitive. That is to say if economic man prefers *A* to *B* and *B* to *C,* then he prefers *A* to *C*. Similarly, if he is indifferent between *A* and *B* and between *B* and *C,* then he is indifferent between A and C. It is not obvious that that transivity will always hold for human choices. Now, the central principle of the theory of decision making is that an economic man must make his decisions in such a way as to maximize something. Hence, in the theory of riskless choices, economic man has usually been assumed to maximize utility, whereas in the theory of risky choices, he is assumed to maximize expected utility.

2.2.2. The Basis of Systemic Thinking

In this chapter, the researcher aims to review literature on the discourse of systemic thinking. The discourse of systemic thinking, according to Bartlett (2001: 83) and Hall (2012:113), has its primary origins in elements and abstracts of the following thinking techniques: creativity and lateral thinking, as developed by Dr. Edward de Bono; the theory of constraints, as developed by Dr Eliyahu Goldratt, the theory of inventive problem solving by Dr Genrich Altshuller, systems thinking by Joseph O'Connor & Ian McDermott et al. and neuro-linguistic programming. Systemic thinking is a simple thinking technique for gaining systemic (situation-wide) insights into complex situations and problems. It puts the benefits of the systems thinking revolution within the reach of everyone (Bartlett, 2001: 2).

In this chapter, the researcher will investigate the literature on systemic thinking, in collaboration with other existing thinking techniques, with a view of identifying gaps in literature around the discourse of systemic thinking. Systemic thinking is cited the most important thinking technique in dealing with complex issues in any form of organization, since it is a combination of analytical and synthetic thinking approach in complex situations (Bartlett, 2001: 2). Despite years of talk about systemic thinking, few companies or governments actually practise it (Doppelt, 2012:13), yet, the literature suggests that systemic thinking is effective in dealing with complex challenges.

To determine the understanding, application and effectiveness of systemic thinking, the researcher has chosen to investigate this topic at the level of strategic decision-making level in municipalities within the province of KwaZulu-Natal. In dealing with the theoretical perspective of systemic thinking, the researcher will consider a variety of academic work in the field of analytical thinking, synthetic thinking, systematic thinking, and systemic thinking, rational decision-making process model and complexity in the business environment. Most scholars argue that today's managers, in a world of complexity, change and diversity, are expected to think outside the box in resolving or dealing with prevailing complex business challenges.

2.2.3. The Strength of Dealing with Complexity in Today's Business Challenging Environment

According to Doppelt (2012: 76), the strength of dealing with complexity in today's business challenging environment is the ability of a manager to rise above the occasion in decision-making processes, since the challenges of business today cannot be dealt with only in accordance with fixed documented rules, procedures and regulations. The decision-making model of managing the dynamic forces emanating from the modern business environment is no longer predictable (Atwater, Kannan and Stephens, 2008: 218). Every day , there are diverse alternatives for decision makers to choose from and make the final decision (Daft, 2012). Some of the alternatives have huge financial impacts for the organizations.

2.2.4. The importance of Decision-making Process

According to Lunenburg (2011: 161) decision-making is one of the most important functions of a manager, and he defines decision making as "a process to identify problems, generate alternative solutions, select the best solutions available and implement them". As a result of uncertainty, organisations under high complexity conditions are more likely to face surprises and less likely to rely only on formalized explicit knowledge to make decisions (Vasconcelos and Ramirez, 2011: 239). Good decision is not only determined by the experience and skills of the decision-maker, but also the adequacy and validity of the information obtained from different business environments (Eisenfuhr, 2011: 121).

Ugazio, Fellin and Pennacchio (2012: 23) have shown that, for businesses to remain in business, they have to develop new skills and competencies to deal with ever-increasing complexity of managing business. To put more emphasis on that argument, Vasconcelos and Ramirez (2011: 234) stated that the refined routines, mature wisdom or sophisticated model building is not enough to enhance today's decision-making processes. Therefore, Polasky, Carpenter and Folke (2011: 369) argued that today's organisations are developing ways of learning new business adaptation strategies in order to sustain their businesses. This adaptation begins with the acceptance of the reality of acknowledging the fact that the today's business environment is complex, particularly by those who are operating at the strategic management level of any organisation.

Nonetheless, management has to continue to ensure that the outcome of the decision-making processes are sound, efficient and remain value-adding in organisations (Jackson, 2010: 3). To ensure that organisations remain competitive, most organisations provide their managers with the state of the art technology to improve the quality of business decisions, but still this is hardly enough to stay ahead of the game of the ever-changing business environment (Teisman and Klijn, 2008: 119). The vision of the art and practice of the learning organisation, as articulated by Peter Senge, is still relevant even in today's business practices.

2.2.5. A Learning Organisation

According to Senge (1990: 3), learning organisations are organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together. So, in view of Peter Senge's theory, there is a great need of organisations to continually develop their human resources to remain inspired and motivated. In this case , it calls for business to prioritize the views by Doppelt (2012: 3) that, if managers want to overcome the erroneous perspectives that created the predicament of dealing with complex challenges, they must incorporate systemic thinking in their management practices.

The reality is that sometimes the world functions in an apparently illogical and paradoxical manner (Olmedo, 2012: 84). It is, therefore, important that managers learn to think in a systemic way, a way that is said to be conversant with complex challenges (Johannessen and Skålsvik, 2013: 28). This era calls for a shift of the thinking outlook pertaining to the approach towards decision-making processes. Namely, it should not be merely linear or logical compliance exercise but a non-linear thinking strategy to deal with the issue of complexity in nature (Lunenburg, 2011: 17). Managers must learn to think creatively and to be in disagreement (Nick, 2011: 153). Organizations need this creative energy generated by these differences and disagreements in order to progress (Olmedo, 2012: 85). At the most fundamental level, dealing with complexity requires moving from a linear way of thinking , which is mainly charecterised by focusing on quickly fixing the most visibly broken parts of what is not working, as opposed to

addressing the systemic challenges by bringing in thought and behaviour into line with the natural laws of sustainability (Doppelt, 2012: 3).

2.2.6. A Shift from Linear Thinking

According to Costigan and Brink (2015: 2), linear thinking relies on logic, rationality, and reasoning while attempting to understand cause-and-effect relationships, whereas non-linear thinking is a multi-faceted construct emphasizing other forms of thinking, such as critical thinking, intuitive thinking, creative thinking, and debate and discourse. Lateral thinking is said to be suitable in dealing with algorithmic (procedural) complexity, which, according to Vasconcelos and Ramirez (2011: 237), is concerned with solving a given, well-defined problem and to solve this problem requires finding a solution through means that are stated in a predefined set of procedures, which can either be processed in a computer or rules format and thereafter institutionalized as rules governing the decision-making processes within the organisation.

Whilst, Doppelt (2012: 3) is advocating a shift from linear thinking to systemic thinking, there is no empirical evidence that suggests that systemic thinking is indeed a solution to complex challenges. In theory, there is a strong agreement that one cannot apply structured methods in dealing with the complex business environment since no one understands the causal and links between actions and results (Mitchell, 2009: 54).

However, the argument by Vasconcelos and Ramirez (2011: 237) is that systemic thinking is more suitable in dealing with contextual complexities in business environment than complicated challenges. As a result, the discourse of the suitability of systemic thinking in dealing with complexity in the business environment has been escalated to a debatable topic to the scholars of systems thinking and management literature (Nashat, 2013: 5). The commonly accepted view by scholars is that todays' organisational environment is becoming more complex on a day-by-day basis (Vasconcelos and Ramirez, 2011: 51).

In this case, the literature does not literally mean that systemic thinking is only applicable to profit-making business organisations, but it refers to 'today's organisational environment". This assertion is attested to by Atwater, Kannan and Stephen (2008: 9) that profit or non-profit organizations are operating in complex business environments and, as a result, the approaches to decision-making processes must be in line with the ever-changing environment. As a result, this study will use the municipalities as one of the non-profit organisations to analyse systemic thinking in decision-making processes.

According to Pettigrew (2014: 18), municipalities are faced with a litany of complex challenges on a daily basis . This statement is supported by the findings of the Auditor-General of South Africa and by the performance reports of the municipalities (National Treasury, 2013: 67). Further, according to Atkinson (2007: 61), municipalities are faced with severe strain in attempting to deal with socio-economic issues such as poverty, unemployment and inequality .

Despite those challenges, the managers of today must equip themselves with appropriate thinking strategies to ensure that municipalities remain responsive to the needs and demands of their stakeholders (Meyer, 2014: 53). The reality is that an organisation must always be a learning organisation, meaning that management must always be prepared to learn faster than its stakeholders (Armson, 2011: 112).

The problem is that organisations default to off-the-shelf training programmes that consume precious management time without achieving lasting impact for either the participant or the business (Weber, 2009: 30). A much more systematic approach is needed to develop managers' capabilities, not only at the top of the organisation, but right through the frontline. The challenge is to build the right set of practical management skills and mind sets across a large group of people, in a way that improves the performance of the broader organisation in a sustainable and self –perpetuating way (Weber, 2009: 31).

In this era, decision making process requires management that put the study of aggregates before that of the parts. Thus, the recent practice of management due to the frequent failure of the panaceas that managers have been offered, they are now always looking for alternatives (Meyer, 2014: 78). Among the solutions that municipalities must look at is the systemic thinking approach (Bartlett, 2001: 4). The systemic thinking approach is mooted by various scholars as the best alternative approach of dealing with complexity (Bartlett, 2001: 4). Systemic thinking has revealed that simple solutions are bound to fail when pitched against complex problem situations (Paarlberg and Bielefeld, 2009: 2).

According to Olmedo (2012: 7), the nature of the complexity faced by the municipalities requires senior management that understands and has knowledge of systemic thinking, especially at strategic decision-making levels. Therefore, this chapter will focus on the literature review on the theory of systemic thinking and its relevance in municipal management practices, the theory of rational decision-making process model and its relevance in managing a municipality, the complexity of business environment, in particular, the municipality, the distinctiveness and the posture of municipalities in business practices, the epistemological and ontological perspective of complexity within the context of management practices, the relevance of systems thinking in the complex business management, the strategies to mitigate the deficiencies of human capital and administrative challenges, and, thereafter, provide the summary.

2.3 What is Systemic Thinking?

Unfortunately, there is not a simple answer to this question. Ackoff (1981:4) acknowledged this difficulty when he provided the definition, i.e. "Systemic thinking is holistic versus reductionist thinking, synthetic versus analytic". While this definition is accurate, it is not precise. According to Atwater, Kannan and Stephen (2008: 12), the difficulty in describing systemic thinking is that it encompasses multiple skill sets. By necessity, therefore, the description is developed in parts. The first element is rooted in the concept of holistic or synthetic thinking which is implicit in Ackoff's definition.

Ackoff (1981:4) explained that, for the past 400 years, managers were trained to use the analytical paradigm. Consequently, managers view analysis and thinking as being synonymous. Conway et al (2014:2) overtly admitted that the business society is confused. It has assumed that 'strategic planning' captures the tasks and processes that need to be undertaken to develop a strategy for an organisation's future. However, strategic planning is about documenting agreed actions to implement strategy, and not about planning strategically. As Mintzberg suggested, 'strategic planning' might well be an oxymoron (Mintzberg 1994a:5).

Strategic planning is now a routine part of business, with an accompanying set of beliefs and protocols that underpin day-to-day practice. Its process has changed over time, and the need to plan has spawned thousands of books, countless software systems, and kept many consultants in work. Yet, as Mintzberg (1994b:5) indicates, 'planning lacks a clear definition of its own place in organizations'. Indeed, 'while the need for planning has never been greater, the relevance of most of today's planning systems and tools is increasingly marginal' (Fulle, 2003:2). Thus, analytical paradigm, in reality, is only one method of perceiving the world around us. Ackoff (1981:5) differentiates between synthetic thinking and analytical thinking. Analytical thinking attempts to understand a system by breaking it into smaller parts and studying them in isolation. Once the parts are understood, the analyst attempts to explain the behaviour of the whole based on the behaviour of the parts. In contrast, synthetic thinking attempts to understand the larger context that the system operates within (Jackson, 2010: 75).

Once the role of a system within this context is understood, the synthetic thinker tries to explain the behaviour of the system based on that role. In other words, analytical thinking explains what the parts do and how they work while synthetic thinking explains why the parts do what they do. Ackoff pointed out that when a system is disassembled it loses its essential properties and so do its parts. Furthermore, he argued that observation of the interaction between and among the parts is crucial to understanding system behaviour. Consequently, Ackoff maintained that it is impossible to fully understand a system through analysis, thereby making the case for developing synthetic or holistic thinking skills. While holistic thinking is an essential element of systemic thinking, it does not completely describe the cognitive processes necessary to think systemically (Bartlet, 2001:3).

Conway et al (2014:2) admitted that the failure of strategy even after extensive planning, and the inability of many organisations to read signals of change in the external environment, suggests that there is something missing from existing planning models. "It may well be that the typical strategic planning exercise now conducted on a regular and formal basis and infused with quantitative data misses the essence of the concept of decision making and what is involved in thinking strategically" (Sidorowicz, 2000 : 23).

Forrester (2009: 7) identified several characteristics of complex systems, which make it difficult for people to understand and work with them. These include the following:

- Cause and effect are often separated in both time and space;
- Problem resolutions that improve a situation in the short term often create larger problems in the long-term, and actions that make things worse in the short-term often have long-term positive effects;

- As a result of the first two characteristics, people often fail to learn from their mistakes;
- Long-time delays often result in one person creating a cause and another experiencing its effect;
- Due to differences in short- and long-term effects; what a person learns from the short-term result of a decision may be different from the true long-term outcome; and
- Sub-systems and parts of a system interact using multiple, no-linear feedback loops. This complex flow of interactions often creates counterintuitive behaviour. Consequently, what appears to be the obvious "right" decision is, in fact, often a bad choice.

The theory of systemic thinking is an old concept and it is well explained in an international conference on thinking paper presented by Bartlett (2001: 5) that it is the combination of analytical and synthetical thinking . Systemic thinking, in non-academic circles, is well known as pattern thinking. It is a simple technique for making sense of challenging situations and developing simple interventions for transforming complex situations (Bartlett, 2001: 6). It has its origins in the Theory of Constraints (TOC), the Theory of Inventive Thinking (TRIZ), Systems Thinking and Neurolinguistics Programming (NLP), but is evident in most cognitive science and systems science arenas. Systemic thinking's underlying discovery is the fractal phenomenon that challenging situations are driven by a single repeating interaction-pattern (Bartlett, 2001: 5).

The literature indicated that systemic thinking enables managers to deliberately and systematically gain significantly deeper insights into challenging situations and complex domains by surfacing the interaction-patterns that underlie, drive and govern complex situations (Johanessen et al., 1999: 21). The human brain is a pattern recognition and application engine. As a result, systemic thinking merely provides a simple framework and process for turbo-charging the brain's natural capability to see patterns and use them to intervene effectively, at the pattern level (Gharajedaghi, 2011: 76). Systemic Intervention enables ordinary people to deliberately and systematically improve any challenging situation dramatically (Jackson, 2010: 35).

According to Jackson (2010: 5), systemic thinking was pushed to the margins of philosophical debate for many centuries, but the golden age of European philosophy during the 18th and 19th centuries, saw a renewed interest in what it had to offer (Jackson, 2010). As a result , systemic thinking has largely developed as a field of inquiry and practice in the 20th century and beyond , and has multiple origins in disciplines such as biology, anthropology, physics, psychology, mathematics, management and computer science (Hester and Adams, 2014: 2).

The concept of systemic thinking is associated with a wide variety of scientists of systems thinking, including the biologists such as Ludwig von Bertalanffly who developed General Systems Theory, psychiatrist Rosh Ashby and anthropologist Gregory Bateson who pioneered the field of cybernetics, Jay Forrester, a computer Engineer who launched the field of Systems Dynamics, scientists at the Santa Fe Institute, such as noble Laureates Murray Gell-Mann and Kenneth Arrow, who helped to define complex adaptive systems,

and a wide variety of management thinkers, including Russell Ackoff, a pioneer in operations research, and Peter Senge who has popularized the learning organisation (Peters, 2014: 36).

Kant and Hegel were the most influential scholars in the field of systemic thinking. Kant was an idealist, who argued that managers would never really know the reality of what systemic thinking is, unless managers are willing to understand the importance of knowing the whole perspective of a challenge encountered. Kant and Hegel, the firm believers to the school of thought that, it was helpful to humans to think in terms of wholes instead of focusing on the parts. Thus, Kant and Hegel introduced systemic thinking process in decision-making processes (Jackson, 2010:123), whereby he argued that an understanding of the whole, or the truth, could be approached through a systemic unfolding of thesis, antithesis and synthesis. With the synthesis becoming the new thesis to gradually enriched our grasp of the whole.

On the other hand, Gharajedaghi (2011: 335) defined systemic thinking as the art of simplifying complexity and an ability to see through chaos, and further be able to manage interdependency as well as understanding decision choices. On the other hand, Armson (2011: 107) was of the view that systemic thinking is not about simplifying complexity but it is about simplifying one's thinking about complexity.

Bartlett (2001: 2) succinctly opined that systemic thinking is the process that seeks to indicate that the reductionism thinking process sees the parts as paramount as opposed

to the whole. The problem with this dimension is that the whole often seems to take on a form that is not recognizable from the parts, whereas systemic thinking considers systems to be more than the sum of the parts (Jackson, 2010). It was on the basis of this philosophical idea that systemic thinking impacted on the scientific disciplines. It is of critical importance to mention that systemic thinking is a long argument in the academic discourse. It is evident in the work of Peter Senge (1992), where he argued about the erosion of organisational competitiveness, decline in productivity growth, explosive technological, political and environmental change and dissolution of market and national boundaries as the main contributors in the litany of problems which threaten traditional organisational structures and management practices.

Senge (1992: 47) argued widely that organisations need to change more rapidly than ever before, especially organisations that are stressed, need to revisit their missions, visions and values in order to remain in business. Conway (2014: 2) further argued that traditional planning models tend to focus on processes run by planners to write and implement plans. Those plans are usually quite long, and include numerous actions and performance measures. If not developed well, they can mix up operational tasks with strategic action, and become unwieldy to implement. They look impressive, but often fail to deliver organisational alignment of action or achievement of strategy documented in them. Senge (1992: 47) further argued that the thinking underlying the core operation of policies guiding organisational behaviour, remains unchanged and further stated that the problem lies, in part, with management in failing to recognize the importance of prevailing mental modes. New strategies are the outgrowth of new world views. The more profound the change in strategy, the deeper must be the change in thinking. As a

result, improving the mental modes of managers was regarded as the fundamental task of strategic management (Senge and Sterman, 1992: 1007).

There has been a fair amount of academic literature on strategic thinking (see Mintzberg 1994; Leidtka 1998; Heracleous 1998; and Lawrence 1999) but less has been written about how to 'do' strategic thinking. When strategy processes do not include systematic exploration of possible future options, an organisation runs the risk of both ineffective strategy when the world changes (and we know the world will change) but also of undermining organisational longevity. Developing a strategic thinking capacity that facilitates the development of a strategic foresight capacity reduces these risks.

Conway et al.(2014:3) further argued that businesses get caught up with producing glossy plans, and forget to spend time to improve the quality of the thinking that goes into those plans. Hence, the concept of systemic thinking is and remains critical in any business setting.

Thus, Reynolds, Forss, Hummelbrunner, Marra, and Perrin (2012: 3) indicated that systemic thinking has got its originality in three traditions, namely, the philosophic pursuit of getting the bigger picture (holistic thinking), the practical pursuit of engaging with multiple perspectives each restricted with bounded judgments (pluralistic thinking and participatory practice), and the purposeful pursuit of improving situations (operational research and action research). Reynolds et al. (2012: 56) argued that systems thinking challenges the narrow-minded reductionist practices, the rational

models of policy-making, linearly assumed causal relationships and experimental evaluation designs which can often inhibit more appropriate or meaningful evaluation. In his justification, Reynolds et al. (2012: 3) indicated that systemic thinking encourages a dynamic, more holistic perspective which influences the ability of evaluators to manage deliberative processes about complex problems in a democratic fashion.

2.4 The Significance of Systemic Thinking in Municipalities

The success or failure of a municipality depends on the quality of its political leadership, sound governance of its finances, the strength of its institutions and the calibre of staff working for the municipality. There are strong reasons to believe that many of the organisational solutions that the private sector has developed in response to the growing complexity and uncertainty of the environment could work equally well in the public sector. The driving forces are, to the same extent, the same to these sectors: new technology, globalization, increasing specialisation and complexity, growing interdependencies, increased uncertainty, and changing consumer or citizen preferences (Johannessen and Skålsvik, 2013: 33).

Whereas the business goals have not yet shifted from the original goal posts, Jackson (2010: 67) still argued that every business exists to produce a service or a product. On the other hand, Jackson (2010: 72) enquired whether or not those who are entrusted with the responsibility of managing businesses are competent enough to deal with the ever-changing business environments. Recent trends raise concerns that traditional

approaches to educating and grooming future business leaders may be insufficient (Atwater, Kannan & Stephens, 2008: 9). For example, product life cycles are rapidly decreasing, and, in some industries, are now measured in months (Koma, 2010:13).

Product and process innovations are quickly diffusing throughout industries to become standard practice (Gharajedaghi, 2005:34). New technology is making it easier for companies, regardless of location, to compete globally, and the development of business ventures in non-industrialized nations has significantly increased, adding to the competition in many industries (Atwater et al., 2008:48). Every indication is that these trends will continue. More and more companies are participating in benchmarking and business-partnering programmes, accelerating the rate at which organizations learn and trade upon new ideas and practices. Improvements in information technology are also making it easier to communicate these ideas, increasing the rate at which they are implemented both within and across industries. In addition, economic development in countries with weak enforcement of copyright and patent laws makes it difficult to prevent unauthorized use of legally protected intellectual capital and product and process technology (Atwater et al., 2008:48).

As a result, the time managers have to gather and process information, consider the implications of various alternatives, and make decisions. As the business environment continues to evolve, it is important to assess how effectively senior managers in municipalities are equipped to face these ever-increasing challenges (Koma, 2010). Poor performance and service delivery in municipalities have resulted in a high rate of unrests in all walks of the country. Jackson (2010:72) further raised a very critical question that

sought to investigate whether those managing businesses do ask themselves as to "why do their businesses do business the way they do?'. Jackson (2010:114) strongly believed that such question is a fundamental at any strategic management level. This view was of strategic thinking in nature.

According to Bartlet (2001:1), strategic thinking is the ability to have a systemic perspective of your business and its posture in future business terrain. On the other hand, Johannessen and Skålsvik (2013: 33) defined systemic thinking as the ability to view the holistic, or integrative, pattern trends and interdependent parts of business as whole. This means that, if management considers its business as being a system of systems, it will understand that systemic thinking allows those in management to see how each part influences and interacts with the whole. The notion of systemic thinking should not be confused with systematic processes. According to Bartlet (2001: 2), the systematic view refers to a process of following a clearly defined and organized process. It is about having processes that are repeatable and predictable. To bring more clarity on these thinking perspectives, one could go on to say that the systematic view focuses on results, whilst systemic thinking focuses on interrelatedness (Bartlet, 2001: 4).

McBride, Hall and Okwara (2013:20) argued that both thinking perspectives are critical, both are essential, but they do not always exist in many businesses. If we go beyond definitions and look at these two thinking perspectives in a more practical way, we might talk about them in terms of business strategy and business tactics. Although this strategy can be stretched so far, it is argued that business strategy represents systemic thinking in action while business tactics are systems at work. Of course, both are needed to make

a business to function well and effectively. However, the relationship goes much deeper than that. The tendency among business managers, when faced with a problem, is to look immediately to solutions that are close by as presented in the rational model in Figure 2.3.

Typically, managers look to actions that can produce improvements in a relatively short amount of time, but this can often involve significant costs down the road (Atwater et al., 2008: 34). The most appropriate example is cutting back on marketing activities and advertising costs in order to achieve cost-saving benefits when times are tough. At first, the impact on new business and lead generation may be negligible, but the longer-term impact can be crippling. This is the result of taking a tactical approach to a problem without considering the larger strategic concerns of the business. The danger of thinking and reacting from a strictly systematic perspective can be costly. On the other hand, Brown and Lerch (2007: 41) stated that it is quite possible for managers to make strategic decisions while failing to take into consideration specific systems or tactics which impact the whole.

Systemic thinking focuses on the bigger picture and the long-range view of the business management side (Doppelt, 2012: 105). On the other hand, systematic thinking focuses on the task at hand and the immediate view. Both are needed, both are critical and both must be cultivated by the managers of a business if they want to be truly successful and effective. Nick (2011: 87) stated that every business exists for a singular purpose and to produce a specific result. The systematic view allows managers to see how each and every function within the business is performed efficiently and effectively. The systemic

thinking allows managers to see and orchestrate the optimum interaction of various systems to accomplish the purpose of business and to effectively produce its intended result.

According to Brown and Lerch (2007: 23) many organisations, both in the private and public sectors, make crucial decisions on a daily basis either at operational level or strategic level. On the other hand, Lunenburg (2011: 7) opined that decisions in organizations are made by individuals, groups, teams, or committees operating at different levels. In advancing the importance of the decision making function in any organisation, McBride et al. (2013: 12) are of the view that the success of any organisation hinges on how well decisions are undertaken in all levels of the organisation. As business environment continues to change, it is important to assess how effectively managers are dealing with decision-making processes during these turbulent and challenging times in managing business organisations (Atwater, Kannan and Stephens, 2008:9).

Municipalities are not an exception (Pettigrew, 2014: 12) to decision-making processes. Municipalities are faced with a number of new complex challenges that represent a significant reshaping of the sector from its image and in decision–making processes (Hutchinson, Walker and McKenzie, 2014: 3). Municipalities are responsible for the delivery of a broad range of services to a diverse set of constituents, including other tiers of government, residents and business (Dollery, Wallis and Allan, 2006:111). This expansion in activity and accountability has quite naturally led to research interest in efficacy of leadership, governance and decision-making processes to ensure that they are

responsive and relevant to the increasingly diversified nature of the sector (Hutchinson et al., 2014: 3).

Whilst being the third tier of government, municipalities are unique in that they straddled both the public and private spheres (Dollery et al., 2006: 112). On the one hand, municipalities are about participation, both in terms of voting and contributing to the community we wish to live in, and, on the other, municipalities are expected to deliver services efficiently with a shift in operational emphasis to policy and strategic activities that are similar to those of the private sector (Hutchinson et al., 2014: 3).

This duality provides a complex leadership challenge for those in management of municipalities and sets their roles apart from other public sector leaders in that they have multiple stakeholders to answer to and be responsible for South African municipalities and cannot afford to invariably perform poorly because this could ultimately affect public confidence and trust on the part of local inhabitants. Thus, services to local communities should be provided in a sustainable manner. In order to fulfil this constitutional obligation, municipalities should ensure that institutional capacity is continuously strengthened, and systems and structures are firmly put in place and periodically reviewed with a view to adapt to changing conditions and circumstances and, more fundamentally, resources are allocated to effectively and efficiently deliver public services (McBride et al., 2013: 12) .

The municipality's management profession is now more than 20 years old. Municipalities' administrators are now faced with new management challenges. These challenges are shaped by the ever-changing conditions and environments (Nelson and Svara, 2015: 37). More activists and more ideologically fragmented councils make policy interactions between the council and the manager more contentious. The managers compete with an ever-growing number of other sources of information and policy advice, and council members develop their own policy solutions, to which the manager have to react. The managers are increasingly making sense of information rather than simply providing it as the council's primary advisor. Reflecting changing demographics, councils will be more diverse, and local officials will deal with a wider range of social, economic and cultural issues. Increased citizen involvement will blur the lines between government and community and between staff and residents. With the growing number of networks, partnerships, and citizens participating in government actions, managers will increasingly be senior strategic managers as the British managers' association calls its members (Nelson and Svara, 2015: 72).

Underlying many of the trends are changes in information technology and the widespread availability of information to everyone, everywhere. A new generation of digital natives will replace the wave of retiring managers over the next decade and will have perspectives on meeting these challenges shaped by their talents and experiences. Managers of the future will be key actors who connect many arenas and serve as advisors and strategisers with elected officials and facilitators of networking and democratic action (Nelson and Svara, 2015:67).

According to Letiche, Lissack and Schultz (2011:11), municipalities are organisations that are strictly working in accordance with rules, codes and, firm and inflexible boundaries and such arrangements are challenged by the new, the unexpected, and the unknown. Gorzeń-Mitka (2013: 123) confirmed that issues of risk and its management are becoming increasingly important in modern theory and practice of managing organizations. As a result, organizations, regardless of the type or size of business activity they carry out , must take into account the impact of risk in their decisions and processes (Gorzeń-Mitka, 2013: 124). Emergence is a challenge for business, managers, physicists, and government bureaucrats. Emergence is the world of paediatricians, oncologists, policy geeks, and journalists. Emergence is marked by complexity (Letiche et al.,2011: 12).

It is also worth noting that Atwater, Kannan and Stephen (2008: 9) opined that profit and non-profit organizations are operating in a complex environment. Thus, there is a need for management practices to respond appropriately to the ever-changing complex business environment. The environment on which the municipalities operate is a complex environment (Vasconcelos and Ramirez, 2011: 7). Practitioners and scholars in public administration are in agreement that decision-making processes and management in municipalities are complex (Teisman and Klijn, 2008: 98). Insights from theories on complexity, however, have hardly been used in public administration and management. In other social sciences, like economics for instance, an evolutionary approach has received far more attention. The question whether such a complexity theory approach could help to increase decision-making processes is an intriguing one (Teisman and Klijn, 2008: 96).

2.5 The Theory of Rational Decision Making Model

According to Doyle (1998: 1), a rational decision-making model is a multi-step process of choosing among alternatives in a way that accords with the preferences and beliefs of an individual decision maker or those of a group making a joint decision. The word "rational", in this context, does not mean sane or clear-headed as it does in the colloquial sense. In this study, the rational decision-making model must be contextualized in that it is an approach that follows a sequential and formal path of activities. This path is illustrated in the diagram (Figure 2.1)

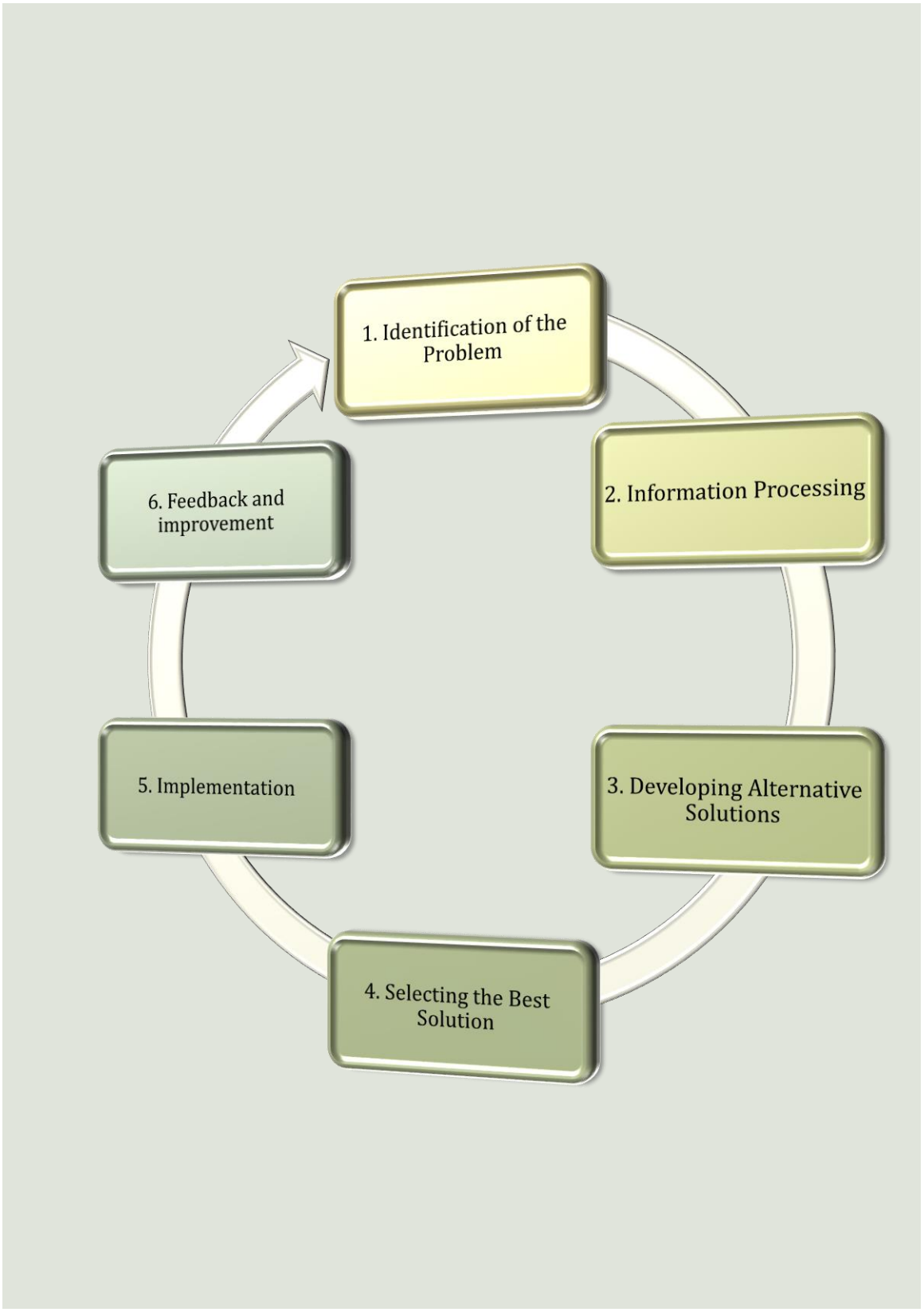

Figure 2.1: Rational Decision-Making Model

Source: Doyle (1998:24)

According to Doyle (1998:24), the flowchart in Figure 2.1 illustrates the process of the rational decision-making model.

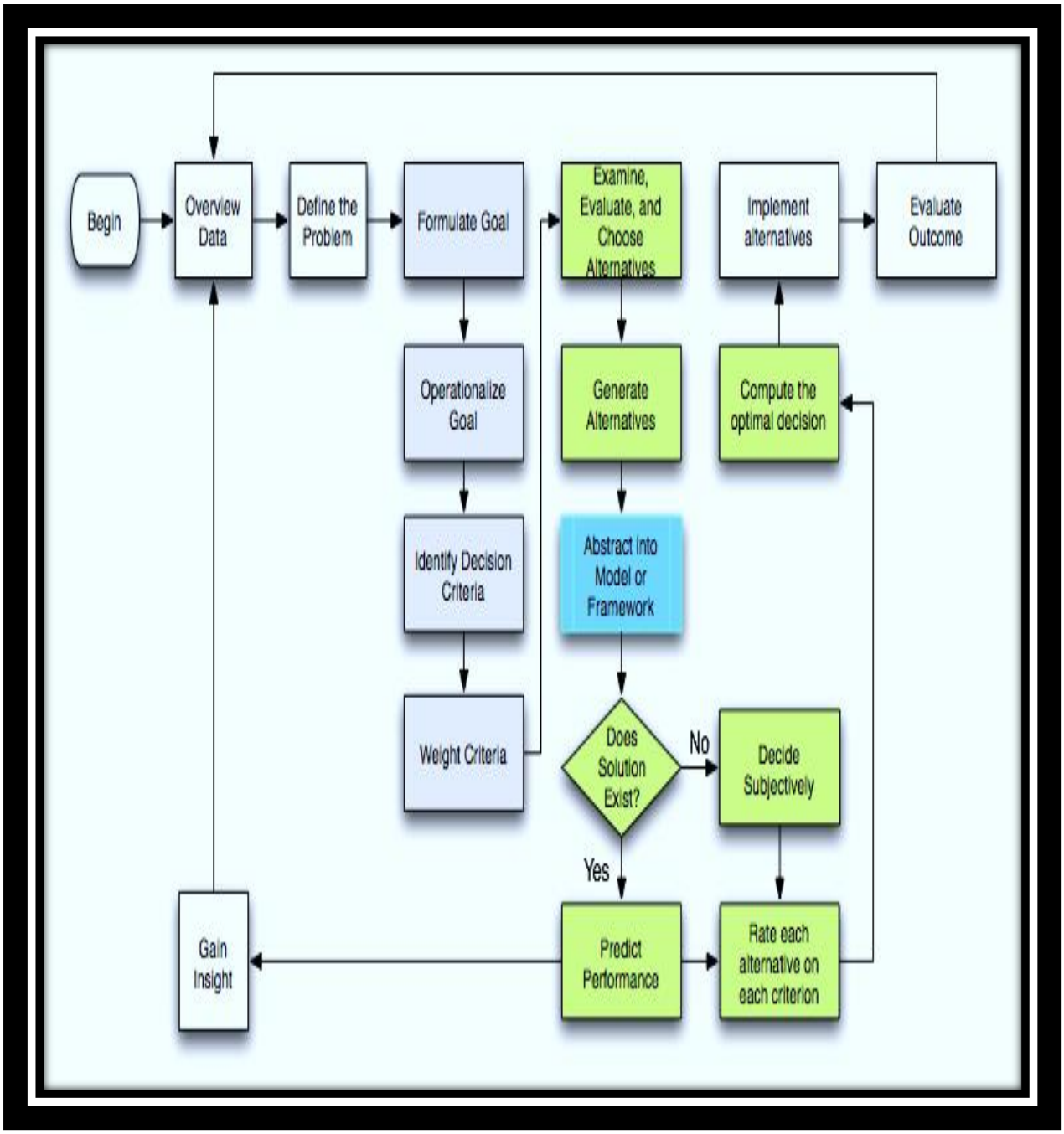

Figure 2.2: The Flowchart of the Process of Rational Decision-Making Model

Source: Benedetto De Martino (2009: 684)

2.6 The Assumptions of the Rational Decision-Making Model

According to Benedetto De Martino (2009: 684), theories of decision-making have tended to emphasize the operation of analytical processes in guiding choice behaviour. However, more intuitive or emotional responses can play a key role in human decision-making. Thus, when taking decisions under conditions when available information is incomplete or overly complex, subjects rely on a number of simplifying heuristics, or efficient rules of thumb, rather than extensive algorithmic processing. The rational model of decision making assumes that people will make choices that maximise benefits and minimise any costs. The idea of rational choice is easy to see in economic theory.

The Rational decision-making model favours objectivity data and a formal process of analysis over subjectivity and intuition. The model of rational decision making assumes that the decision maker has full or perfect information about alternatives. It also assumes that decision makers have the time, cognitive ability, and resources to evaluate each choice against the others. The rational decision-making model does not consider factors that cannot be quantified, such as ethical concerns or the value of altruism. It leaves out consideration of personal feelings, loyalties, or sense of obligation. Its objectivity creates a bias toward the preference for facts, data and analysis over intuition or desires (Pidd, 2004: 125).

2.7 The Theory of Rational Decision-Making Process and its Relevance in Managing a Municipality

The concept of the rational decision-making process has been highly criticized in the literature (Mintzberg, 1994: 34; Pidd, 2004:122; Gigerenzer et al., 2011:132). Decision-making is one of the basic cognitive processes of human behaviours by which a preferred option or a course of actions is chosen from among a set of alternatives based on certain criteria (Wang and Ruhe, 2007: 83). This notion of the rational decision-making process is also described as the process of realizing a problem, establishing and evaluating the decision criteria, creating alternatives, implementing alternatives, and monitoring progress of the decision-making process. It is central to the development of modern urban planning and transportation planning (Castillo, 2014: 45).

The very similar rational decision-making model, as it is called in organizational behaviour, is a process of making logically sound decisions. It is a multi-step model that aims to be logical and follow the orderly path from problem identification through to the solution (Eisenfuhr, 2011: 32). However, the theory of the rational decision-making process was rejected by Mintzberg (1994: 23) where he indicated that , in an unpredictable world of business, it is not possible to accurately project and optimize with any accuracy the future of business challenges. The literature (Towler, 2010:43; Schoenenfeld, 2011:36;) revealed that, the rational decision-making model is based on a lot of assumptions, which are a subject of criticism.

Among the list of assumptions, is that the model assumes that decision-makers have or should or can obtain adequate information in terms of quality, quantity and accuracy in making a decision. This assumption applies to the situation as well as to the alternative technical situations. It further assumes that a decision-maker has or should or can obtain substantive knowledge of the cause and effect relationships relevant to the evaluation of the alternatives. In other words, it assumes that a decision-maker has a thorough knowledge of all the alternatives and the consequences of the alternatives chosen. It further assumes that a decision-maker can rank the alternatives and choose the best of it.

Pettigrew (2014:13) argued that the rational decision-making model has some limitations such as: it requires a great deal of time, a great deal of information, assumes rational, measurable criteria are always available and agreed upon, it further assumes that there is accurate, stable and complete knowledge of all the alternatives, preferences, goals and consequences, and also assumes a rational, reasonable, non-political world. In his argument, Pettigrew (2014:14) argued that, while the rational planning decision-making model was innovative at its inception, the model is now controversial and questionable.

Brooks (2012:131) argued that decision-makers can better be understood if they are engaging in complex situations. Going further Benveniste (2011:134) argued that the rational model could not be implemented without taking the political context into account. Despite this criticism , the traditional organization management approach, which was originally developed during the industrial era and further influenced by Newtonian deterministic paradigm and is mainly charecterised by three key

assumptions; i.e., the positivism, linearity and reductionism, contends that the rationalist approach is still relevant and appropriate in business management practice even during this era of complex business environment (Olmedo, 2012:124).

On the contrary, Cole and Kelly, (2011), Daft (2012), Ferrell et al., (2009) and Pidd (2004) indicated that most of today's businesses are still using the rational thinking approach in dealing with its day-to-day decision-making challenges. Despite all the criticism by aforementioned academics, this model is premised on an assumption that managers have only one problem to look at, and the process of making a decision is one of seeking options with a hope of choosing the best solution.

Ferrell, Hirt and Ferrell (2009: 224) affirmed that the reality on the ground is that decisions are often made on the basis of incomplete, insufficient and, probably, partially accurate information. The same affirmation is attested to by Daft (2012: 240) that every decision situation in any business is organized on a scale according to the availability of information and the possibility of failure. This assertion is better illustrated by Daft (2012: 240) in his scale of four positions that describe the conditions that affect the possibility of decision failure. The scale is illustrated in Figure 2.3.

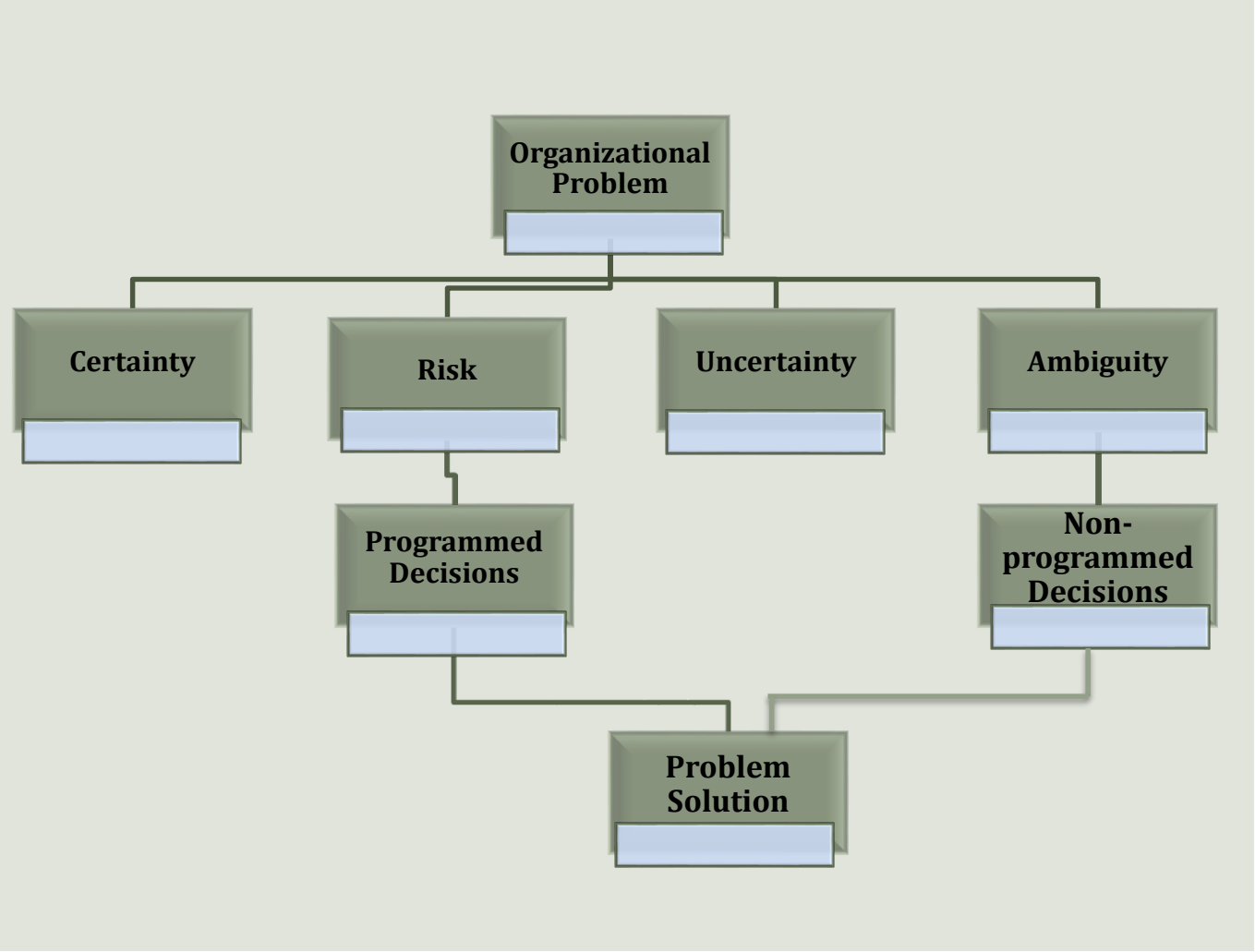

Figure 2.3: Four Conditions that affects the Possibility of Decision Failure

Source : Daft (2012: 240)

Castillo (2014: 615) argued that the problem with the current management practices, in dealing with complex organisational challenges, is that decision-making processes are still handled in a linear thinking order. A recommended solution by Ferrell et al., (2009:221) in dealing with complex business challenges is that a discourse of decision-making processes is relevant in the discussion of the complexity of business environment, since the decision-making process is important in all management functions and at all levels of an organisation, whether the decisions are taken at a strategic, tactical or operational level.

According to Daft (2012: 238), decision making is the process of identifying problems and opportunities and then resolving them. Decision making involves effort both before and after the actual choice. Daft (2012: 239) further argued that management decisions typically fall into of two categories, that is, programmed and non-programmed decisions. Programmed decisions involve situations that have occurred often enough to enable decision rules to be developed and applied in the future. Programmed decisions are made in response to recurring organizational problems, whereas non-programmed decisions are made in response to situations that are unique, are poorly defined and largely unstructured, and have important consequences for the organisations.

Thus, Towler (2010: 111) argued that the main challenge of managing business in this era is that managers are still operating under the impression that decisions are made under certainty. As a result, the assumption is that the decision-making process of finding alternatives is still too predictable. Yet, the literature has just revealed that predictability, can only happen in a perfect world whereby managers would have all the information necessary to make decisions.

Gharajedaghi (2011: 335) contended that neither a problem nor a solution can be entertained free of context, and further indicated that a tendency to define a problem in terms of their solutions, and a strong preference for context-free solutions will merely continue regenerating the past, reproducing the non-solution all over again. He advised not to use constraints such as time and information or resources to define problems, because, in doing, so the implication is that a problem is defined in terms of a known solution. The same assertion was also affirmed by Daft (2012: 240) that , in reality, some

things are unpredictable. Thus, some decisions fail to solve the current business problems or attain the desired outcomes. To explore further the same views, a litany of studies (Cole and Kelly, 2011; Daft, 2012; Ferrell et al., 2009) were considered and confirmed that decision-making processes are designed in a rational approach which becomes the greatest challenge in managing business complex situations. As a result, the traditional managed organisations are suffering the most in times of turbulent business periods.

Daft (2012: 26) further argued that the traditional management is still charecterised by routine, specialised tasks, and standardized control procedures, and organizations, and is coordinated and controlled through a vertical hierarchy with decision authority residing with upper-level managers, whereas, in the new workplace, work is free-flowing and flexible, and structures are flatter, and lower-level employees are empowered to make decisions based on widespread information and guided by the organisation's mission and values.

In view of the latest development in terms of the rapid increase in complexities of business environment, Pidd (2004: 27) contended that those who are entrusted with the responsibility of strategic management must accept that, in an unpredictable and changing environment, a fixed plan for change is no longer possible. The ideal organisation form must be adaptive, decentralized and self-organising, and organisational policies and goals must be emergent and indeterminate. As a result, in dealing with complexity, Pidd (2004: 28) further suggested that there is need of decision makers to incorporate the culture of encouraging diversity of ideas and approaches in decision-making processes.

Mitchell (2009:19) concurred with the contention that the management practice must adapt to complex business environment, since the challenges that are emerging from the complex business environment cannot be fully understood, and their behaviour cannot be exactly predicted. This view confirms the school of thought by Neumann (2013: 81) that only complicated challenges can be understood and predicted but not the complex challenges , and that can only happen if managers have enough time, knowledge and the right tools for dealing with such complicated challenges. Today's organizations are characterized by disequilibrium, non-linearity and emergence. As a result, management must adopt a culture of becoming a learning , creative and innovative organisation because the future is no longer anticipated, it is now created (Olmedo, 2012: 82), and that the current key features of today's organisations are chaos, conflict, instability, complex learning and requires a dialogue to favour spontaneous self-organization.

The same view is shared by Drucker (2007: 132) that the heart of business success would depend mostly on the willingness of creativity and innovation of any organisation who intend to stand the test of ever-increasing challenges. Thus, Castillo (2014: 615) contended that managers should not regard rational thinking as the only honest, mature and intelligent decision-making process , when, in reality, it lacks ingenuity, innovation and originality. It is important that people learn how to embrace systemic thinking through bringing in the element of creativity and disagreement, since organizations need this creative energy generated by these differences in order to progress (Olmedo, 2012: 85).

In view of that argument, Polasky, Carpenter, Folke and Keeler (2011:398) suggested that managing, in a period where organisations are operating in complex environment, requires an enhanced ability of a manager to gather new information and perspectives to better anticipate future conditions of the organisation. The traditional leadership principles are no longer relevant in this period, because managers have to manage complexity in a thin line between order and disorder or, in other words, at the edge of the chaos, which implies a need of revisiting the traditional thinking approach (Paarlberg and Bielefeld, 2009: 247).

Managers spend a great deal of time confronting complex and difficult challenges of the business world today. Some of these challenges relate to rapidly changing technology, increased scrutiny of individual and corporate ethics and social responsibility, the changing nature of the workforce, new laws and regulations, increased global competition and more challenging foreign markets , declining educational standards and time itself, but such diverse issues cannot simply be plugged into a computer programme that supplies correct, easy-to-apply solutions. It is only through creativity and imagination that managers can make effective decisions to benefit organisations(Ferrell et al., 2009: 225).

In view of the rapidly increasing complex and interconnected business world, Smith, Binns and Tushman (2010: 11) suggested that systemic thinking must be incorporated in decision-making processes since it is regarded as the best approach in dealing with complex challenges and it is also perceived as an approach that will become a source of a competitive advantage and a tool to become a pre-condition for success in most

organisations. The same view is affirmed by Olmedo (2012: 88) wherein he clearly articulated that leaders should be encouraged to promote novelty and disequilibrium and the emotional connections with common language and symbols inside simple rules to favour new emergent business environmental behaviours, and be able to recognize the emerging emergent behaviours and be able to interpret the meaning thereof.

According to Bartlett, (2001: 4), systemic thinking can be a solution in dealing with complex business challenges. To test the veracity of that assertion, on the basis of the findings from the literature regarding the view that that profit-making business solutions that the private sector has adopted in response to the growing complexity of the business environment could work equally well in the public sector (Hamalainen, Cosine and Doz, 2012:9), this study seeks to investigate the application of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal.

A municipality is a non-profit making organisation by virtue of the fact that it renders services to the public and the way it is managed, structured and the level of accountability that is desired in executing its operations (Auditor General of South Africa, 2013) . The same view is indirectly affirmed by Daft (2012: 23) that managers in non-profit organisations use similar skills and perform similar activities like those of the profit-making organisations, and that the primary difference is that managers in profit-making organisations direct their activities toward earning money for the company, whereas managers in non-profit organisations direct their efforts toward generating some kind of social and political impact.

Hamalainen et al. (2012: 30) suggested that the idea of new solutions to deal with the increasing complexities and uncertainties in decision making processes must be investigated. Armson (2011: 32), argued that managers have adopted and accepted the practice of reducing the organisation to its components parts. Thus, this study investigates the relevance and the application systemic thinking in municipalities within the province of KwaZulu-Natal.

It also worth noting that the Framework of rational decision making, according to Figure 2.4 , rational and complex decision-making strategies can be classified into the static and dynamic categories (Wang and Ruhe, 2007: 77). Most existing decision-making strategies are static because the changes of environments of decision makers are independent of the decision makers' activities. Also, different decision strategies may be selected in the same situation or environment based on the decision makers' values and attitudes towards risk and his or her prediction on future outcomes. When the environment of a decision maker is interactive with his or her decisions or the environment changes according to the decision makers' activities and the decision strategies and rules are predetermined, this category of decision-making needs are classified into the category of dynamic decisions such as games and decision grids (Wang and Ruhe, 2007: 77). The framework is best illustrated in Figure 2.4.

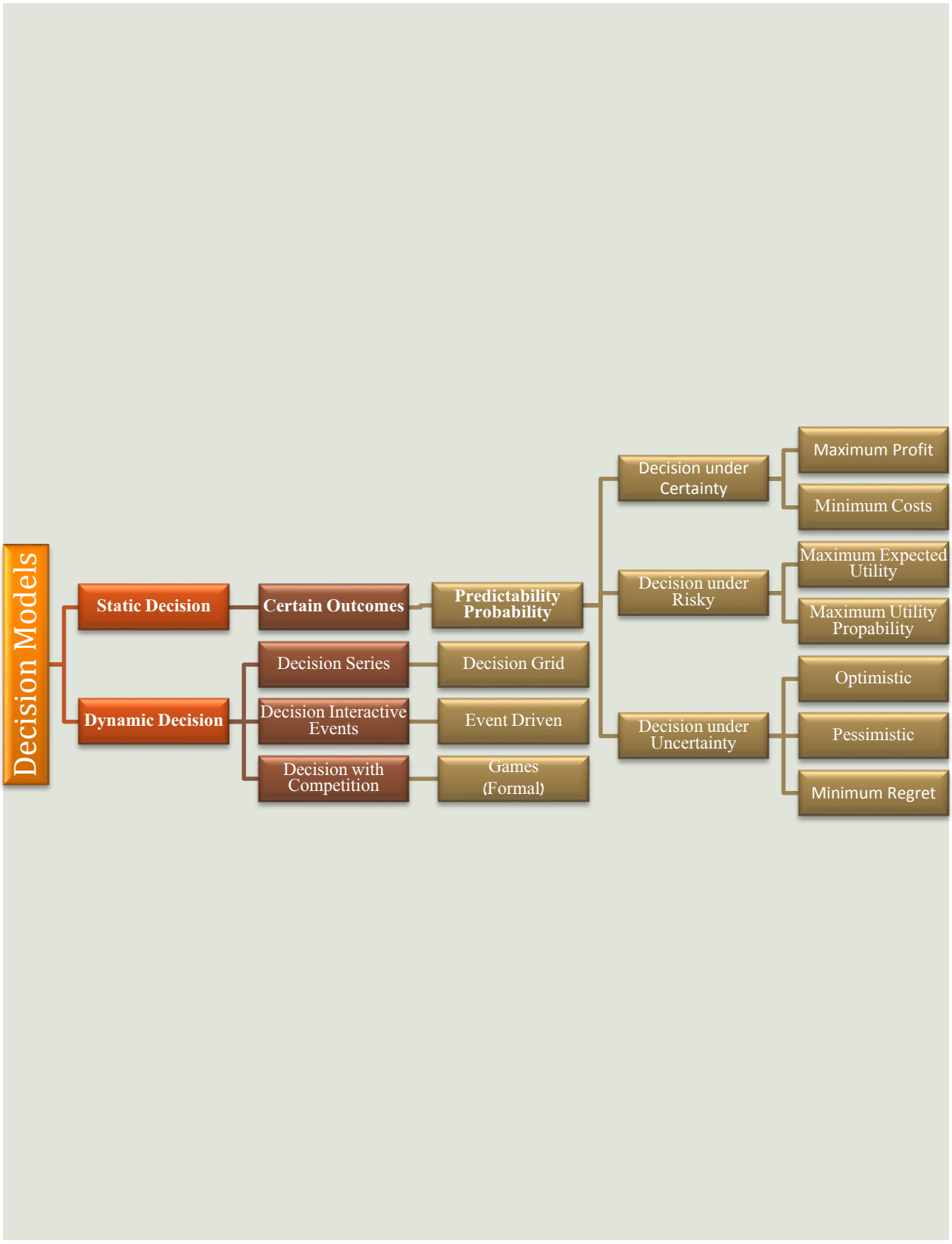

Figure 2.4: The Framework of Rational Decision-Making Process

Source: Wang and Ruhe (2007: 77)

2.8 The Posture of Municipality in Business Community

According to Cole and Kelly (2011: 95), a municipality is a service delivery organisation since it has all the features that define a service delivery organisation. These organisational features are purpose, people and structure. A municipality has an organisational structure, employees and a well-defined purpose of existence. In addition, a municipality is defined as a sphere of government located within communities and well-placed to appropriately respond to local needs, interests and expectations of its communities (Koma, 2010: 113). In bringing more clarity to the conceptualization of the municipality as an organisation, Cole and Kelly (2011: 96) stated that the recent approach to the study of management in organisations views the organisation as a system of interrelated sets of activities which enable inputs to be transformed into outputs. This view attempts to bring together the classical and human relations approach.

The approach adopted here enables theorists to study key elements of organizations in terms of their interactions with one another and, most importantly, with their external environment (Letiche et al., 2011: 3). Whereas, in the past, the definition was in terms of structures or people, now it is possible to identify theories which seek to explain or predict organisational behaviour in a multi-dimensional way by studying people, structure, technology and environment at one and the same time (Cole and Kelly, 2011: 96). Thus, a view that suggests that a municipality is an open system is accepted. Most importantly, with a very clear understanding that a system can either be a closed or an open system.

According to Cole and Kelly (2011: 96), closed systems are those organisation, which, for all practical purposes, are completely self-supporting, and thus do not interact with their environment. On the other hand, open system are those organisations which interact with their environment, upon which they rely for obtaining essential inputs and for the discharge of their systems outputs. The basic model of the organisation as an open system is reflected in Figure 2.1. The most noticeable feature of an organisation that is an open system is its interdependence on the environment which may be relatively stable or relatively uncertain at a particular point in time (Cole and Kelly, 2011: 97).

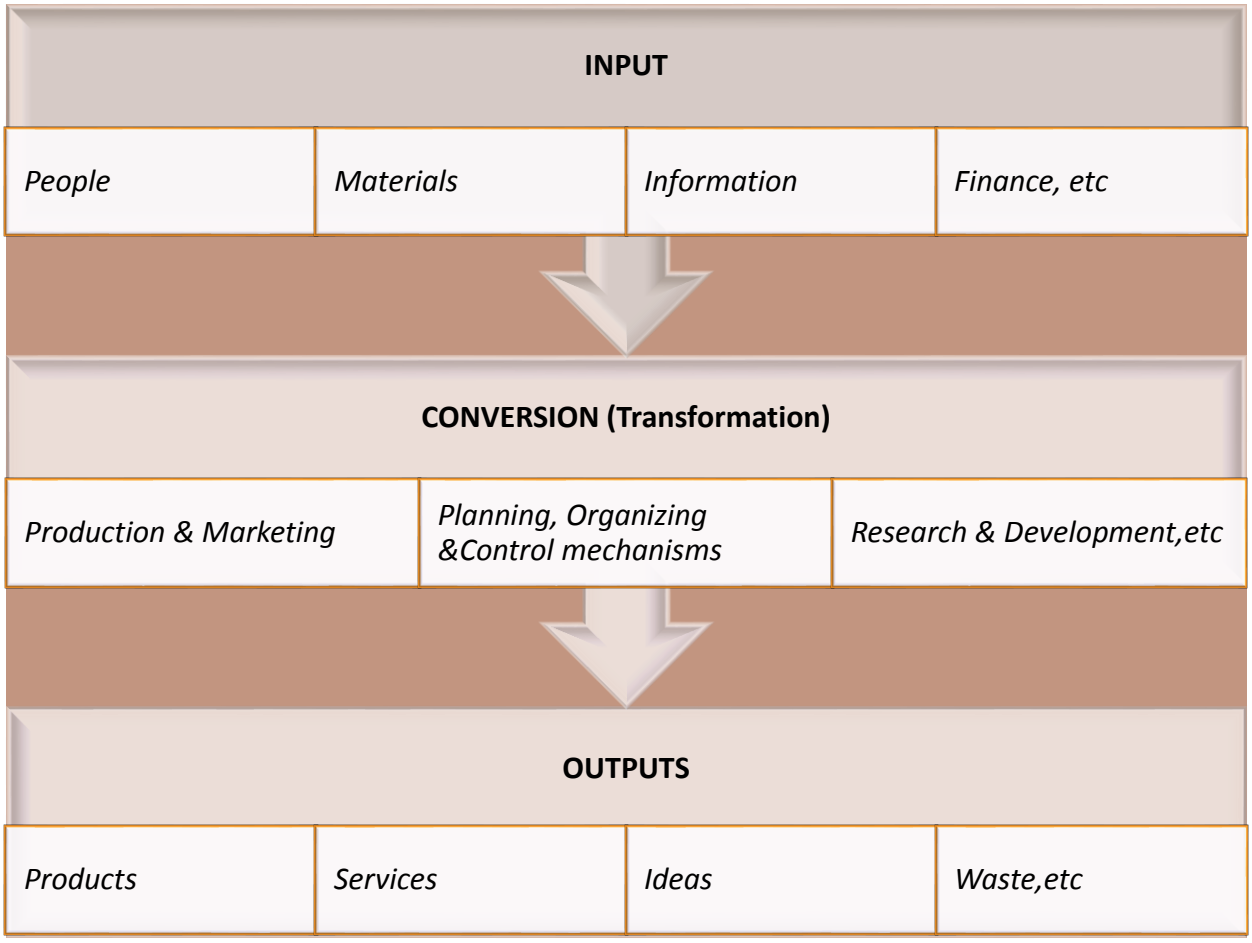

Figure 2.5: The Basic Model of the Organisation as an Open System

Source: Cole and Kelly (2011: 97)

2.9 Complexity within the Context of Management Practices

In view of the assertions by different scholars that the municipalities' environment and management practices are complex, it is critical that the ontological and epistemological implications of complexity theory: determinism, certainty, predictability, objectivity, generalizability and contextuality are looked at in this study. Complexity theory suggests that we should question some of the commonly-held assumptions such as that the sum of individual properties are equal to those of the whole, that events are caused by external factors, not endogenously, and that systems tend toward equilibria and stay there unless disturbed (Morçöl, 2012: 143). Complexity theory also suggests that we should look for alternatives to these commonly held assumptions. The only problem is that there is no alternative epistemology or methodology that is commonly adopted by all complexity theorists. Mitchell, (2009:56) reminded us that there is no unified theory of complexity.

According to Jackson (2010: 3), managers , today, are expected to cope with increasing complexity, change and diversity. However, Vasconcelos and Ramirez (2011: 241) argued that the job of managers is becoming both tougher and more vital due to the complexity of the business environment. In advancing their argument, Vasconcelos and Ramirez (2011: 241) continued to suggest that the structured decision procedures, even in the most sophisticated forms, cannot replace the complexity of management contexts. Jackson (2010: 3) stated that the complexity of business emanate from the fact that problems present themselves individually, but are related to other problems, in richly interconnected problem situations and, if examined, these problems seem to get bigger and involve more issues and stakeholders.

Armson (2011: 38) argued that the reductionist idea of the primacy of managing the obvious cannot match the complexities exposed by the ever-changing business environment. According to Vasconcelos and Ramirez (2011: 236), the subject of complexity of the business environment has been an academic argument for more than 25 years, but what is worth noting is that, even , to date, there has never been an agreement on the concept of managing complexity in the business environment. Complexity in business management is a phenomenon that cuts across profit and non-profit organizations, which requires management practices to keep abreast with the ever-changing complex business environment (Atwater, Kannan and Stephen, 2008: 9). According to Neumann (2013: 81), complexity is better understood if it is explained in a mathematical context. According to Neumann (2013: 81), complexity is 'a quality or condition that features a large number of interacting variables and their dynamics that stem from so-called feedback loops, when one variable depends on the status of another variable that again is influenced by the first variable'.

The same definition was affirmed by Jackson (2010: 110), i.e., that complexity is a mathematical relative term which depends on the number and the nature of interactions among the variables involved. In providing clarity on the concept of complexity, Jackson (2010: 110) further argued that an open loop system with linear independent variables is considered simpler than interdependent variables forming non-linear closed loops with a delayed response. Due to complexity being associated with mathematics, Armson (2011: 107), stated that many people unconsciously believe that complexity is bad, because they immediately identify complex with problematic, which leads to an understanding that dealing with complexity necessarily means simplifying complexity.

Jackson (2010: 111) stated that, to understand complexity, one must appreciate the iterative dynamic nature of closed-loop systems and its counterintuitive behaviour. The most two appropriate simple examples given by Jackson (2010: 111) to give clear meaning on the concept of complexity was that of an investment saved in a savings account in a bank earning a simple 10% interest as a reflection of an open loop behaviour, because both the yearly earnings and the principal amount remain constant and the total sum would increase at a slow pace, whereas an investment saved in a savings account , to earn 10% compound interest, reflects a closed-loop behaviour, and would grow exponentially.

Now , the key issue here is that Pidd (2004: 24) is of the view that to manage complexity in any organisation requires organizations to adopt a principle of becoming a continuous learning organisation, and be prepared to review the manner in which decisions are made in order to adapt and remain responsive to the demands of the ever-changing business environment. The same view is affirmed by Jackson (2010: 3) that, if organisations are to remain viable, they have to respond skilfully to constant shifts in their environments, because customers change their preferences over a short period of time, competition is fuelled by ever-changing technological innovation, governments impose new regulations, transformation in society and in ways of thinking that impose fresh responsibilities on managers.

The same assertion is also advanced by Gharajedaghi (2011: 181) that , in a global market economy with-ever increasing levels of disturbance, a viable business cannot be locked into a single form or function anymore. Success comes from a self-renewing capability to

spontaneously create structures and functions that fit the moment. Now, in the environment of complexity, like the municipality, is the model of rational decision-making process still relevant in managing the municipality and how managers scope in decision making is widened in decision-making process when time is limited, information is unreliable, and the future is uncertain (Gigerenzer et al., 2011)

2.10 Systemic Thinking in Complex Business Environment.

Peter Drucker once warned that one thing certain is that tomorrow will not be like yesterday and the future is highly risky. Therefore, it is more risk to keep the status quo and not innovate (Garrison, 2011: 14). The complexity in the business environment is unpredictable (Vasconcelos and Ramirez, 2011: 237). Since complexity is relative in nature because it depends on the number and the nature of interactions among the variables involved, it needs proper management (Gharajedaghi, 2011: 110). Management must be creative and innovative: the future is no longer anticipated, it is now created. The key concepts now are chaos, conflict, instability, complex learning and dialogue to favour spontaneous self-organization (Olmedo, 2012: 82). Therefore, systems thinking provide managers with the ability to manage effectively in an environment of complexity, change and diversity (Jackson, 2010: 327). There are different theories and methods in systems thinking that are each designed to address complex problems in business organisations (Peters, 2014: 2).

The business environments are said to be complex because they involve multiple interacting agents, the context in which they operate keeps changing and the manner in which things change do not conform to linear or simple patterns (Mitchell, 2009: 231). Sometimes, elements within the system are able to learn new things, or sometimes create new patterns as they interact over time (Gharajedaghi, 2011: 213). Many of the problems in municipalities are now recognized as complex problems where simple blue print approaches have limited access (Peters, 2014: 2). Municipalities functions in an apparently illogical and paradoxical manner (Olmedo, 2012: 84). Managers must learn to apply the systemic thinking approach, that is mooted as the most appropriate approach in dealing with complexity in business management, because the problems managers face are too complicated and diverse to be handled by anything other than the systemic thinking approach (Jackson, 2010: 15).

This approach has challenged the effectiveness of a rational decision-making process, that the decision-making process should not be merely a linear thinking model but it must be a non-linear approach to accommodate complexity in turbulent environments (Castillo, 2014: 54) . Thus, the creation of the ability to continuously match the portfolio of internal competencies with the portfolio of emerging markets opportunities in any business organisation has become the foundation of the emerging concept of new business architecture (Gharajedaghi, 2011: 181). It is therefore, imperative that those in management learn to think in a creative way and further allow disagreements, since organizations need creativity which is generated by these differences in order to succeed (Olmedo, 2012: 85).

Notwithstanding the fact that decision making, in most, if not all, organisations, is often linked with the organisation structure. An organisation structure, in a hierarchical traditional way, determines how rational decisions are made, communicated and responded to (Ferrell et al., 2009: 234). Whereas, in a global market economy with ever-increasing levels of disturbance, a viable business cannot be locked into a single structure anymore, success comes from a self-renewing capability to spontaneously create structures and functions that fit the moment (Gharajedaghi, 2011: 181).

In a nutshell, Jackson (2010: 131) summed the value of systemic thinking to managers succinctly when he contrasted traditional management theory and complexity theory. Traditional management theory advises managers what to do in order to achieve goals in an optimum way. It teaches managers how to organise the parts of an organisation into a coherent structure. It seeks conformity from employees and put in place detailed control procedures to ensure that this is realized whereas complexity theory teaches managers to change their way of thinking , abandoning mechanism and determinism, and learning to appreciate and cope with relationships, dynamism and unpredictability; that organisations co-evolve with their environments, and therefore, managing the environment is crucial; that the best mangers are able to intuitively grasp the patterns that are driving the behaviour of their organisations and the environments they are confronting. They look for patterns in the whole and seek small changes that can have the maximum impact on unfavourable patterns; that the most successful organisations do not try to control everything. To an extent that managers can trust in chaos and allow the processes operating at the edge of chaos to bring new order through self-organisation, and thus promote learning, diversity and a variety of opinion (Jackson, 2010: 131).

2.11 The Management Challenges in Municipalities: Deficiencies in Administrative Capacity and Institutional Performance

The supremacy accorded to municipal service delivery signifies the national government's strategic vision of assuming a central role in regard to intervening in a more pragmatic manner with a view to addressing poverty and inequalities afflicting the majority of communities in urban areas, in general, and rural areas, in particular (Koma, 2010, 112). The massive service delivery protests that continue to engulf municipalities necessitate a greater attention and concentrated efforts to be directed to municipalities on the part of both the national and provincial governments as informed and enjoined by constitutional obligations (Koma, 2010: 112).

Municipalities are intended to have a major impact on the daily lives of South Africans and should seek a new focus on improving the standard of living and quality of life of the people. Thus, in short, municipalities mean strong leadership, management and clear vision (Idasa, 2010: 2). Municipalities are confronted with a plethora of complex capacity challenges (Koma, 2010: 114). Capacity refers to the availability of and access to concrete or tangible resources such as human, financial, material or technological and having the knowledge to implement policies and the delivery of public services. Capacity also refers to the intangible resources such as commitment to, and leadership for, the implementation of policies and delivery of public services (Brynard and De Coning, 2006: 161).

According to the National Capacity Building Framework (NCBF) for local government, capacity is regarded as the potential for something to happen. A three-pronged definition of capacity is succinctly provided in the framework touching on individual, institutional and environmental capacity factors. Individual capacity is the potential and competency, or lack thereof, found within a person, normally reflected through his or her specific technical and generic skills, knowledge, attitudes and behaviour accumulated through forms of education, training, experience, networks and values. Institutional capacity is the potential and competency, or lack thereof, found within organisations. It includes human resources, strategic leadership, organisational purpose, institutional memory, internal confidence, partnerships, intergovernmental relations and functions, infrastructure and financial capability. Environmental capacity is the potential and competency, or lack thereof, found outside of municipalities' formal structures. These include socio-economic composition and demographic composition, the political, legislative and social capital within communities and the natural and mineral resources available (NCBF, 2004:2008).

The Report on the State of Local Government in South Africa published in 2009 by COGTA provides an intriguing comparison in relation to varying capacities of municipalities and thus notes that some municipal administrations are relatively stable and well-resourced, whilst others face huge infrastructure backlogs, the negative impacts of demographic change and prevailing apartheid-based socio-economic legacies. From the foregoing, and broadly viewed, capacity is multi-faceted and dimensional in nature. It is within this context that the state of local government performance should encapsulate the

dimensionality of capacity of individual municipalities with a view to holistically understand their proper functioning as per legislative prescripts and policy aspects.

According to the Local Government Sector Education and Training Authority (LGSETA) Report published in 2007, 31% of municipal managers have qualifications other than those related to finance, legal, public administration, planning and development and 28% of chief financial officers do not hold finance related qualifications. Equally, 35% of technical managers are without engineering qualifications. This state of affairs could clearly impact negatively on the performance of municipalities in question as these senior municipal executives are expected to provide expert views and opinions to the political structures and political office-bearers operating within municipalities such as mayoral committees, the executive mayors and mayors. A report published by SALGA (South African Local Government Association) in 2007 identified important issues with regard to councillor capacity, notably, that there is inadequate legal support and advice to council decision making. In some cases, the roles of councillors are not clearly defined and 60% of councillors who participated in the survey are first time councillors.

Kanyane (2006: 116) stated that weak leadership in strategic management, including corporate governance; shortage of skills to implement financial management; legislation; misplacement of skills within municipalities; political considerations in appointments of senior managers without required qualifications; had tremendously weakened the performance of municipalities. Some municipalities have inadequate financial management capacity. The result is that budgeting, accounting, credit control and

financial reporting systems are weak. Thus, about 60% of the 283 municipalities cannot give evidence to account for the revenue they received (Nombembe, 2008: 36).

Mostly, these are low-capacity municipalities. This means that the municipal managers and financial officers are unable to depict how and when financial transfers from government took place and cannot provide proof of where the amounts listed in their financial statements originate (Nombembe, 2008: 37). The National Treasury reported in June 2009 to the Technical Committee for Finance that 56 local municipalities and eight district municipalities are on their financial distress list. Most of the local municipalities are in the Eastern Cape, the Free State and the Northern Cape and the others are in the remainder of the provinces (Report on the State of Local Government in South Africa, 2009).

It is apparent that the local sphere of government is currently faced with complex challenges and problems pertaining to effective and sustainable provision of basic services; administrative capacity and institutional performance to drive service delivery and effective implementation of government policies and programmes. However, the efficacy of local government should be achieved through the implementation of appropriate and sound decision-making process strategies (Koma, 2010: 116).

2.12 The Strategies to Mitigate the Deficiencies of Human Capital and Administrative Challenges

In Renand (2004: 107), Peter Drucker discusses the old and the new paradigms of management in today's rapidly changing world. Renand (2004:107) revealed that, since the 1980s, the old paradigms have actually become obstacles and must be replaced, and went on to state that in the current business practice, good management means to be responsible for everything that affects the performance of the organization. In an attempt to ensure good management, the municipalities are now expected to make staff appointments in the executive echelon of municipalities in accordance with section 72 of the Competency Guidelines for Municipal Managers and Managers directly accountable to Municipal Managers published as Notice 347 of 2007 in terms of the Municipal Systems Act, 2000 (Koma, 2010: 117).

The senior management competency framework provides for eleven generic managerial competences, namely, strategic capability and leadership; programme and project management; financial management; change management; knowledge management; service delivery innovation; problem solving and analysis; people management; client orientation and customer focus; communication and accountability and ethical conduct. Thus, it is envisaged that the adoption of more standardised criteria for employing executives in municipalities will improve the overall capacity of municipalities to fulfill their legislated obligations. For Category B municipalities, it is recommended that a minimum bachelor's degree, coupled with minimum five years' experience relevant to

local government, is appropriate, whilst for Category A municipalities, a Post graduate degree is preferable (Koma, 2010: 116).

2.13 Bureaucratic Structures

Another complexity in managing a municipality is that municipalities are charecterised by management bureaucracy (Nelson and Svara, 2015: 123). As defined by Weber (2009: 129), bureaucratic structures are hierarchical, coordinated by rules, functionally departmentalized, and impersonal. The same conceptualization of bureaucratic structure is confirmed by Thompson (2011: 117) , Jaques and Clement (2014: 98) and others that bureaucracy is structurally organized into production functions, organizational functions, and executive functions. The same thinking has been confirmed by Uhl-Bien and Marion (2014: 123) that, indeed, a vast majority of formal organizations is organized around bureaucratic principles, and bureaucracy provides the context for the bulk of management theorizing in organizational studies.

In comparing the municipality, Uhl-Bien and Marion (2014: 633) argued that the municipality's artificial barriers created by functionally departmentalized structures, which have clearly defined responsibilities that are only interdependent with other responsibilities in a linear or sequential fashion, are both descriptively unrealistic and, to the extent that they are implemented, counterproductive. Real organizations have fuzzy boundaries between functions, and creative, adaptive organizations. Creative, adaptive organizations generate functions that work across boundaries and exhibit meso

interactive dynamics, which are a blend of structured and dynamic behaviours (Uhl-Bien and Marion, 2014: 633). On the other hand, Edigheji (2009:62) argued that positions in the bureaucracy in Africa have to be based on merit rather than patronage; ethnic or religious considerations; Weberian merit-based recruitment; and rewarding long-term public service careers are required in Africa's developmental states.

2.14 The Challenges in Municipalities within the Province of KwaZulu-Natal

The success or failure of a municipality depends on the quality of its political leadership, sound governance of its finances, the strength of its institutions and the calibre of staff working for the municipality. Although sound financial governance is perceived to be most important, without proper personnel management, municipalities are experiencing difficulty. This has become increasingly evident in a number of large municipalities that have recently found themselves in precarious financial situations, and is certainly true of many smaller municipalities. An analysis of municipal finances suggests that personnel issues lie at the heart of many of the financial problems experienced by municipalities (Local Government Budgets and Expenditure Review, 2011: 105).

In addressing the 2015 South African Local Government Association National Assembly in Gallagher Estate, the President of South Africa, His Excellency Jacob Gedleyihlekisa Zuma, admitted that there are municipalities that are functioning efficiently, with effective political and administrative systems, with strong internal audit, financial management structures and sound decision-making structures (The Presidency, 2015).

The proper management of personnel, is therefore, critical to the effective and efficient functioning of municipalities and must be prioritised across all municipal functions. Personnel management should not only be left to corporate services or the human resources department. It needs to be a core responsibility and priority for all managers in a municipality. At an aggregate level, about 30 per cent of the total municipal operating budget gets spent on the remuneration of personnel. This rate varies among municipalities, depending on the extent to which they may have outsourced some of their service delivery functions, or whether they are responsible for the large revenue generating functions or not. More emphasis needs to be placed on whether this expenditure is yielding value for money for municipalities and the communities they serve. This is why measuring and managing the performance of municipalities, and by implication, the performance of municipal employees, is critical.

The smaller municipalities regularly point to difficulties with recruiting and retaining suitably skilled staff. One proposed solution is to use a shared service centre model built around the district municipalities. However, local municipalities are generally wary of this proposal due to concerns about reporting lines and accountability. Personnel management in local government has been marred, in many instances, by poor recruitment practices, political interference in the appointment and dismissal of employees, the inability to attract and retain suitably qualified staff, high vacancy rates and the lack of performance management systems and other related symptoms (Koma,2010:117).

According to Meyer (2014: 76), poverty, inequality and unemployment remain a obvious reminder of the work the municipalities must continue to do, to bring about meaningful change. The municipalities are at the forefront of promoting economy. Thus, the manner in which the municipalities are managed has a direct or indirect impact on the promotion of local economic development. The role of the province of KwaZulu-Natal in generating the economy cannot be ignored, mainly because KwaZulu-Natal is one of the biggest provinces in South Africa with a total of sixty-one municipalities. As a result, the province of KwaZulu-Natal is one of the main contributors in the South African economy in terms of Gross Domestic Product (Statistics South Africa, 2014). The estimated real Gross Domestic Product generated by the province in 2012 amounted to R323.6 billion which makes it the second largest contributor to the national Gross Domestic Product output (16.6 percent) after Gauteng with 36 percent (KZN Provincial Treasury, 2013).

2.14.1 The Rate of Unemployment

According to Mohr and Fourie (2008: 498), unemployment is one of the most complex challenges, because it is one of those challenges which everybody understands but which turns out to be quite difficult to define and to measure. The contribution made by local government to total employment in South Africa has remained relatively unchanged since 2006. In 2009, local government employed approximately 278 600 people and contributed just over 2 per cent to total employment in the country (Local Government Budgets and Expenditure Review, 2011: 105).

In principle, data on unemployment can be obtained in various ways. A first option is to use official census data, but censuses are only conducted every five years and there is a significant lag before the detailed data are published (Mohr and Fourie, 2008: 498). A second option is to use data on registered unemployment. In South Africa, however, such data are not very significant, since only a small portion of the unemployed register as such. Moreover, since September 1998, the Department of Labour no longer publishes data on registered unemployment in South Africa. A third option is to subtract the number of persons who are formally employed, engaged in the informal sector and those engaged in subsistence agriculture from the economically active population. The final and the most popular option is to use the official estimates of the unemployment rate published by Statistics South Africa. Even in this instance, however, there is still some controversy about whether the strict or expanded definition of unemployment should be used (Mohr and Fourie, 2008: 498).

According to the strict definition, unemployed persons are those persons who, being 15 years and older, are not in paid employment or self-employment , who were available for paid employment or self-employment during the seven days preceding the interview and, who took specific steps during the four weeks preceding the interview to find paid employment or self-employment. On the other hand, the expanded definition, omits those who took specific steps during the four weeks preceding the interview to find paid employment or self-employment. In other words, the expanded definition requires only a desire to find employment. Prior to 1994, the strict definition was used by Statistics South Africa to estimate unemployment in South Africa, with the result that the official estimates were generally regarded as being too low. Statistics South Africa subsequently

switched to the expanded definition, but some observers regarded the new official estimates as being too high. In June 1998, Statistics South Africa reverted to using the strict definition as the official definition, although estimates based on the expanded definition are also published (Mohr and Fourie, 2008: 498).

In the province of KwaZulu-Natal, the official unemployment rate in the 2nd quarter of 2014 was sitting at 23.7%, and the expanded unemployment rate, in the 2nd quarter, was 39.7%. Between the 1st quarter of 2014 and 2nd quarter of 2014, the official unemployment rate in the same province of KwaZulu-Natal increased by 3.0%, and the expanded unemployment rate increased by 2.3% (Statistics South Africa, 2014). Frye and Kirsten (2012: 1) indicated that the province has a challenge of creating decent employment for unemployed people of working age, including discouraged work-seekers, and identifying sectors that can absorb workers who have skills. At the same time, the province had to identify areas for future growth based on its competitive and comparative advantages and further develop education and skills training that will prepare people to move into the identified sectors and drive productive economic growth. These must happen in each and every municipality within the province of KwaZulu-Natal (Frye and Kirsten, 2012: 111).

Municipalities have an important role to play in supporting rural development through providing basic infrastructure, particularly access roads. In doing so, municipalities need to explore the use of appropriate technologies that can be sustainably implemented and managed within rural contexts. The rural household support grant is a significant initiative in this regard, aimed at supporting the rollout of enclosed toilets and rainwater

tanks to rural households. Innovative service delivery approaches can also enhance the development impact of the municipalities' normal activities, such as contracting households to provide road maintenance services. Municipalities should be playing a key role in Local Economic Development, by progressively extending basic infrastructure and ensuring that existing infrastructure is maintained, by providing a user-friendly regulatory environment and by facilitating catalytic partnerships with other role players. The ability of rural municipalities to collect their own revenues are largely influenced by their socio-economic circumstances. However, rural municipalities themselves also show little fiscal effort in rising own revenues from non-poor households, businesses and from charging for services. The consequence is that these municipalities are becoming increasingly dependent on government grants and transfers (Local Government Budgets and Expenditure Review, 2011:110).

Whether a particular municipality is an obstacle or a catalyst to local development depends largely on the quality of leadership the mayor and council provide, improving the skills of the officials employed in the municipality, whether there are problems with corruption and maladministration, and whether the municipality mobilises and utilises the resources available to it effectively. In many rural areas, municipalities need to find ways of working co-operatively with traditional authorities to facilitate appropriate land use management, the rollout of basic services and the collection of rates from non-poor households and businesses located on traditional land (National Treasury, 2011: 210).

2.14.2 The Levels of Inequalities

In a nutshell, in the sense of Gross Domestic Product divided by the total population has placed South Africa at the level of an upper middle income country in the World Bank tables, yet the degree of inequality which, measured in terms of the Gini coefficient, is one of the highest in the world and seems to be getting worse (Wilson, 2011: 2). Hence, the rising level of inequality is a serious concern in all municipalities within the province. The Gini coefficient of the province of KwaZulu-Natal is 0.64 (Statistics South Africa, 2014). The Gini Coefficient is described as a measure of the inequality of income distribution in a country or province. The Gini Coefficient is normally depicted in a value of between 0 and 1, where 0 indicates total equality and a value 1 indicates a maximum inequality. Now a Gini-Coefficient of 0.64 in a province basically means that the level of inequality is precisely high (Statistics South Africa, 2014).

This assertion is affirmed in the reports by Statistics South Africa (2014: 1) that most South Africans are, within the municipalities, still subjected to high abject poverty. Frye and Kirsten (2012: 1), argued that, over the past 19 years, the government has committed significant resources to poverty interventions. One of the most successful of these is the monthly transfer of income to more than 15 million people, amounting to 27% of the population, mainly in the form of child support and old age grants.

A recent report by the Organisation for Economic Co-operation and Development (Leibbrandt, Woolard, Finn & Argent., 2010) found that social grants do mitigate some of the worst destitution in South Africa by injecting cash into households that qualify under the means test. It also found, however, that, because incomes are generally low and the grant gets diluted by being shared with other household members, the grant system cannot significantly reduce income inequality in South Africa (Leibbrandt et al., 2010).

2.14.3 The Poverty Rate

Mr. P. J. Lehohla, the Statistician General of South Africa (2008), indicated that there are three basic approaches to the establishment of the poverty line: namely, the absolute poverty line, the relative poverty line, and the subjective poverty line (Statistics South Africa , 2008). In brief, absolute poverty lines define the poor on the basis of an absolute standard applied to income or expenditure, whereas relative poverty lines define poverty according to the prevailing relative situation in society. On the other hand, subjective poverty lines depend on individual perceptions of poverty status. In light of these conceptual differences, the choice of the poverty line approach has to be considered in relation to the purpose of measurement and sustainable use. South Africa is using the absolute poverty line measurement (Statistics South Africa, 2008).

In 2014, during the State of the Province Address, the Premier of KwaZulu-Natal, Mr. S.E. Mchunu (2014), indicated that 57% of the population of KwaZulu-Natal, in 2002, had an income below the poverty level and in rural areas it was even worse at 74%, but, in 2011,

this has been reduced to 48.4% of people living below the poverty line. According to Hall (2012: 90), there is a substantial number and proportion of children living below the income poverty level. The indicator shows the number and proportion of children living in households that are income-poor. These households fall below a specific income threshold. The measure used is a lower-bound "ultra" poverty line, set at R322 per person per month in 2000 prices. The poverty line increases with inflation and was equivalent to R604 in 2011. Per capita income was calculated by adding all reported income for household members older than 15 years, including social grants, and dividing the total household income by the number of household members (Statistics South Africa, 2014).

One way of identifying how many children are living without enough resources to meet their needs is to use a poverty line and measure how many children live under it. As money is needed to access a range of services, income poverty is often closely related to poor health, reduced access to education, and physical environments that compromise personal safety. A lack of sufficient income can, therefore, compromise children's rights to nutrition, education and health care services, for example. International law and the Constitution recognise the link between income and the realisation of basic human rights, and acknowledge that children have the right to social assistance (social grants) when families cannot meet children's basic needs. Income poverty measures are, therefore, important for determining how many people are in need of social assistance, and for evaluating the state's progress in realising the right to social assistance. No poverty line is perfect. Using a single income measure tells us nothing about how resources are distributed between family members, or how money is spent. However, this measure does give some indication of how many children are living with severely constrained

resources. South Africa has very high rates of child poverty. In 2011, 58% of children lived below the lower poverty line (R604 per month). Income poverty rates have fallen consistently since 2003. Significant decreases in child poverty occur across all provinces except the Northern Cape. This poverty reduction is largely the result of a massive expansion in the reach of the Child Support Grant over the same period (Hall, 2012: 90).

2.15 The Performance Rate of Municipalities

South Africa is defined and regarded as a developmental state in which the province of KwaZulu-Natal is a party (Koma, 2010: 112) . This statement must be understood in the context of the 1996 South African Constitution, section 152, that a developmental state denotes that municipalities have to assume a greater and significant role in the upliftment of socio-economic development of its communities. In delivering the constitutional mandate , municipalities are expected to deal with complex decision-making realities introduce new innovative management models of collaborative governance and management (Meyer, 2014: 5).

However, according to the Report of the National Treasury (2013: 120), the level of performance in most municipalities remain unacceptable, despite having a sound legislative framework governing the management of performance in municipalities .The administrative arm of municipalities cannot afford to be staffed by senior managers who fail to add value and appropriately deliver on their performance objectives (Koma, 2010). The Report of the National Treasury of the Republic of South Africa (2013:120) went on

to suggest that the recent failures witnessed in some of the province's larger municipalities are clearly indicative of failures in management across all levels. In many municipalities, poor performance is also compounded by the lack of experienced senior managers in critical municipal positions such as planning, infrastructure and financial management. The resilience of the municipalities is dependent on the ability of people in management to adapt and rethink swiftly in the face of change (Meyer, 2014: 20).

The emergence of self-organising collaborative governance practices must be understood and interpreted as a response to the realisation that the municipalities have reached the limits to management practices as far as the 'business as usual approach' is concerned (Meyer, 2014: 20). During 2009, the government launched the New Growth Path with its ambitious vision of creating 5 million jobs by 2020 and with a focus on a new more inclusive, labour-absorbing development path (Commission, 2010: 4). The New Growth Path document aims to address the structural 'problems' inherent in South Africa's economy and to launch a set of strategies aimed at fighting against poverty, inequality and unemployment (National Treasury, 2012: 9). In many respects, the NGP is South Africa's response to both changing technological production systems and the global economic downturn which occurred from 2008.

The Department of Economic Development identified six core Local Economic Development planning principles. These principles aimed to improve the labour absorption capacity of the economy both in the absolute numbers of employment opportunities created as well as in the labour intensity of economic growth, to rebuild the productive capacity of the economy, to integrate green considerations in economic

growth by decreasing the carbon emission of economic activities as well as actively identifying new opportunities in the green economy, to focus on the opportunities on the African continent and support logistics and industrial opportunities elsewhere on the continent that can strengthen the country's own employment base and economic development, to enhance the coherence and linkages between sectors such as, for example, between new infrastructure development and extension of local manufacturing capacity, and to promote partnerships between business, labour and government as critical instruments to drive the jobs goals (National Development Planning Commission, 2010: 9) . One of the common focus areas of the National Growth Path and National Development Plan is that of supporting the growth of small businesses as well as of cooperatives as a vehicle for drawing more South Africans into entrepreneurial activities and boosting job creation (Rogerson, 2014: 210),

2.16 Conclusion

In this chapter, the literature review was conducted to conceptualize systemic thinking in decision-making process and its relevance in addressing issues of complexity within the municipal perspective. During the process of investigation, the views of various scholars on systemic thinking and the rational decision-making process model was examined to test its relevance in addressing complex business challenges, especially in an environment wherein the stability, prediction and control are no longer possible. This is a situation where in the environment to manage has a potential of moving from an individual to a collective emergent issue.

In a nutshell, emergent issues refer to the management of events that results in interconnections inside and outside organizations. Emergent issues refer to emergent challenges that demand the creation of conditions necessary to favour emergence, adaptability and learning in organizations rather than directing the whole organization to get its objective. It is apparent that, in such events, the role of complex management is to design an adaptive organizational system that is able to cope with the complex environment, to redefine its position, structure and competitive advantage. This does not imply a decentralized organization structure but rather the existence of self-managing processes which are guided by the strategic decision-making processes and guidelines defined by management.

Therefore, the role of managers in a complex environment is to assure proper conditions to let the system self-organize productively to react to complexity. In order to make this possible, those in management must have certain qualities, such as the ability of complex seeing, complex thinking, complex feeling, complex knowing, complex acting, complex trusting and complex being. Complex managers should encourage novelty and disequilibrium and the promotion of emotional connections with common language and symbols inside simple rules to favour new emergent behaviours. Moreover, they should be able to recognize these emergent behaviours and give meaning to them. In view of these findings, this study will gather empirical evidence to test the veracity of the literature through data collection from senior managers from 66 municipalities within the province of KwaZulu-Natal. The data will be statistically analysed and interpreted to establish. The next chapter focuses on the research methodology of this study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter discussed the literature review on the discourse of systemic thinking in decision-making processes. This chapter discusses the research methodology chosen to analyse systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal. According to Creswell (2005: 56), "research is a process of steps used to collect and analyse information to increase our understanding of a topic or issue".

This chapter presents the research design and methodology procedure used in this study. The following topics are covered: the principles of the research design, research design, preferred method of study, target population, sampling data collection, the concepts of reliability and validity and data analysis.

3.2 Principles of Research Design and Methodology

Before discussing the research design, it is important to define the principles of research and to describe the unique characteristics of a good research. Creswell (2005: 56) defined research as a systematic process of collecting and analysing data, in order to

increase understanding of the phenomenon in which the researcher is interested. Creswell (2005) and Sekaran & Bougie (2013) argued that by collecting and interpreting information to solve daily problems does not constitute a formal research. Creswell (2005: 87) stated that research projects vary in complexity and duration and possess the following characteristics:

- Research originates with a question;
- Research requires a clear articulation of a goal;
- Research follows a specific plan of procedure;
- Research usually divides the principal problem into more manageable sub-problems;
- Research is guided by specific research problems, questions or hypothesis;
- Research accepts certain critical assumptions;
- Research requires the collection and interpretation of data in an attempt to resolve the problem that initiates the research; and
- Research is, by its nature, cyclical or, more exactly, spiralling.

According to Sekaran and Bougie (2013: 2), business research can be described as a systematic and organized effort to investigate a specific problem encountered in the work setting, which needs a solution. In essence, research provides the necessary information that guides managers to make informed decisions to successfully deal with problems (Sekaran and Bougie, 2013:3).

Research involves a series of well-thought-out and carefully executed activities that enable the researcher to know how organisational problems can be solved, or, at least, considerably minimized. Research encompasses the process of inquiry, investigation,

examination and experimentation. These processes have to be carried out systematically, diligently, critically, objectively and logically. The expected results should be a discovery that helps the researcher to deal with the problem situation (Sekaran and Bougie, 2013:2).

3.3 The Research Question

From the review of the background literature in the area of decision-making process, the conceptual framework was developed to include a number of areas that have been extensively researched in the literature. However, in terms of researching systemic thinking in relation to its application in decision-making processes in the workplace, the literature provides little direction. Therefore, the overall purpose of the research is to analyse the application of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal.

In order to analyse systemic thinking in the decision-making process in municipalities, the following questions were developed and were based on the overall purpose and emerged whilst developing the conceptual framework in the previous chapter.

- To what extent do the respondents understand the concept of systemic thinking?
- To what extent do the respondents apply systemic thinking in decision-making processes?
- How effective is systemic thinking in resolving complex problems?

- Which model can be recommended to improve systemic thinking in decision-making processes?

3.4 The Research Design

In structuring the research study, a number of decisions had to be made in steering this study successfully. Among the decisions considered, were the purpose of the study, ethical considerations, unit of analysis, types of investigation, extent of researcher interference, study setting, time horizon, methodological approach, data collection method and data analysis.

In pursuant of this study, a combination of descriptive and exploratory studies was chosen, due to the fact that, the study was going to be conducted in a mixed method approach, that is, both quantitative and qualitative methods. Sekaran and Bougie (2013: 105) argued that a descriptive study is undertaken in order to ascertain and describe the characteristics of the variables of interest in a situation. Exploratory studies are undertaken to better comprehend the nature of the problem since very few studies might have been conducted in that area. Sekaran and Bougie (2013:105) further indicated that exploratory studies can be undertaken by interviewing individuals and through focus groups.

A descriptive study may involve the collection of quantitative data and the exploratory study may require the collection of qualitative information (Sekaran and Bougie, 2013:

107). Whereas qualitative data obtained by interviewing individuals may help the understanding of phenomena at the exploratory stages of a study, quantitative data, in terms of frequencies, or mean and standard deviations, become necessary for descriptive studies. Further, the use of mixed methods, as distinct from either qualitative or quantitative methodology, is growing in popularity and this approach has been more widely recognized with the publication with a number of texts dealing specifically with mixed methodologies (Creswell, 2005). There are several good reasons as to why a researcher had opted to integrate both qualitative and quantitative research. According to Leedy and Ormrod (2015: 259), the following reasons were critical in deciding the research methodology:

- *Completeness:* A researcher can fully understand a research problem and its sub-problems only by collecting, analysing and interpreting both qualitative and quantitative data;
- *Complementary:* Quantitative aspects of the study can compensate for weaknesses in qualitative research, and vice versa;
- *Hypothesis generation and testing:* Qualitative data often provides insights that help a researcher form hypotheses about cause-and-effect relationships-hypotheses that a researcher can subsequently test through controlled, quantitative research;
- *Development of appropriate research tools and strategies:* One type of data can inform and guide subsequent collection of another type of data.
- *Triangulation:* A researcher can make a more convincing case for particular conclusions if both qualitative and quantitative data lead to those conclusions; and
- *Resolution of puzzling findings*: In a quantitative study, various results can sometimes seem inconsistent or contradictory. In such event, qualitative data may reveal

underlying nuances and meanings that can help the researcher make sense of the numbers.

3.5 Overview of Mixed Methods Approach

Mixed methods' studies allow for the inclusion of both quantitative and qualitative methods of data collection and/or analysis to achieve a range of outcomes (Creswell, 2005 :). Both quantitative and qualitative research methodology were used in this study, since its nature was a combination of descriptive and exploratory study. Worth mentioning here is that, according to Leedy and Ormrod (2015 :259), the ways in which a researcher might combine qualitative and quantitative methods are almost limitless, restricted only by the researcher's imagination and creativity and, of course, by the nature of the research problem. The following are the four main general mixed method designs, as cited by Leedy and Ormrod (2015:259):

- *Convergent Designs*: In a convergent design, a researcher collects both qualitative and quantitative data in parallel, usually at the same time and with respect to the same research question. The researcher gives equal weight to the two types of data and strives for triangulation, with the hope that analysis of both data sets lead to similar conclusions about the phenomenon under investigation;

- *Embedded Designs*: embedded design is similar to a convergent design, in that both qualitative and quantitative data are collected within the same general time frame. However, one general approach dominates - perhaps a quantitative approach or a

qualitative approach, with the other approach serving in a secondary and supplementary role;

Exploratory Designs: An exploratory design typically encompasses two phases. In phase 1, a researcher uses one or more qualitative methods to get a general sense of characteristics, phenomena, and/or issues related to the topic of study. The qualitative data - perhaps from observations, interviews, or both provides a basis for a more systematic quantitative study in phase 2; and

- *Explanatory Design*s: an explanatory design is usually a two phase process, but, in this case, the quantitative comes first. More specifically, phase 1 involves collecting considerable quantitative data, perhaps in an experiment, ex-post facto study or survey. However, the first phase yields only numbers, in the form of percentages, averages and so on. Collecting data in phase 2 follow-up helps the researcher to give greater substance and meaning to numbers.

An embedded research design was preferred in this study. Thus, the quantitative research method dominated and the qualitative method played as a secondary or supplementary role in this study. This was done after a plethora of relevant literature (Creswell, 2005; McMillan and Schumacher, 2014;) on mixed research methods, as an alternative to qualitative or quantitative approaches, was investigated. Based on the research questions, this study used a mixed methods approach to conduct an analysis of systemic thinking in decision-making process in the municipalities within the province of KwaZulu-Natal.

A mixed methodological approach was used to allow for initial generation of insight in relation to the relatively unexplored area of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal, and in order to expand the knowledge with the added benefits of a broader study to reveal more general findings. Creswell (2005: 36) stated that the utilization of mixed methods promotes synergistic benefit by integrating both post-positivist and constructivists' paradigm.

The underlying assumption is that research is stronger when it mixes research paradigms, because a fuller understanding of an investigated phenomena is gained. According to Creswell (2005: 56), mixed method studies, as used in this study, is designed to utilize the outcomes from one method to develop and inform the other. Further, such an approach can be categorized as a two phase embedded mixed-method approach (Creswell, 2005: 37). Therefore, the mixed method was preferred in conducting this study in order to obtain a good grasp of the phenomenon of interest and advancing knowledge through subsequent theory building and hypothesis testing, and to further analyse relevant aspects of the phenomenon of interest from an individual, organizational, industry-oriented perspective. In this study, it was purely with a sole intent of gathering experiential evidence from senior managers of the municipalities regarding the understanding, application and effectiveness of systemic thinking in decision-making processes in a municipality environment.

3.6 Ethical Clearance Considerations

Prior to the conduct of this study, an ethical clearance application was made to the University of KwaZulu-Natal Humanities & Social Science Research Ethics Committee (UKZNHSSREC). The application was considered by the committee and full approval was granted. The ethical clearance certificate or protocol reference number is HSS/1473/014D.

According to Sekaran and Bougie (2013: 15), ethics in business research refers to a code of conduct or expected societal norm of behaviour while conducting business research. Sekaran and Bougie (2013: 127), indicated that ethical conduct applies to the organisation, the members that sponsor the research, the researchers who undertake the research and the respondents who provide them with the necessary data. The observance of ethics begins with the person instituting the research, who should do so in good faith and pay attention to what the results indicate (Creswell, 2005). Ethical conduct should also be reflected in the behaviour of the researcher who conducts the investigation (Sekaran and Bougie, 2013: 16), the participants who provide the data, the analysts who provide the results, and the entire research team that present the interpretation of the results and suggest alternative solutions.

In this study, ethical issues were observed from the beginning of the project till the close out stage. At an initial stage, the purpose of the research was explained to all the participants within the study. Participants were provided with a consent form to complete and sign if they agree to participate in the study. The consent form had an option to participants to indicate whether they do agree or they do not agree to participate in the interviews and such right was fully honoured and respected in all earnest. The

preliminary statement assured the respondents that the information they provided was only required to help the researcher to better understand the application of systemic thinking in decision-making processes within the municipality. As a result, the respondents were asked to respond to all the questions frankly and honestly. The preliminary statement did also assure the respondents about the high level and strictness of confidentiality that was accorded to their responses.

Confidentiality was guaranteed to all participants involved in the research. For phase one participants, the identities of the organisations and the individuals were maintained confidential by the use of codes rather than names. The codes were allocated to the individuals by the researcher and these identities were maintained in a secure location. All data gathered for this research were stored in a secure location and will be maintained for a period of five years as required by the UKZNHSSREC.

The gatekeepers' permission and informed consent were obtained for the study. Firstly, the gatekeepers' permission was obtained from the senior manager responsible for Policy and Research from the Department of Co-operative Governance and Traditional Affairs of KwaZulu-Natal which is the umbrella department responsible for all the municipalities within the province of KwaZulu-Natal, in order to gain access to municipalities within the province of KwaZulu-Natal. For phase one, the survey questionnaire provided an introductory explanation and the opportunity to volunteer to complete the survey. Completion of the survey questionnaire was considered to be informed consent and participants were advised that they could withdraw up any to any point until the survey was submitted. For Phase Two, each individual was then provided

with an information sheet and consent form relating to the study (refer Annexure A) for clarification and endorsement prior to the conduct of interviews. At all times it was made clear that interviewees were free to withdraw from the study at any stage.

Data access and ownership were also considered as an ethical issue for this study. In line with the UKZNHSSREC requirements, all hard copy data were stored in a secure location. In updating the KZNCOGTA about the information gathered, a verbal report was provided, not identifying any individuals nor providing sufficient details to allow identifications of individuals.

Further, the issue of data collection boundaries and how far to go in attempting to collect data were not major issues. Those participating were volunteers and were all generally able to provide the required input. Where interviews had difficulty answering questions, rephrasing and feedback were used to assist exerting undue pressure on the interviewee. Finally, the issue of ethical versus legal requires the researcher to identify the ethical framework that guides the study. The framework used for this study was the direction and guidelines set by the UKZNHSSREC and the UKZN Code of Conduct for Research, as prescribed in Research Policy V: Research Ethics (REFERENCE NUMBER CO/06/2906/0).

The location of the study is illustrated in Figure 3.1.

3.7 The Location of the Study

Figure 3.1: District Municipalities in KwaZulu-Natal

Source: www.municipality.co.za was accessed on the 8th October 2014

The province of KwaZulu-Natal is one of the biggest provinces in South Africa. KwaZulu-Natal is located in the south-east of South Africa bordering the Indian Ocean. It also borders on the Eastern Cape, Free State and Mpumalanga provinces, as well as Lesotho, Swaziland and Mozambique. It covers an area of 94 361km^2, the third-smallest in the country, and has a population of 10 267 300, making it the second most populous province in South Africa. The capital is Pietermaritzburg. The largest city is Durban. Other major cities and towns include Richards Bay, Port Shepstone, Newcastle, Estcourt and Ladysmith. The province's manufacturing sector is the largest in terms of contribution to GDP (www.municipality.co.za)

Richards Bay is the centre of operations for South Africa's aluminium industry. The Richards Bay Coal Terminal is instrumental in securing the country's position as the second-largest exporter of steam coal in the world. The province has undergone rapid industrialisation owing to its abundant water supply and labour resources. Agriculture is also central to the economy. The sugar cane plantations along the coastal belt are the mainstay of KwaZulu-Natal's agriculture. The coastal belt is also a large producer of subtropical fruit, while the farmers inland concentrate on vegetable, dairy and stock farming. Another source of income is forestry in the areas around Vryheid, Eshowe, Richmond, Harding and Ngome. The province of KwaZulu-Natal is divided into one metropolitan municipality (eThekwini Metropolitan Municipality) and 10 district municipalities, which are further subdivided into 50 local municipalities (www.municipality.co.za accessed 08th October 2016).

3.8 The Selection of an Organisation and Participants

Municipalities, as an organisation, were chosen because the Auditor General in South Africa had expressed numerous concerns about the municipality's administrative capacity and the quality of decisions taken by the senior managers in municipalities. Most of the findings were related to corporate services, financial management and overall management aspects within the municipalities. Thus, this study opted to analyse the application of systemic thinking in decision-making processes by senior managers responsible for corporate services, financial management and overall municipal management from all the 61 municipalities within the province of KwaZulu-Natal.

In selecting the sample for this study, a stratified random sampling approach was chosen. According to Sekaran and Bougie (2013: 272), a stratified sampling method is the process of stratification or segregation, followed by random selection of subjects from each stratum. In this sampling method, the population is first divided into mutually exclusive groups that are relevant, appropriate, and meaningful in the context of the study, and thereafter followed by random selection of subjects from each stratum. In this study, the stratification was made on the basis of functions or directorates. Hence, director corporate, chief financial officers and municipal managers were selected.

According to Sekaran and Bougie (2013: 272), once the population has been stratified in some meaningful way, a sample of members from each stratum can be drawn using either a simple random sampling or a systematic sampling procedure. The subjects drawn from

each stratum can be either proportionate or disproportionate to the number of elements in the stratum. Hence, senior managers, who are specialists in different specialization within the municipalities, were selected and grouped according to functional areas of operations (finance, corporate services and municipal management).

Therefore, the participants of the study were senior managers from 61 municipalities within the province of KwaZulu-Natal. The study targeted only senior managers who are entrusted with the responsibility of overseeing or directing corporate services, finance units and municipal managers. In statistical terms, this translated to a population of 183 targeted participants in the study. These participants were chosen on the basis that senior management responsible for corporate services are also responsible in the selection and recruitment of human resource managers, and chief financial officers, on the basis that, in many instances, they find themselves having to deviate funds from budgeted items to fund the unplanned projects, and the municipal managers were chosen on the basis that they are accounting officers in all the decision-making processes and outcomes of those decisions.

In a nutshell, the unit of analysis of this study was a group of senior managers from corporate services, chief financial officers and municipal managers from all 61 municipalities within the KwaZulu-Natal province. The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage (Sekaran and Bougie, 2013: 104). In this study, the researcher wanted to determine the patterns of decision-making processes by corporate sections, chief financial officers and municipal managers.

A database from the Department of Traditional Governance and Traditional Affairs (COGTA) was used as a sampling frame. From that database, a probability sample was drawn and, subsequently, a stratified sampling method was used to select respondents from 61 municipalities. The distribution of sample per districts and metropolitan is as reflected in Table 3. 1.

Table 3. 1: The Distribution of Sample per Districts and Metropolitan

Districts and Metropolitan	***Frequency***	***Percentage***	***Sample Size***
Amajuba District	4	7	12
EThekwini Metro	1	2	3
Harry Gwala District	6	10	18
ILembe District	5	8	15
UGu District	7	11	21
UMgungundlovu District	8	13	24
UMkhanyakude District	6	10	18
UMzinyathi District	5	8	15
UThukela District	6	10	18
UThungulu District	7	11	21
Zululand District	6	10	18
TOTAL	***61***	***100%***	***183***

3.9 The Nature of the Research Study

3.9.1 Overview

This phase involved the development of the survey instrument, administration of the questionnaire and data analysis and interpretation. The questions were developed and based upon the findings and gaps identified during the literature review stage.

3.9.2 Survey Questionnaire Methodology

The terms 'survey' and 'questionnaire' are often left undefined in research texts and publications, or are used in a variety of contexts, sometimes interchangeably (Creswell, 2005). In this study, the term 'survey questionnaire' has been used purposefully throughout to refer to the instrument used for data collection. This term was developed on the fact that a survey, in the broadest sense, gathers data on a particular issue but not necessarily from an entire population (Sekaran and Bougie, 2013: 196).

A survey may use a number of data collection techniques, including personal interviews, telephone interviews, direct observation or self-administered questionnaires (McMillan and Schumacher, 2014: 123; Sekaran and Bougie, 2013: 118). In this study, the data collection technique used was a questionnaire: hence, the term survey questionnaire. Survey questionnaire are recognized as an appropriate method of collecting data from a large number of research participants when the researcher is able to clearly articulate

the information of interest and have appropriate measures of variables (Sekaran and Bougie, 2013: 79).

3.9.3 Survey Instrument Development

The design of survey questionnaires is critical to effective research and three issues have been highlighted as being important in this process. These are question wording, categorization and coding of the variables and general appearance (Sekaran and Bougie, 2013: 96). Each of these was considered in the development of the survey questionnaire. The wording was specifically developed in line with the concepts related to systemic thinking. The categorisation of variables was done prior to the instrument development by careful planning of analysis around the research questions. Finally, the appearance was assessed by the use of the expert panel, and as an integral part of the pilot study.

3.9.4 Survey Questionnaire Construction

The survey instrument had 24 questions which were divided into 4 main sections (For a full copy of the survey questionnaire see, Annexure 'D'). These 4 main sections were designed in line with the research objectives. The first section covered demographic data relating to the individual, including sex, qualifications, positions type and experience. This information was collected as nominal data, and specific rationale was used to develop the groupings. Among the information gathered, there were columns indicating the position occupied by the respondent within the municipality such as whether the

respondents are Directors of Corporate Services, Chief Financial Officers and Municipal Managers.

Data were also gathered in section 1 about the individual's duration of occupying the position reflected and the number of times an individual has participated in strategic decision-making processes. This information that was used as an indicator of the level of experience, and the ability to provide insight and depth of knowledge to the study. The second section were questions designed to test the understanding of systemic thinking in decision-making processes by the senior managers of the municipalities. This section had 5 questions which were developed in accordance with the findings and gaps identified during the literature review.

These questions were presented in a Likert scale format of 1 to 5, where by 1 denoted strongly agree and from there progressed up to 5, which denoted strongly disagree with the statement that was provided. For statistical analysis, it was required that a scale appropriate to conducting multivariate analyses be developed. Further, it was critical that a balanced five-point scale be used. The questionnaire provided an opportunity for a neutral response by the provision of a mid-point.

Pilot study phase: The instrument was distributed to all the senior managers in the Ugu District municipality and 20 managers invited to complete the survey questionnaire all 20 senior managers responded, representing a response rate of 100 %. These participants were asked to complete the survey questionnaire. These participants were

asked to complete the same survey questionnaire a second time after a time lapse of approximately a month, with 17 replying to a re-test (Response rate of 85%). The survey questionnaire was matched and test-retest reliability analysis was conducted as well as eliciting feedback from the participants relating to the clarity, readability and ease of understanding of the instrument.

The process of refining the survey questionnaire based on feedback from the pilot study is explained in the following section. Feedback from respondents was sought in relation to the survey questionnaire, its clarity and ease of use. No issues were identified with regards to the wording of the instrument, with respondents reporting ease of completion. The data were entered into a SPSS data file and were checked for indicators of structural issues or potential format problems. No issues were identified from the pilot study.

Additional input regarding the survey questionnaire was sought from academics for the purpose of design. It was believed that their knowledge of research would be valuable to ensure that the instrument would be appropriate to the target participants in terms of wording. Only minor grammatical changes were suggested by these academics. No other issues were identified by the academics

3.9.5 The Data Collection Instrument

In this research study, a self-administered structured questionnaire (refer to Annexure D) was used as data collection instruments. Leedy and Ormrod (2015: 39) define a

questionnaire as an instrument for gathering self-report information from respondents through self-administration of questions in a paper-and-pencil format. The utilisation of structured questionnaires enhances the objectivity and supports statistical analysis. The respondents respond to a series of pre-developed questions posed by the researcher. In this study, a questionnaire was developed in consideration of the gaps identified during literature review.

Thus, a questionnaire of 24 questions was developed and contained closed questions as well as open-ended questions towards the end of the questionnaire to provide a space for respondents' remarks or for the inclusion of any relevant information that the respondent would deem relevant. The questionnaire was designed in such a way that it had both positively and negatively-worded questions. A pilot test was done to test the questionnaire's validity and reliability. A pilot study of the questionnaire was conducted before it was circulated to the intended respondents in order to test the appropriateness and the understanding of the questions by the respondents.

The sequence of questions was designed in such a way that the first section of the questionnaire was looking for general information of the respondents , the second section of the questionnaire was designed to evaluate the understanding of systemic thinking by the respondents, the third component was designed to investigate the application of systemic thinking by the respondents, and the last section was designed to assess the effectiveness of systemic thinking in decision-making processes in municipalities within the province of KwaZulu-Natal.

3.9.6 Data Collection

The instrument used to collect data was a survey questionnaire (Rocco, et al. 2003). A survey questionnaire contained 21 closed questions and 3 open ended questions. At the end of each closed question a space was provided to accommodate additional information that a respondent wished to include. It is through this research methodology that all relevant elements of the study were investigated and empirical evidence was gathered. The experiential evidence was gathered through a survey questionnaire completed by the senior managers of 61 municipalities within the province of KwaZulu-Natal, including the interviews conducted with the same participants. In addition, a mixed methods' research approach was chosen on the understanding that municipalities are complex social and dynamic institutions. This approach ensured that all questions were answered by the intended respondents. Further, the response rate was higher than any other traditional method and this proved to be the situation with the 149 respondents representing a response rate of 82%.

3.9.7 Data Analysis

The statistical analysis program, SPSS Version 21.0, was used to analyse and interpret the collected data. The results are provided in chapter 4. However, the specific method used, and its rationale are explained in this chapter. The collected data were coded and captured into an Excel spreadsheet and uploaded to SPSS. Once loaded to SPSS, the first step taken was to clean data and examine the database for missing data (Creswell, 2005: 121).

3.9.8 Statistics Analysis

The first stage of the analysis and interpretation involved drawing descriptive statistics in relation to all the general information questions. For those items with nominal or ordinal scales, frequency distribution was calculated. For those with interval scales, further analysis was conducted including measures of central tendency and measures of skewness. This stage of the analysis allowed for an initial overview of the findings and provided the researcher with an opportunity to identify trends in the data (Creswell, 2005: 127).

When this initial data were examined, there were non-directional hypotheses that were further explored by the use of cross tabulations of results. Non-directional hypothesis were formulated either because the relationships or differences have never been explored, or there was no basis for indicating the direction, or because there have been conflicting findings in previous research studies on the variables (Sekaran and Bougie, 2013; 84). In such cases, Sekaran and Bougie (2013; 84) argued that the researcher might be able to hypothesize that there is a significant relationship, but the direction may not be clear. In such instances, the hypothesis can be stated non-directionally.

In this study, the hypothetico-deductive method was adopted that requires that hypotheses are falsifiable, meaning that, hypotheses must be written in such a way that other researchers can show them to be false. For this reason, hypotheses were accompanied by null hypotheses. A null hypothesis (H_o) was set up to be rejected in support an alternate hypothesis, labelled (H_a). When used, the null hypothesis is

presumed true until statistical evidence, in the form of a hypothesis test, indicates otherwise.

3.9.9. THE KEY NULL HYPOTHESIS CONSTRUCTED AND TESTED ON THIS STUDY.

This is the list of some of the key hypothesis formulated and tested through Cross-Tabulations and Chi-Square Tests:

- H_o1: There is no significant relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o2: There is no significant relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o3: There is no significant relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o4: There is no significant relationship between the number of years in current position and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o5: There is no significant relationship between the numbers of times participated in strategic decision making process and resolving problems according to a fixed set of rules and procedures in municipalities.

- H_o6: There is no significant relationship between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities.

- H_o7: There is no significant relationship between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace.

- H_o8: There is no significant relationship between the number of years in current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision making processes.

The results of the cross-tabulations are presented in Cross- tabulation Table 1, 2, 3, 4 and 5). According to the Cross tabulation tables, the SPSS package generated 3 alternatives Chi-Square values. i.e. Pearson Chi-Square, Likelihood Ratio and Linear-by-linear association. However, for the purpose of this study the only Chi-Square value we were interested in was the Pearson Chi-Square. As a result, the actual interpretation of Chi-Square tests results were focusing mainly at looking at the significance probability quoted. If the $p<0.05$, then our conclusion was that the relationship found on the compared variables was significant and would be regarded as evidence that there is an association between the tested variables.

3.9.10. The Reliability and Validity

One of the most important features of any instrument is that it measures the concept being studied in an unwavering and consistent way. These are addressed under the broad headings of validity and reliability, respectively. Validity and reliability of the measure attest to the scientific rigour that has gone into the research study. In general, validity is described as the ability of the instrument to measure what it is supposed to measure and reliability is the instrument's ability to consistently and accurately measure the concept under study (Sekaran and Bougie, 2013).

Reliability testing was performed using Cronbach's Alpha. Cronbach's Alpha was used to test consistency and provided an indication of the reliability of the data being analysed by testing how well the data measures a single idea. The number of items in a questionnaire testing a particular idea should render a high inter-item correlation and, therefore, a high alpha should be produced. An alpha of 1 denotes high reliability, whilst an alpha of 0 denotes low reliability. The content and construct validity was assessed by circulating the questionnaire to research and statistical experts and by pre-testing it with a small sample similar to the population. Reliability was tested by using Cronbach's coefficient alpha.

The principles of validity and reliability are fundamental cornerstones of the scientific method. Together, they are at the core of what is expected as scientific proof, by researchers and scientists alike (Creswell, 2005).

3.9.11. The Case Processing Summary

The case processing summary presents the total number of cases processed, the number of valid cases and those that were excluded based on deletion of some variables in the procedure. The results are presented in Table 3.2.

Table 3.2: The Case-Processing Summary

		N	%
Cases	Valid	150	98.7
	Excluded[a]	2	1.3
	Total	152	100.0
a. Listwise deletion based on all variables in the procedure.			

The results presented in Table 3.2 confirms that 152 responses received from the targeted respondents, and a total of 152 cases were processed in this study. The targeted responses on this study was 183. However, only 152 responded out of 183, thus the response rate was 83%.

3.9.12. Reliability –Cronbach's Alpha

Leedy and Ormrod (2015:91) regarded reliability as the consistency with which a measuring instrument yields a certain, consistent result when the entity being measured

has not changed. Reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure (Sekaran and Bougie, 2013).

Consistency indicates how well the items measuring a concept hang together as a set. Cronbach‘s alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. Cronbach‘s alpha is computed in terms of the average inter-item correlations among the items measuring the concept. The closer Cronbach‘s alpha is to 1, the higher the internal consistency reliability (Sekaran and Bougie, 2013).

Leedy and Ormrod (2015:91) further indicated that reliability takes different forms in different situations. These are the four forms of reliability that are frequently of interest in research studies:

- Interrater reliability, which is the extent to which two or more individuals evaluating the same product or performance give identical judgements;
- Test-retest reliability, which is the extent to which a single instrument yields the same results for the same people on two different occasions;
- Equivalent forms reliability, which is the extent to which two different versions of the same instrument yield similar results; and
- Internal consistency reliability, which is the extent to which all of the items within a single instrument yield similar results.

3.9.12.1. Validity

Leedy and Ormrod (2015: 36) defines the validity of a measurement instrument as the extent to which the instrument measures that which it was designed to measure. Simply stated, validity is concerned with whether or not we measure what we set out to measure and the efficiency of this measurement. As a result the problem statement, research question and the objectives of the study were measured against the findings of the study. In this study, pretesting was done to test the validity of the instrument.

3.9.12.2. Reliability

Reliability is established when several measurements of the same variable yield the same or highly congruent results. In statistical benchmarking, a reliability coefficient of 0.70 or higher is deemed 'acceptable' (Creswell, 2005). Case-processing summaries and reliability coefficients test were conducted to test the reliability of data in order to establish the legitimacy of empirical research data. The results are indicted in Annexure 'E' and 'F'), respectively.

3.13. Conclusion

This chapter provided a detailed explanation of the research design and the methodology, ,the research question, overview of mixed method approach, ethical considerations, the location of the study, the selection of participants, the sample size, data collection

instruments, statistical analysis, the constructed null hypothesis, the reliability and validity.

The results of the data obtained from this study are presented and discussed in the next chapter.

CHAPTER 4

PRESENTATION AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents and discusses the results obtained from this survey. It presents and provides interpretation of the information collected from the respondents. It further gives meaning to all data collected. The main aim of conducting data analysis and interpretation was to determine whether or not the intended objectives of the study were met. The chapter begins with the presentation of descriptive illustration of the respondents' general information which helped the researcher to understand the quality of employees of the municipalities in detail. The respondents in this study were senior managers from corporate services, financial officers and municipal management. The motivation of the study was to analyse systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal. The Statistical Package for the Social Science (SPSS) version was used to analyse the collected data. The results are presented in tables, figures and narrative format. The first part of the analysis dealt with the descriptive statistics.

4.2 Descriptive Statistics

4.3 Section A: Analysis of Descriptive Data

The first part of the analysis deals with the general information of the respondents and the following graphical presentations illustrate the responses for each question hereof. The graphical presentation of the analyses is shown in tables and figures respectively for each variable.

4.3.1 Gender Distribution

In order to become a gender sensitive institution, local government must undergo an internal transformation and remove obstacles for the effective participation of women in local government structures. The need to increase women's participation in local government has been recognized by many, including the Deputy Minister of Local Government, Ms. Ntombazana Botha, who has stated that men and women should be equally represented in all local government structures (Gray and Maré, 2002:4*).* The results of this variable are presented in Table 4.1 and Figure 4.1.

Table 4.1: Gender Analysis (N=152)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	61	40.1	40.1	40.1
	Male	91	59.9	59.9	100.0
	Total	152	100.0	100.0	

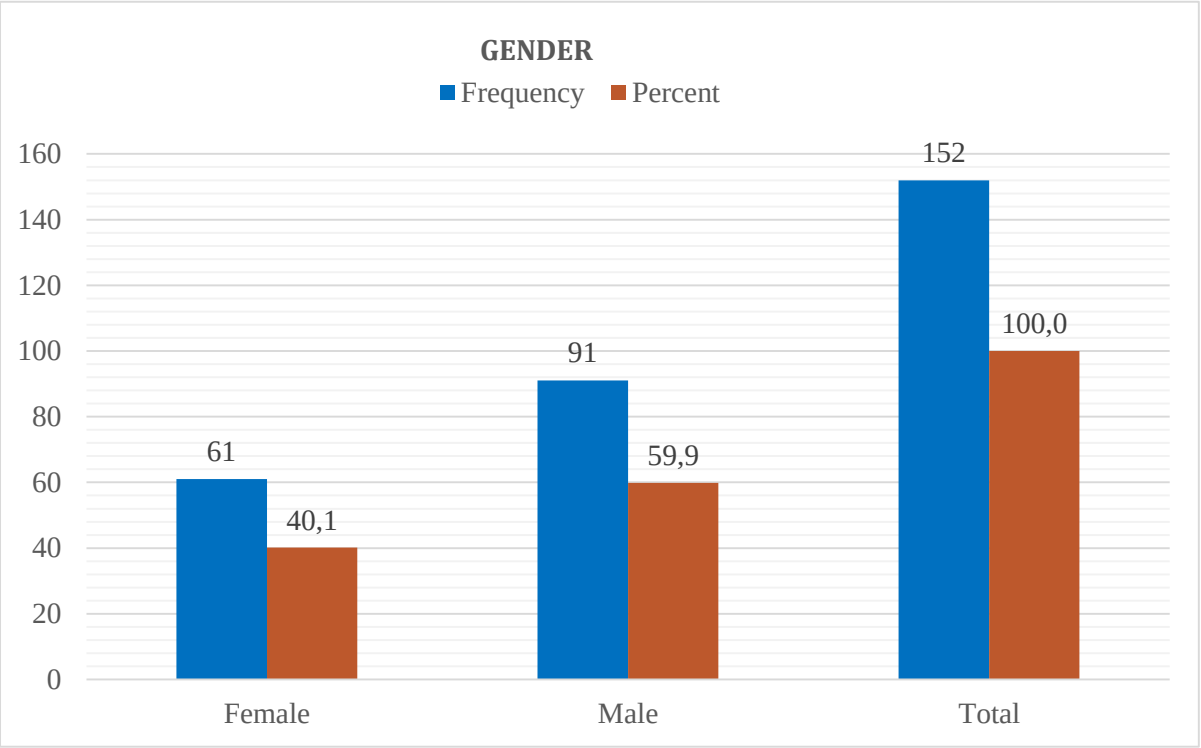

Figure 4.1: Gender Analysis (N=52)

Table 4.1 and Figure 4.1 indicated that 91 (59.9%) of the total respondents were males and 61 (40.1%) were females. This may be a signal that proves that the implementation of the affirmative action, in terms of gender, is beginning to yield fruit in municipalities.

A Chi-square test goodness of fit was conducted on gender, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.288**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the results correlation was significant and were not due to chance (See Appendix I)

4.3.2 The Education Levels

Municipalities are required, in terms of Municipal Regulations on Minimum Competency Levels issued in terms of the Local Government: Municipal Finance Management Act, 2003, to only recruit senior managers that meet the prescribed financial and supply chain management competencies, higher education and prior experience requirements. In this study, the analysis was done to test if this requirement is met regarding the appointments of senior management personnel in municipalities (Department of National Treasury of the Republic of South Africa, 2007: 4).Thus, in this study, the analysis was done to test if there is compliance to this requirement in municipalities. The findings on this requirement are presented in Table 4.2 and Figure 4.2.

Table 4.2: Education Levels (N=152)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	1	.7	.7	.7
	Degree	66	43.4	45.5	46.2
	Honours Degree/Post Graduate Diploma	41	27.0	28.3	74.5
	Master's Degree	32	21.1	22.1	96.6
	Doctorate Degree	5	3.3	3.4	100.0
	Total	145	95.4	100.0	
Missing	System	7	4.6		
Total		152	100.0		

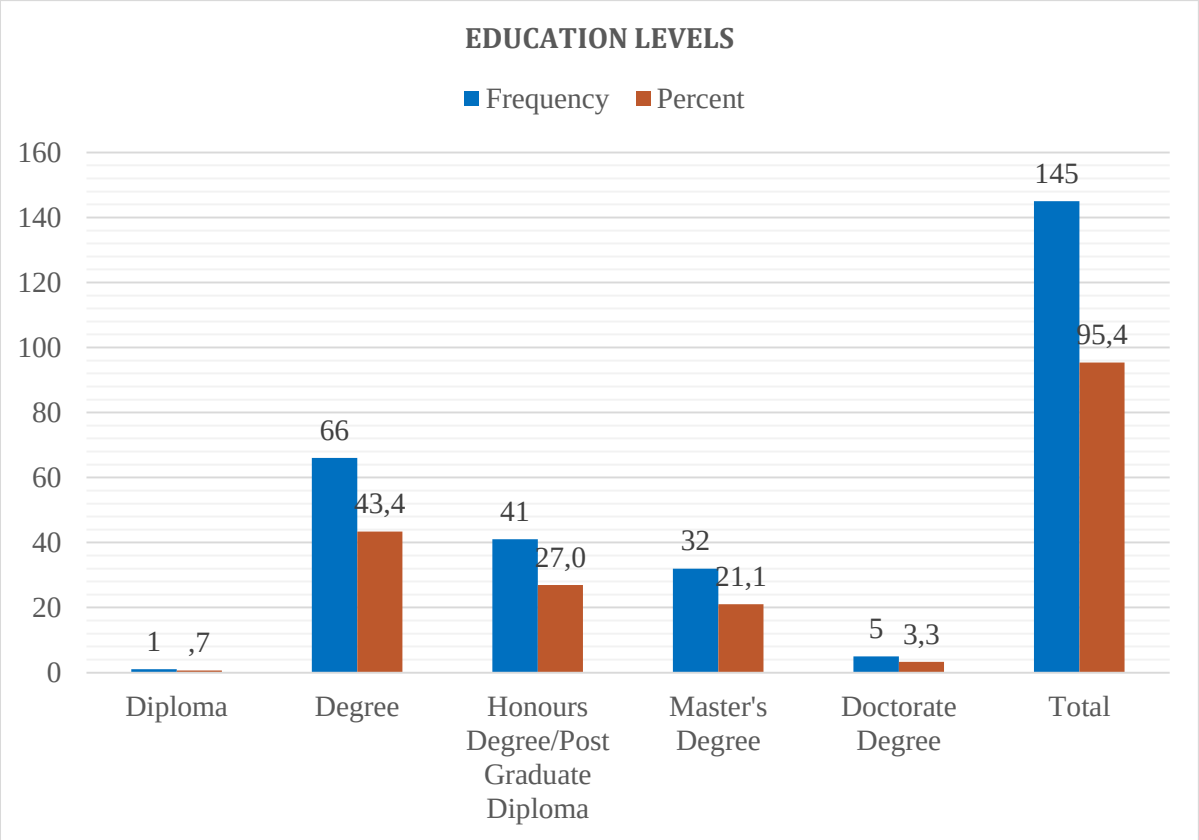

Figure 4.2: Education Levels (N=152)

The results in Table 4.2. and in Figure 4.2 indicated that the majority of personnel occupying senior management positions in municipalities within the province of KwaZulu-Natal 66 (43.4%) had junior degrees, 41 (27%) senior managers had an honours degree or a post-graduate diploma, 32 (21.1%) had Master's degree, 5 (3.3%) of the senior managers had doctorate qualifications, and 1 (0.7%) had a diplomas as the only qualification. These results indicated that most senior managers within the municipalities in KwaZulu-Natal complied with academic qualifications requirements.

A Chi-square test goodness of fit was conducted on education levels, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.495**,

df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the results correlation was significant and was not due to chance (See Appendix I).

4.3.3 The Positions Occupied By Respondents

Kanyane (2006: 116) stated that the inability of the municipal council to fill in strategic management positions in municipalities has been touted as the main cause for weak management in areas such as corporate governance, financial management; enforcement of legislation and misplacement of skills within municipalities. Political considerations in appointments of senior managers without the required qualifications had tremendously weakened the performance of municipalities. Thus, in this study, the analysis was done to see if this is still a problem in municipalities. The results and the analyses of these findings are presented in Table 4.3 and Figure 4.3.

Table 4.3: Positions Occupied (N=152)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Manager: Corporate Services	53	34.9	34.9	34.9
	Chief Financial Officer	49	32.2	32.2	67.1
	Municipal Manager	50	32.9	32.9	100.0
	Total	152	100.0	100.0	

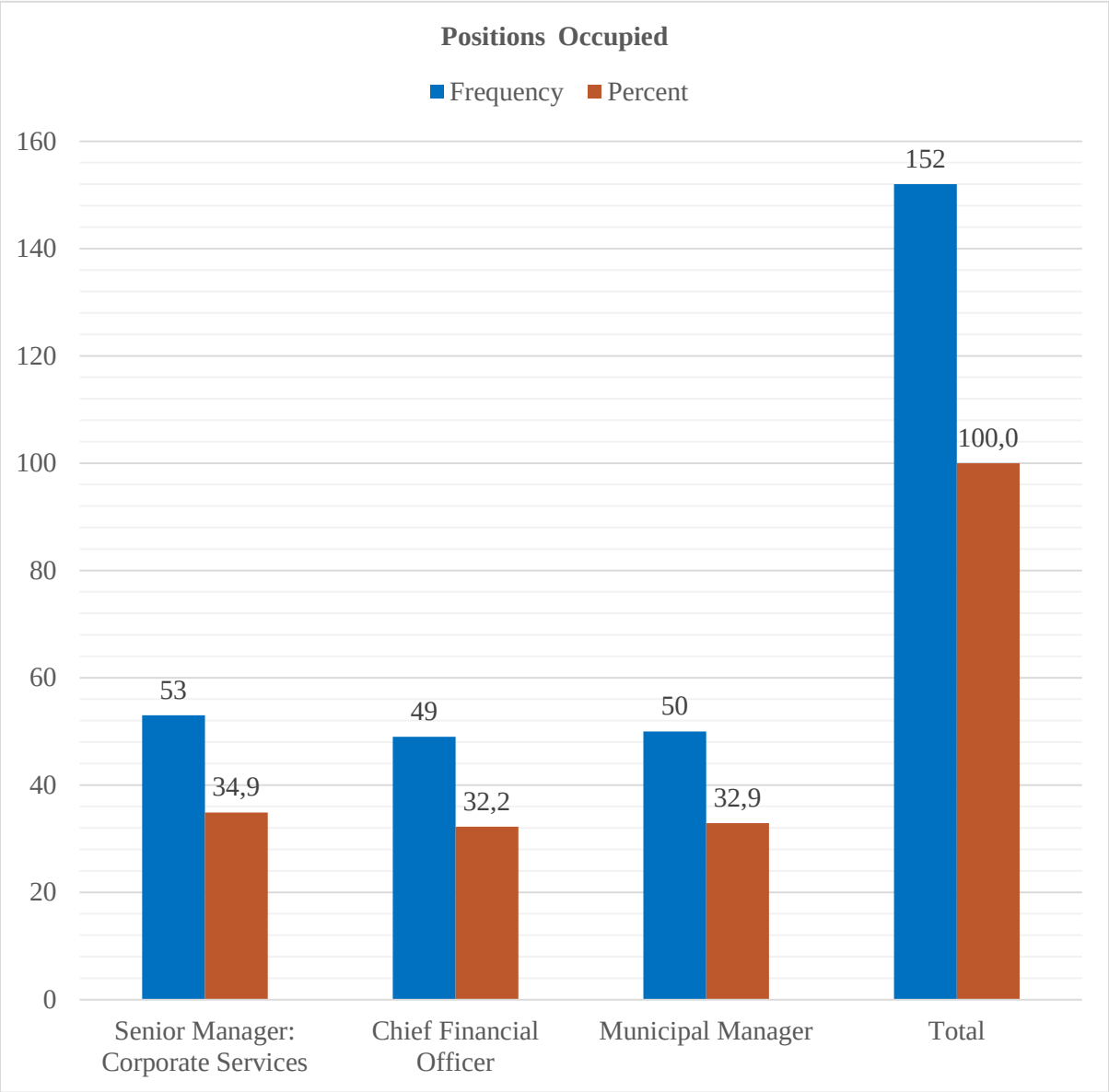

Figure 4.3: Positions Occupied by Respondents

Table 4.3 revealed that 53 (34.9%) of the respondents were senior managers responsible for corporate services, 49 (32.2%) of the respondents were chief financial officers responsible for financial management, and 50 (32.9%) were municipal managers, who are also accounting officers of municipalities, because they are responsible for the overall management of municipalities. These results indicated that the majority of senior management positions are now filled.

A Chi-square test goodness of fit was conducted on position occupied, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.486**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.3.4 The Length in Service by the Respondents

Municipal Regulations on Minimum Competency Levels issued in terms of the Local Government: Municipal Finance Management Act No. 2003 stated that municipalities are required to only recruit senior managers that meet the prescribed financial and supply chain management competencies, higher education and who have prior experience requirements (Department of National Treasury of the Republic of South Africa, 2007: 4). Thus, in this study, the analysis was done to test if there is compliance to this requirement in municipalities. The results of the findings are presented in Table 4.4 and Figure 4.4.

Table 4.4: Number of years Occupying Senior Management Position (N=152)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than one year	3	2.0	2.0	2.0
	One to two years	24	15.8	15.9	17.9
	Three to five years	70	46.1	46.4	64.2
	Six to ten years	35	23.0	23.2	87.4
	Over ten years	19	12.5	12.6	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

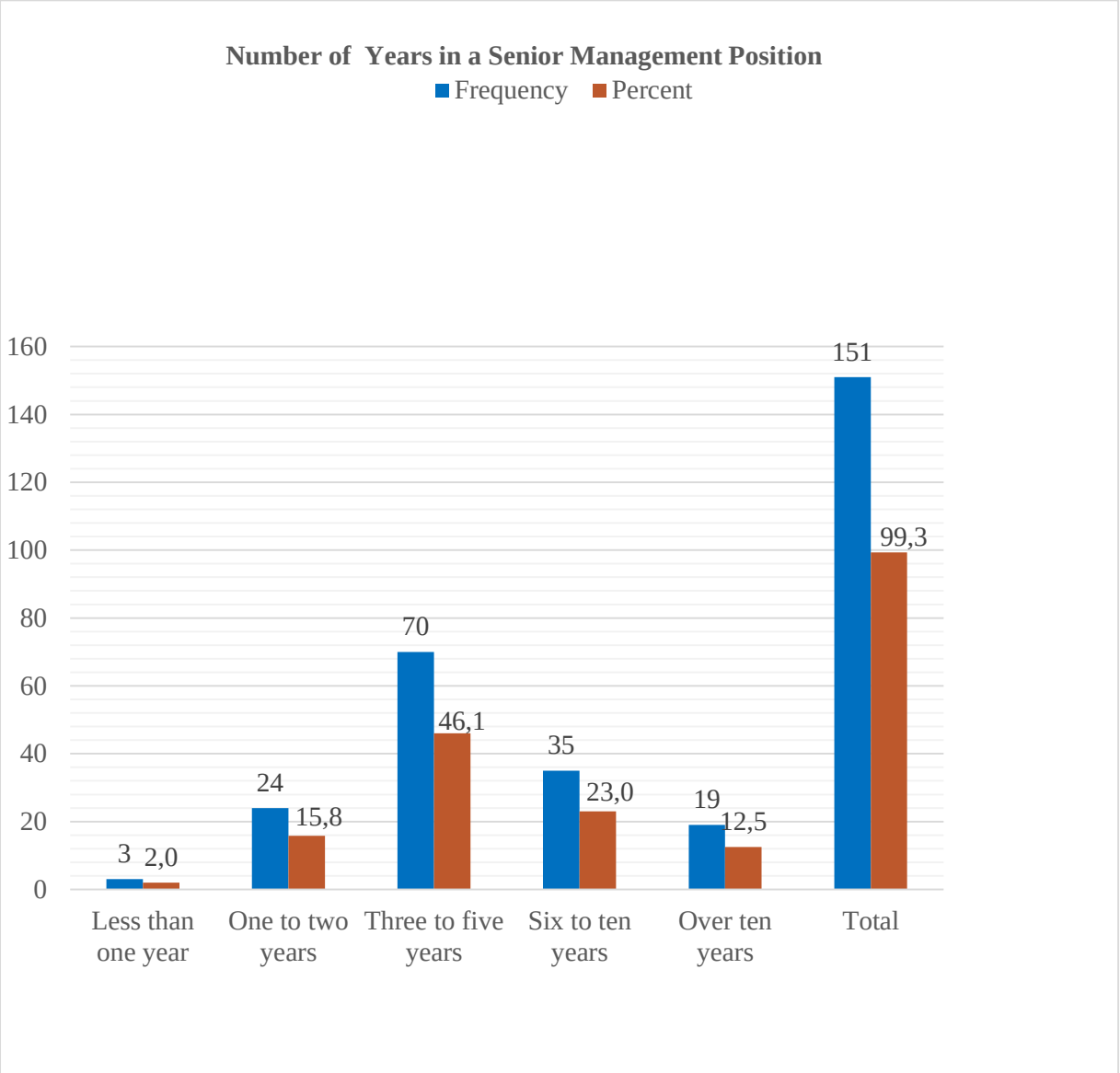

Figure 4.4: Years in Senior Management Position

Table 4.4 indicated that 70 (46.1%) of the respondents have been operating in senior management positions from three to five years, 35 (23.2%) have been in senior management positions from six to ten years, 24 (15.8%) in senior management from one to two years, and 19 (12.5%) have been in management for over ten years, and only 3 (2%) were the new comers at the senior management level. In view of these results, it is

evident that most senior managers have adequate experience in senior management positions within the municipality environment.

A Chi-square test goodness of fit was conducted on years in senior management position, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.426**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.3.5 The Respondents' Experience in Strategic Decision-Making Processes

Staff appointments in the executive echelon of municipalities should be conducted in line with section 72 of the Competency Guidelines for Municipal Managers and Managers directly accountable to Municipal Managers published as Notice 347 of 2007 in terms of the Municipal Systems Act, 2000. The senior management competency framework provides for eleven generic managerial competences, namely: strategic management capability and leadership; programme and project management; financial management; change management; knowledge management; service delivery innovation; problem solving and analysis; people management; client orientation and customer focus; communication and accountability and ethical conduct (Koma, 2010). The relevance experience of senior managers within the municipalities in strategic decision-making processes was also investigated. The results are reflected in Table 4.5 and Figure 4.5.

Table 4.5: Number of Times Participating in Strategic Decision-Making Processes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	One to two times	17	11.2	11.3	11.3
	Three to five times	55	36.2	36.4	47.7
	Six to ten times	41	27.0	27.2	74.8
	Over ten times	38	25.0	25.2	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

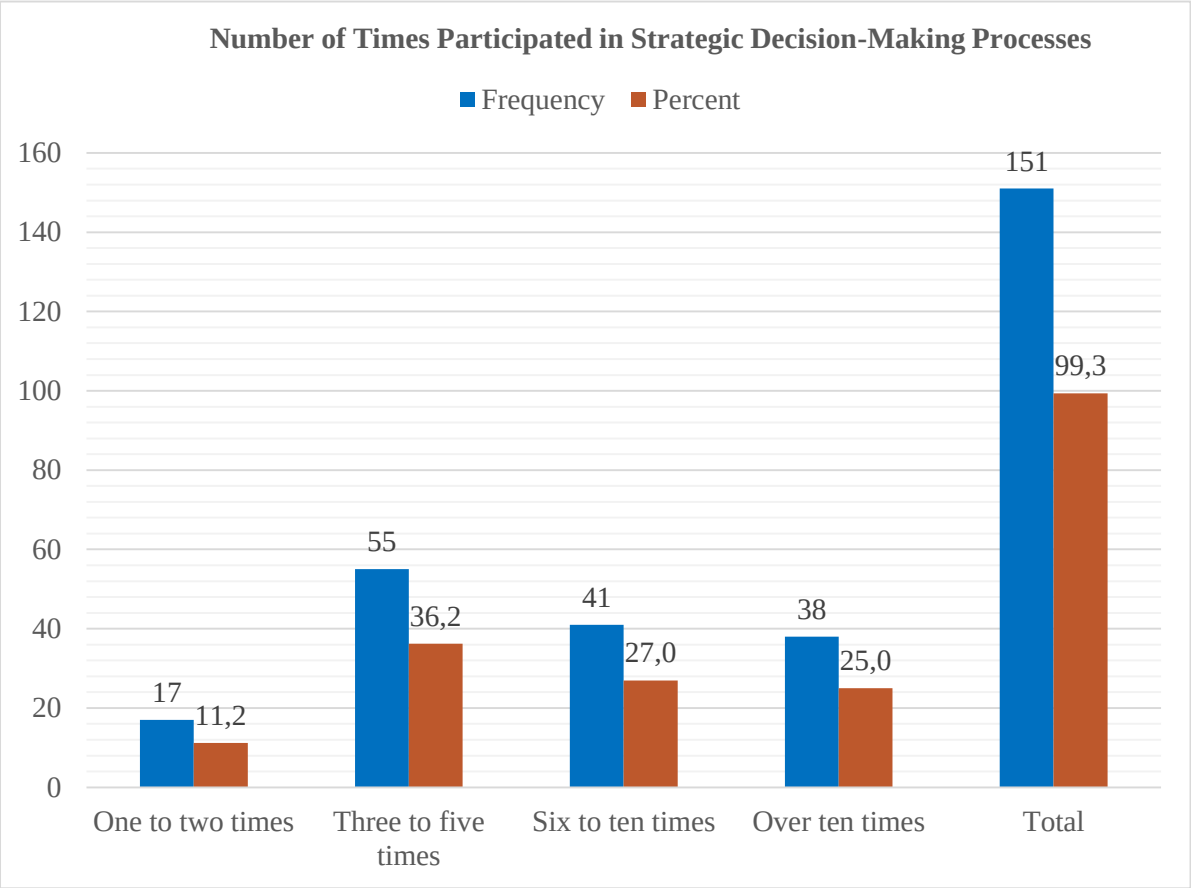

Figure 4.5: Experience in Decision-Making Process

Table 4.5 showed that 55 (36.2%) of the respondents participated in strategic decision making processes from three to five times, 41 (27%) have participated in strategic decision making processes from six to ten times, 38 (25%) have participated in strategic decision-making processes for over ten years, and 17 (11.2%) participated in decision-making processes from one to two times. Overall, this results indicated that the majority of senior management have vast experience in strategic decision-making processes within the municipality.

A Chi-square test goodness of fit was conducted on the number of times managers participated in strategic decision-making processes, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.457**, df=1, p=.000)

indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.4 The Analysis and Interpretation of Data per Research Objectives

The survey questionnaire of this study was designed in such a way that it should assist to determine three main objectives of this study. The analyses and interpretation of data is presented hereunder in accordance with the research objectives. Further, it is important to indicate that the 5-point Likert scale was used to investigate the understanding, application and effectiveness of systemic thinking in decision-making processes in municipalities within the province of KwaZulu-Natal. During data capturing in SPSS, each Likert scale response was assigned a code for meaningful statistical analysis. The responses were coded as follows:

- Strongly Agree =1;
- Agree = 2;
- Neutral = 3;
- Disagree =4; and
- Strongly disagree = 5.

An initial descriptive statistical test was conducted in SPSS (refer to Annexures E, F and G) for the 22 questions (as per Annexure D) and the results thereof are presented. The results were illustrated according to the objectives of the study in the form of tables and figures in Sections B, C and D.

4.5 Section B: Analysis of the Understanding of Systemic Thinking in Decision-Making Processes

4.5.1 Objective 1: To Determine the Understanding of Systemic Thinking by Senior Managers within the Municipalities in Kwazulu-Natal

This section presents the results on the questions asked to respondents with a view to determine their understanding of systemic thinking in line with the findings from the literature review. Thus, Questions 6 to 10 of the questionnaire were designed to investigate the hypothesis of understanding of systemic thinking by senior managers. The purpose of these questions were the following:

Question 6	To determine whether or not to resolve problems according to a fixed set of rules and procedures was still relevant in municipalities.
Question 7	To determine whether or not systemic thinking would be a better approach in gaining insights into complex challenges of the municipalities.
Question 8	To determine whether or not every manager was aware of the processes and outcomes of systemic thinking.
Question 9	To determine whether or not to the level of being allowed to 'think out of the box' in executing their responsibilities was highly encouraged.

Question 10	To determine whether or not to workshops were enough to train managers to deal with complexity, change and diversity in the workplace.

4.5.1.1 Resolving Problems through Set of Rules and Procedures

Daft (2012: 26) stated that the.traditional decision-making styles, which are charecterised by routine, specialised tasks, and standardized control procedures, and organizations, coordinated and controlled through a vertical hierarchy wherein decision authority still resided with upper-level managers, are no longer relevant in management practice. In this study, analysis was done to see if this theory is relevant within the municipalities in the province of KwaZulu-Natal. The analysis is presented below:

Table 4.6: Resolving problems according to a fixed set of rules and procedures is still relevant in municipalities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	3.3	3.3	3.3
	Agree	16	10.5	10.6	13.9
	Neutral	7	4.6	4.6	18.5
	Disagree	85	55.9	56.3	74.8

	Strongly Disagree	38	25.0	25.2	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

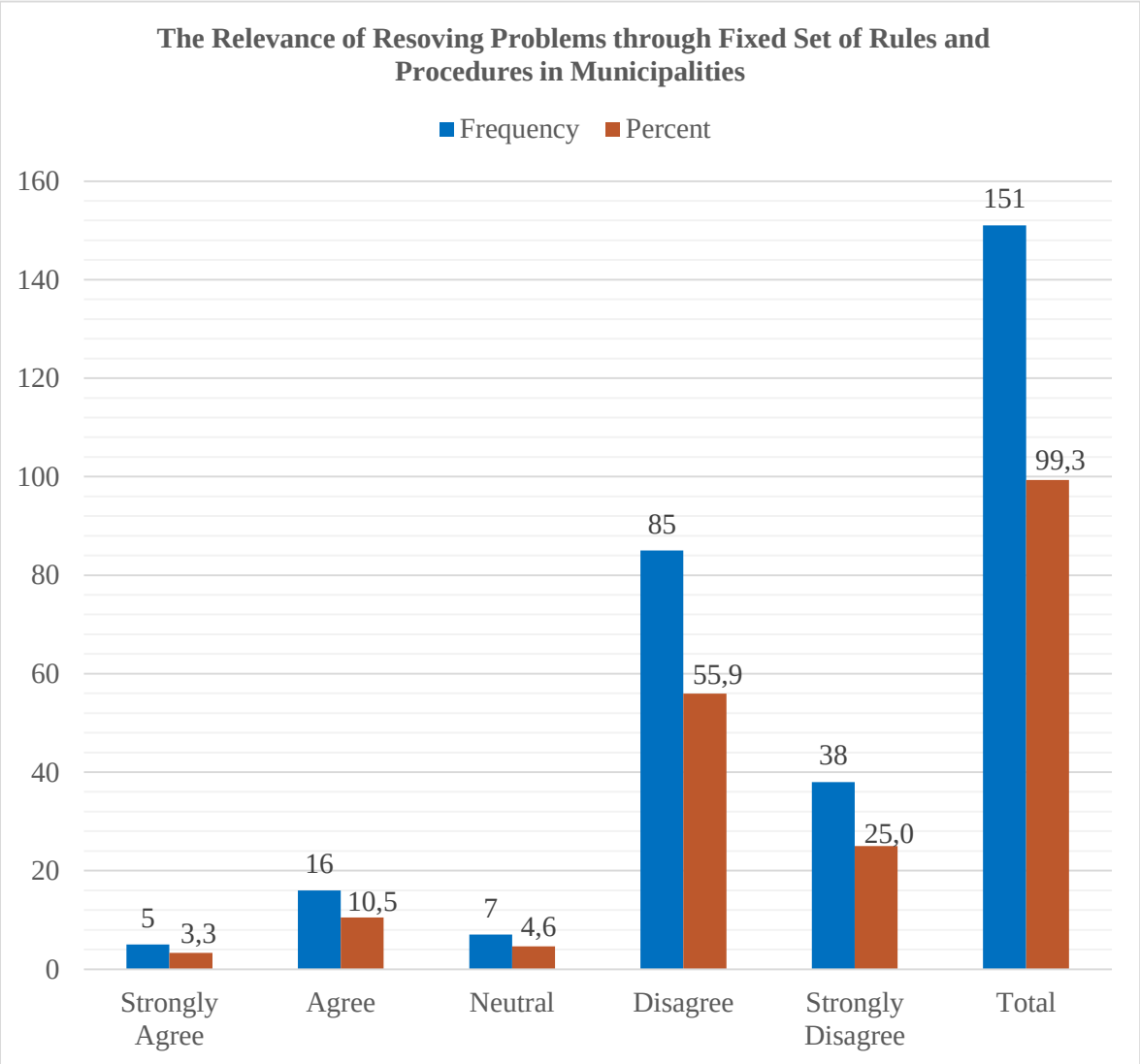

Figure 4.6: Resolving problems according to a fixed set of rules and procedures is still relevant in municipalities

The analysis of this variable are shown in Table 4.6, Figure 4.6 and in the Cross-Tabulation Table 4.25 respectively. Table 4.6 and Figure 4.6 revealed that 85 (55.9%) and 38 (25%) of the respondents were on the disagreeing end of the scale, whilst 16 (10.5%) and 5 (3.3%) agreed with the statement, and 7(4.6%) respondents preferred to be neutral on the statement.

A Chi-square test goodness of fit was conducted on resolving problems according to a fixed set of rules and procedures was still relevant in municipalities, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.634**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.5.1.2 Systemic Thinking is a Better Approach into Complex Challenges

Bartlet (2001: 4) stated that that systemic thinking would be a better approach in gaining insights into complex challenges. The same view was confirmed by Benedetto De Martino (2009: 684) that theories of decision making have tended to emphasize the operation of analytical processes in guiding choice behaviour without considering that more intuitive or emotional responses can play a key role in human decision-making, and that when taking decisions under conditions when available information is incomplete or overly complex, subjects rely on a number of simplifying heuristics, or efficient rules of thumb, rather than extensive algorithmic processing. Thus, in this study, it was necessary to analyse whether or not systemic thinking would be a better approach into complex challenges. The findings are presented in Table 4.7 and Figure 4.7, respectively.

Table 4.7: Systemic thinking would be a better approach in gaining insights into complex challenges of the municipalities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	63	41.4	41.7	41.7
	Agree	73	48.0	48.3	90.1
	Neutral	11	7.2	7.3	97.4
	Disagree	4	2.6	2.6	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

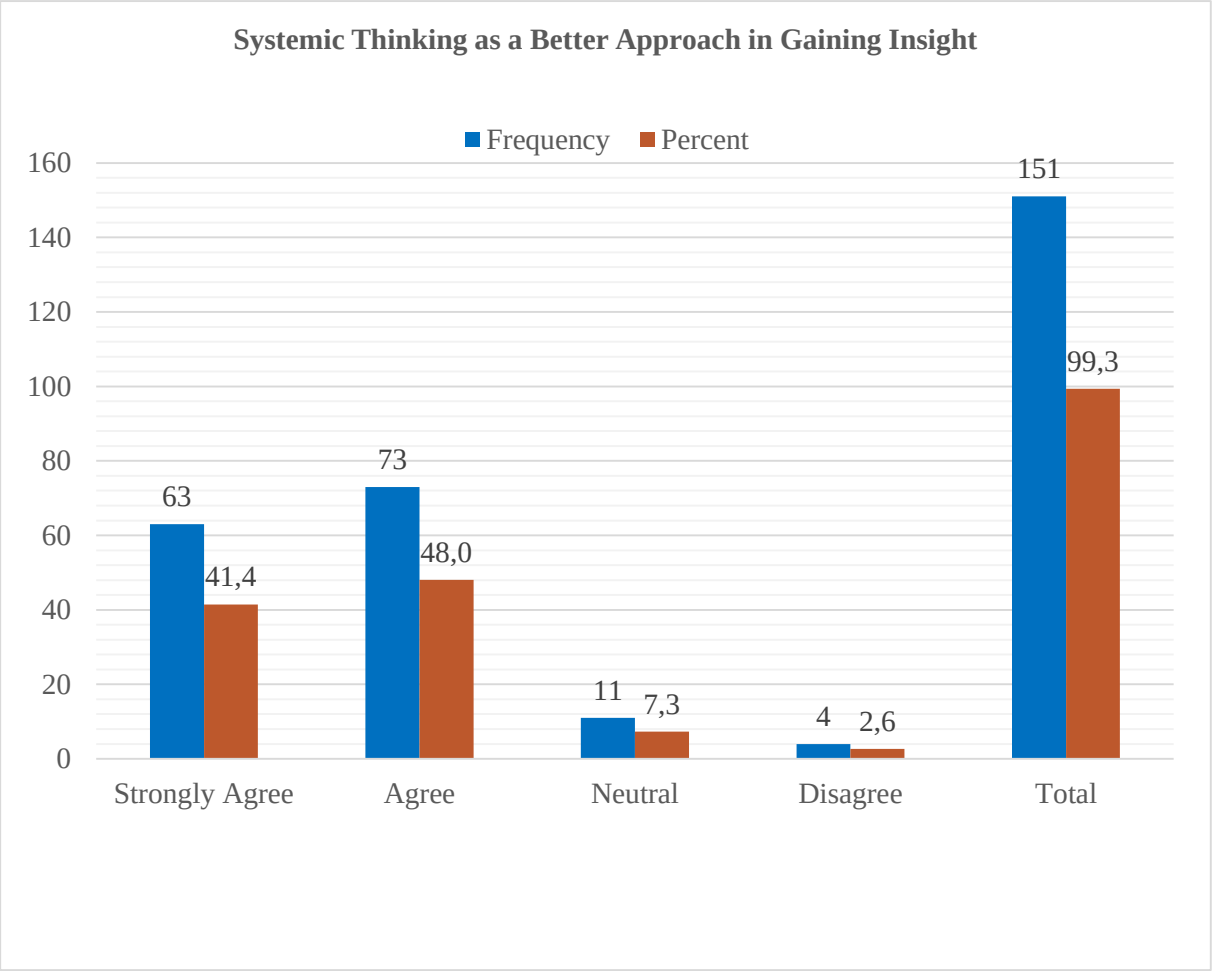

Figure 4.7: Systemic thinking would be a better approach in gaining insights into complex challenges of the municipalities.

The results from the respondents presented in Table 4.7 and Figure 4.7 indicated that the majority 73 (48%) and 63 (41.4%) of the respondents agreed with the statement. This meant that most respondents were of the view that systemic thinking could be a solution to complex challenges in municipalities. Further, it was also noted that 11 (7.3%) of the respondents preferred to remain neutral on this statement, whilst 4 (2.6%) disagreed with the statement.

A Chi-square test goodness of fit was conducted on whether systemic thinking would be a better approach in gaining insights into complex challenges of the municipalities, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.069, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the tests results were significant and were not due to chance (See Appendix I).

4.5.1.3 The Awareness of the Processes and Outcomes of Systemic Thinking

Systemic thinking pays a good deal of attention to processes and outcomes. The formal structural changes that dominate most thinking about capacity, roles, responsibilities, structures, incentives, timelines and accountabilities are seen as effects associated with deeper process changes. Those changes have to do with rejuvenation, adaptation, renewal and sense-making. Structural changes that impede these processes act against the development of capacity (Morgan, 2005: 27). Thus, in this study, it was necessary to analyse whether or not every manager was aware of the processes and outcomes of systemic thinking in decision-making processes. The results are presented in Table 4.8 and Figure 4.8.

Table 4.8: Every manager was aware of the processes and outcomes of systemic thinking.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	3.3	3.3	3.3
	Agree	30	19.7	19.9	23.2
	Neutral	14	9.2	9.3	32.5
	Disagree	78	51.3	51.7	84.1
	Strongly Disagree	24	15.8	15.9	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

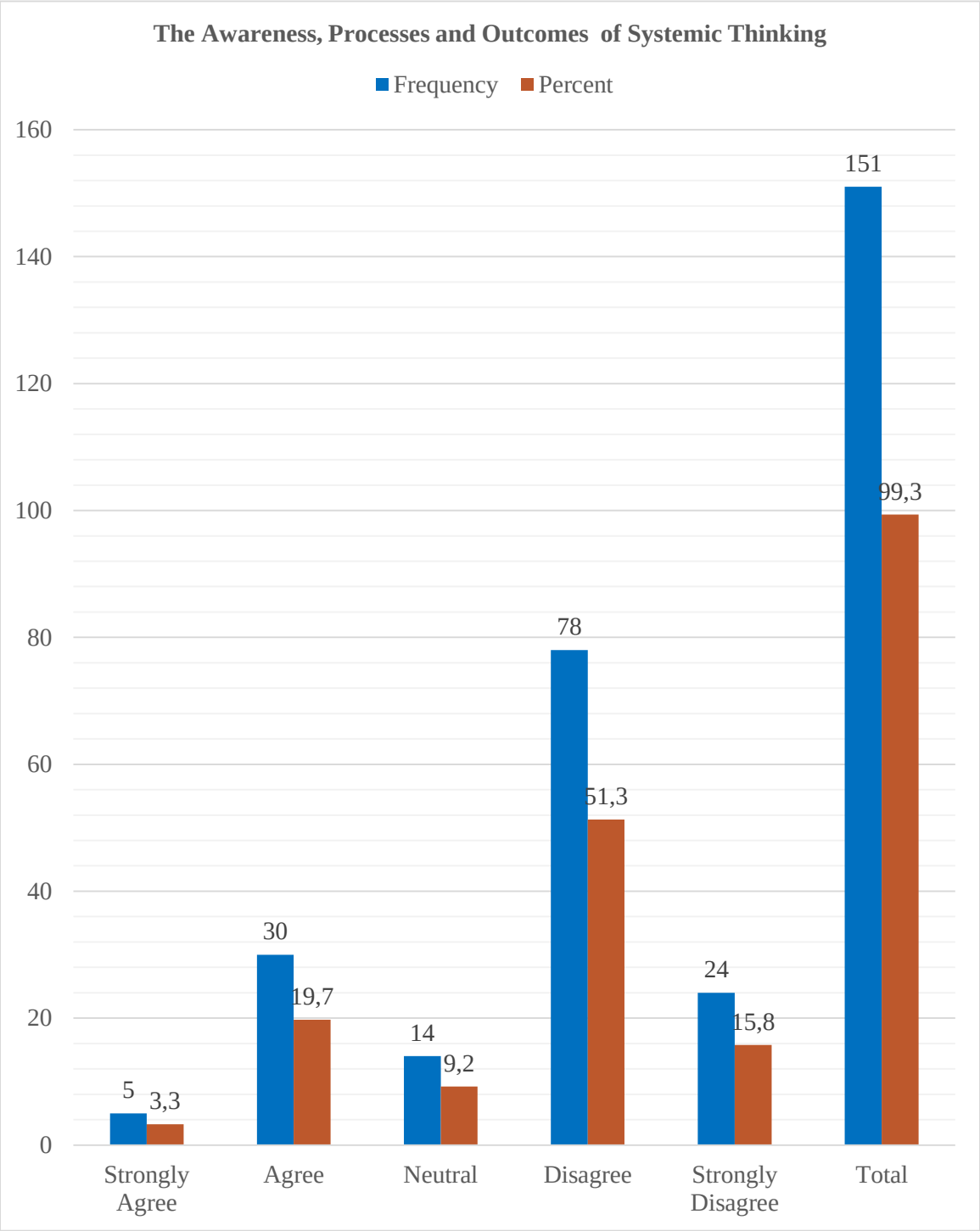

Figure 4.8: Every manager was aware of the processes and outcomes of systemic thinking.

The results presented in Table 4.8 and Figure 4.8 indicated that the majority of the respondents, i.e., 78 (51.3%) and 24 (15.8%) disagree with statement, whilst 30 (19.7%) and 5 (3.3%) agreed with the statement, and only 14 (9.2%) of the respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on whether or not every manager was aware of the processes and outcomes of systemic thinking in decision-making processes, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.511**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.5.1.4 The Level of Being Allowed to Think out of the Box

Olmedo (2012:8) stated that management must be creative and innovative, since the future in business is no longer anticipated. Managers must be able to think out of the box, because the key concepts today are chaos, conflict, instability, complex learning and dialogue to favour spontaneous self-organisation (Gharajedaghi, 2011). Thus, in this study, it was necessary to analyse the level of whether or not senior managers are allowed and encouraged to think out of the box in executing their responsibilities. The findings are presented in Table 4.9 and in Figure 4.9

Table 4.9: Response on whether or not the level of being allowed to *'Think out of the Box'* in executing their responsibilities was highly encouraged.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	14	9.2	9.3	9.3
	Agree	71	46.7	47.0	56.3
	Neutral	2	1.3	1.3	57.6
	Disagree	54	35.5	35.8	93.4
	Strongly Disagree	10	6.6	6.6	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

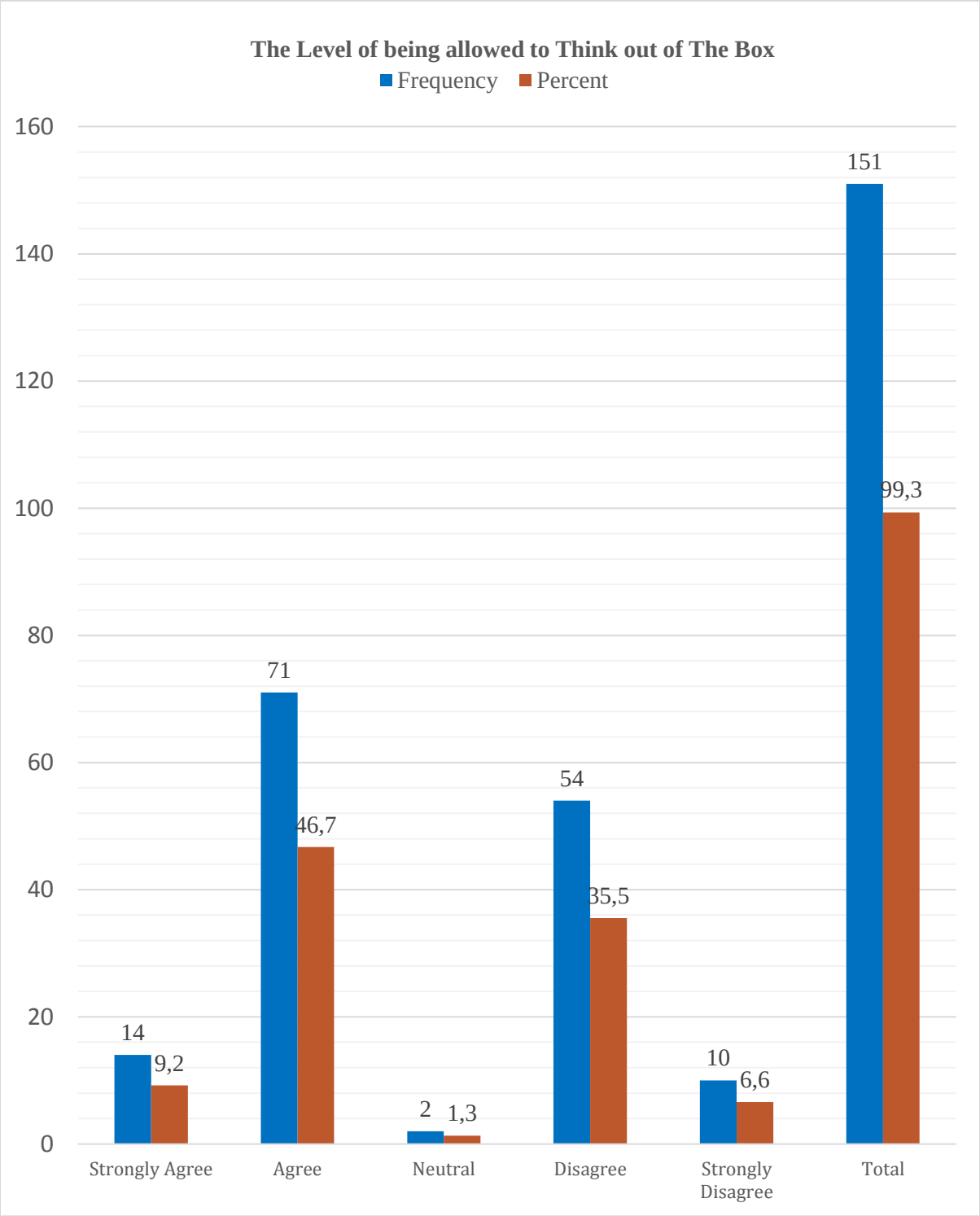

Figure 4.9: The level of being allowed to 'Think out of the Box' in executing responsibilities was highly encouraged.

The analysis of this variable are shown in Table 4.9 and Figure 4.9, respectively. This analysis revealed that 71 (46.7%) and 14 (9.2%) respondents were in agreement with the statement, whilst, 54 (35.5%) and 10 (6.6%) disagreed with the statement, and 2 (1.3%) respondents preferred to be neutral on the statement.

A Chi-square test goodness of fit was conducted on the level of whether or not senior managers are allowed and encouraged to think out of the box in executing their responsibilities, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.346**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.5.1.5 Workshops' suitability to Prepare Managers to Deal with Complexity

Senge (1990:3) stated that learning organisations are organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning to see the whole together. The findings are presented in Table 4.10 and Figure 4.10.

Table 4.10: Workshops are enough to equip managers to deal with complexity, change and diversity in the workplace.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	2	1.3	1.3	1.3
	Agree	14	9.2	9.3	10.6
	Neutral	2	1.3	1.3	11.9
	Disagree	71	46.7	47.0	58.9
	Strongly Disagree	62	40.8	41.1	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

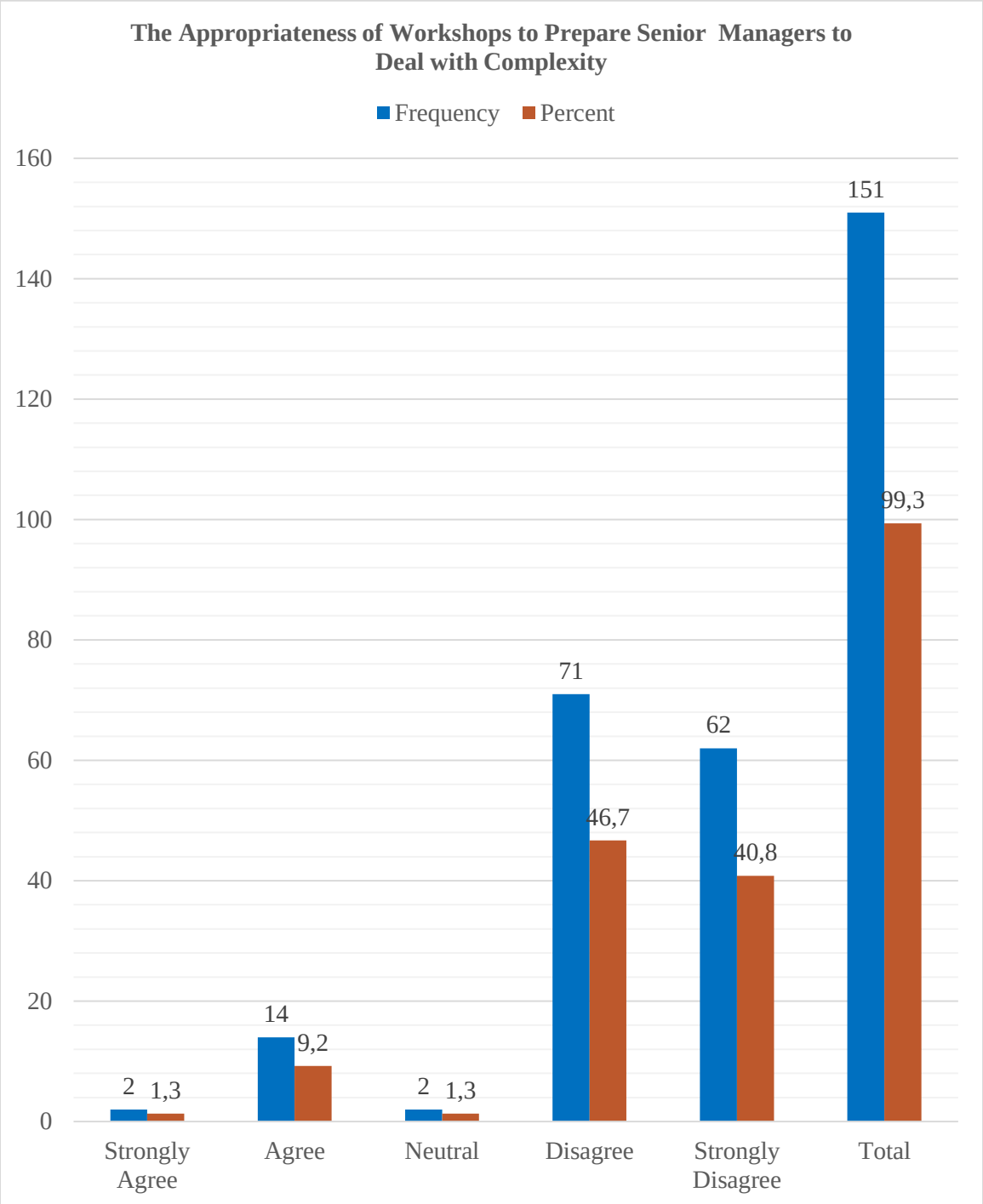

Figure 4.10: Workshops are enough to train managers to deal with complexity, change and diversity in the workplace.

The analysis of this variable are shown in Table 4.10 and Figure 4.10, respectively. This analysis revealed that the majority of the respondents, i.e., 71 (46.7%) and 62(40.8%) disagreed with the statement.

A Chi-square test goodness of fit was conducted on the level of whether or not workshops were enough to equip managers to deal with complexity, change and diversity in the workplace, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.380**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.6 Section C: Analysis of the Application of Systemic Thinking in Decision-Making Processes

4.6.1 Objective 2: To Investigate the Application of Systemic Thinking in Decision-Making Processes within the Municipalities in Kwazulu-Natal

This section presents the results on the questions asked to respondents in investigating the application of systemic thinking in line with the findings from the literature review. Therefore, questions 11 to 16 of the questionnaire were designed to investigate the hypothesis of the application of systemic thinking by senior managers. Therefore, this section presents the results on the questions asked to respondents with a view to investigate the application of systemic thinking in decision-making processes within the

municipalities in the province of KwaZulu-Natal .The purpose of these questions were the following:

Question 11	To determine whether or not to managerial challenges in running a municipality are unpredictable.
Question 12	To determine whether or not systemic thinking in the decision-making processes is a time-consuming process.
Question 13	To determine whether or not all the hierarchies in municipalities are available and work together in a demanding situation.
Question 14	To determine whether or not bureaucratic complexities always creep into the systemic thinking in the decision-making processes.
Question 15	To determine whether or not every idea in systemic thinking in the decision-making processes is valued.
Question 16	To determine whether or not external factors always play a great role in the decision-making processes.

4.6.1.1 The Unpredictability of Managerial Challenges in Running a Municipality

Koma (2010:114) stated that municipalities are confronted with a plethora of complex capacity challenges. This research finding concurred with Mitchell (2009 : 27) and Mintzberg (1994: 23) where both indicated that , in an unpredictable world of business, it is not possible to accurately project and optimize with any accuracy the future of business challenges. Hence, in this study, the analysis focussed on whether or not managerial challenges in running a municipality are predicated. The results are presented in Table 4.11 and illustrated in Figure 4.11.

Table 4.11: Response on whether or not managerial challenges in running a municipality are unpredictable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	101	66.4	66.9	66.9
	Agree	35	23.0	23.2	90.1
	Neutral	1	.7	.7	90.7
	Disagree	9	5.9	6.0	96.7
	Strongly Disagree	5	3.3	3.3	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

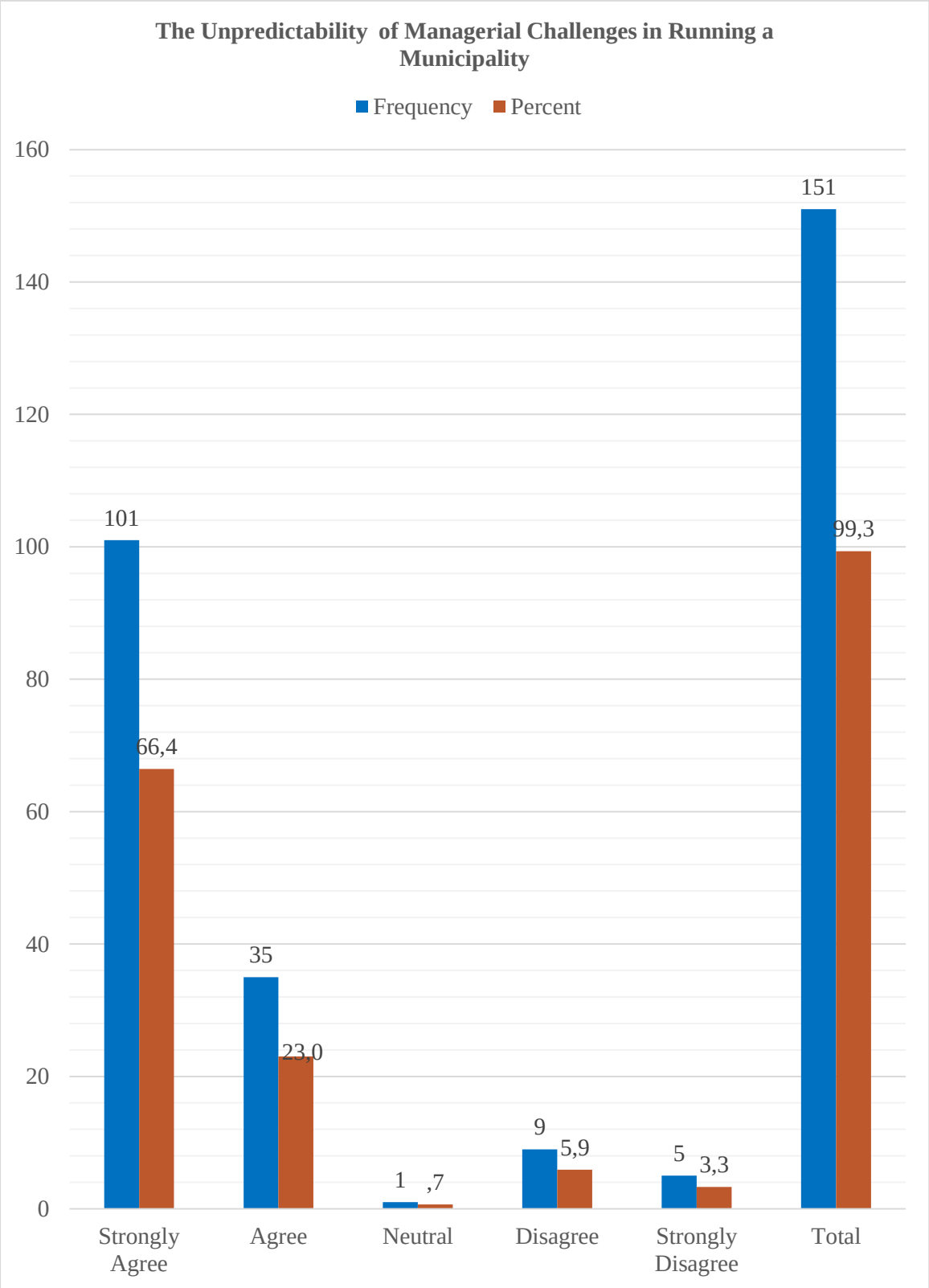

Figure 4.11: Managerial Challenges in Running a Municipality are Unpredictable

The results from the respondents presented in Table 4.11 and Figure 4.11 revealed that 101 (66.4%) respondents strongly agreed with the statement, 35 (23%) respondents agreed with the statement, whilst, 9 (5.9%) respondents disagreed with the statement, 5 (3.3%) respondents strongly disagreed with the statement, and 1 (0.7%) respondent preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on the level of whether or not workshops were enough to equip managers to deal with complexity, change and diversity in the workplace, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=-.061, df =1, p=.452) indicated that the test results were significantly and were due to chance (See Appendix I).

4.6.1.2 Is Systemic Thinking a Time Consuming Process?

Pettigrew (2014: 13) stated that rational decision-making model requires a great deal of time, a great deal of information, assumes that rational, measurable criteria are always available and agreed upon, and that there is accurate, stable and complete knowledge of all the alternatives, preferences, goals and consequences, and also assumes a non-political world. The results are presented in Table 4.12 and illustrated in Figure 4.12.

Table 4.12: Response on whether or not systemic thinking in the decision-making process is a time consuming process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	26	17.1	17.2	17.2
	Agree	56	36.8	37.1	54.3
	Neutral	11	7.2	7.3	61.6
	Disagree	46	30.3	30.5	92.1
	Strongly Disagree	12	7.9	7.9	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

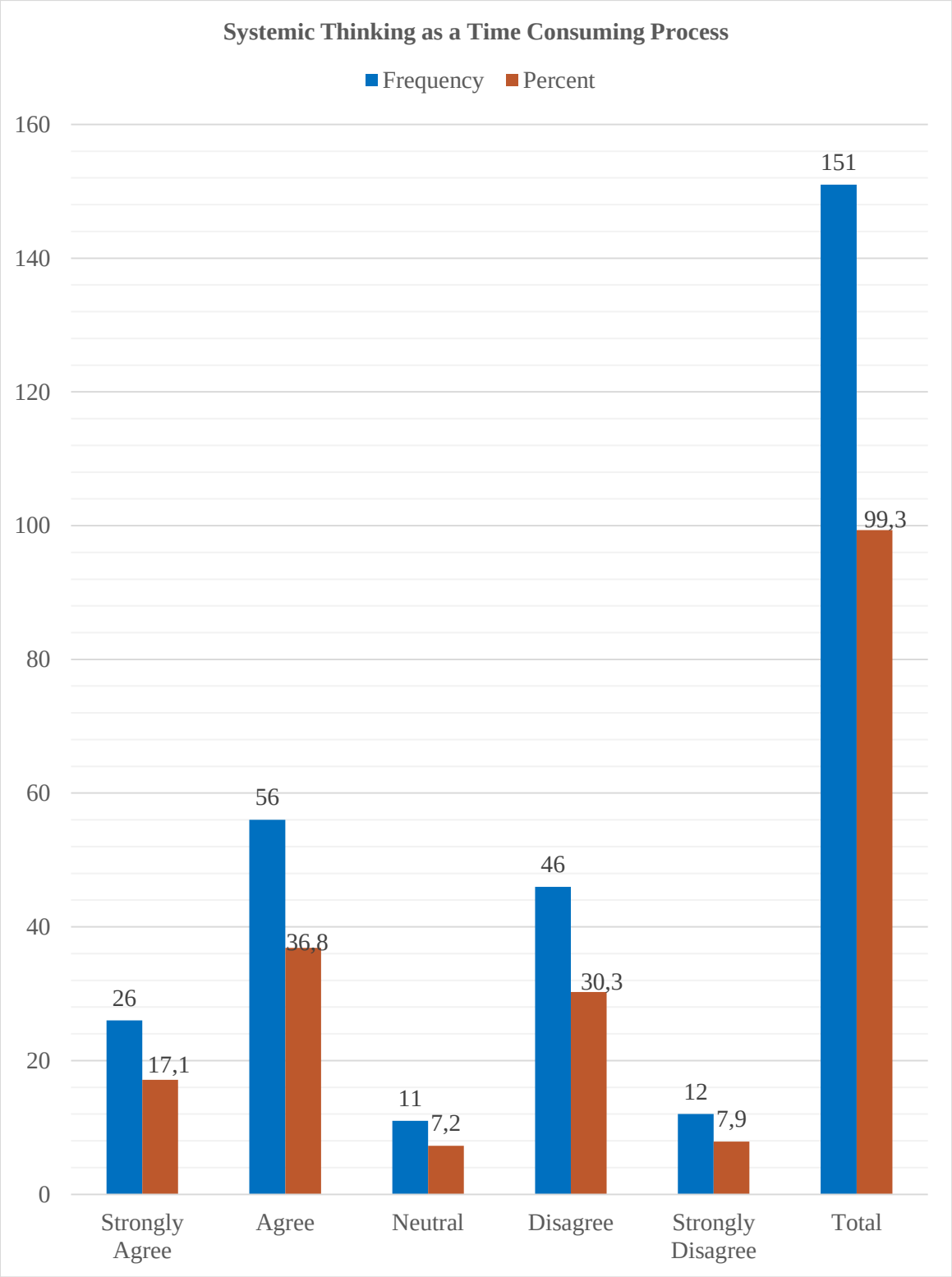

Figure 4. 12: Systemic Thinking in the Decision-Making Processes is a Time-Consuming Process

The results from the respondents in Table 4.14 and Figure 4.12 indicated that 56 (36.8%) respondents agreed with the statement, 46 (30.3%) respondents disagreed with the statement, whilst, 26 (17.1%) respondents strongly agreed with the statement, and 12 (7.9%) strongly disagreed with the statement, and 11 (7.2%) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on whether or not systemic thinking in the decision-making processes is a time-consuming process, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.316**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.6.1.3 The Availabilities of Hierarchies in Demanding Situations

Uhl-Bien and Marion (2014: 633) stated that hierarchies in municipalities creates unnecessary artificial boundaries and are counterproductive. Thus, in this study, analysis was done to see if this is still a problem in municipalities within the province of KwaZulu-Natal. The results are presented in Table 4.13 and illustrated in Figure 4.13.

Table 4.13: Response on whether or not all the hierarchies in municipality are available and work together in demanding situations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	3	2.0	2.0	2.0
	Agree	42	27.6	27.8	29.8
	Neutral	12	7.9	7.9	37.7
	Disagree	82	53.9	54.3	92.1
	Strongly Disagree	12	7.9	7.9	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

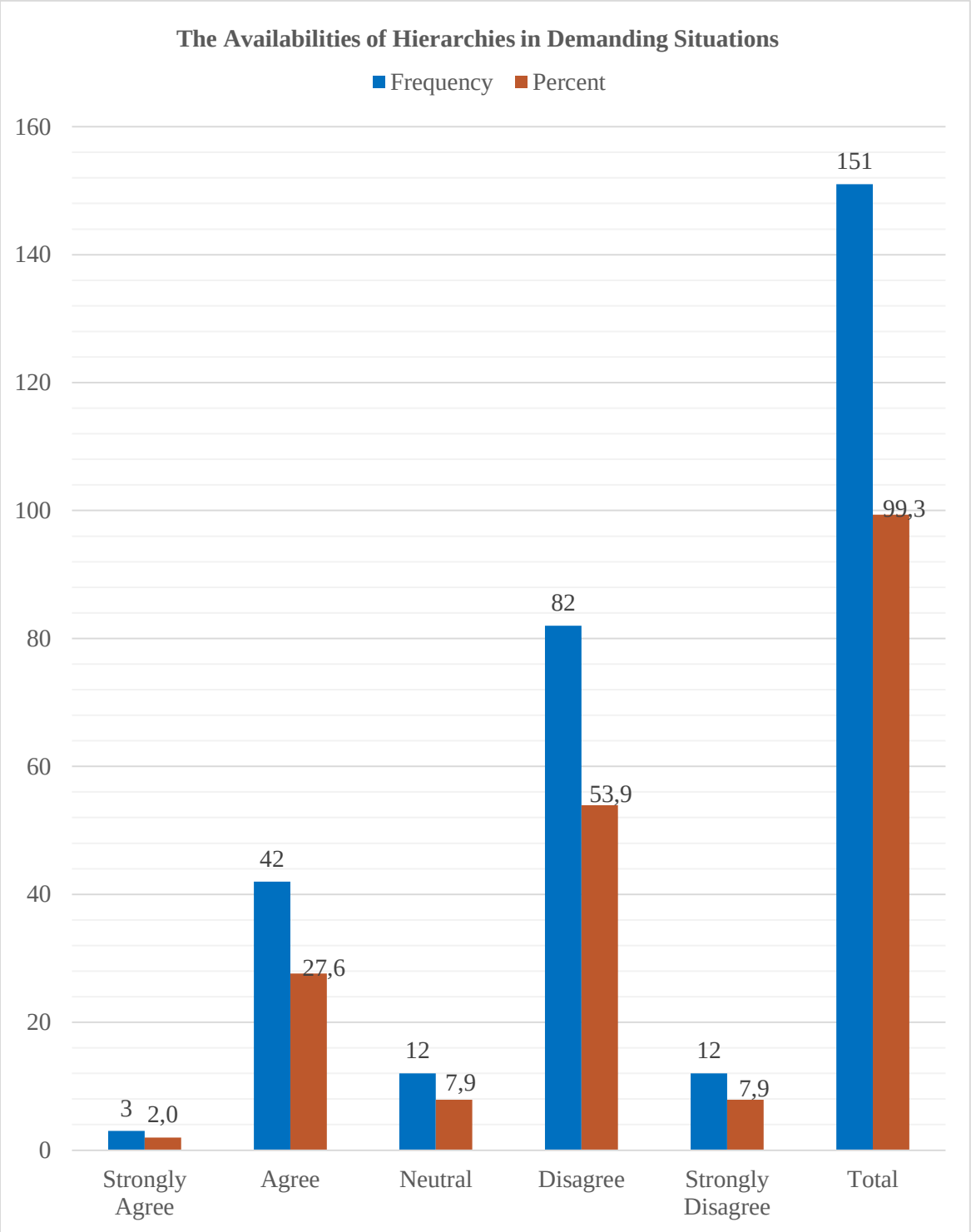

Figure 4.13: All the Hierarchies in Municipality are Available and Work Together in Demanding Situations

The results from the respondents in Table 4.13 and Figure 4.13 indicated that 82 (53.9%) and 12 (7.9%) respondents disagreed with the statement, whilst, 42 (27.6%) and 3 (2.0%) agreed with the statement, and 12 (7.2%) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on whether or not all the hierarchies in municipality are available and work together in demanding situations, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.378**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.6.1.4 The Effects of Bureaucratic Complexities to Systemic Thinking in the Decision-Making Processes

Another complexity in managing a municipality is that municipalities are charecterised by management bureaucracy (Nelson and Svara, 2015: 123). Thus in this study, an analysis was conducted to test whether or not this is still a problem in municipalities within the province of KwaZulu-Natal. The results are presented in Table 4.14 and illustrated in Figure 4.14.

Table 4.14: Response on whether or not bureaucratic complexities will always creep in to the systemic thinking in the decision-making process.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	76	50.0	50.3	50.3
	Agree	67	44.1	44.4	94.7
	Neutral	2	1.3	1.3	96.0
	Disagree	6	3.9	4.0	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

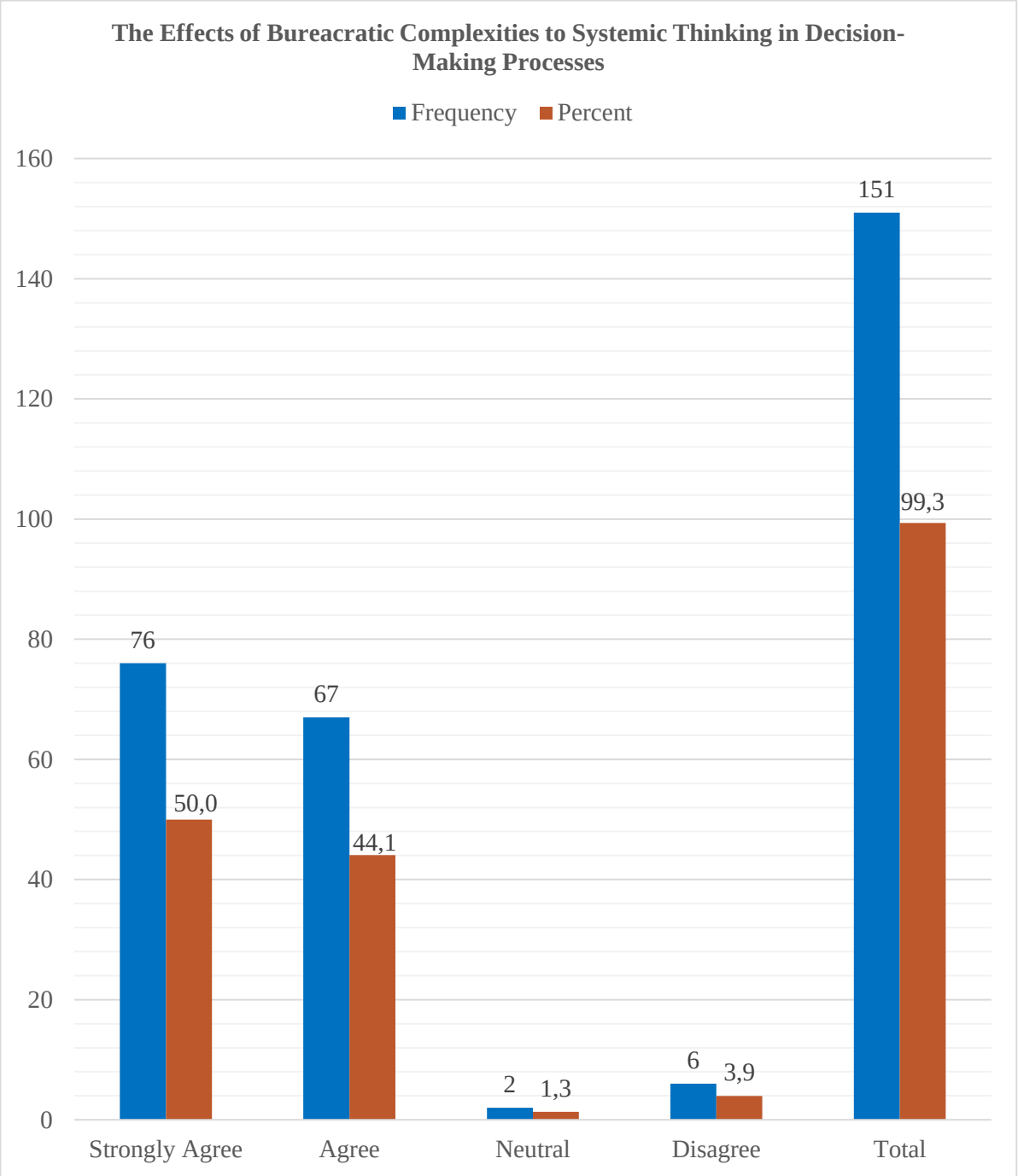

Figure 4.14: Bureaucratic Complexities will always creep in to the Systemic Thinking in the Decision-Making Processes

The analysis of this variable are shown in Table 4.14 and also illustrated in Figure 4.14 respectively. This analysis revealed that the majority of the respondents, i.e., 76 (50%) and 67 (44%) agreed with the statement, 6 (3.9%) disagreed with the statement, and 2 (1.3%) opted to remain neutral on the statement.

A Chi-square test goodness of fit was conducted on whether or not bureaucratic complexities will always creep into the systemic thinking in the decision-making processes, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.296**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.6.1.5 The Value of Ideas in Systemic Thinking in the Decision-Making Processes

Johannessen (2013:14) stated that management should draw upon the creative potential that is spread throughout an organization, across functions and formal levels of leadership. Innovation leaders need to prepare organisations for changes that will come in the future, in part by generating creative energy fields that take the organization into temporary competition-free zones. To achieve this requires new ways of thinking, and assumes that innovation leaders are able to act as independent entrepreneurs.

Thus, in this study, an analysis of this practice in municipalities within the province of KwaZulu-Natal was done. The results are presented in Table 4.15 and illustrated in Figure 4.15.

Table 4.15: Response on whether or not every idea in systemic thinking in the decision-making processes is valued

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	11	7.2	7.3	7.3
	Agree	67	44.1	44.4	51.7
	Neutral	43	28.3	28.5	80.1
	Disagree	29	19.1	19.2	99.3
	Strongly Disagree	1	.7	.7	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

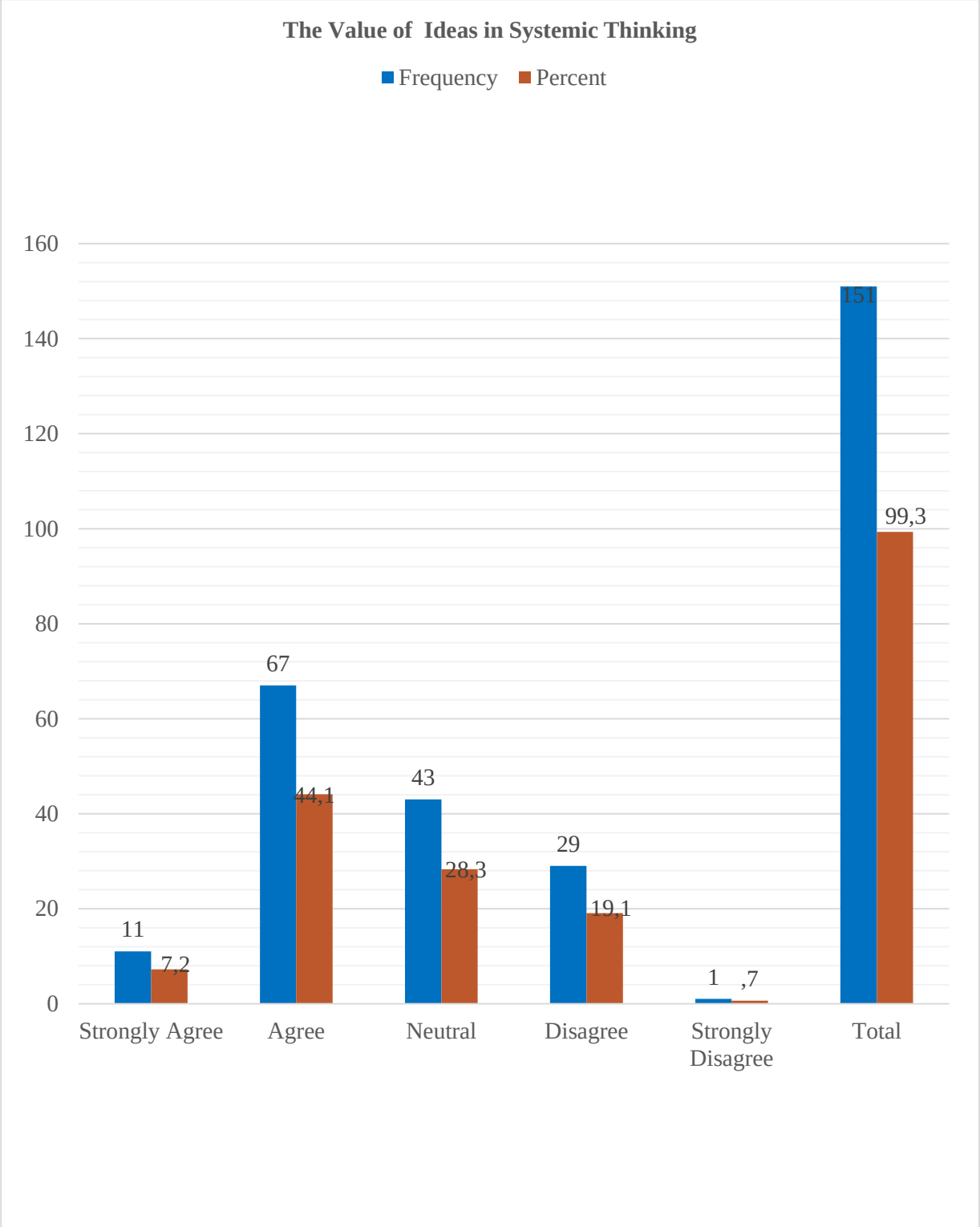

Figure 4.15: Every idea in systemic thinking in the decision-making processes is valued.

The analysis of this variable are shown in Table 4.15 and also illustrated in Figure 4.15 respectively. This analysis revealed that the majority of the respondents, 67 (44.1%) and 11 (7.2%) agreed with the statement, whilst 29 (19.1%) and 1 (0.7%) disagreed with the statement.

A Chi-square test goodness of fit was conducted on whether or not bureaucratic complexities will always creep into the systemic thinking in the decision making process, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.122, df=1, p=.134) indicated that the observed findings were not significantly different from the expected frequencies. This meant that the test results were significantly weak and were due to chance (See Appendix I).

4.6.1.6 The Effects of the External Factors in Decision-Making Processes within the Municipalities

Ben-Elia (2004: 123-124) stated that elected officials are deeply involved in ongoing decision making, which harms the administrators' ability to carry out their work. Moreover, members of the council are not responsible in any way for the decisions they make. Gharajedaghi (2011: 335) further indicated that neither a problem nor a solution can be entertained free of context, and further indicated that a tendency to define problems in terms of their solutions, and a strong preference for context-free solutions will merely continue regenerating the past, reproducing the non-solution all over again. Thus, in this study, an analysis was done to test the external influence in decision-making

processes in municipalities within the province of KwaZulu-Natal. The results are presented in Table 4.16 and illustrated in Figure 4.16

Table 4.16: Response on whether or not external factors always play a great role in the decision-making processes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	112	73.7	74.2	74.2
	Agree	35	23.0	23.2	97.4
	Neutral	2	1.3	1.3	98.7
	Disagree	2	1.3	1.3	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

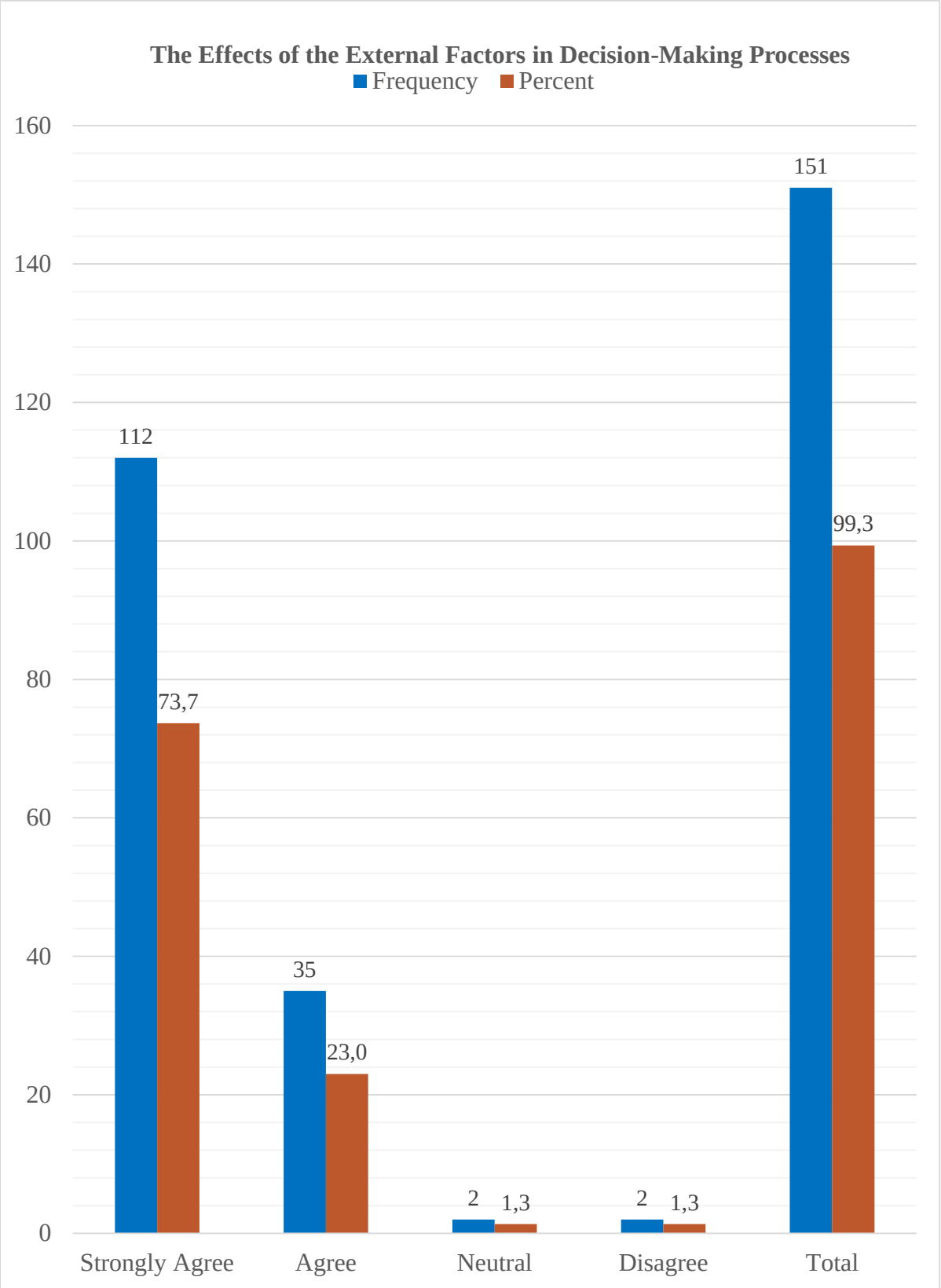

Figure 4.16: External factors always play a great role in the decision-making processes.

The results from the respondents in Table 4.16 and Figure 4.16 indicated that 112 (73.7%) respondents strongly agreed with the statement, 35 (23%) of the respondents agreed with the statement, whilst 2 (1.3%) respondents disagreed with the statement, and 2 (1.3%) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on the level of whether or not external factors always play a great role in the decision-making processes, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.254**, df=1, p=.002) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.7. Section D: Analysis of Effectiveness of Systemic Thinking in Decision-Making Processes

4.7.1. Objective 3: To Assess the Effectiveness of the Systemic Thinking in Decision Making Process within the Municipality in Kwazulu-Natal

This section presents the results on the questions asked to respondents in assessing the effectiveness of systemic thinking in decision-making processes in line with the findings from the literature review. Therefore, Question 17 to 21 of the questionnaire were designed to investigate the hypothesis of the effectiveness of systemic thinking by senior managers. Thus, questions 17 to 21 of the questionnaire were designed to investigate the

hypothesis of the application of systemic thinking by senior managers. The objectives of these questions were as follows:

Question 17	To determine whether or not problems that are associated with complexity change and diversity can always be resolved through a rational decision-making processes.
Question 18	To determine whether or not creativity, ingenuity and originality are a necessity in dealing with complexity, change and diversity.
Question 19	To determine whether or not it is difficult to balance the responsibility and accountability while implementing the outcome of the systemic thinking in decision-making processes.
Question 20	To determine whether or not systemic thinking promotes the effective and efficient use of the resources of a municipality.
Question 21	To determine whether or not systemic thinking in the decision-making processes will improve the performance of municipalities.

4.7.1.1 Complexity, Change and Diversity in Decision-Making Processes

Hutchinson, Walker and McKenzie (2014:3) stated that municipalities are faced with a number of new complex challenges that represent a significant reshaping of the sector from its image and decision-making processes. Thus, in this study, an analysis was conducted to test if this problem still exists in municipalities within the province of KwaZulu-Natal. The results are presented in Table 4.17 and illustrated in Figure 4.17.

Table 4.17: Problems associated with complexity, change and diversity can always be resolved through a rational decision-making processes.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	5.3	5.3	5.3
	Agree	21	13.8	13.9	19.2
	Neutral	8	5.3	5.3	24.5
	Disagree	102	67.1	67.5	92.1
	Strongly Disagree	12	7.9	7.9	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

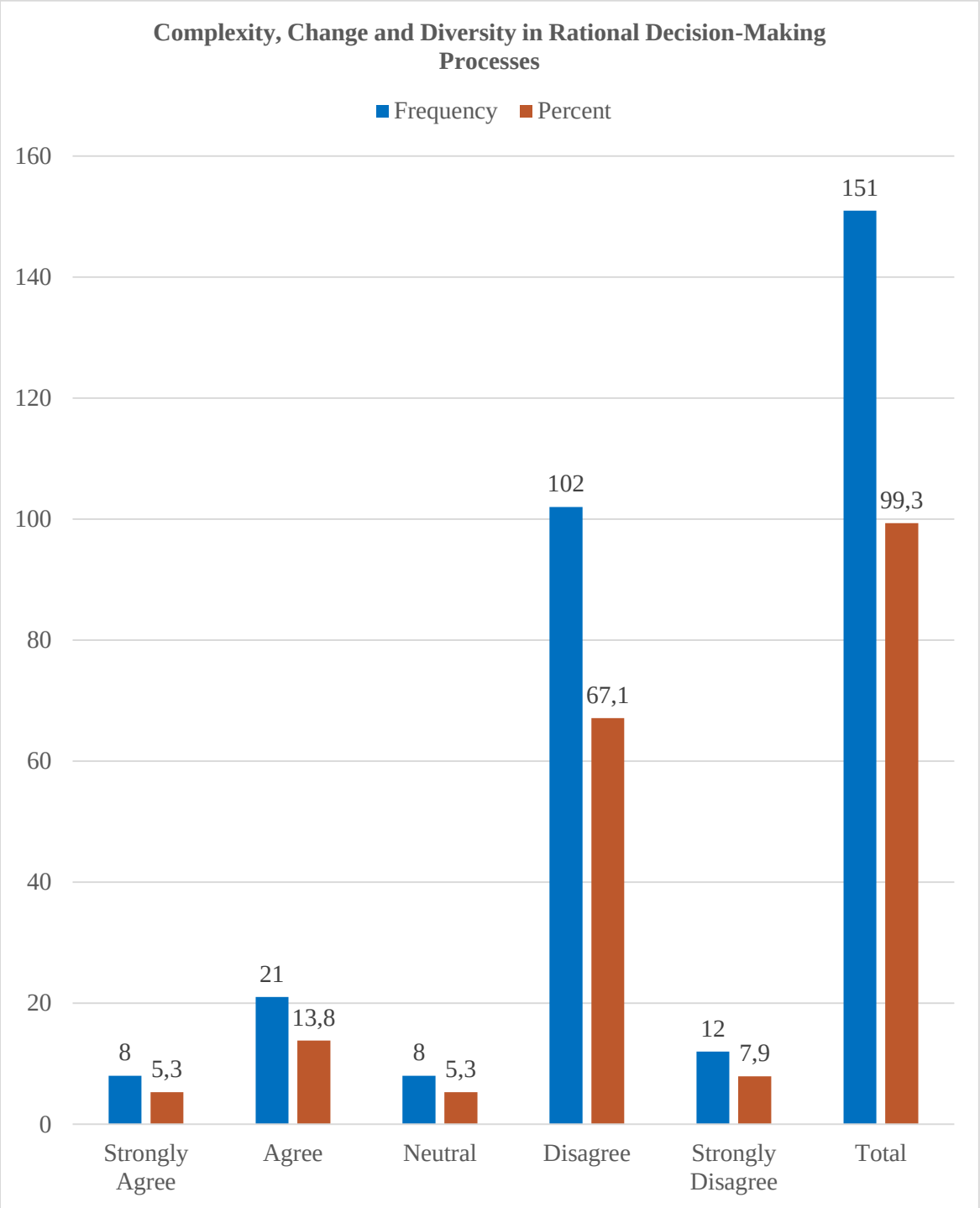

Figure 4.17: Problems associated with complexity, change and diversity can always be resolved through a rational decision-making processes

The results from the respondents in Table 4.17 and Figure 4.17 indicated that 102 (67.1%) respondents disagreed with the statement, 21 (13.8%) respondents agreed with the statement, whilst 12 (7.9%) respondents strongly disagreed with the statement, 8 (5.3%) respondents strongly agreed with the statement and 8 (5.3%) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on the level of whether or not problems associated with complexity, change and diversity can always be resolved through a rational decision-making processes, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.427**, df=1, p=.000) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.7.1.2 The Relevance of Creativity, Ingenuity and Originality in Decision-Making Processes

Hamel (2007: 185-215) stated that a key pre-condition for developing creative energy fields in organizations is decentralizing decision-making structures, or focusing on the front line. This means, in practice, that decisions and the skills and ability to make decisions, are transferred from the top of an organization to areas that are in direct contact with customers, suppliers, other stakeholders and the operations that are essential for wealth creation in an organization. Further, Olmendo (2012:82) indicated that today's organisations must adopt a culture of becoming learning, creative and

innovative organisations because the future is no longer anticipated, but is now created. Thus, in this study, analysis was done to see if this statement is implemented in the municipalities within the province of KwaZulu-Natal. The results are presented in Table 4.18 and illustrated in Figure 4.18.

Table 4.18: Response on whether or not creativity, ingenuity and originality are a necessity in dealing with complexity, change and diversity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	68	44.7	45.0	45.0
	Agree	81	53.3	53.6	98.7
	Neutral	1	.7	.7	99.3
	Disagree	1	.7	.7	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

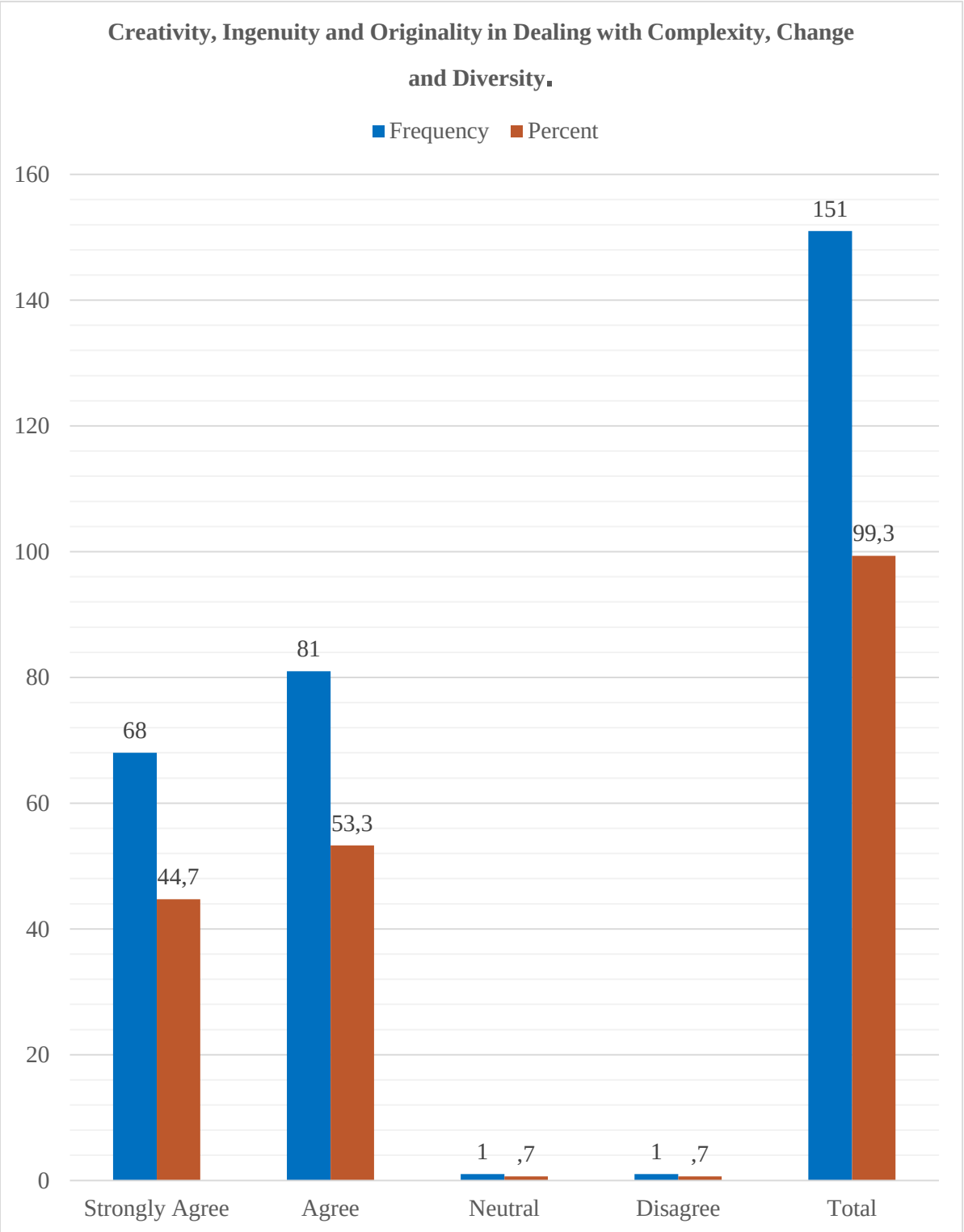

Figure 4.18: Creativity, ingenuity and originality are a necessity in dealing with complexity, change and diversity.

The results from the respondents in Table 4.18 and Figure 4.18 indicated that 81 (53.3%) respondents agreed with the statement, 68 (44.7%) respondents strongly agreed with the statement, whilst only 1 (0.7%) a few of respondents disagreed with the statement, and 1 (0.7%) preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on the level of whether or not creativity, ingenuity and originality are a necessity in dealing with complexity, change and diversity, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.073, df=1, p=.374) indicated that the observed findings were not significantly different from the expected frequencies. This meant that the test results were significantly weak and were due to chance (See Appendix I).

4.7.1.3 Balancing the Responsibility and Accountability while Implementing the Outcome of the Systemic Thinking in Decision-Making Processes

Shalom (2015:2) stated that the way that councillors see their role vis-à-vis that of the administrative cadre has the potential to lead to conflict in their everyday work. Such conflict can arise when there are contradictory objectives, when the different levels interfere in one another's fields of responsibility, and when there is little coordination between the various parties. Such conflict is also related to the administrators' opposition to the politicians' involvement in managerial issues and attempts by the latter to use their power in order to further their interests. For their part, it frustrates councillors when they cannot directly guide the department heads and when they are in conflict with one

another. Thus, in this study, an analysis was done to investigate this problem. The results are presented in Table 4.19 and illustrated in Figure 4.19.

Table 4.19: Response on whether or not it is difficult to balance the responsibility and accountability while implementing the outcome of the systemic thinking in decision making processes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	30	19.7	19.9	19.9
	Agree	86	56.6	57.0	76.8
	Neutral	4	2.6	2.6	79.5
	Disagree	24	15.8	15.9	95.4
	Strongly Disagree	7	4.6	4.6	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

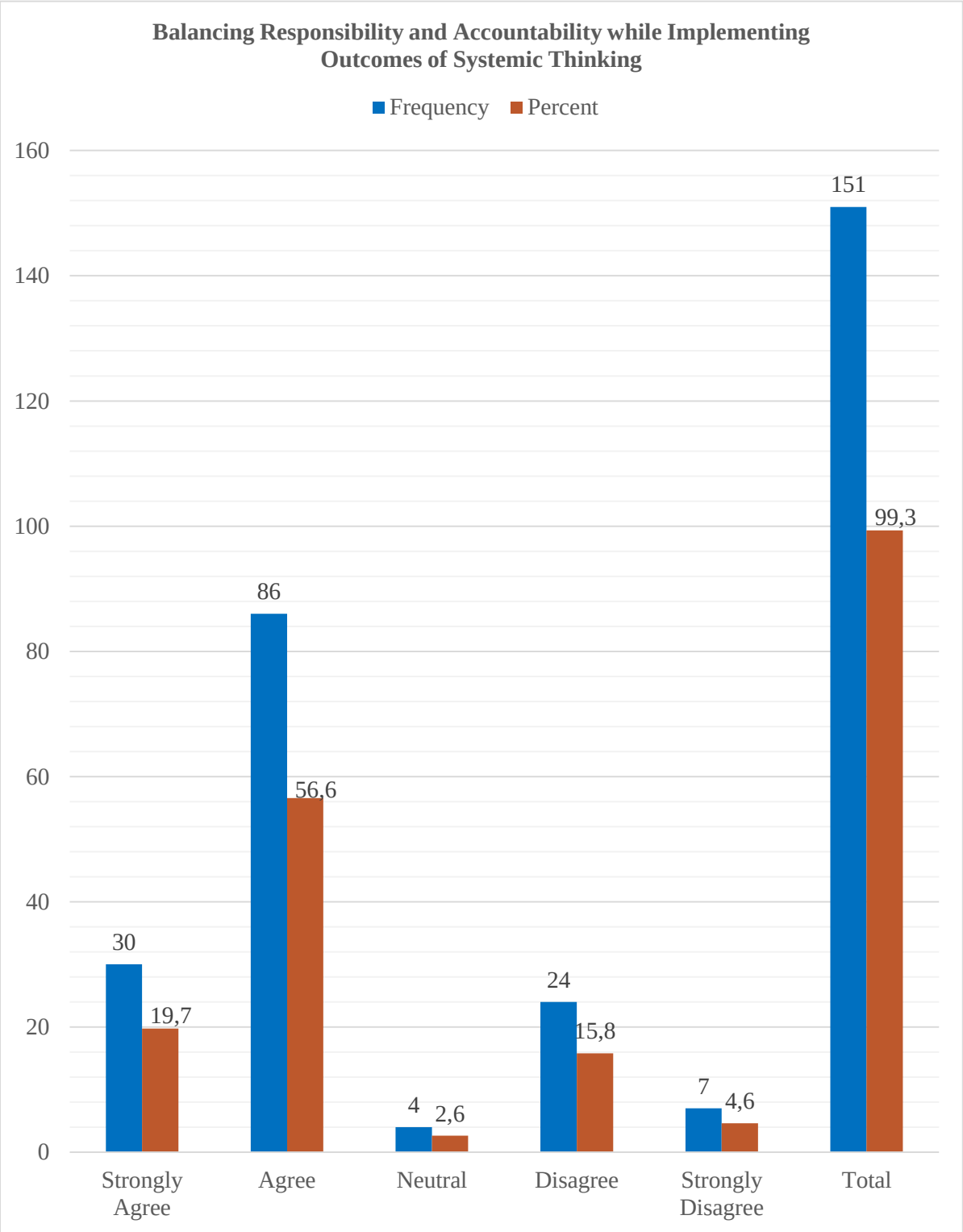

Figure 4.19: It is difficult to balance the responsibility and accountability while implementing the outcome of the systemic thinking in decision making processes.

The results from the respondents in Table 4.19 and Figure 4.19 indicated that 86 (56.6%) respondents agreed with the statement, 30 (19.7%) respondents strongly agreed with the statement, whilst 24 (15.8%) respondents strongly disagreed with the statement, and 7 (4.6%) strongly disagreed with the statement, and 4 (2.6 %) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on the level of whether or not it is difficult to balance the responsibility and accountability while implementing the outcome of the systemic thinking in decision making process, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.169, df=1, p=.038) indicated that the observed findings were not significantly different from the expected frequencies. This meant that the test results were significantly weak and were due to chance (See Appendix I).

4.7.1.4 The Role of Systemic Thinking in Municipality

Gharajedaghi (2011:335) stated that systemic thinking is the art of simplifying complexity and an ability to see through chaos, and further be able to manage interdependency as well as understanding decision choices. Thus, in this study, an analysis was conducted to test the relevance of this statement. The results are presented in Table 4.20 and illustrated in Figure 4.20.

Table 4.20: Response on whether or not systemic thinking promotes the effectiveness and efficient use of the resources of municipality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	59	38.8	39.1	39.1
	Agree	75	49.3	49.7	88.7
	Neutral	16	10.5	10.6	99.3
	Disagree	1	.7	.7	100.0
	Total	151	99.3	100.0	
Missing	System	1	.7		
Total		152	100.0		

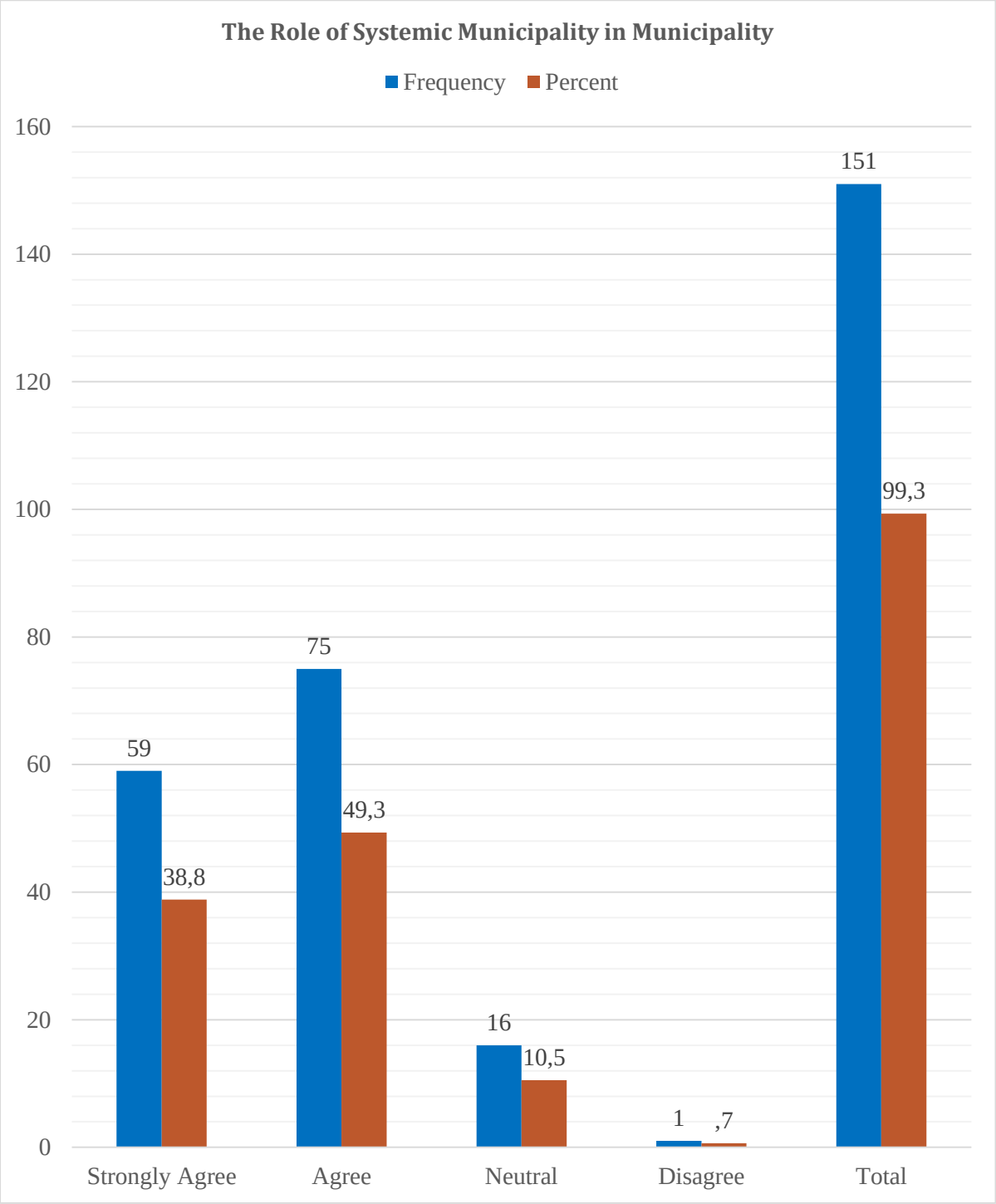

Figure 4.20: Systemic thinking promotes the effective and efficient use of the resources of municipality.

The results from the respondents in Table 4.20 and Figure 4.20 indicated that 75 (49.3%) respondents agreed with the statement, 59 (38.8%) respondents strongly agreed with the same statement. Whilst, 1 (0.7%) respondents strongly disagreed with the statement, and 16 (10.5 %) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on whether or not systemic thinking promotes the effectiveness and efficient use of the resources of a municipality, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.226**, df=1, p=.005) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.7.1.5 The Effects of Systemic Thinking in the Performance of Municipalities

Gharajedaghi (2011:335) stated that systemic thinking is the art of simplifying complexity and an ability to see through chaos, and further be able to manage interdependency as well as understanding decision choices. Thus, in this study, an analysis to test the appropriateness of this statement was conducted. The results are presented in Table 4.21 and illustrated in Figure 4.21.

Table 4.21: Response on whether or not systemic thinking in the decision-making processes will improve the performance of municipalities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	92	60.5	61.3	61.3
	Agree	39	25.7	26.0	87.3
	Neutral	18	11.8	12.0	99.3
	Disagree	1	.7	.7	100.0
	Total	150	98.7	100.0	
Missing	System	2	1.3		
Total		152	100.0		

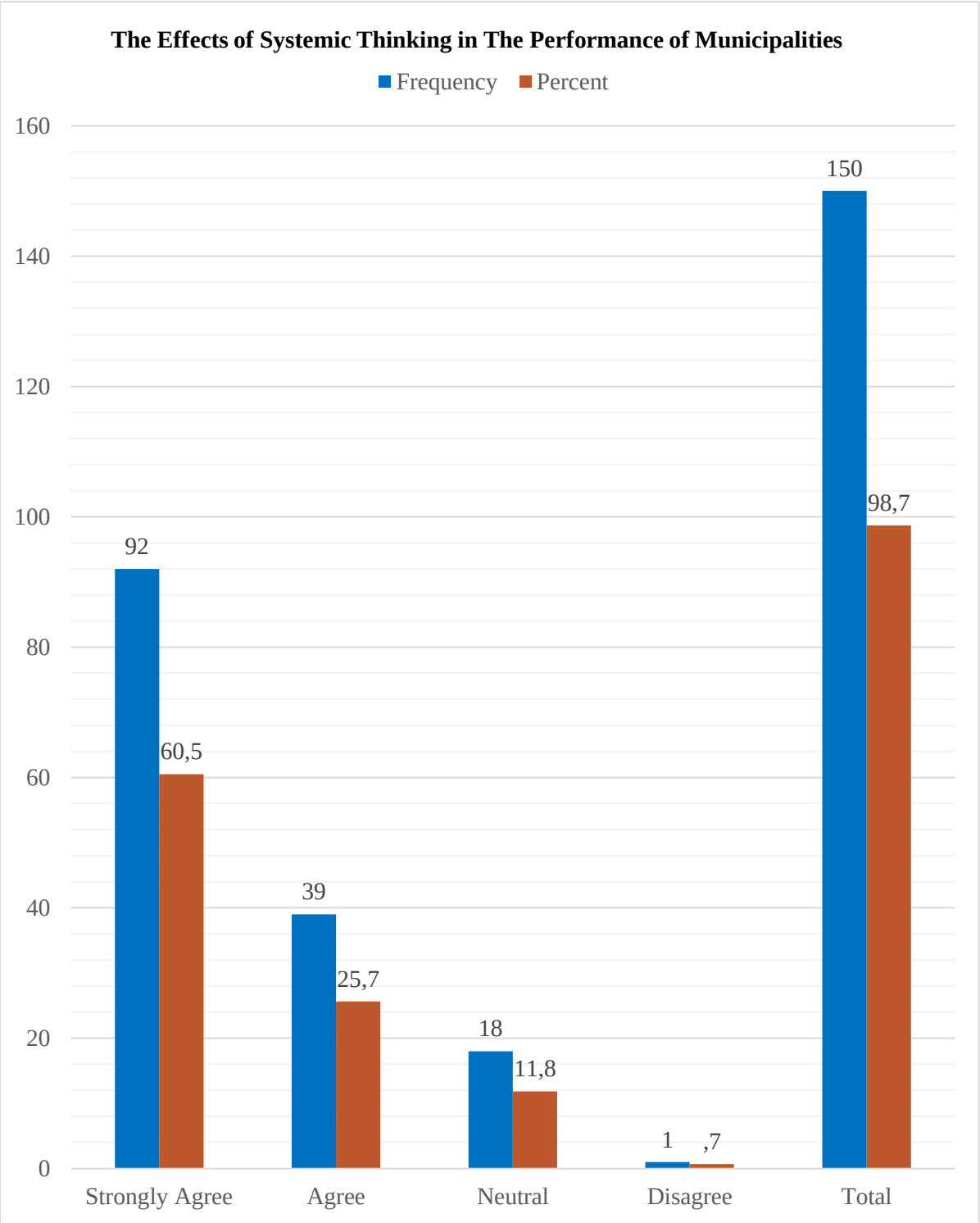

Figure 4.21: Systemic thinking in the decision-making processes will improve the performance of municipalities.

The results from the respondents in Table 4.21 and Figure 4.21 indicated that 92 (60.5%) respondents agreed with the statement, 39 (25.7%) respondents strongly agreed with the statement, whilst 1 (0.7%) respondents strongly disagreed with the statement, and 18 (11.8 %) respondents preferred to be neutral on this statement.

A Chi-square test goodness of fit was conducted on whether or not systemic thinking in the decision-making processes will improve the performance of municipalities, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=.208*, df=1, p=.010) indicated that the observed findings were significantly different from the expected frequencies. This meant that the test results were significant and were not due to chance (See Appendix I).

4.7.1.6 Is Decision Making Process in the Municipality a Complicated Exercise?

Nombembe (2008: 16) stated that municipalities have inadequate financial management capacity. The result is that budgeting, accounting, credit control and financial reporting systems are weak. Thus in this study, an analysis of this statement was done. The results are presented in Table 4.22 and illustrated in Figure 4.22.

Table 4.22: Response on whether or not a decision-making processes in the municipality is a complicated exercise.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	133	87.5	88.7	88.7
	No	17	11.2	11.3	100.0
	Total	150	98.7	100.0	
Missing	System	2	1.3		
Total		152	100.0		

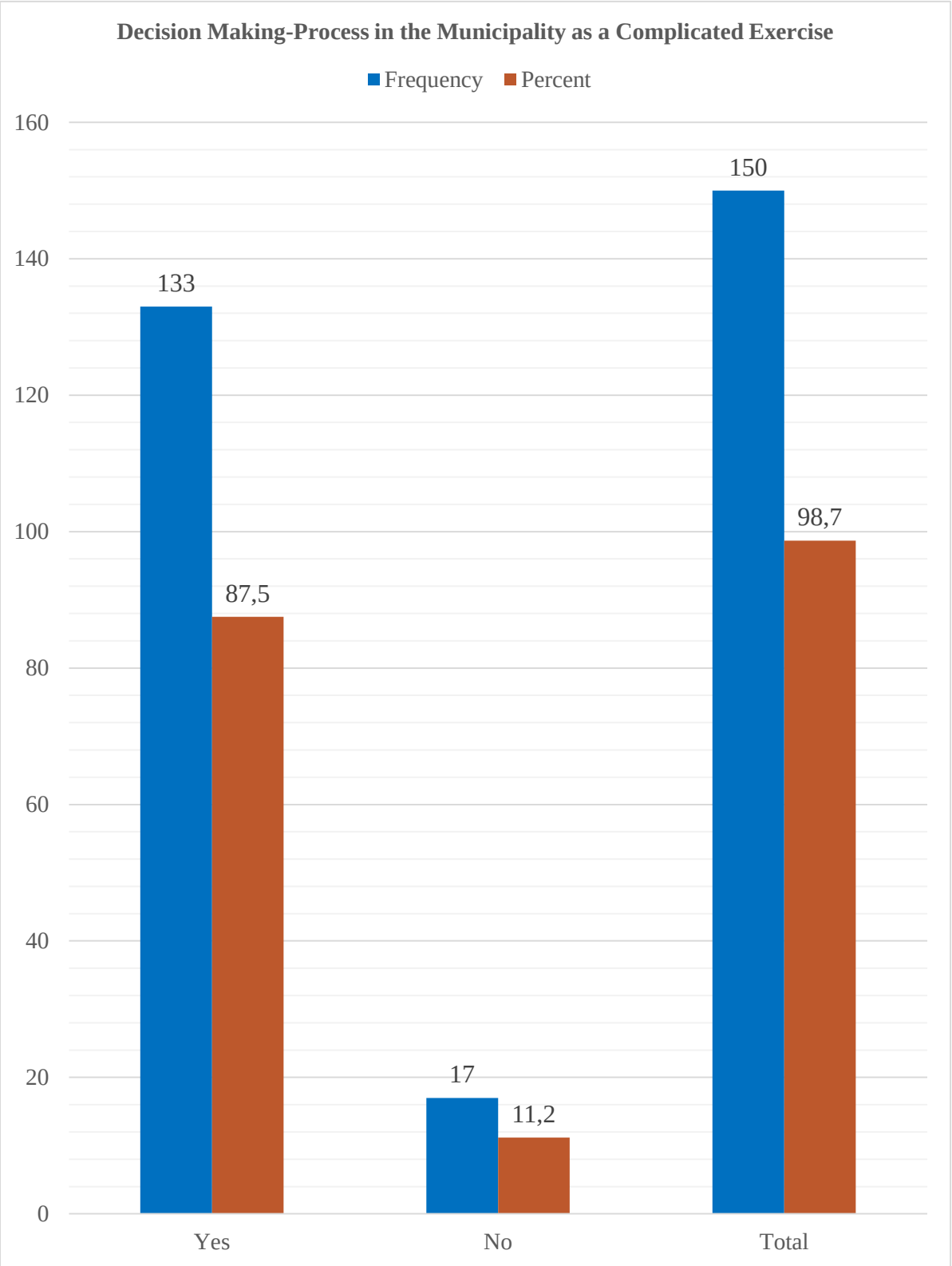

Figure 4.22: A decision-making process in the municipality is a complicated exercise.

The results from the respondents in Table 4.22 and Figure 4.22 indicated that 133 (87.5%) respondents agreed with the statement, and 17 (11.2%) respondents disagreed with the statement.

A Chi-square test goodness of fit was conducted on whether or not systemic thinking in the decision-making processes will improve the performance of municipalities, based on the null hypothesis of uniformity of expected responses to the question. The results (X^2=-117*, df=1, p=.151) indicated that the observed findings were not significantly different from the expected frequencies. This meant that the test results were significantly weak and were due to chance (See Appendix I).

4.8 Presentation of Further Analysis Conducted-Cross Tabulations and Chi-Square Tests

In addition, a cross-tabulation was conducted to test, at least one variable (Resolving problems according to a fixed set of rules and procedures in municipalities) against five independent variables (Gender, Level of Education, Position Occupied, Experience and Number of times a senior manager has participated in strategic-decision making processes within the municipality)- See Annexure H.

Cross-tabulation of a key finding was conducted and were tested through a Chi-square test to test the relationship of the variables. Therefore, the null hypothesis was created. A hypothesis can be defined as a tentative, yet testable, statement which predicts what

the researcher expects to find in the empirical data. A hypothesis can be defined as logically speculation relationships between two or more variables expressed in the form of testable statements (Sekaran and Bougie, 2013; 83). The test compares the observed data to a model that distributes the data according to the expectation that variables are independent. Wherever the observed data does not fit the model, the likelihood that the variables are dependent becomes stronger, thus proving the null hypothesis incorrect.

The hypothesis testing strategy was as follows: The mean response is referred to as follows: The mean response is referred to as μ. In general, the test for the null hypothesis (H_o) is: μ=0 against the alternate hypothesis (H_a): is μ≠0 for each of the respective questions. If the p-value was found to be less than 0.05, then the null hypothesis (H_o) is rejected and thus it can be concluded that there was a significant response, relationship, correlation or non-response (either in agreement or disagreement of the statement proposed).

4.8.1 The Key Null Hypothesis Constructed and Tested on this Study.

This is the list of some of the key null hypothesis formulated and tested through cross-tabulations and Chi-square tests:

- H_o1: There is no significant relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities;

- H_o2: There is no significant relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities;

- H_o3: There is no significant relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities;

- H_o4: There is no significant relationship between the number of years in the current position and resolving problems according to a fixed set of rules and procedures in municipalities;

- H_o5: There is no significant relationship between the numbers of times participated in strategic decision-making processes and resolving problems according to a fixed set of rules and procedures in municipalities;

- H_o6: There is no significant relationship between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities;

- H_o7: There is no significant relationship between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace; and

- H_o8: There is no significant relationship between the number of years in the current position and bureaucratic complexities that will always creep into the systemic thinking in the decision-making processes.

The results of the cross-tabulations are presented in cross- tabulation tables 4.23, 4.24, 4.25, 4. 26 and 4.27. According to the cross tabulation tables, the SPSS package generated 3 alternatives Chi-square values. i.e., Pearson Chi-square, Likelihood ratio and Linear-by-linear association. However, for the purpose of this study, the only Chi-Square value used was the Pearson Chi-Square. As a result, the actual interpretation of Chi-square tests results focused on the significance probability quoted. If $p<0.05$, then the conclusion is that the relationship found on the compared variables was significant and would be regarded as evidence that there is an association between the tested variables.

4.8.2 Gender contrasted with Resolving Problems According to a Fixed Set of Rules and Procedures in Municipalities

The following hypothesis were tested regarding Question 6:

H_o1: There is no significant relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities; and

H_a1: There is a significant relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities.

The results of the findings are presented in the cross tabulations table 4.23 as follows:

Table 4.23: (Gender contrasted with Resolving problems according to a fixed set of rules and procedures in municipalities)

			Gender		Total
			Female	Male	
Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities	Strongly Agree	Count	1	4	5
		Expected Count	2.0	3.0	5.0
		% of Total	0.7%	2.6%	3.3%
	Agree	Count	9	7	16
		Expected Count	6.5	9.5	16.0
		% of Total	6.0%	4.6%	10.6%
	Neutral	Count	4	3	7
		Expected Count	2.8	4.2	7.0
		% of Total	2.6%	2.0%	4.6%
	Disagree	Count	40	45	85
		Expected Count	34.3	50.7	85.0
		% of Total	26.5%	29.8%	56.3%

	Strongly Disagree	Count	7	31	38
		Expected Count	15.4	22.6	38.0
		% of Total	4.6%	20.5%	25.2%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.538[a]	4	.014
Likelihood Ratio	13.384	4	.010
Linear-by-Linear Association	3.605	1	.058
N of Valid Cases	151		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.02.

According to the cross tabulation Table 4.23, the Chi-square value for the association of gender and resolving problems according to a fixed set of rules and procedures in municipalities was (X^2=12.538, df=4, p=0.014), which is a weak significant result. Based on the evidence of this data, there is no relationship between gender and resolving problems according to a fixed set of rules and procedures in municipalities. Therefore, the null hypothesis was accepted (See Annexure H).

4.8.3 The Level of Education contrasted with Resolving Problems According to a Fixed Set of Rules and Procedures in Municipalities

The following hypothesis were tested regarding Question 6:

H_o2: There is no significant relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities; and

H_a2: There is a significant relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities.

The results of the findings are presented in the cross tabulations table 4.24 as follows:

Table 4.24: (Level of Education contrasted with Resolving problems according to a fixed set of rules and procedures in municipalities)

			Level of Education					Total
			Diploma	Degree	Honours Degree/P	Master's Degree	Doctorat e Degree	
Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities	Strongly Agree	Count	0	5	0	0	0	5
		Expected Count	.0	2.3	1.4	1.1	.2	5.0
		% of Total	0.0 %	3.4%	0.0%	0.0%	0.0%	3.4%
	Agree	Count	0	9	4	2	0	15
		Expected Count	.1	6.8	4.2	3.3	.5	15.0
		% of Total	0.0 %	6.2%	2.8%	1.4%	0.0%	10.3 %
	Neutral	Count	1	2	2	2	0	7
		Expected Count	.0	3.2	2.0	1.5	.2	7.0
		% of Total	0.7 %	1.4%	1.4%	1.4%	0.0%	4.8%
	Dis	Count	0	46	25	9	1	81

		Expected Count	.6	36.9	22.9	17.9	2.8	81.0
		% of Total	0.0 %	31.7 %	17.2 %	6.2%	0.7%	55.9 %
	Strongly Disagree	Count	0	4	10	19	4	37
		Expected Count	.3	16.8	10.5	8.2	1.3	37.0
		% of Total	0.0 %	2.8%	6.9%	13.1 %	2.8%	25.5 %
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7 %	45.5 %	28.3 %	22.1 %	3.4%	100.0 %

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	66.238[a]	16	.000
Likelihood Ratio	54.792	16	.000
Linear-by-Linear Association	21.913	1	.000
N of Valid Cases	145		

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .03.

According to the Cross tabulation Table 4.24, the Chi-square value for the association of the level of education and resolving problems according to a fixed set of rules and procedures in municipalities was (X^2=66.238, df =16, p=0.000), which is a very strong significant result. Based on the evidence of this data, there is a strong relationship between the level of education and resolving problems according to a fixed set of rules and procedures in municipalities. Therefore, the null hypothesis was rejected (See Annexure H).

4.8.4 Position Occupied* Resolving Problems According To A Fixed Set of Rules and Procedures in Municipalities

The following hypothesis were tested regarding Question 6:

H_o3: There is no significant relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities; and

H_a3: There is a significant relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities**.**

The results of the findings are presented in the cross tabulations tables 4.25 as follows:

Table 4.25: (Position Occupied* Resolving problems according to a fixed set of rules and procedures in municipalities)

			Position Occupied			Total
			Senior Manager: Corporate	Chief Financial Officer	Municipal Manager	
Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities	Strongly Agree	Count	3	2	0	5
		Expected Count	1.8	1.6	1.6	5.0
		% of Total	2.0%	1.3%	0.0%	3.3%
	Agree	Count	7	6	3	16
		Expected Count	5.6	5.2	5.2	16.0
		% of Total	4.6%	4.0%	2.0%	10.6%
	Neutral	Count	1	4	2	7
		Expected Count	2.5	2.3	2.3	7.0
		% of Total	0.7%	2.6%	1.3%	4.6%
	Disagree	Count	38	33	14	85
		Expected Count	29.8	27.6	27.6	85.0
		% of Total	25.2%	21.9%	9.3%	56.3%
	Stro	Count	4	4	30	38

		Expected Count	13.3	12.3	12.3	38.0
		% of Total	2.6%	2.6%	19.9%	25.2%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

Chi-Square Tests

	Value	df	Sig. (2-sided)
Pearson Chi-Square	53.668[a]	8	.000
Likelihood Ratio	53.739	8	.000
Linear-by-Linear Association	10.930	1	.001
N of Valid Cases	151		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is 1.62.

According to the cross tabulation table 4.25, the Chi-square value for the association of the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities was (X^2=53.668, df =8, p=0.000), which is a very strong significant result. Based on the evidence of this data, there is a strong relationship between the position occupied and resolving problems according to a fixed set of rules and procedures in municipalities. Therefore, the null hypothesis was rejected.

4.8.5 Number of Years in Current Position* Resolving Problems According to a Fixed Set of Rules and Procedures in Municipalities

The following hypothesis was tested regarding Question 6:

H_o4: There is no significant relationship between the number of years in current position and resolving problems according to a fixed set of rules and procedures in municipalities; and

H_a4: There is a significant relationship between the number of years in current position and resolving problems according to a fixed set of rules and procedures in municipalities.

The results of the findings are presented in the cross tabulations tables 4.26 as follows:

Table 4.26: (Number of years in current position contrasted with Resolving problems according to a fixed set of rules and procedures in municipalities)

			Number of Years In Current Position					Total
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	
Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities	Strongly Agree	Count	0	0	3	2	0	5
		Expected Count	.1	.8	2.3	1.2	.6	5.0
		% of Total	0.0%	0.0%	2.0%	1.3%	0.0%	3.3%
	Agree	Count	0	3	10	1	2	16
		Expected Count	.3	2.5	7.4	3.7	2.0	16.0
		% of Total	0.0%	2.0%	6.6%	0.7%	1.3%	10.6%
	Neutral	Count	1	3	1	2	0	7
		Expected Count	.1	1.1	3.2	1.6	.9	7.0
		% of Total	0.7%	2.0%	0.7%	1.3%	0.0%	4.6%
	Dis	Count	2	16	45	19	3	85

		Expected Count	1.7	13.5	39.4	19.7	10.7	85.0
		% of Total	1.3%	10.6%	29.8%	12.6%	2.0%	56.3%
	Strongly Disagree	Count	0	2	11	11	14	38
		Expected Count	.8	6.0	17.6	8.8	4.8	38.0
		% of Total	0.0%	1.3%	7.3%	7.3%	9.3%	25.2%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

Chi-Square Tests

	Value	df	Sig. (2-sided)
Pearson Chi-Square	47.798[a]	16	.000
Likelihood Ratio	45.654	16	.000
Linear-by-Linear Association	8.727	1	.003
N of Valid Cases	151		

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is .10.

According to the Cross tabulation Table 4.26, the Chi-square value for the association of the number of years in the current position and resolving problems according to a fixed set of rules and procedures in municipalities was (X^2=47.798, df=16, p=0.000), which is a very strong significant result. Based on the evidence of this data, there is an association between the number of years in the current position and resolving problems according to a fixed set of rules and procedures in municipalities. Therefore, the null hypothesis was rejected (See Annexure H).

4.8.6 Times Participated in Strategic Decision Making Processes* Resolving Problems According to a Fixed Set of Rules and Procedures in Municipalities

The following hypothesis were tested regarding Question 6:

H_o5: There is no significant relationship between the numbers of times participated in strategic decision-making processes and resolving problems according to a fixed set of rules and procedures in municipalities; and

H_a5: There is a significant relationship between the numbers of times participated in strategic decision-making processes and resolving problems according to a fixed set of rules and procedures in municipalities.

The results of the findings are presented in the cross tabulations tables 4.27 as follows:

Table 4.27: (Times participated in strategic decision-making processes* Resolving problems according to a fixed set of rules and procedures in municipalities)

			Times participated in strategic decision-making processes				Total
			One to two times	Three to five times	Six to ten times	Over ten times	
Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities	Strongly Agree	Count	0	1	0	4	5
		Expected Count	.6	1.8	1.4	1.3	5.0
		% of Total	0.0%	0.7%	0.0%	2.6%	3.3%
	Agree	Count	3	7	4	2	16
		Expected Count	1.8	5.8	4.3	4.0	16.0
		% of Total	2.0%	4.6%	2.6%	1.3%	10.6%
	Neutral	Count	3	1	2	1	7
		Expected Count	.8	2.5	1.9	1.8	7.0
		% of Total	2.0%	0.7%	1.3%	0.7%	4.6%
	Dis	Count	10	40	28	7	85

		Expected Count	9.6	31.0	23.1	21.4	85.0
		% of Total	6.6%	26.5%	18.5%	4.6%	56.3%
	Strongly Disagree	Count	1	6	7	24	38
		Expected Count	4.3	13.8	10.3	9.6	38.0
		% of Total	0.7%	4.0%	4.6%	15.9%	25.2%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

Chi-Square Tests			
	Value	df	Sig. (2-sided)
Pearson Chi-Square	61.036[a]	12	.000
Likelihood Ratio	57.797	12	.000
Linear-by-Linear Association	6.000	1	.014
N of Valid Cases	151		
a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .56.			

According to the Cross tabulation Table 4.27, the Chi-square value for the association of the number of times participated in strategic decision-making processes and resolving problems according to a fixed set of rules and procedures in municipalities was (X^2=61.036, df=12, p=0.000), which is a very strong significant result. Based on the evidence of this data, there is an association between the numbers of times participated in strategic decision-making processes and resolving problems according to a fixed set of rules and procedures in municipalities. Therefore, the null hypothesis was rejected (See Annexure H).

4.8.7 The Level Of Education* Systemic Thinking as A Better Approach in Gaining Insights into Complex Challenges of the Municipalities

The following hypothesis were tested regarding Question 7:

H_o6: There is no significant relationship between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities; and

H_a6: There is a significant relationship between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities.

The results of the findings are presented in the cross tabulations table 4.28 as follows:

Table 4.28: (Level of Education contrasted with Systemic thinking as a better approach in gaining insights into complex challenges of the municipalities)

			Level of Education					Total
			Diploma	Degree	Honours Degree/P	Master's Degree	Doctorate Degree	
Systemic thinking would be a better approach in gaining insights into complex challenges of the municipalities	Strongly Agree	Count	0	22	15	21	2	60
		Expected Count	.4	27.3	17.0	13.2	2.1	60.0
		% of Total	0.0%	15.2%	10.3%	14.5%	1.4%	41.4%
	Agree	Count	0	37	23	8	3	71
		Expected Count	.5	32.3	20.1	15.7	2.4	71.0
		% of Total	0.0%	25.5%	15.9%	5.5%	2.1%	49.0%
	Neutral	Count	1	6	1	2	0	10
		Expected Count	.1	4.6	2.8	2.2	.3	10.0
		% of Total	0.7%	4.1%	0.7%	1.4%	0.0%	6.9%
	Dis	Count	0	1	2	1	0	4

		Expected Count	.0	1.8	1.1	.9	.1	4.0
		% of Total	0.0%	0.7%	1.4%	0.7%	0.0%	2.8%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.488[a]	12	.007
Likelihood Ratio	20.280	12	.062
Linear-by-Linear Association	4.542	1	.033
N of Valid Cases	145		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .03.

According to the cross tabulation table 4.28, the Chi-square value for the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities was (X^2=27.488, df=12, p=0.007), which is a very strong significant result. Based on the evidence of this data, there is an association between the level of education and systemic thinking as a better approach in gaining insights into complex challenges of the municipalities. Therefore, the null hypothesis was rejected (See Annexure H).

4.8.8 The Level of Education contrasted with Workshops were enough to equip Managers to deal with Complexity, Change and Diversity in the Workplace

The following hypothesis were tested regarding Question 22:

H_o7: There is no significant relationship between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace; and

H_a7: There is a significant relationship between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace.

The results of the findings are presented in the cross tabulations table 4.29 as follows:

Table 4.29: (Level of Education * Workshops were enough to equip managers to deal with complexity, change and diversity in the workplace)

			Level of Education					Total
			Diploma	Degree	Honours Degree/P	Master's Degree	Doctorate Degree	
Workshops are enough to train managers to deal with complexity, change and diversity in the workplace	Strongly Agree	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
	Agree	Count	0	8	4	1	1	14
		Expected Count	.1	6.4	4.0	3.1	.5	14.0
		% of Total	0.0%	5.5%	2.8%	0.7%	0.7%	9.7%
	Neutral	Count	1	1	0	0	0	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.7%	0.7%	0.0%	0.0%	0.0%	1.4%
	Dis	Count	0	31	18	15	3	67

		Expected Count	.5	30.5	18.9	14.8	2.3	67.0
		% of Total	0.0%	21.4%	12.4%	10.3%	2.1%	46.2%
	Strongly Disagree	Count	0	25	19	16	1	61
		Expected Count	.4	27.8	17.2	13.5	2.1	61.0
		% of Total	0.0%	17.2%	13.1%	11.0%	0.7%	42.1%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

Chi-Square Tests

	Value	df	Sig. (2-sided)
Pearson Chi-Square	77.933[a]	16	.000
Likelihood Ratio	16.893	16	.393
Linear-by-Linear Association	1.968	1	.161
N of Valid Cases	145		

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .01.

According to cross tabulation table 4.29, the Chi-square value for the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace was (X^2=77.933, df=16, p=0.000). This was a very strong significant result. Based on the evidence of this data, there is an association between the level of education and workshops were enough to equip managers to deal with complexity, change and diversity in the workplace. Thus, the null hypothesis was rejected (See Annexure H).

4.8.9 Number of Years in Current Position * Bureaucratic Complexities that will always creep in to the Systemic Thinking in the Decision-Making Processes

The following hypothesis were tested regarding Question 14:

H_o8: There is no significant relationship between the number of years in the current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision-making processes; and

H_a8: There is a significant relationship between the number of years in the current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision making processes.

The results of the findings are presented in the cross tabulations table No 4.30 as follows:

Table 4.30: (Number of years in current position contrasted with Bureaucratic complexities that will always creep in to the systemic thinking in the decision-making processes)

			Number of Years In Current Position					Total
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	
Bureaucratic complexities will always creep in to the systemic thinking in the decision making process.	Strongly Agree	Count	0	16	37	17	6	76
		Expected Count	1.5	12.1	35.2	17.6	9.6	76.0
		% of Total	0.0%	10.6%	24.5%	11.3%	4.0%	50.3%
	Agree	Count	2	7	31	17	10	67
		Expected Count	1.3	10.6	31.1	15.5	8.4	67.0
		% of Total	1.3%	4.6%	20.5%	11.3%	6.6%	44.4%
	Neutral	Count	1	0	1	0	0	2
		Expected Count	.0	.3	.9	.5	.3	2.0

		% of Total	0.7%	0.0%	0.7%	0.0%	0.0%	1.3%
	Disagree	Count	0	1	1	1	3	6
		Expected Count	.1	1.0	2.8	1.4	.8	6.0
		% of Total	0.0%	0.7%	0.7%	0.7%	2.0%	4.0%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

Chi-Square Tests

	Value	df	Sig. (2-sided)
Pearson Chi-Square	38.532[a]	12	.000
Likelihood Ratio	20.210	12	.063
Linear-by-Linear Association	3.124	1	.077
N of Valid Cases	151		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .04.

The results presented in cross tabulation table 4.30 showed a Chi-square value for the number of years in the current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision-making processes has a value of (X^2=38.532, df=12, p=0.000). This is a very strong significant result. Based on the evidence of this data, there is an association between the number of years in the current position and bureaucratic complexities that will always creep in to the systemic thinking in the decision-making processes. Thus, the null hypothesis was rejected (See Annexure H).

4.9 The Conclusion

This chapter presented the results of the survey responses in tabular format and graphically. The general information data as well as the statistical analysis to test the hypotheses were conducted. Some of the salient findings of the study are that 92 (60.5%) respondents believed that systemic thinking can improve the performance of municipalities, and that 133 (87.5%) respondents strongly held a view that decision-making processes in municipalities are a complicated exercise.

This study has also indicated the majority, i.e., 102 (67.1%) respondents are not aware of the processes and outcomes of systemic thinking. Most importantly, is that the majority 85 (55.9%) respondents do believe that resolving problems, according to fixed set of rules and procedures, is not always relevant in municipalities. These results can be considered as reliable empirical evidence of the preliminary literature in this study.

Chapter 5 will present the salient findings, conclusions and make recommendations to wards the the implementation of systemic thinking in decision-making processes in municipalities within the province of KwaZulu-Natal.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents conclusions and conclusions drawn regarding the findings on the analysis of systemic thinking in decision-making processes of the municipalities. The aim was to analyse the understanding, application and effectiveness of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal. The province of KwaZulu-Natal has 61 municipalities in total (including one metro municipality) i.e. EThekwini Municipality. The municipalities are the biggest employer in the province of KwaZulu-Natal. The municipality operates in a much unpredicted environment. Hence, the success of the municipality hinges on how decisions are taken on a daily basis.

Due to the empirical analysis of the results, the following conclusions and recommendations were made with regards to the model of rational decision making process.

The literature has shown that municipalities are confronted with a plethora of complex capacity challenges. Capacity refers to the availability of and access to concrete or tangible resources such as human, financial, material or technological and having the

knowledge to implement policies and the delivery of public services. In addition, capacity also refers to the intangible resources such as commitment to, and leadership for, the implementation of policies and delivery of public services (Brynard and De Coning, 2006: 161).

It is also established that the quality of decisions taken by municipalities is a cause for concern in many aspects. This has been attested to by the findings of the Auditor General in South Africa. This problem is due to the lack of administrative capacity of those who are entrusted with the responsibility to make strategic decisions within the municipalities. Thus, this study concentrated on the analysis of systemic thinking in decision-making processes in the municipalities within the province of KwaZulu-Natal.

However, this chapter is intended to present the conclusions objectives by objectives and recommendations.

5.2. The Conclusions of the study.

The main aim of the study was to conduct an analysis of the understanding, application and effectiveness of systemic thinking in decision-making processes by senior management of the municipalities within the province of KwaZulu-Natal. Based on the results of this study, the following conclusions are drawn regarding the objectives of the study:

5.2.1. Objective 1: To Determine the Understanding of the Concept of Systemic Thinking in Decision-Making Processes by the Senior Managers within the Municipality in Kwazulu-Natal

Based on the findings, it is concluded that most senior managers within the municipalities do have an understanding of systemic thinking in decision-making processes. This is evident in their responses from questions 6 to 10 of the survey questionnaire (See Annexure D) in collaboration with cross tabulation tables (See Annexure H).

In question 6, the majority of the respondents do not believe that conventional ways of thinking are still relevant in resolving challenges faced by the municipalities. Further, in question 7, the majority of the respondents to this study believe that systemic thinking would be a better approach in gaining insight and understanding of the challenges within the municipalities.

However, in question 8, it was established that the majority of senior managers are not aware of the actual processes and outcomes of systemic thinking. This is an area of that needs capacity development to respondents. In question 9, the respondents were fairly divided on whether there are allowed to use their own discretion in decision-making processes.

The most noted view from the majority of respondents was that workshops were not enough to train managers to deal with complexity, change and diversity in the workplace. This analysis of these findings indicate that senior managers do have an understanding of systemic thinking.

5.2.2. Objective 2: To Investigate the Application of Systemic Thinking in Decision-Making Processes within the Municipalities in Kwazulu-Natal

Based on the findings, it is concluded that most senior managers within the municipalities find it very difficult to implement systemic thinking in decision making process. This is evident in their responses from question 11 to 16 of the survey questionnaire (See Annexure D) in collaboration with cross tabulations (See Annexure H).

In question 11, the majority of the respondents are of the view that managerial challenges in running a municipality are unpredictable. This acceptance of this statement demands the implementation of systemic thinking in addressing the unpredictable challenges. However, when the responses provided are compared with the results of question 12, it becomes evident that the majority of respondents view the application of systemic thinking as a time-consuming process.

Further, the presence of different hierarchies (question 12) and bureaucracy (question 13) in managing the municipality hampers the implementation of systemic thinking in decision-making processes. Therefore, the overall conclusion on this objective is that the

implementation of systemic thinking is a challenge in municipalities within the province of KwaZulu-Natal due to time constraints and bureaucracy.

5.2.3. Objective 3: To Assess the Effectiveness of Systemic Thinking in Decision-Making Processes within the Municipalities in Kwazulu-Natal

Based on the findings on this objective, it is concluded that most senior managers believe that, if systemic thinking can be implemented appropriately, can be a solution to a number of challenges facing the municipalities. This is evident in their responses from questions 17 to 22 of the survey questionnaire (See Annexure D) in collaboration with cross tabulations (See Annexure H).

In question 17, the majority of the respondents are of the view that systemic thinking would be helpful in addressing issues of complexity in nature, change dynamics and diversity-related issues in municipalities, as opposed to conventional ways of looking at these issues. Further, in question 18, there is a majority consensus that creativity, ingenuity and originality are necessary ingredients in dealing with issues of complexity, change and diversity in municipalities within the province of KwaZulu-Natal.

However, in question 19, the majority of the respondents are of the view that it is difficult to balance the responsibility and accountability while implementing the outcome of systemic thinking in decision making processes. However, the highlight of this study is that the majority of the respondents affirm the views of the authors of the reviewed

literature that systemic thinking can promote the effective and efficient use of the resources of the municipalities.

It was encouraging to note that most of the respondents hold a positive perception that systemic thinking would be a very effective tool in decision-making processes and would ultimately improve the performance of municipalities.

5.3. The Implications for this Study

The implication of this study covers the implication for systemic-thinking theory and the implications in systemic-thinking practice.

5.3.1. The Implication of Systemic Thinking Theory

This study aims to contribute to the existing theory of systemic thinking with regards to systemic thinking in decision-making processes within the municipalities with specific reference to municipalities within South Africa. It can be claimed that, for better management of municipalities, senior managers must be equipped with the theory of application of systemic thinking in decision-making processes. The relevance of the theory of systemic thinking has never been analysed in the non-contrived setting environment of a municipality. This thinking technique should not be confused with

systems thinking, but should be used in collaboration with the understanding of the theory of systems thinking.

5.3.2. The Implication of Systemic-Thinking Practice

On the practical side, the results of this study revealed the poor application of systemic thinking in municipalities within the province of KwaZulu-Natal. Therefore, it is imperative that a user-friendly model be developed to empower senior managers within the municipalities with skills and expertise of putting the systemic thinking into practice. However, the success of its implementation cannot solely depend on one or two day workshops. In actual fact, systemic thinking should be one of the thinking techniques that is included in any management or leadership curriculum by all institutions of higher learning.

5.4. The Limitations on this Study

The following limitations were encountered during the course of this study:

- The study targeted a total of 61 municipalities in the province of KwaZulu-Natal, comprising of 1 metropolitan, 10 district municipalities and 50 local municipalities whereas South Africa has more than 278 municipalities, comprising of eight metropolitan, 44 district and 226 local municipalities. As a result, the population sample for this study was 183 senior managers from 61 municipalities. However, this

was due to the geographical distribution of municipalities, time and financial constraints;

- This study investigated only senior managers who are entrusted with the responsibility of financial management, corporate service functions and overall municipal management. As a result, it did not investigate other senior managers responsible for other managerial functions of the municipalities within the province of KwaZulu-Natal; and

- This study adopted an embedded research method design of the mixed method, with a greater leaning towards the quantitative method than the qualitative method. As a result, it limited the respondents to say more about their feelings with regards to the constraints that affect the implementation of systemic thinking in decision-making processes within the municipalities.

5.5. Recommendations

The following recommendations are made in relation to the implementation of systemic thinking in decision-making processes within the municipalities:

5.5.1. Promotion of 'Thinking Out of the Box' Principle

Decision makers must be encouraged to think out of the box in resolving complex business challenges, instead of promoting managers whose thinking is confined within the boundaries of the set policies and regulations. This recommendation does not suggest that rules and procedures must not be followed within the municipalities, but in the event, where the unprecedented complex situation arises, managers must be allowed think beyond the normal routine. In no way should managers be confined to only think within the parameters of the set rules and procedures. Such practice suppresses creativity, innovation, originality and quality of a good decision maker. This recommendation emanates from the findings of this study that 85 (55.9%) respondents were of the view that thinking out of the box is an alternative in decision-making processes.

5.5.2. Promotion of the Maximum utilisation of Human Capital Administrative Capacity

The study found that 85 (55.9%) and 38 (25%) respondents, respectively, disagreed that to give managers a set of rules and procedures will resolve complex problems. Based on that finding, it is evident that to resolve complex issues requires more than predefined and pre-set rules and procedures. Thus, this study recommends the adoption of systemic thinking in decision-making processes, so that the maximum utilisation of human capital administrative capacity shall be attained. Municipalities will enjoy the benefits of the potential and calibre of its human capital, particularly, those who are entrusted with the

management responsibilities of municipalities. Among the benefits, the municipality may enjoy, are:

- Negotiation skills;
- Public participation skills;
- Systemic thinking skills;
- Sound decision making skills;
- Sound management skills;
- Improved level of accountability and responsibility; and
- Improved service delivery.

5.5.3. Development of Human Capital Development Programmes

The study found that 78 (51.3%) and 24 (15.8%) respondents are not aware of the processes and outcomes of systemic thinking in decision-making processes. This finding indicates a need to develop a training programme that will assist to capacitate the decision makers on how best systemic thinking can be applied in dealing with complex situations. This might require that senior managers be equipped with systemic thinking skills. This can also help those who are in the education on leadership or management space to consider systemic thinking as a module in leadership and management studies to circumvent challenges in dealing with unpredictable or complex challenges in management practice.

5.5.4. Building Sustainable Management Engine Not Just a Series of Workshops

Business must begin to invest productively in its human resource through proper training of its human capital. This model of taking out employees to one or five days workshops seemingly does not yield an economical return on investment made to its human capital. This assertion is confirmed by Webb, Slagt and Ewenstein (2013:13) that organisations that get the decision-making processes right and their management development programme right are able to accelerate priority projects, drive major turnarounds and continuously improve their execution across the globe. These authors indicated that organisations must use performance management opportunities within their organisations as the real-life context for learning, and avoid generic, off-the-shelf programmes. The finding of this study indicates that the majority of the respondents 71(46.7%) and 62 (40.8%) do not agree with the statement that suggest that workshops are enough to train managers to deal with complexity, change and diversity. The study recommends that managers must be encouraged to register for relevant modules from the accredited institutions instead of opting for short-term workshops. Further, to be sustainable, any effort to develop managers must be deeply entwined with the organisation's talent and performance management processes, as well as with its broader vision, norms and strategy. In this way, a 'management engine' can be built into the fabric of the organisation, which will be much more powerful than an outsourced, detached training programme. Now, to build such a management engine, the organisation must start by collaboratively defining a four-part management model, which explicitly articulated the behaviour needed from management, before holding workshops and coaching session to help managers develop specific decision-making processes in line

with the model. The four elements of the proposed management model are presented in Figure 5.1.

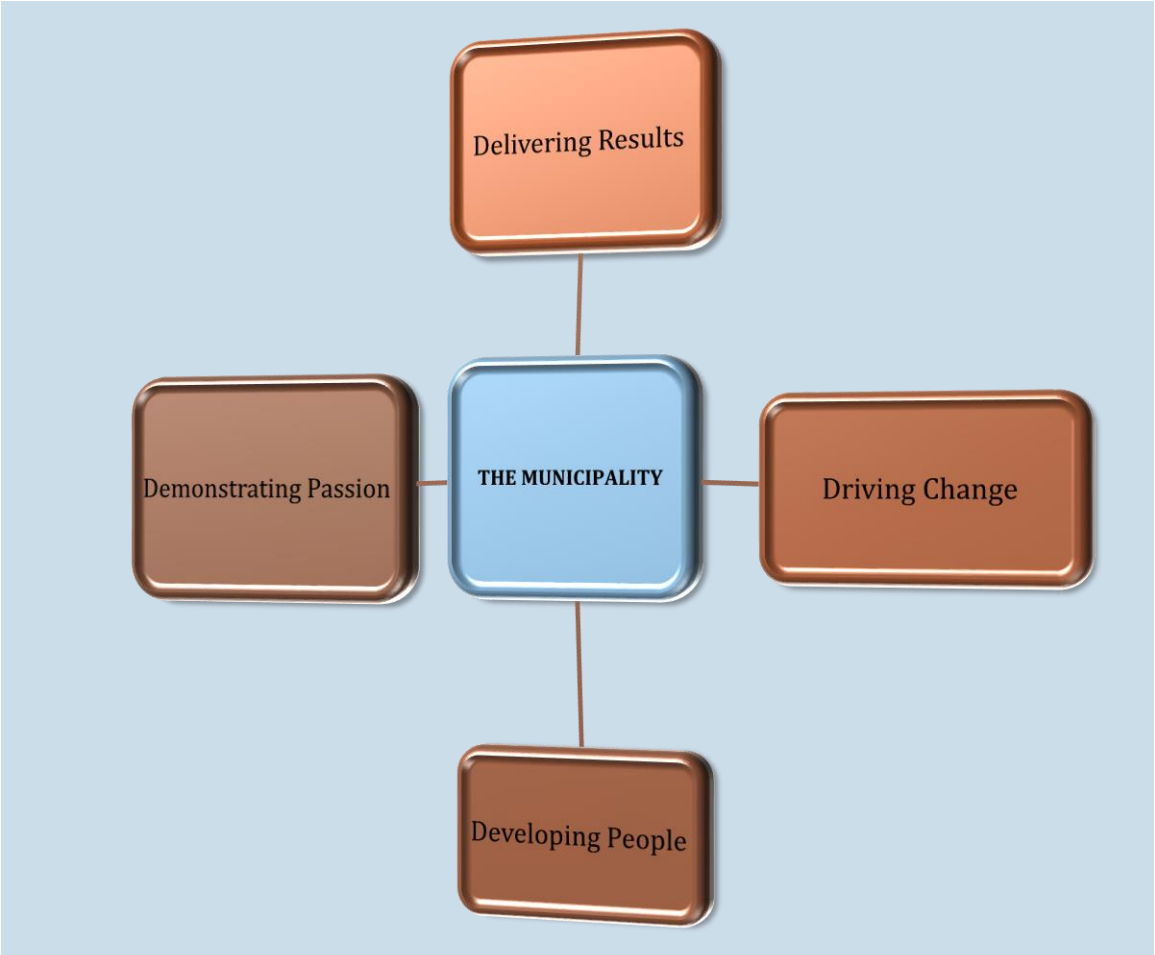

Figure 5.1: The Four Part of the Proposed Management Model

The four elements of this module would have to be translated into observable behaviour, and them fleshed out with detailed examples of what constitutes 'poor', 'solid' and 'outstanding' management practice against each would look like. This would give a clear foundation for designing the learning programme. The municipal management must agree on performance contracts based on this model. Further, performance must be measured twice a year against these clear expectations. Performance review outcomes must inform a systematic approach to matching talent with new management roles and

key performance areas. These processes will ensure that management learning interventions have impact well beyond the end of any formal programme. It will also ensure that management development is not a one-shot investment, but reinforced continuously and informally through the language used to describe high performance and through each coaching and feedback conversation.

5.5.5. The Inclusion of Monitoring and Evaluation in Decision-Making Process Model

It is suggested that monitoring and evaluation must be included as one of the steps to be added in the rational decision making model and further ensure that measurable criteria is always available and adhered to or agreed upon. Decision making is a process that must consider that decision making requires a great deal of time, a great deal of information and consultation, the possibility of inaccurate, unstable and incomplete knowledge of all the alternatives, preferences, goals and consequences (Pettigrew 2014:13) . Hence, it is recommended that this model must also include a monitoring and evaluation step as a seventh step of the Decision-Making Process Model. The proposed model is illustrated in Figure 5.1 below:

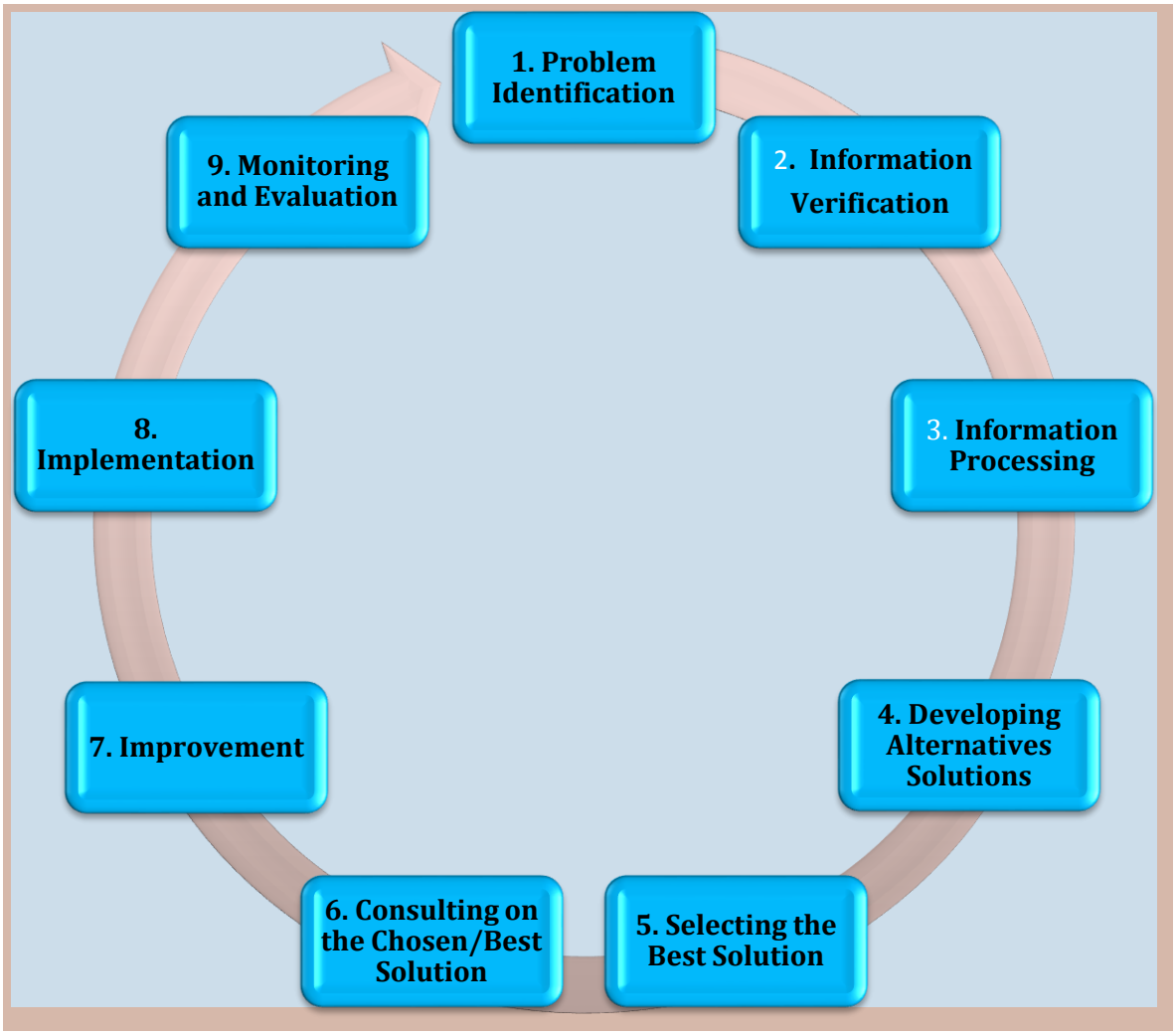

Figure 5.2. The Proposed 9 Steps of the Rational Decision-Making Process Model

Figure 5.2 presents the proposed 9 step rational decision making process model that seeks to improve the current 6 steps model of Rational Decision Making Model (Doyle, 1998). This study recommends the inclusion of step number 2: Verification of information, step number 6: Consulting on the chosen/ Best Solution, and step number 9: Monitoring and Evaluation. This model takes into cognizance the limitations and assumptions cited by Pettigrew (2014:13) that the erstwhile rational decision-making model assumed that that there is accurate, stable and complete information of all the alternatives, preferences, goals and consequences and that it assumes a rational, reasonable and non-political world.

5.5.6. Recommendations for Further Research

A further study is recommended to investigate the effects of municipal councilors in the application of systemic thinking in decision-making processes. It would be recommend that the nature of the study be an exploratory design mixed method approach which will encompasses a two phase process. In phase 1, it would be recommended that a researcher uses one or more qualitative methods to get a general sense of characteristics, phenomena, and/or issues related to systemic thinking in decision making processes within the municipalities. Qualitative data, perhaps from observation, interviews, or both, should provide the basis for a more systematic quantitative study in phase 2.

5.6. The Conclusion

This chapter presented the recommendations and the proposed suggestions to improve the implementation of systemic thinking in decision-making processes. This chapter is in line with the fourth set objective of this study and it gives the recommendation on the current practice on decision making processes. It has proposed the inclusion of three steps in the current 6 steps of rational decision making process model. The proposed steps will add value on other dynamics that were not catered for in the existing model. This chapter, further, made some recommendations in relation to the implementation of systemic thinking in decision-making processes within the municipalities.

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ANNEXURE 'C': ETHICAL CLEARANCE

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

10 November 2014

Mr Mbuyiseni Goodlife Ntuli (201504997)
Graduate School of Business & Leadership
Westville Campus

Dear Mr Ntuli,

Protocol reference number: HSS/1473/014D
Project title: An analysis of systemic thinking in decision-making processes in the Municipalities within the Province of KwaZulu-Natal

Full Approval – Expedited Application

In response to your application received on 10 November 2014, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shenuka Singh (Chair)

/ms

CC Supervisor: Dr L Lekanya
Cc Academic Leader Research: Dr E Munapo
Cc School Administrator: Ms Zarina Bully / Ms Gina Mshengu

Humanities & Social Sciences Research Ethics Committee
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ANNEXURE 'D': SURVEY QUESTIONNARE

THE UNIVERSITY OF KWAZULU-NATAL

GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP

DOCTOR OF BUSINESS ADMINISTRATION RESEARCH PROJECT

RESEARCHER: Mbuyiseni Goodlife Ntuli (082 538 9426)
SUPERVISOR: DR LM Lekhanya (031- 373 5835)
RESEARCH OFFICER: Marietta Snyman (031-260 8350)

TOPIC: AN ANALYSIS OF SYSTEMIC THINKING IN DECISION-MAKING PROCESSES WITHIN THE MUNICIPALITIES IN THE PROVINCE OF KWAZULU-NATAL.

Dear Participant.

I am a Doctor of Business Administration (DBA) Student at the University of KwaZulu-Natal. Currently I am collecting primary data as the component of my study.

My topic is entitled "**An analysis of systemic thinking in the decision-making processes within the municipality in the province of KwaZulu-Natal".**

In order to complete this project, the latter part of this project involves the administration of a questionnaire and, thereafter, interviews with a sample of respondents on the same subject. The information you provide will help the researcher to better understand the application of systemic thinking in decision-making process within the municipality. You are requested to respond to the questions frankly and honestly. Your response will be kept strictly confidential. Only members of the research team will have access to the information you give.

This questionnaire should take you only 10-15 minutes to complete. In this questionnaire, there are no 'right' or 'wrong' answers. Kindly indicate what is true to you and try to work as fast as you can. If you wish to comment please write on the open space provided on the questionnaire. Make sure that all questions are responded to.

Thank you very much for your time and cooperation. I greatly appreciate the help of your organization and yourself in furthering this research study.

QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

Please put an "X" over the number representing the most appropriate response for you in respect of the following questions:

1. ***Your gender:***

Female *1*	*Male* *2*

2. ***Your highest completed level of education:***

Diploma *1*	*Degree* *2*	*Honours Degree/ Post Graduate Diploma* *3*	*Master's Degree* *4*	*Doctorate Degree* *5*

3. ***Your current position:***

Senior Manager: Corporate Services *1*	*Senior Manager : Technical Services* *2*	*Senior Manager: Community Services* *3*	*Chief Financial Officer* *4*	*Municipal Manager* *5*

4. ***Number of years in your current position:***

Less than one year *1*	*One to two years* *2*	*Three to five years* *3*	*Six to ten years* *4*	*Over ten years* *5*

5. ***How many times have you participated in the strategic decision-making process of a municipality?***

Never *1*	*One to two times* *2*	*Three to five times* *3*	*Six to ten times* *4*	*Over ten times* *5*

SECTION B: UNDERSTANDING THE SYSTEMIC THINKING IN THE DECISION- MAKING PROCESS

"Systemic thinking is a process of understanding and transforming complex situations and challenging problem by gaining systemic (situation-wide) insights into complex problems" Bartlett, 2008

Below are a number of statements regarding systemic thinking? Please read each one and indicate (by putting an 'X' below your response) to what extent you agree or disagree with each statement:

Statement	***Strongly Agree*** ***1***	***Agree*** ***2***	***Neutral*** ***3***	***Disagree*** ***4***	***Strongly Disagree*** ***5***
6. Resolving problems according to a fixed set of rules and procedures is always relevant in municipalities.					
7. Systemic thinking would be a better approach in gaining insights into					

complex challenges of the municipalities.					
8. Every manager is aware of the processes and outcomes of systemic thinking.					
9. The level of being allowed to 'think out of the box' in executing your responsibilities is highly encouraged.					
10. Workshops are enough to train managers to deal with complexity, change and diversity in the workplace.					

SECTION C: THE APPLICATION OF SYSTEMIC THINKING IN DECISION-MAKING PROCESSES

Below are a number of statements regarding systemic thinking? Please read each one and indicate (by putting an 'X' below your response) to what extent you agree or disagree with each statement:

Statement	***Strongly Agree 1***	***Agree 2***	***Neutral 3***	***Disagree 4***	***Strongly Disagree 5***
11. Managerial challenges in running a municipality are unpredictable.					
12. Systemic thinking in the decision making process is a time-consuming process.					
13. All the hierarchies in municipality are available and work together in demanding situation.					
14. Bureaucratic complexities will always creep in to the systemic thinking in the decision making process					

15. Every idea in systemic thinking in the decision making process is valued.					
16. External factors always play a great role in the decision-making process					

SECTION D: THE EFFECTIVENESS OF SYSTEMIC THINKING IN DECISION-MAKING PROCESSES

Below are a number of statements regarding systemic thinking? Please read each one and indicate (by putting an 'X' below your response) to what extent you agree or disagree with each statement:

17. Problems that are associated with complexity change and diversity can always be resolved through a rational decision-making process.					
18. Creativity, ingenuity and originality are a necessity in dealing with complexity, change and diversity.					
19. It is difficult to balance the responsibility and accountability while implementing the outcome of the systemic thinking in decision-making process					
20. Systemic thinking promotes the effective and efficient use of the resources of municipality.					
21. Systemic thinking in the decision making process will improve the performance of municipalities.					

22. A decision-making process in the municipality is a complicated exercise.

Yes	*No*

23. Why do you think so?

_____

_____

_____
_____
_____
_____
_____
_____

24. Are there any comments concerning the application of systemic thinking you would wish to make?

_____
_____
_____
_____
_____
_____

End of the Questionnaire

Thank you for taking your precious time to complete this questionnaire.

ANNEXURE 'E": CASE PROCESSING SUMMARY

		N	%
Cases	Valid	150	98.7
	Excluded[a]	2	1.3
	Total	152	100.0

a. Listwise deletion based on all variables in the procedure.

ANNEXURE 'F': RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.785	.785	16

ANNEXURE “G”: FULL REPORT ON CASE PROCESSING SUMMARY

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Q6 * Q1	151	99.3%	1	0.7%	152	100.0%
Q6 * Q2	145	95.4%	7	4.6%	152	100.0%
Q6 * Q3	151	99.3%	1	0.7%	152	100.0%
Q6 * Q4	151	99.3%	1	0.7%	152	100.0%
Q6 * Q5	151	99.3%	1	0.7%	152	100.0%
Q7 * Q1	151	99.3%	1	0.7%	152	100.0%
Q7 * Q2	145	95.4%	7	4.6%	152	100.0%
Q7 * Q3	151	99.3%	1	0.7%	152	100.0%
Q7 * Q4	151	99.3%	1	0.7%	152	100.0%
Q7 * Q5	151	99.3%	1	0.7%	152	100.0%
Q8 * Q1	151	99.3%	1	0.7%	152	100.0%
Q8 * Q2	145	95.4%	7	4.6%	152	100.0%
Q8 * Q3	151	99.3%	1	0.7%	152	100.0%
Q8 * Q4	151	99.3%	1	0.7%	152	100.0%
Q8 * Q5	151	99.3%	1	0.7%	152	100.0%
Q9 * Q1	151	99.3%	1	0.7%	152	100.0%
Q9 * Q2	145	95.4%	7	4.6%	152	100.0%
Q9 * Q3	151	99.3%	1	0.7%	152	100.0%
Q9 * Q4	151	99.3%	1	0.7%	152	100.0%
Q9 * Q5	151	99.3%	1	0.7%	152	100.0%
Q10 * Q1	151	99.3%	1	0.7%	152	100.0%
Q10 * Q2	145	95.4%	7	4.6%	152	100.0%
Q10 * Q3	151	99.3%	1	0.7%	152	100.0%
Q10 * Q4	151	99.3%	1	0.7%	152	100.0%
Q10 * Q5	151	99.3%	1	0.7%	152	100.0%
Q11 * Q1	151	99.3%	1	0.7%	152	100.0%
Q11 * Q2	145	95.4%	7	4.6%	152	100.0%
Q11 * Q3	151	99.3%	1	0.7%	152	100.0%
Q11 * Q4	151	99.3%	1	0.7%	152	100.0%
Q11 * Q5	151	99.3%	1	0.7%	152	100.0%
Q12 * Q1	151	99.3%	1	0.7%	152	100.0%
Q12 * Q2	145	95.4%	7	4.6%	152	100.0%

Q12 * Q3	151	99.3%	1	0.7%	152	100.0%
Q12 * Q4	151	99.3%	1	0.7%	152	100.0%
Q12 * Q5	151	99.3%	1	0.7%	152	100.0%
Q13 * Q1	151	99.3%	1	0.7%	152	100.0%
Q13 * Q2	145	95.4%	7	4.6%	152	100.0%
Q13 * Q3	151	99.3%	1	0.7%	152	100.0%
Q13 * Q4	151	99.3%	1	0.7%	152	100.0%
Q13 * Q5	151	99.3%	1	0.7%	152	100.0%
Q14 * Q1	151	99.3%	1	0.7%	152	100.0%
Q14 * Q2	145	95.4%	7	4.6%	152	100.0%
Q14 * Q3	151	99.3%	1	0.7%	152	100.0%
Q14 * Q4	151	99.3%	1	0.7%	152	100.0%
Q14 * Q5	151	99.3%	1	0.7%	152	100.0%
Q15 * Q1	151	99.3%	1	0.7%	152	100.0%
Q15 * Q2	145	95.4%	7	4.6%	152	100.0%
Q15 * Q3	151	99.3%	1	0.7%	152	100.0%
Q15 * Q4	151	99.3%	1	0.7%	152	100.0%
Q15 * Q5	151	99.3%	1	0.7%	152	100.0%
Q16 * Q1	151	99.3%	1	0.7%	152	100.0%
Q16 * Q2	145	95.4%	7	4.6%	152	100.0%
Q16 * Q3	151	99.3%	1	0.7%	152	100.0%
Q16 * Q4	151	99.3%	1	0.7%	152	100.0%
Q16 * Q5	151	99.3%	1	0.7%	152	100.0%
Q17 * Q1	151	99.3%	1	0.7%	152	100.0%
Q17 * Q2	145	95.4%	7	4.6%	152	100.0%
Q17 * Q3	151	99.3%	1	0.7%	152	100.0%
Q17 * Q4	151	99.3%	1	0.7%	152	100.0%
Q17 * Q5	151	99.3%	1	0.7%	152	100.0%
Q18 * Q1	151	99.3%	1	0.7%	152	100.0%
Q18 * Q2	145	95.4%	7	4.6%	152	100.0%
Q18 * Q3	151	99.3%	1	0.7%	152	100.0%
Q18 * Q4	151	99.3%	1	0.7%	152	100.0%
Q18 * Q5	151	99.3%	1	0.7%	152	100.0%
Q19 * Q1	151	99.3%	1	0.7%	152	100.0%
Q19 * Q2	145	95.4%	7	4.6%	152	100.0%
Q19 * Q3	151	99.3%	1	0.7%	152	100.0%
Q19 * Q4	151	99.3%	1	0.7%	152	100.0%
Q19 * Q5	151	99.3%	1	0.7%	152	100.0%
Q20 * Q1	151	99.3%	1	0.7%	152	100.0%
Q20 * Q2	145	95.4%	7	4.6%	152	100.0%
Q20 * Q3	151	99.3%	1	0.7%	152	100.0%
Q20 * Q4	151	99.3%	1	0.7%	152	100.0%
Q20 * Q5	151	99.3%	1	0.7%	152	100.0%

Q21 * Q1	150	98.7%	2	1.3%	152	100.0%
Q21 * Q2	144	94.7%	8	5.3%	152	100.0%
Q21 * Q3	150	98.7%	2	1.3%	152	100.0%
Q21 * Q4	150	98.7%	2	1.3%	152	100.0%
Q21 * Q5	150	98.7%	2	1.3%	152	100.0%

ANNEXURE 'H': CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q6	Strongly Agree	Count	1	4	5
		Expected Count	2.0	3.0	5.0
		% of Total	0.7%	2.6%	3.3%
	Agree	Count	9	7	16
		Expected Count	6.5	9.5	16.0
		% of Total	6.0%	4.6%	10.6%
	Neutral	Count	4	3	7
		Expected Count	2.8	4.2	7.0
		% of Total	2.6%	2.0%	4.6%
	Disagree	Count	40	45	85
		Expected Count	34.3	50.7	85.0
		% of Total	26.5%	29.8%	56.3%
	Strongly Disagree	Count	7	31	38
		Expected Count	15.4	22.6	38.0
		% of Total	4.6%	20.5%	25.2%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.538[a]	4	.014
Likelihood Ratio	13.384	4	.010
Linear-by-Linear Association	3.605	1	.058
N of Valid Cases	151		

a. 4 cells (40,0%) have expected count less than 5. The minimum expected count is 2,02.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q6	Strongly Agree	Count	0	5	0	0	0	5
		Expected Count	.0	2.3	1.4	1.1	.2	5.0
		% of Total	0.0%	3.4%	0.0%	0.0%	0.0%	3.4%
	Agree	Count	0	9	4	2	0	15
		Expected Count	.1	6.8	4.2	3.3	.5	15.0
		% of Total	0.0%	6.2%	2.8%	1.4%	0.0%	10.3%
	Neutral	Count	1	2	2	2	0	7
		Expected Count	.0	3.2	2.0	1.5	.2	7.0
		% of Total	0.7%	1.4%	1.4%	1.4%	0.0%	4.8%
	Disagree	Count	0	46	25	9	1	81
		Expected Count	.6	36.9	22.9	17.9	2.8	81.0
		% of Total	0.0%	31.7%	17.2%	6.2%	0.7%	55.9%
	Strongly Disagree	Count	0	4	10	19	4	37
		Expected Count	.3	16.8	10.5	8.2	1.3	37.0
		% of Total	0.0%	2.8%	6.9%	13.1%	2.8%	25.5%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	66.238[a]	16	.000
Likelihood Ratio	54.792	16	.000

Linear-by-Linear Association	21.913	1	.000
N of Valid Cases	145		

a. 18 cells (72, 0%) have expected count less than 5. The minimum expected count is, 03.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q6	Strongly Agree	Count	3	2	0	5
		Expected Count	1.8	1.6	1.6	5.0
		% of Total	2.0%	1.3%	0.0%	3.3%
	Agree	Count	7	6	3	16
		Expected Count	5.6	5.2	5.2	16.0
		% of Total	4.6%	4.0%	2.0%	10.6%
	Neutral	Count	1	4	2	7
		Expected Count	2.5	2.3	2.3	7.0
		% of Total	0.7%	2.6%	1.3%	4.6%
	Disagree	Count	38	33	14	85
		Expected Count	29.8	27.6	27.6	85.0
		% of Total	25.2%	21.9%	9.3%	56.3%
	Strongly Disagree	Count	4	4	30	38
		Expected Count	13.3	12.3	12.3	38.0
		% of Total	2.6%	2.6%	19.9%	25.2%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.668[a]	8	.000
Likelihood Ratio	53.739	8	.000

Linear-by-Linear Association	10.930	1	.001
N of Valid Cases	151		

a. 6 cells (40, 0%) have expected count less than 5. The minimum expected count is 1, 62.

CROSSTABULATIONS

			Q4					Total
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	
Q6	Strongly Agree	Count	0	0	3	2	0	5
		Expected Count	.1	.8	2.3	1.2	.6	5.0
		% of Total	0.0%	0.0%	2.0%	1.3%	0.0%	3.3%
	Agree	Count	0	3	10	1	2	16
		Expected Count	.3	2.5	7.4	3.7	2.0	16.0
		% of Total	0.0%	2.0%	6.6%	0.7%	1.3%	10.6%
	Neutral	Count	1	3	1	2	0	7
		Expected Count	.1	1.1	3.2	1.6	.9	7.0
		% of Total	0.7%	2.0%	0.7%	1.3%	0.0%	4.6%
	Disagree	Count	2	16	45	19	3	85
		Expected Count	1.7	13.5	39.4	19.7	10.7	85.0
		% of Total	1.3%	10.6%	29.8%	12.6%	2.0%	56.3%
	Strongly Disagree	Count	0	2	11	11	14	38
		Expected Count	.8	6.0	17.6	8.8	4.8	38.0
		% of Total	0.0%	1.3%	7.3%	7.3%	9.3%	25.2%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.798[a]	16	.000
Likelihood Ratio	45.654	16	.000
Linear-by-Linear Association	8.727	1	.003

N of Valid Cases	151			

a. 17 cells (68, 0%) have expected count less than 5. The minimum expected count is, 10.

CROSSTABULATIONS

		Q5				
		One to two times	Three to five times	Six to ten times	Over ten times	Total
Q6 Strongly Agree	Count	0	1	0	4	5
	Expected Count	.6	1.8	1.4	1.3	5.0
	% of Total	0.0%	0.7%	0.0%	2.6%	3.3%
Agree	Count	3	7	4	2	16
	Expected Count	1.8	5.8	4.3	4.0	16.0
	% of Total	2.0%	4.6%	2.6%	1.3%	10.6%
Neutral	Count	3	1	2	1	7
	Expected Count	.8	2.5	1.9	1.8	7.0
	% of Total	2.0%	0.7%	1.3%	0.7%	4.6%
Disagree	Count	10	40	28	7	85
	Expected Count	9.6	31.0	23.1	21.4	85.0
	% of Total	6.6%	26.5%	18.5%	4.6%	56.3%
Strongly Disagree	Count	1	6	7	24	38
	Expected Count	4.3	13.8	10.3	9.6	38.0
	% of Total	0.7%	4.0%	4.6%	15.9%	25.2%
Total	Count	17	55	41	38	151
	Expected Count	17.0	55.0	41.0	38.0	151.0
	% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	61.036[a]	12	.000
Likelihood Ratio	57.797	12	.000
Linear-by-Linear Association	6.000	1	.014
N of Valid Cases	151		

a. 12 cells (60, 0%) have expected count less than 5. The minimum expected count is, 56.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q7	Strongly Agree	Count	20	43	63
		Expected Count	25.5	37.5	63.0
		% of Total	13.2%	28.5%	41.7%
	Agree	Count	32	41	73
		Expected Count	29.5	43.5	73.0
		% of Total	21.2%	27.2%	48.3%
	Neutral	Count	6	5	11
		Expected Count	4.4	6.6	11.0
		% of Total	4.0%	3.3%	7.3%
	Disagree	Count	3	1	4
		Expected Count	1.6	2.4	4.0
		% of Total	2.0%	0.7%	2.6%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.220[a]	3	.156
Likelihood Ratio	5.240	3	.155
Linear-by-Linear Association	5.108	1	.024
N of Valid Cases	151		

a. 3 cells (37, 5%) have expected count less than 5. The minimum expected count is 1, 62.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q7	Strongly Agree	Count	0	22	15	21	2	60
		Expected Count	.4	27.3	17.0	13.2	2.1	60.0
		% of Total	0.0%	15.2%	10.3%	14.5%	1.4%	41.4%
	Agree	Count	0	37	23	8	3	71
		Expected Count	.5	32.3	20.1	15.7	2.4	71.0
		% of Total	0.0%	25.5%	15.9%	5.5%	2.1%	49.0%
	Neutral	Count	1	6	1	2	0	10
		Expected Count	.1	4.6	2.8	2.2	.3	10.0
		% of Total	0.7%	4.1%	0.7%	1.4%	0.0%	6.9%
	Disagree	Count	0	1	2	1	0	4
		Expected Count	.0	1.8	1.1	.9	.1	4.0
		% of Total	0.0%	0.7%	1.4%	0.7%	0.0%	2.8%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.488[a]	12	.007
Likelihood Ratio	20.280	12	.062
Linear-by-Linear Association	4.542	1	.033
N of Valid Cases	145		

a. 14 cells (70, 0%) have expected count less than 5. The minimum expected count is, 03.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q7	Strongly Agree	Count	19	15	29	63
		Expected Count	22.1	20.4	20.4	63.0
		% of Total	12.6%	9.9%	19.2%	41.7%
	Agree	Count	30	27	16	73
		Expected Count	25.6	23.7	23.7	73.0
		% of Total	19.9%	17.9%	10.6%	48.3%
	Neutral	Count	3	5	3	11
		Expected Count	3.9	3.6	3.6	11.0
		% of Total	2.0%	3.3%	2.0%	7.3%
	Disagree	Count	1	2	1	4
		Expected Count	1.4	1.3	1.3	4.0
		% of Total	0.7%	1.3%	0.7%	2.6%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.595[a]	6	.102
Likelihood Ratio	10.538	6	.104
Linear-by-Linear Association	.861	1	.354
N of Valid Cases	151		

a. 6 cells (50, 0%) have expected count less than 5. The minimum expected count is 1, 30.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q7	Strongly Agree	Count	1	8	25	19	10	63
		Expected Count	1.3	10.0	29.2	14.6	7.9	63.0
		% of Total	0.7%	5.3%	16.6%	12.6%	6.6%	41.7%
	Agree	Count	1	13	36	15	8	73
		Expected Count	1.5	11.6	33.8	16.9	9.2	73.0
		% of Total	0.7%	8.6%	23.8%	9.9%	5.3%	48.3%
	Neutral	Count	0	2	7	1	1	11
		Expected Count	.2	1.7	5.1	2.5	1.4	11.0
		% of Total	0.0%	1.3%	4.6%	0.7%	0.7%	7.3%
	Disagree	Count	1	1	2	0	0	4
		Expected Count	.1	.6	1.9	.9	.5	4.0
		% of Total	0.7%	0.7%	1.3%	0.0%	0.0%	2.6%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.069[a]	12	.114
Likelihood Ratio	12.400	12	.414
Linear-by-Linear Association	6.648	1	.010
N of Valid Cases	151		

a. 11 cells (55, 0%) have expected count less than 5. The minimum expected count is, 08.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q7	Strongly Agree	Count	6	19	14	24	63
		Expected Count	7.1	22.9	17.1	15.9	63.0
		% of Total	4.0%	12.6%	9.3%	15.9%	41.7%
	Agree	Count	8	30	25	10	73
		Expected Count	8.2	26.6	19.8	18.4	73.0
		% of Total	5.3%	19.9%	16.6%	6.6%	48.3%
	Neutral	Count	1	5	2	3	11
		Expected Count	1.2	4.0	3.0	2.8	11.0
		% of Total	0.7%	3.3%	1.3%	2.0%	7.3%
	Disagree	Count	2	1	0	1	4
		Expected Count	.5	1.5	1.1	1.0	4.0
		% of Total	1.3%	0.7%	0.0%	0.7%	2.6%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.407[a]	9	.031
Likelihood Ratio	17.227	9	.045
Linear-by-Linear Association	5.332	1	.021
N of Valid Cases	151		

a. 8 cells (50, 0%) have expected count less than 5. The minimum expected count is, 45.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q8	Strongly Agree	Count	1	4	5
		Expected Count	2.0	3.0	5.0
		% of Total	0.7%	2.6%	3.3%
	Agree	Count	12	18	30
		Expected Count	12.1	17.9	30.0
		% of Total	7.9%	11.9%	19.9%
	Neutral	Count	7	7	14
		Expected Count	5.7	8.3	14.0
		% of Total	4.6%	4.6%	9.3%
	Disagree	Count	30	48	78
		Expected Count	31.5	46.5	78.0
		% of Total	19.9%	31.8%	51.7%
	Strongly Disagree	Count	11	13	24
		Expected Count	9.7	14.3	24.0
		% of Total	7.3%	8.6%	15.9%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.818[a]	4	.769
Likelihood Ratio	1.890	4	.756
Linear-by-Linear Association	.250	1	.617
N of Valid Cases	151		

a. 2 cells (20, 0%) have expected count less than 5. The minimum expected count is 2, 02.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q8	Strongly Agree	Count	0	4	0	1	0	5
		Expected Count	.0	2.3	1.4	1.1	.2	5.0
		% of Total	0.0%	2.8%	0.0%	0.7%	0.0%	3.4%
	Agree	Count	0	13	6	9	1	29
		Expected Count	.2	13.2	8.2	6.4	1.0	29.0
		% of Total	0.0%	9.0%	4.1%	6.2%	0.7%	20.0%
	Neutral	Count	1	7	3	0	1	12
		Expected Count	.1	5.5	3.4	2.6	.4	12.0
		% of Total	0.7%	4.8%	2.1%	0.0%	0.7%	8.3%
	Disagree	Count	0	32	25	16	2	75
		Expected Count	.5	34.1	21.2	16.6	2.6	75.0
		% of Total	0.0%	22.1%	17.2%	11.0%	1.4%	51.7%
	Strongly Disagree	Count	0	10	7	6	1	24
		Expected Count	.2	10.9	6.8	5.3	.8	24.0
		% of Total	0.0%	6.9%	4.8%	4.1%	0.7%	16.6%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.770[a]	16	.188
Likelihood Ratio	18.305	16	.306
Linear-by-Linear Association	.357	1	.550
N of Valid Cases	145		

a. 15 cells (60, 0%) have expected count less than 5. The minimum expected count is, 03.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q8	Strongly Agree	Count	3	1	1	5
		Expected Count	1.8	1.6	1.6	5.0
		% of Total	2.0%	0.7%	0.7%	3.3%
	Agree	Count	11	7	12	30
		Expected Count	10.5	9.7	9.7	30.0
		% of Total	7.3%	4.6%	7.9%	19.9%
	Neutral	Count	4	8	2	14
		Expected Count	4.9	4.5	4.5	14.0
		% of Total	2.6%	5.3%	1.3%	9.3%
	Disagree	Count	25	29	24	78
		Expected Count	27.4	25.3	25.3	78.0
		% of Total	16.6%	19.2%	15.9%	51.7%
	Strongly Disagree	Count	10	4	10	24
		Expected Count	8.4	7.8	7.8	24.0
		% of Total	6.6%	2.6%	6.6%	15.9%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.479[a]	8	.233
Likelihood Ratio	10.665	8	.221
Linear-by-Linear Association	.144	1	.705
N of Valid Cases	151		

a. 6 cells (40, 0%) have expected count less than 5. The minimum expected count is 1, 62.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q8	Strongly Agree	Count	0	0	2	3	0	5
		Expected Count	.1	.8	2.3	1.2	.6	5.0
		% of Total	0.0%	0.0%	1.3%	2.0%	0.0%	3.3%
	Agree	Count	0	5	13	8	4	30
		Expected Count	.6	4.8	13.9	7.0	3.8	30.0
		% of Total	0.0%	3.3%	8.6%	5.3%	2.6%	19.9%
	Neutral	Count	0	4	9	1	0	14
		Expected Count	.3	2.2	6.5	3.2	1.8	14.0
		% of Total	0.0%	2.6%	6.0%	0.7%	0.0%	9.3%
	Disagree	Count	2	7	38	19	12	78
		Expected Count	1.5	12.4	36.2	18.1	9.8	78.0
		% of Total	1.3%	4.6%	25.2%	12.6%	7.9%	51.7%
	Strongly Disagree	Count	1	8	8	4	3	24
		Expected Count	.5	3.8	11.1	5.6	3.0	24.0
		% of Total	0.7%	5.3%	5.3%	2.6%	2.0%	15.9%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.900[a]	16	.182
Likelihood Ratio	23.647	16	.098
Linear-by-Linear Association	.573	1	.449
N of Valid Cases	151		

a. 16 cells (64, 0%) have expected count less than 5. The minimum expected count is, 10.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q8	Strongly Agree	Count	0	1	0	4	5
		Expected Count	.6	1.8	1.4	1.3	5.0
		% of Total	0.0%	0.7%	0.0%	2.6%	3.3%
	Agree	Count	5	9	10	6	30
		Expected Count	3.4	10.9	8.1	7.5	30.0
		% of Total	3.3%	6.0%	6.6%	4.0%	19.9%
	Neutral	Count	3	7	3	1	14
		Expected Count	1.6	5.1	3.8	3.5	14.0
		% of Total	2.0%	4.6%	2.0%	0.7%	9.3%
	Disagree	Count	4	31	21	22	78
		Expected Count	8.8	28.4	21.2	19.6	78.0
		% of Total	2.6%	20.5%	13.9%	14.6%	51.7%
	Strongly Disagree	Count	5	7	7	5	24
		Expected Count	2.7	8.7	6.5	6.0	24.0
		% of Total	3.3%	4.6%	4.6%	3.3%	15.9%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	19.739[a]	12	.072
Likelihood Ratio	20.121	12	.065
Linear-by-Linear Association	.146	1	.702
N of Valid Cases	151		

a. 9 cells (45, 0%) have expected count less than 5. The minimum expected count is, 56.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q9	Strongly Agree	Count	3	11	14
		Expected Count	5.7	8.3	14.0
		% of Total	2.0%	7.3%	9.3%
	Agree	Count	31	40	71
		Expected Count	28.7	42.3	71.0
		% of Total	20.5%	26.5%	47.0%
	Neutral	Count	1	1	2
		Expected Count	.8	1.2	2.0
		% of Total	0.7%	0.7%	1.3%
	Disagree	Count	23	31	54
		Expected Count	21.8	32.2	54.0
		% of Total	15.2%	20.5%	35.8%
	Strongly Disagree	Count	3	7	10
		Expected Count	4.0	6.0	10.0
		% of Total	2.0%	4.6%	6.6%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.040[a]	4	.551
Likelihood Ratio	3.235	4	.519
Linear-by-Linear Association	.084	1	.772
N of Valid Cases	151		

a. 3 cells (30, 0%) have expected count less than 5. The minimum expected count is, 81.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q9	Strongly Agree	Count	0	7	2	5	0	14
		Expected Count	.1	6.4	4.0	3.1	.5	14.0
		% of Total	0.0%	4.8%	1.4%	3.4%	0.0%	9.7%
	Agree	Count	1	33	15	15	2	66
		Expected Count	.5	30.0	18.7	14.6	2.3	66.0
		% of Total	0.7%	22.8%	10.3%	10.3%	1.4%	45.5%
	Neutral	Count	0	2	0	0	0	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.0%	1.4%	0.0%	0.0%	0.0%	1.4%
	Disagree	Count	0	23	20	8	2	53
		Expected Count	.4	24.1	15.0	11.7	1.8	53.0
		% of Total	0.0%	15.9%	13.8%	5.5%	1.4%	36.6%
	Strongly Disagree	Count	0	1	4	4	1	10
		Expected Count	.1	4.6	2.8	2.2	.3	10.0
		% of Total	0.0%	0.7%	2.8%	2.8%	0.7%	6.9%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.202[a]	16	.439
Likelihood Ratio	18.394	16	.301
Linear-by-Linear Association	1.344	1	.246
N of Valid Cases	145		

a. 18 cells (72, 0%) have expected count less than 5. The minimum expected count is, 01.

b.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q9	Strongly Agree	Count	6	3	5	14
		Expected Count	4.9	4.5	4.5	14.0
		% of Total	4.0%	2.0%	3.3%	9.3%
	Agree	Count	21	25	25	71
		Expected Count	24.9	23.0	23.0	71.0
		% of Total	13.9%	16.6%	16.6%	47.0%
	Neutral	Count	1	1	0	2
		Expected Count	.7	.6	.6	2.0
		% of Total	0.7%	0.7%	0.0%	1.3%
	Disagree	Count	21	20	13	54
		Expected Count	19.0	17.5	17.5	54.0
		% of Total	13.9%	13.2%	8.6%	35.8%
	Strongly Disagree	Count	4	0	6	10
		Expected Count	3.5	3.2	3.2	10.0
		% of Total	2.6%	0.0%	4.0%	6.6%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	10.117[a]	8	.257
Likelihood Ratio	13.666	8	.091
Linear-by-Linear Association	.408	1	.523
N of Valid Cases	151		

a. 9 cells (60, 0%) have expected count less than 5. The minimum expected count is, 65.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q9	Strongly Agree	Count	0	1	7	5	1	14
		Expected Count	.3	2.2	6.5	3.2	1.8	14.0
		% of Total	0.0%	0.7%	4.6%	3.3%	0.7%	9.3%
	Agree	Count	3	13	31	12	12	71
		Expected Count	1.4	11.3	32.9	16.5	8.9	71.0
		% of Total	2.0%	8.6%	20.5%	7.9%	7.9%	47.0%
	Neutral	Count	0	1	1	0	0	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.0%	0.7%	0.7%	0.0%	0.0%	1.3%
	Disagree	Count	0	6	29	15	4	54
		Expected Count	1.1	8.6	25.0	12.5	6.8	54.0
		% of Total	0.0%	4.0%	19.2%	9.9%	2.6%	35.8%
	Strongly Disagree	Count	0	3	2	3	2	10
		Expected Count	.2	1.6	4.6	2.3	1.3	10.0
		% of Total	0.0%	2.0%	1.3%	2.0%	1.3%	6.6%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.626[a]	16	.410
Likelihood Ratio	18.364	16	.303
Linear-by-Linear Association	.050	1	.823
N of Valid Cases	151		

a. 16 cells (64, 0%) have expected count less than 5. The minimum expected count is, 04.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q9	Strongly Agree	Count	0	4	4	6	14
		Expected Count	1.6	5.1	3.8	3.5	14.0
		% of Total	0.0%	2.6%	2.6%	4.0%	9.3%
	Agree	Count	10	28	16	17	71
		Expected Count	8.0	25.9	19.3	17.9	71.0
		% of Total	6.6%	18.5%	10.6%	11.3%	47.0%
	Neutral	Count	1	1	0	0	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.7%	0.7%	0.0%	0.0%	1.3%
	Disagree	Count	5	21	16	12	54
		Expected Count	6.1	19.7	14.7	13.6	54.0
		% of Total	3.3%	13.9%	10.6%	7.9%	35.8%
	Strongly Disagree	Count	1	1	5	3	10
		Expected Count	1.1	3.6	2.7	2.5	10.0
		% of Total	0.7%	0.7%	3.3%	2.0%	6.6%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.195[a]	12	.355
Likelihood Ratio	14.684	12	.259
Linear-by-Linear Association	.001	1	.975
N of Valid Cases	151		

a. 11 cells (55, 0%) have expected count less than 5. The minimum expected count is, 23.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q10	Strongly Agree	Count	1	1	2
		Expected Count	.8	1.2	2.0
		% of Total	0.7%	0.7%	1.3%
	Agree	Count	4	10	14
		Expected Count	5.7	8.3	14.0
		% of Total	2.6%	6.6%	9.3%
	Neutral	Count	1	1	2
		Expected Count	.8	1.2	2.0
		% of Total	0.7%	0.7%	1.3%
	Disagree	Count	30	41	71
		Expected Count	28.7	42.3	71.0
		% of Total	19.9%	27.2%	47.0%
	Strongly Disagree	Count	25	37	62
		Expected Count	25.0	37.0	62.0
		% of Total	16.6%	24.5%	41.1%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.068[a]	4	.899
Likelihood Ratio	1.101	4	.894
Linear-by-Linear Association	.193	1	.661
N of Valid Cases	151		

a. 4 cells (40, 0%) have expected count less than 5. The minimum expected count is, 81.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q10	Strongly Agree	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
	Agree	Count	0	8	4	1	1	14
		Expected Count	.1	6.4	4.0	3.1	.5	14.0
		% of Total	0.0%	5.5%	2.8%	0.7%	0.7%	9.7%
	Neutral	Count	1	1	0	0	0	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.7%	0.7%	0.0%	0.0%	0.0%	1.4%
	Disagree	Count	0	31	18	15	3	67
		Expected Count	.5	30.5	18.9	14.8	2.3	67.0
		% of Total	0.0%	21.4%	12.4%	10.3%	2.1%	46.2%
	Strongly Disagree	Count	0	25	19	16	1	61
		Expected Count	.4	27.8	17.2	13.5	2.1	61.0
		% of Total	0.0%	17.2%	13.1%	11.0%	0.7%	42.1%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	77.933[a]	16	.000
Likelihood Ratio	16.893	16	.393
Linear-by-Linear Association	1.968	1	.161
N of Valid Cases	145		

a. 18 cells (72, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q10	Strongly Agree	Count	2	0	0	2
		Expected Count	.7	.6	.6	2.0
		% of Total	1.3%	0.0%	0.0%	1.3%
	Agree	Count	3	8	3	14
		Expected Count	4.9	4.5	4.5	14.0
		% of Total	2.0%	5.3%	2.0%	9.3%
	Neutral	Count	1	1	0	2
		Expected Count	.7	.6	.6	2.0
		% of Total	0.7%	0.7%	0.0%	1.3%
	Disagree	Count	26	21	24	71
		Expected Count	24.9	23.0	23.0	71.0
		% of Total	17.2%	13.9%	15.9%	47.0%
	Strongly Disagree	Count	21	19	22	62
		Expected Count	21.8	20.1	20.1	62.0
		% of Total	13.9%	12.6%	14.6%	41.1%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.096[a]	8	.334
Likelihood Ratio	9.896	8	.272
Linear-by-Linear Association	.302	1	.583
N of Valid Cases	151		

a. 9 cells (60, 0%) have expected count less than 5. The minimum expected count is, 65.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q10	Strongly Agree	Count	0	0	1	0	1	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.7%	1.3%
	Agree	Count	1	4	6	1	2	14
		Expected Count	.3	2.2	6.5	3.2	1.8	14.0
		% of Total	0.7%	2.6%	4.0%	0.7%	1.3%	9.3%
	Neutral	Count	0	1	0	1	0	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.0%	0.7%	0.0%	0.7%	0.0%	1.3%
	Disagree	Count	0	10	30	18	13	71
		Expected Count	1.4	11.3	32.9	16.5	8.9	71.0
		% of Total	0.0%	6.6%	19.9%	11.9%	8.6%	47.0%
	Strongly Disagree	Count	2	9	33	15	3	62
		Expected Count	1.2	9.9	28.7	14.4	7.8	62.0
		% of Total	1.3%	6.0%	21.9%	9.9%	2.0%	41.1%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.244[a]	16	.256
Likelihood Ratio	21.179	16	.172
Linear-by-Linear Association	.097	1	.756
N of Valid Cases	151		

a. 16 cells (64, 0%) have expected count less than 5. The minimum expected count is, 04.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q10	Strongly Agree	Count	0	0	2	0	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.0%	0.0%	1.3%	0.0%	1.3%
	Agree	Count	4	6	2	2	14
		Expected Count	1.6	5.1	3.8	3.5	14.0
		% of Total	2.6%	4.0%	1.3%	1.3%	9.3%
	Neutral	Count	0	0	0	2	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.0%	0.0%	0.0%	1.3%	1.3%
	Disagree	Count	7	25	20	19	71
		Expected Count	8.0	25.9	19.3	17.9	71.0
		% of Total	4.6%	16.6%	13.2%	12.6%	47.0%
	Strongly Disagree	Count	6	24	17	15	62
		Expected Count	7.0	22.6	16.8	15.6	62.0
		% of Total	4.0%	15.9%	11.3%	9.9%	41.1%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.214[a]	12	.142
Likelihood Ratio	15.814	12	.200
Linear-by-Linear Association	.748	1	.387
N of Valid Cases	151		

a. 11 cells (55, 0%) have expected count less than 5. The minimum expected count is, 23.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q11	Strongly Agree	Count	39	62	101
		Expected Count	40.8	60.2	101.0
		% of Total	25.8%	41.1%	66.9%
	Agree	Count	15	20	35
		Expected Count	14.1	20.9	35.0
		% of Total	9.9%	13.2%	23.2%
	Neutral	Count	0	1	1
		Expected Count	.4	.6	1.0
		% of Total	0.0%	0.7%	0.7%
	Disagree	Count	6	3	9
		Expected Count	3.6	5.4	9.0
		% of Total	4.0%	2.0%	6.0%
	Strongly Disagree	Count	1	4	5
		Expected Count	2.0	3.0	5.0
		% of Total	0.7%	2.6%	3.3%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.343[a]	4	.362
Likelihood Ratio	4.729	4	.316
Linear-by-Linear Association	.253	1	.615
N of Valid Cases	151		

a. 5 cells (50, 0%) have expected count less than 5. The minimum expected count is, 40.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q11	Strongly Agree	Count	1	41	28	23	4	97
		Expected Count	.7	44.2	27.4	21.4	3.3	97.0
		% of Total	0.7%	28.3%	19.3%	15.9%	2.8%	66.9%
	Agree	Count	0	16	10	7	1	34
		Expected Count	.2	15.5	9.6	7.5	1.2	34.0
		% of Total	0.0%	11.0%	6.9%	4.8%	0.7%	23.4%
	Neutral	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
	Disagree	Count	0	4	2	2	0	8
		Expected Count	.1	3.6	2.3	1.8	.3	8.0
		% of Total	0.0%	2.8%	1.4%	1.4%	0.0%	5.5%
	Strongly Disagree	Count	0	4	1	0	0	5
		Expected Count	.0	2.3	1.4	1.1	.2	5.0
		% of Total	0.0%	2.8%	0.7%	0.0%	0.0%	3.4%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.337[a]	16	.994
Likelihood Ratio	7.335	16	.966
Linear-by-Linear Association	2.334	1	.127
N of Valid Cases	145		

a. 19 cells (76, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q11	Strongly Agree	Count	31	33	37	101
		Expected Count	35.5	32.8	32.8	101.0
		% of Total	20.5%	21.9%	24.5%	66.9%
	Agree	Count	16	10	9	35
		Expected Count	12.3	11.4	11.4	35.0
		% of Total	10.6%	6.6%	6.0%	23.2%
	Neutral	Count	1	0	0	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.7%	0.0%	0.0%	0.7%
	Disagree	Count	4	3	2	9
		Expected Count	3.2	2.9	2.9	9.0
		% of Total	2.6%	2.0%	1.3%	6.0%
	Strongly Disagree	Count	1	3	1	5
		Expected Count	1.8	1.6	1.6	5.0
		% of Total	0.7%	2.0%	0.7%	3.3%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.979[a]	8	.539
Likelihood Ratio	7.053	8	.531
Linear-by-Linear Association	1.044	1	.307
N of Valid Cases	151		

a. 9 cells (60, 0%) have expected count less than 5. The minimum expected count is, 32.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q11	Strongly Agree	Count	0	14	45	27	15	101
		Expected Count	2.0	16.1	46.8	23.4	12.7	101.0
		% of Total	0.0%	9.3%	29.8%	17.9%	9.9%	66.9%
	Agree	Count	1	9	18	4	3	35
		Expected Count	.7	5.6	16.2	8.1	4.4	35.0
		% of Total	0.7%	6.0%	11.9%	2.6%	2.0%	23.2%
	Neutral	Count	0	0	0	0	1	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%
	Disagree	Count	2	1	3	3	0	9
		Expected Count	.2	1.4	4.2	2.1	1.1	9.0
		% of Total	1.3%	0.7%	2.0%	2.0%	0.0%	6.0%
	Strongly Disagree	Count	0	0	4	1	0	5
		Expected Count	.1	.8	2.3	1.2	.6	5.0
		% of Total	0.0%	0.0%	2.6%	0.7%	0.0%	3.3%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.541[a]	16	.001
Likelihood Ratio	27.796	16	.033
Linear-by-Linear Association	3.815	1	.051
N of Valid Cases	151		

a. 18 cells (72, 0%) have expected count less than 5. The minimum expected count is, 02.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q11	Strongly Agree	Count	7	36	28	30	101
		Expected Count	11.4	36.8	27.4	25.4	101.0
		% of Total	4.6%	23.8%	18.5%	19.9%	66.9%
	Agree	Count	8	14	7	6	35
		Expected Count	3.9	12.7	9.5	8.8	35.0
		% of Total	5.3%	9.3%	4.6%	4.0%	23.2%
	Neutral	Count	0	0	1	0	1
		Expected Count	.1	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.7%
	Disagree	Count	2	2	4	1	9
		Expected Count	1.0	3.3	2.4	2.3	9.0
		% of Total	1.3%	1.3%	2.6%	0.7%	6.0%
	Strongly Disagree	Count	0	3	1	1	5
		Expected Count	.6	1.8	1.4	1.3	5.0
		% of Total	0.0%	2.0%	0.7%	0.7%	3.3%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.708[a]	12	.205
Likelihood Ratio	15.407	12	.220
Linear-by-Linear Association	2.362	1	.124
N of Valid Cases	151		

a. 13 cells (65, 0%) have expected count less than 5. The minimum expected count is, 11.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q12	Strongly Agree	Count	13	13	26
		Expected Count	10.5	15.5	26.0
		% of Total	8.6%	8.6%	17.2%
	Agree	Count	23	33	56
		Expected Count	22.6	33.4	56.0
		% of Total	15.2%	21.9%	37.1%
	Neutral	Count	4	7	11
		Expected Count	4.4	6.6	11.0
		% of Total	2.6%	4.6%	7.3%
	Disagree	Count	19	27	46
		Expected Count	18.6	27.4	46.0
		% of Total	12.6%	17.9%	30.5%
	Strongly Disagree	Count	2	10	12
		Expected Count	4.8	7.2	12.0
		% of Total	1.3%	6.6%	7.9%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.903[a]	4	.419
Likelihood Ratio	4.240	4	.374
Linear-by-Linear Association	1.914	1	.167
N of Valid Cases	151		

a. 2 cells (20, 0%) have expected count less than 5. The minimum expected count is 4, 44.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q12	Strongly Agree	Count	0	9	11	4	2	26
		Expected Count	.2	11.8	7.4	5.7	.9	26.0
		% of Total	0.0%	6.2%	7.6%	2.8%	1.4%	17.9%
	Agree	Count	0	26	15	11	1	53
		Expected Count	.4	24.1	15.0	11.7	1.8	53.0
		% of Total	0.0%	17.9%	10.3%	7.6%	0.7%	36.6%
	Neutral	Count	1	3	4	3	0	11
		Expected Count	.1	5.0	3.1	2.4	.4	11.0
		% of Total	0.7%	2.1%	2.8%	2.1%	0.0%	7.6%
	Disagree	Count	0	24	9	8	2	43
		Expected Count	.3	19.6	12.2	9.5	1.5	43.0
		% of Total	0.0%	16.6%	6.2%	5.5%	1.4%	29.7%
	Strongly Disagree	Count	0	4	2	6	0	12
		Expected Count	.1	5.5	3.4	2.6	.4	12.0
		% of Total	0.0%	2.8%	1.4%	4.1%	0.0%	8.3%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.546[a]	16	.047
Likelihood Ratio	19.038	16	.267
Linear-by-Linear Association	.000	1	.989
N of Valid Cases	145		

a. 14 cells (56, 0%) have expected count less than 5. The minimum expected count is, 08.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q12	Strongly Agree	Count	10	8	8	26
		Expected Count	9.1	8.4	8.4	26.0
		% of Total	6.6%	5.3%	5.3%	17.2%
	Agree	Count	21	18	17	56
		Expected Count	19.7	18.2	18.2	56.0
		% of Total	13.9%	11.9%	11.3%	37.1%
	Neutral	Count	3	4	4	11
		Expected Count	3.9	3.6	3.6	11.0
		% of Total	2.0%	2.6%	2.6%	7.3%
	Disagree	Count	17	17	12	46
		Expected Count	16.1	14.9	14.9	46.0
		% of Total	11.3%	11.3%	7.9%	30.5%
	Strongly Disagree	Count	2	2	8	12
		Expected Count	4.2	3.9	3.9	12.0
		% of Total	1.3%	1.3%	5.3%	7.9%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.913[a]	8	.442
Likelihood Ratio	7.415	8	.493
Linear-by-Linear Association	1.027	1	.311
N of Valid Cases	151		

a. 6 cells (40, 0%) have expected count less than 5. The minimum expected count is 3, 57.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q12	Strongly Agree	Count	0	5	13	5	3	26
		Expected Count	.5	4.1	12.1	6.0	3.3	26.0
		% of Total	0.0%	3.3%	8.6%	3.3%	2.0%	17.2%
	Agree	Count	1	7	29	13	6	56
		Expected Count	1.1	8.9	26.0	13.0	7.0	56.0
		% of Total	0.7%	4.6%	19.2%	8.6%	4.0%	37.1%
	Neutral	Count	0	3	3	5	0	11
		Expected Count	.2	1.7	5.1	2.5	1.4	11.0
		% of Total	0.0%	2.0%	2.0%	3.3%	0.0%	7.3%
	Disagree	Count	2	7	20	8	9	46
		Expected Count	.9	7.3	21.3	10.7	5.8	46.0
		% of Total	1.3%	4.6%	13.2%	5.3%	6.0%	30.5%
	Strongly Disagree	Count	0	2	5	4	1	12
		Expected Count	.2	1.9	5.6	2.8	1.5	12.0
		% of Total	0.0%	1.3%	3.3%	2.6%	0.7%	7.9%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.456[a]	16	.712
Likelihood Ratio	13.747	16	.618
Linear-by-Linear Association	.154	1	.694
N of Valid Cases	151		

a. 13 cells (52, 0%) have expected count less than 5. The minimum expected count is, 22.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q12	Strongly Agree	Count	4	10	3	9	26
		Expected Count	2.9	9.5	7.1	6.5	26.0
		% of Total	2.6%	6.6%	2.0%	6.0%	17.2%
	Agree	Count	5	25	14	12	56
		Expected Count	6.3	20.4	15.2	14.1	56.0
		% of Total	3.3%	16.6%	9.3%	7.9%	37.1%
	Neutral	Count	1	2	7	1	11
		Expected Count	1.2	4.0	3.0	2.8	11.0
		% of Total	0.7%	1.3%	4.6%	0.7%	7.3%
	Disagree	Count	7	16	12	11	46
		Expected Count	5.2	16.8	12.5	11.6	46.0
		% of Total	4.6%	10.6%	7.9%	7.3%	30.5%
	Strongly Disagree	Count	0	2	5	5	12
		Expected Count	1.4	4.4	3.3	3.0	12.0
		% of Total	0.0%	1.3%	3.3%	3.3%	7.9%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.556[a]	12	.100
Likelihood Ratio	19.413	12	.079
Linear-by-Linear Association	.982	1	.322
N of Valid Cases	151		

a. 9 cells (45, 0%) have expected count less than 5. The minimum expected count is 1, 24.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q13	Strongly Agree	Count	0	3	3
		Expected Count	1.2	1.8	3.0
		% of Total	0.0%	2.0%	2.0%
	Agree	Count	18	24	42
		Expected Count	17.0	25.0	42.0
		% of Total	11.9%	15.9%	27.8%
	Neutral	Count	5	7	12
		Expected Count	4.8	7.2	12.0
		% of Total	3.3%	4.6%	7.9%
	Disagree	Count	34	48	82
		Expected Count	33.1	48.9	82.0
		% of Total	22.5%	31.8%	54.3%
	Strongly Disagree	Count	4	8	12
		Expected Count	4.8	7.2	12.0
		% of Total	2.6%	5.3%	7.9%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.434[a]	4	.656
Likelihood Ratio	3.511	4	.476
Linear-by-Linear Association	.008	1	.928
N of Valid Cases	151		

a. 4 cells (40, 0%) have expected count less than 5. The minimum expected count is 1, 21.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q13	Strongly Agree	Count	0	3	0	0	0	3
		Expected Count	.0	1.4	.8	.7	.1	3.0
		% of Total	0.0%	2.1%	0.0%	0.0%	0.0%	2.1%
	Agree	Count	0	19	7	12	2	40
		Expected Count	.3	18.2	11.3	8.8	1.4	40.0
		% of Total	0.0%	13.1%	4.8%	8.3%	1.4%	27.6%
	Neutral	Count	1	4	2	3	1	11
		Expected Count	.1	5.0	3.1	2.4	.4	11.0
		% of Total	0.7%	2.8%	1.4%	2.1%	0.7%	7.6%
	Disagree	Count	0	33	30	14	2	79
		Expected Count	.5	36.0	22.3	17.4	2.7	79.0
		% of Total	0.0%	22.8%	20.7%	9.7%	1.4%	54.5%
	Strongly Disagree	Count	0	7	2	3	0	12
		Expected Count	.1	5.5	3.4	2.6	.4	12.0
		% of Total	0.0%	4.8%	1.4%	2.1%	0.0%	8.3%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.804[a]	16	.057
Likelihood Ratio	20.040	16	.218
Linear-by-Linear Association	.112	1	.738
N of Valid Cases	145		

a. 17 cells (68, 0%) have expected count less than 5. The minimum expected count is, 02.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q13	Strongly Agree	Count	2	1	0	3
		Expected Count	1.1	1.0	1.0	3.0
		% of Total	1.3%	0.7%	0.0%	2.0%
	Agree	Count	15	12	15	42
		Expected Count	14.7	13.6	13.6	42.0
		% of Total	9.9%	7.9%	9.9%	27.8%
	Neutral	Count	3	5	4	12
		Expected Count	4.2	3.9	3.9	12.0
		% of Total	2.0%	3.3%	2.6%	7.9%
	Disagree	Count	30	26	26	82
		Expected Count	28.8	26.6	26.6	82.0
		% of Total	19.9%	17.2%	17.2%	54.3%
	Strongly Disagree	Count	3	5	4	12
		Expected Count	4.2	3.9	3.9	12.0
		% of Total	2.0%	3.3%	2.6%	7.9%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.574[a]	8	.893
Likelihood Ratio	4.397	8	.820
Linear-by-Linear Association	.219	1	.640
N of Valid Cases	151		

a. 9 cells (60, 0%) have expected count less than 5. The minimum expected count is, 97.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q13	Strongly Agree	Count	0	0	1	2	0	3
		Expected Count	.1	.5	1.4	.7	.4	3.0
		% of Total	0.0%	0.0%	0.7%	1.3%	0.0%	2.0%
	Agree	Count	2	7	18	7	8	42
		Expected Count	.8	6.7	19.5	9.7	5.3	42.0
		% of Total	1.3%	4.6%	11.9%	4.6%	5.3%	27.8%
	Neutral	Count	0	3	4	5	0	12
		Expected Count	.2	1.9	5.6	2.8	1.5	12.0
		% of Total	0.0%	2.0%	2.6%	3.3%	0.0%	7.9%
	Disagree	Count	1	12	40	19	10	82
		Expected Count	1.6	13.0	38.0	19.0	10.3	82.0
		% of Total	0.7%	7.9%	26.5%	12.6%	6.6%	54.3%
	Strongly Disagree	Count	0	2	7	2	1	12
		Expected Count	.2	1.9	5.6	2.8	1.5	12.0
		% of Total	0.0%	1.3%	4.6%	1.3%	0.7%	7.9%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.417[a]	16	.642
Likelihood Ratio	14.602	16	.554
Linear-by-Linear Association	.085	1	.770
N of Valid Cases	151		

a. 15 cells (60, 0%) have expected count less than 5. The minimum expected count is, 06.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q13	Strongly Agree	Count	0	1	0	2	3
		Expected Count	.3	1.1	.8	.8	3.0
		% of Total	0.0%	0.7%	0.0%	1.3%	2.0%
	Agree	Count	7	12	11	12	42
		Expected Count	4.7	15.3	11.4	10.6	42.0
		% of Total	4.6%	7.9%	7.3%	7.9%	27.8%
	Neutral	Count	0	4	6	2	12
		Expected Count	1.4	4.4	3.3	3.0	12.0
		% of Total	0.0%	2.6%	4.0%	1.3%	7.9%
	Disagree	Count	8	32	22	20	82
		Expected Count	9.2	29.9	22.3	20.6	82.0
		% of Total	5.3%	21.2%	14.6%	13.2%	54.3%
	Strongly Disagree	Count	2	6	2	2	12
		Expected Count	1.4	4.4	3.3	3.0	12.0
		% of Total	1.3%	4.0%	1.3%	1.3%	7.9%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.346[a]	12	.500
Likelihood Ratio	12.721	12	.390
Linear-by-Linear Association	.994	1	.319
N of Valid Cases	151		

a. 13 cells (65, 0%) have expected count less than 5. The minimum expected count is, 34.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q14	Strongly Agree	Count	29	47	76
		Expected Count	30.7	45.3	76.0
		% of Total	19.2%	31.1%	50.3%
	Agree	Count	30	37	67
		Expected Count	27.1	39.9	67.0
		% of Total	19.9%	24.5%	44.4%
	Neutral	Count	1	1	2
		Expected Count	.8	1.2	2.0
		% of Total	0.7%	0.7%	1.3%
	Disagree	Count	1	5	6
		Expected Count	2.4	3.6	6.0
		% of Total	0.7%	3.3%	4.0%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.172[a]	3	.538
Likelihood Ratio	2.343	3	.504
Linear-by-Linear Association	.049	1	.825
N of Valid Cases	151		

a. 4 cells (50, 0%) have expected count less than 5. The minimum expected count is, 81.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q14	Strongly Agree	Count	0	36	22	13	3	74
		Expected Count	.5	33.7	20.9	16.3	2.6	74.0
		% of Total	0.0%	24.8%	15.2%	9.0%	2.1%	51.0%
	Agree	Count	1	29	18	14	1	63
		Expected Count	.4	28.7	17.8	13.9	2.2	63.0
		% of Total	0.7%	20.0%	12.4%	9.7%	0.7%	43.4%
	Neutral	Count	0	0	1	1	0	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.0%	0.0%	0.7%	0.7%	0.0%	1.4%
	Disagree	Count	0	1	0	4	1	6
		Expected Count	.0	2.7	1.7	1.3	.2	6.0
		% of Total	0.0%	0.7%	0.0%	2.8%	0.7%	4.1%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	16.175[a]	12	.183
Likelihood Ratio	16.134	12	.185
Linear-by-Linear Association	4.853	1	.028
N of Valid Cases	145		

a. 14 cells (70, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q14	Strongly Agree	Count	30	25	21	76
		Expected Count	26.7	24.7	24.7	76.0
		% of Total	19.9%	16.6%	13.9%	50.3%
	Agree	Count	22	22	23	67
		Expected Count	23.5	21.7	21.7	67.0
		% of Total	14.6%	14.6%	15.2%	44.4%
	Neutral	Count	0	1	1	2
		Expected Count	.7	.6	.6	2.0
		% of Total	0.0%	0.7%	0.7%	1.3%
	Disagree	Count	1	1	4	6
		Expected Count	2.1	1.9	1.9	6.0
		% of Total	0.7%	0.7%	2.6%	4.0%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.424[a]	6	.491

Likelihood Ratio	5.817	6	.444
Linear-by-Linear Association	3.165	1	.075
N of Valid Cases	151		

a. 6 cells (50, 0%) have expected count less than 5. The minimum expected count is, 65.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q14	Strongly Agree	Count	0	16	37	17	6	76
		Expected Count	1.5	12.1	35.2	17.6	9.6	76.0
		% of Total	0.0%	10.6%	24.5%	11.3%	4.0%	50.3%
	Agree	Count	2	7	31	17	10	67
		Expected Count	1.3	10.6	31.1	15.5	8.4	67.0
		% of Total	1.3%	4.6%	20.5%	11.3%	6.6%	44.4%
	Neutral	Count	1	0	1	0	0	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.7%	0.0%	0.7%	0.0%	0.0%	1.3%
	Disagree	Count	0	1	1	1	3	6
		Expected Count	.1	1.0	2.8	1.4	.8	6.0
		% of Total	0.0%	0.7%	0.7%	0.7%	2.0%	4.0%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.532[a]	12	.000

Likelihood Ratio	20.210	12	.063
Linear-by-Linear Association	3.124	1	.077
N of Valid Cases	151		

a. 12 cells (60, 0%) have expected count less than 5. The minimum expected count is, 04.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q14	Strongly Agree	Count	11	30	20	15	76
		Expected Count	8.6	27.7	20.6	19.1	76.0
		% of Total	7.3%	19.9%	13.2%	9.9%	50.3%
	Agree	Count	5	24	20	18	67
		Expected Count	7.5	24.4	18.2	16.9	67.0
		% of Total	3.3%	15.9%	13.2%	11.9%	44.4%
	Neutral	Count	1	0	0	1	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.7%	0.0%	0.0%	0.7%	1.3%
	Disagree	Count	0	1	1	4	6
		Expected Count	.7	2.2	1.6	1.5	6.0
		% of Total	0.0%	0.7%	0.7%	2.6%	4.0%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.018[a]	9	.162
Likelihood Ratio	12.649	9	.179

Linear-by-Linear Association	6.045	1	.014
N of Valid Cases	151		

a. 8 cells (50, 0%) have expected count less than 5. The minimum expected count is, 23.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q15	Strongly Agree	Count	2	9	11
		Expected Count	4.4	6.6	11.0
		% of Total	1.3%	6.0%	7.3%
	Agree	Count	28	39	67
		Expected Count	27.1	39.9	67.0
		% of Total	18.5%	25.8%	44.4%
	Neutral	Count	18	25	43
		Expected Count	17.4	25.6	43.0
		% of Total	11.9%	16.6%	28.5%
	Disagree	Count	13	16	29
		Expected Count	11.7	17.3	29.0
		% of Total	8.6%	10.6%	19.2%
	Strongly Disagree	Count	0	1	1
		Expected Count	.4	.6	1.0
		% of Total	0.0%	0.7%	0.7%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.261[a]	4	.515
Likelihood Ratio	3.870	4	.424
Linear-by-Linear Association	.665	1	.415
N of Valid Cases	151		

a. 3 cells (30, 0%) have expected count less than 5. The minimum expected count is, 40.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q15	Strongly Agree	Count	1	6	1	1	1	10
		Expected Count	.1	4.6	2.8	2.2	.3	10.0
		% of Total	0.7%	4.1%	0.7%	0.7%	0.7%	6.9%
	Agree	Count	0	26	15	23	2	66
		Expected Count	.5	30.0	18.7	14.6	2.3	66.0
		% of Total	0.0%	17.9%	10.3%	15.9%	1.4%	45.5%
	Neutral	Count	0	21	11	6	1	39
		Expected Count	.3	17.8	11.0	8.6	1.3	39.0
		% of Total	0.0%	14.5%	7.6%	4.1%	0.7%	26.9%
	Disagree	Count	0	13	13	2	1	29
		Expected Count	.2	13.2	8.2	6.4	1.0	29.0
		% of Total	0.0%	9.0%	9.0%	1.4%	0.7%	20.0%
	Strongly Disagree	Count	0	0	1	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.067[a]	16	.007
Likelihood Ratio	25.101	16	.068
Linear-by-Linear Association	1.010	1	.315
N of Valid Cases	145		

a. 16 cells (64, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q15	Strongly Agree	Count	3	5	3	11
		Expected Count	3.9	3.6	3.6	11.0
		% of Total	2.0%	3.3%	2.0%	7.3%
	Agree	Count	25	16	26	67
		Expected Count	23.5	21.7	21.7	67.0
		% of Total	16.6%	10.6%	17.2%	44.4%
	Neutral	Count	15	13	15	43
		Expected Count	15.1	14.0	14.0	43.0
		% of Total	9.9%	8.6%	9.9%	28.5%
	Disagree	Count	10	15	4	29
		Expected Count	10.2	9.4	9.4	29.0
		% of Total	6.6%	9.9%	2.6%	19.2%
	Strongly Disagree	Count	0	0	1	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.7%	0.7%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.960[a]	8	.153
Likelihood Ratio	12.543	8	.129
Linear-by-Linear Association	.076	1	.782
N of Valid Cases	151		

a. 6 cells (40, 0%) have expected count less than 5. The minimum expected count is, 32.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q15	Strongly Agree	Count	0	1	4	4	2	11
		Expected Count	.2	1.7	5.1	2.5	1.4	11.0
		% of Total	0.0%	0.7%	2.6%	2.6%	1.3%	7.3%
	Agree	Count	1	14	22	17	13	67
		Expected Count	1.3	10.6	31.1	15.5	8.4	67.0
		% of Total	0.7%	9.3%	14.6%	11.3%	8.6%	44.4%
	Neutral	Count	1	4	26	8	4	43
		Expected Count	.9	6.8	19.9	10.0	5.4	43.0
		% of Total	0.7%	2.6%	17.2%	5.3%	2.6%	28.5%
	Disagree	Count	1	5	17	6	0	29
		Expected Count	.6	4.6	13.4	6.7	3.6	29.0
		% of Total	0.7%	3.3%	11.3%	4.0%	0.0%	19.2%
	Strongly Disagree	Count	0	0	1	0	0	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.242[a]	16	.310
Likelihood Ratio	22.247	16	.135
Linear-by-Linear Association	5.939	1	.015
N of Valid Cases	151		

a. 14 cells (56, 0%) have expected count less than 5. The minimum expected count is, 02.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q15	Strongly Agree	Count	0	4	1	6	11
		Expected Count	1.2	4.0	3.0	2.8	11.0
		% of Total	0.0%	2.6%	0.7%	4.0%	7.3%
	Agree	Count	8	18	20	21	67
		Expected Count	7.5	24.4	18.2	16.9	67.0
		% of Total	5.3%	11.9%	13.2%	13.9%	44.4%
	Neutral	Count	4	17	14	8	43
		Expected Count	4.8	15.7	11.7	10.8	43.0
		% of Total	2.6%	11.3%	9.3%	5.3%	28.5%
	Disagree	Count	5	15	6	3	29
		Expected Count	3.3	10.6	7.9	7.3	29.0
		% of Total	3.3%	9.9%	4.0%	2.0%	19.2%
	Strongly Disagree	Count	0	1	0	0	1
		Expected Count	.1	.4	.3	.3	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.204[a]	12	.110
Likelihood Ratio	19.792	12	.071
Linear-by-Linear Association	10.255	1	.001
N of Valid Cases	151		

a. 10 cells (50, 0%) have expected count less than 5. The minimum expected count is, 11.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q16	Strongly Agree	Count	45	67	112
		Expected Count	45.2	66.8	112.0
		% of Total	29.8%	44.4%	74.2%
	Agree	Count	15	20	35
		Expected Count	14.1	20.9	35.0
		% of Total	9.9%	13.2%	23.2%
	Neutral	Count	1	1	2
		Expected Count	.8	1.2	2.0
		% of Total	0.7%	0.7%	1.3%
	Disagree	Count	0	2	2
		Expected Count	.8	1.2	2.0
		% of Total	0.0%	1.3%	1.3%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.522[a]	3	.677
Likelihood Ratio	2.235	3	.525
Linear-by-Linear Association	.120	1	.729
N of Valid Cases	151		

a. 4 cells (50, 0%) have expected count less than 5. The minimum expected count is, 81.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q16	Strongly Agree	Count	1	51	31	22	3	108
		Expected Count	.7	49.2	30.5	23.8	3.7	108.0
		% of Total	0.7%	35.2%	21.4%	15.2%	2.1%	74.5%
	Agree	Count	0	15	9	8	1	33
		Expected Count	.2	15.0	9.3	7.3	1.1	33.0
		% of Total	0.0%	10.3%	6.2%	5.5%	0.7%	22.8%
	Neutral	Count	0	0	1	1	0	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.0%	0.0%	0.7%	0.7%	0.0%	1.4%
	Disagree	Count	0	0	0	1	1	2
		Expected Count	.0	.9	.6	.4	.1	2.0
		% of Total	0.0%	0.0%	0.0%	0.7%	0.7%	1.4%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.572[a]	12	.129

Likelihood Ratio	10.763	12	.549
Linear-by-Linear Association	4.988	1	.026
N of Valid Cases	145		

a. 14 cells (70, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q16	Strongly Agree	Count	40	39	33	112
		Expected Count	39.3	36.3	36.3	112.0
		% of Total	26.5%	25.8%	21.9%	74.2%
	Agree	Count	12	10	13	35
		Expected Count	12.3	11.4	11.4	35.0
		% of Total	7.9%	6.6%	8.6%	23.2%
	Neutral	Count	1	0	1	2
		Expected Count	.7	.6	.6	2.0
		% of Total	0.7%	0.0%	0.7%	1.3%
	Disagree	Count	0	0	2	2
		Expected Count	.7	.6	.6	2.0
		% of Total	0.0%	0.0%	1.3%	1.3%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.049[a]	6	.418

Likelihood Ratio	6.996	6	.321
Linear-by-Linear Association	.981	1	.322
N of Valid Cases	151		

a. 6 cells (50, 0%) have expected count less than 5. The minimum expected count is, 65.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q16	Strongly Agree	Count	1	20	57	26	8	112
		Expected Count	2.2	17.8	51.9	26.0	14.1	112.0
		% of Total	0.7%	13.2%	37.7%	17.2%	5.3%	74.2%
	Agree	Count	2	3	13	8	9	35
		Expected Count	.7	5.6	16.2	8.1	4.4	35.0
		% of Total	1.3%	2.0%	8.6%	5.3%	6.0%	23.2%
	Neutral	Count	0	1	0	1	0	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.0%	0.7%	0.0%	0.7%	0.0%	1.3%
	Disagree	Count	0	0	0	0	2	2
		Expected Count	.0	.3	.9	.5	.3	2.0
		% of Total	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.343[a]	12	.002

Likelihood Ratio	24.240	12	.019
Linear-by-Linear Association	7.735	1	.005
N of Valid Cases	151		

a. 13 cells (65, 0%) have expected count less than 5. The minimum expected count is, 04.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q16	Strongly Agree	Count	13	46	27	26	112
		Expected Count	12.6	40.8	30.4	28.2	112.0
		% of Total	8.6%	30.5%	17.9%	17.2%	74.2%
	Agree	Count	4	9	13	9	35
		Expected Count	3.9	12.7	9.5	8.8	35.0
		% of Total	2.6%	6.0%	8.6%	6.0%	23.2%
	Neutral	Count	0	0	1	1	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.0%	0.0%	0.7%	0.7%	1.3%
	Disagree	Count	0	0	0	2	2
		Expected Count	.2	.7	.5	.5	2.0
		% of Total	0.0%	0.0%	0.0%	1.3%	1.3%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.398[a]	9	.249
Likelihood Ratio	11.721	9	.229
Linear-by-Linear Association	5.064	1	.024

N of Valid Cases	151		

a. 9 cells (56, 3%) have expected count less than 5. The minimum expected count is, 23.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q17	Strongly Agree	Count	3	5	8
		Expected Count	3.2	4.8	8.0
		% of Total	2.0%	3.3%	5.3%
	Agree	Count	9	12	21
		Expected Count	8.5	12.5	21.0
		% of Total	6.0%	7.9%	13.9%
	Neutral	Count	3	5	8
		Expected Count	3.2	4.8	8.0
		% of Total	2.0%	3.3%	5.3%
	Disagree	Count	41	61	102
		Expected Count	41.2	60.8	102.0
		% of Total	27.2%	40.4%	67.5%
	Strongly Disagree	Count	5	7	12
		Expected Count	4.8	7.2	12.0
		% of Total	3.3%	4.6%	7.9%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.118[a]	4	.998
Likelihood Ratio	.118	4	.998
Linear-by-Linear Association	.000	1	.994
N of Valid Cases	151		

a. 5 cells (50,0%) have expected count less than 5. The minimum expected count is 3,23.

CROSSTABULATIONS

			Q2					Total
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	
Q17	Strongly Agree	Count	1	4	0	3	0	8
		Expected Count	.1	3.6	2.3	1.8	.3	8.0
		% of Total	0.7%	2.8%	0.0%	2.1%	0.0%	5.5%
	Agree	Count	0	9	6	4	1	20
		Expected Count	.1	9.1	5.7	4.4	.7	20.0
		% of Total	0.0%	6.2%	4.1%	2.8%	0.7%	13.8%
	Neutral	Count	0	4	1	2	1	8
		Expected Count	.1	3.6	2.3	1.8	.3	8.0
		% of Total	0.0%	2.8%	0.7%	1.4%	0.7%	5.5%
	Disagree	Count	0	43	29	22	3	97
		Expected Count	.7	44.2	27.4	21.4	3.3	97.0
		% of Total	0.0%	29.7%	20.0%	15.2%	2.1%	66.9%
	Strongly Disagree	Count	0	6	5	1	0	12
		Expected Count	.1	5.5	3.4	2.6	.4	12.0
		% of Total	0.0%	4.1%	3.4%	0.7%	0.0%	8.3%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.859[a]	16	.056
Likelihood Ratio	16.947	16	.389
Linear-by-Linear Association	.005	1	.945
N of Valid Cases	145		

a. 19 cells (76, 0%) have expected count less than 5. The minimum expected count is, 06.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q17	Strongly Agree	Count	3	3	2	8
		Expected Count	2.8	2.6	2.6	8.0
		% of Total	2.0%	2.0%	1.3%	5.3%
	Agree	Count	10	5	6	21
		Expected Count	7.4	6.8	6.8	21.0
		% of Total	6.6%	3.3%	4.0%	13.9%
	Neutral	Count	1	4	3	8
		Expected Count	2.8	2.6	2.6	8.0
		% of Total	0.7%	2.6%	2.0%	5.3%
	Disagree	Count	34	33	35	102
		Expected Count	35.8	33.1	33.1	102.0
		% of Total	22.5%	21.9%	23.2%	67.5%
	Strongly Disagree	Count	5	4	3	12
		Expected Count	4.2	3.9	3.9	12.0
		% of Total	3.3%	2.6%	2.0%	7.9%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.273[a]	8	.832
Likelihood Ratio	4.524	8	.807
Linear-by-Linear Association	.313	1	.576
N of Valid Cases	151		

a. 9 cells (60, 0%) have expected count less than 5. The minimum expected count is 2, 60.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q17	Strongly Agree	Count	0	4	0	4	0	8
		Expected Count	.2	1.3	3.7	1.9	1.0	8.0
		% of Total	0.0%	2.6%	0.0%	2.6%	0.0%	5.3%
	Agree	Count	1	3	11	2	4	21
		Expected Count	.4	3.3	9.7	4.9	2.6	21.0
		% of Total	0.7%	2.0%	7.3%	1.3%	2.6%	13.9%
	Neutral	Count	0	2	2	3	1	8
		Expected Count	.2	1.3	3.7	1.9	1.0	8.0
		% of Total	0.0%	1.3%	1.3%	2.0%	0.7%	5.3%
	Disagree	Count	2	12	52	22	14	102
		Expected Count	2.0	16.2	47.3	23.6	12.8	102.0
		% of Total	1.3%	7.9%	34.4%	14.6%	9.3%	67.5%
	Strongly Disagree	Count	0	3	5	4	0	12
		Expected Count	.2	1.9	5.6	2.8	1.5	12.0
		% of Total	0.0%	2.0%	3.3%	2.6%	0.0%	7.9%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.433[a]	16	.103
Likelihood Ratio	27.525	16	.036
Linear-by-Linear Association	.237	1	.627
N of Valid Cases	151		

a. 19 cells (76, 0%) have expected count less than 5. The minimum expected count is, 16.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q17	Strongly Agree	Count	2	0	3	3	8
		Expected Count	.9	2.9	2.2	2.0	8.0
		% of Total	1.3%	0.0%	2.0%	2.0%	5.3%
	Agree	Count	4	5	7	5	21
		Expected Count	2.4	7.6	5.7	5.3	21.0
		% of Total	2.6%	3.3%	4.6%	3.3%	13.9%
	Neutral	Count	2	1	2	3	8
		Expected Count	.9	2.9	2.2	2.0	8.0
		% of Total	1.3%	0.7%	1.3%	2.0%	5.3%
	Disagree	Count	7	45	24	26	102
		Expected Count	11.5	37.2	27.7	25.7	102.0
		% of Total	4.6%	29.8%	15.9%	17.2%	67.5%
	Strongly Disagree	Count	2	4	5	1	12
		Expected Count	1.4	4.4	3.3	3.0	12.0
		% of Total	1.3%	2.6%	3.3%	0.7%	7.9%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.042[a]	12	.148
Likelihood Ratio	19.951	12	.068
Linear-by-Linear Association	.334	1	.563
N of Valid Cases	151		

a. 13 cells (65,0%) have expected count less than 5. The minimum expected count is ,90.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q18	Strongly Agree	Count	26	42	68
		Expected Count	27.5	40.5	68.0
		% of Total	17.2%	27.8%	45.0%
	Agree	Count	33	48	81
		Expected Count	32.7	48.3	81.0
		% of Total	21.9%	31.8%	53.6%
	Neutral	Count	1	0	1
		Expected Count	.4	.6	1.0
		% of Total	0.7%	0.0%	0.7%
	Disagree	Count	1	0	1
		Expected Count	.4	.6	1.0
		% of Total	0.7%	0.0%	0.7%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.087[a]	3	.378
Likelihood Ratio	3.762	3	.288
Linear-by-Linear Association	.973	1	.324
N of Valid Cases	151		

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is ,40.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q18	Strongly Agree	Count	0	28	20	14	2	64
		Expected Count	.4	29.1	18.1	14.1	2.2	64.0
		% of Total	0.0%	19.3%	13.8%	9.7%	1.4%	44.1%
	Agree	Count	1	36	21	18	3	79
		Expected Count	.5	36.0	22.3	17.4	2.7	79.0
		% of Total	0.7%	24.8%	14.5%	12.4%	2.1%	54.5%
	Neutral	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
	Disagree	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.607[a]	12	.990

Likelihood Ratio	4.721	12	.967
Linear-by-Linear Association	.439	1	.508
N of Valid Cases	145		

a. 14 cells (70,0%) have expected count less than 5. The minimum expected count is ,01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q18	Strongly Agree	Count	22	22	24	68
		Expected Count	23.9	22.1	22.1	68.0
		% of Total	14.6%	14.6%	15.9%	45.0%
	Agree	Count	30	27	24	81
		Expected Count	28.4	26.3	26.3	81.0
		% of Total	19.9%	17.9%	15.9%	53.6%
	Neutral	Count	0	0	1	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.7%	0.7%
	Disagree	Count	1	0	0	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.7%	0.0%	0.0%	0.7%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.551[a]	6	.603

Likelihood Ratio	4.969	6	.548
Linear-by-Linear Association	.801	1	.371
N of Valid Cases	151		

a. 6 cells (50,0%) have expected count less than 5. The minimum expected count is ,32.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q18	Strongly Agree	Count	0	13	34	15	6	68
		Expected Count	1.4	10.8	31.5	15.8	8.6	68.0
		% of Total	0.0%	8.6%	22.5%	9.9%	4.0%	45.0%
	Agree	Count	3	11	34	20	13	81
		Expected Count	1.6	12.9	37.5	18.8	10.2	81.0
		% of Total	2.0%	7.3%	22.5%	13.2%	8.6%	53.6%
	Neutral	Count	0	0	1	0	0	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
	Disagree	Count	0	0	1	0	0	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.769[a]	12	.803
Likelihood Ratio	9.654	12	.646
Linear-by-Linear Association	.503	1	.478

N of Valid Cases	151		

a. 12 cells (60,0%) have expected count less than 5. The minimum expected count is ,02.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q18	Strongly Agree	Count	9	26	18	15	68
		Expected Count	7.7	24.8	18.5	17.1	68.0
		% of Total	6.0%	17.2%	11.9%	9.9%	45.0%
	Agree	Count	8	29	22	22	81
		Expected Count	9.1	29.5	22.0	20.4	81.0
		% of Total	5.3%	19.2%	14.6%	14.6%	53.6%
	Neutral	Count	0	0	1	0	1
		Expected Count	.1	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.7%
	Disagree	Count	0	0	0	1	1
		Expected Count	.1	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.0%	0.7%	0.7%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.500[a]	9	.689
Likelihood Ratio	6.211	9	.719
Linear-by-Linear Association	1.896	1	.168

N of Valid Cases	151		

a. 8 cells (50,0%) have expected count less than 5. The minimum expected count is ,11.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q19	Strongly Agree	Count	14	16	30
		Expected Count	12.1	17.9	30.0
		% of Total	9.3%	10.6%	19.9%
	Agree	Count	34	52	86
		Expected Count	34.7	51.3	86.0
		% of Total	22.5%	34.4%	57.0%
	Neutral	Count	3	1	4
		Expected Count	1.6	2.4	4.0
		% of Total	2.0%	0.7%	2.6%
	Disagree	Count	7	17	24
		Expected Count	9.7	14.3	24.0
		% of Total	4.6%	11.3%	15.9%
	Strongly Disagree	Count	3	4	7
		Expected Count	2.8	4.2	7.0
		% of Total	2.0%	2.6%	4.6%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.780[a]	4	.437
Likelihood Ratio	3.811	4	.432
Linear-by-Linear Association	.658	1	.417
N of Valid Cases	151		

a. 4 cells (40,0%) have expected count less than 5. The minimum expected count is 1,62.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q19	Strongly Agree	Count	0	16	6	5	1	28
		Expected Count	.2	12.7	7.9	6.2	1.0	28.0
		% of Total	0.0%	11.0%	4.1%	3.4%	0.7%	19.3%
	Agree	Count	1	36	25	16	4	82
		Expected Count	.6	37.3	23.2	18.1	2.8	82.0
		% of Total	0.7%	24.8%	17.2%	11.0%	2.8%	56.6%
	Neutral	Count	0	2	2	0	0	4
		Expected Count	.0	1.8	1.1	.9	.1	4.0
		% of Total	0.0%	1.4%	1.4%	0.0%	0.0%	2.8%
	Disagree	Count	0	8	8	8	0	24
		Expected Count	.2	10.9	6.8	5.3	.8	24.0
		% of Total	0.0%	5.5%	5.5%	5.5%	0.0%	16.6%
	Strongly Disagree	Count	0	4	0	3	0	7
		Expected Count	.0	3.2	2.0	1.5	.2	7.0
		% of Total	0.0%	2.8%	0.0%	2.1%	0.0%	4.8%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.921[a]	16	.749
Likelihood Ratio	15.748	16	.471
Linear-by-Linear Association	1.010	1	.315
N of Valid Cases	145		

a. 16 cells (64,0%) have expected count less than 5. The minimum expected count is ,03.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q19	Strongly Agree	Count	10	11	9	30
		Expected Count	10.5	9.7	9.7	30.0
		% of Total	6.6%	7.3%	6.0%	19.9%
	Agree	Count	31	27	28	86
		Expected Count	30.2	27.9	27.9	86.0
		% of Total	20.5%	17.9%	18.5%	57.0%
	Neutral	Count	3	1	0	4
		Expected Count	1.4	1.3	1.3	4.0
		% of Total	2.0%	0.7%	0.0%	2.6%
	Disagree	Count	9	7	8	24
		Expected Count	8.4	7.8	7.8	24.0
		% of Total	6.0%	4.6%	5.3%	15.9%
	Strongly Disagree	Count	0	3	4	7
		Expected Count	2.5	2.3	2.3	7.0
		% of Total	0.0%	2.0%	2.6%	4.6%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.610[a]	8	.472
Likelihood Ratio	10.650	8	.222
Linear-by-Linear Association	.559	1	.455
N of Valid Cases	151		

a. 6 cells (40,0%) have expected count less than 5. The minimum expected count is 1,30.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q19	Strongly Agree	Count	1	4	15	8	2	30
		Expected Count	.6	4.8	13.9	7.0	3.8	30.0
		% of Total	0.7%	2.6%	9.9%	5.3%	1.3%	19.9%
	Agree	Count	1	12	41	18	14	86
		Expected Count	1.7	13.7	39.9	19.9	10.8	86.0
		% of Total	0.7%	7.9%	27.2%	11.9%	9.3%	57.0%
	Neutral	Count	0	2	1	0	1	4
		Expected Count	.1	.6	1.9	.9	.5	4.0
		% of Total	0.0%	1.3%	0.7%	0.0%	0.7%	2.6%
	Disagree	Count	1	3	12	7	1	24
		Expected Count	.5	3.8	11.1	5.6	3.0	24.0
		% of Total	0.7%	2.0%	7.9%	4.6%	0.7%	15.9%
	Strongly Disagree	Count	0	3	1	2	1	7
		Expected Count	.1	1.1	3.2	1.6	.9	7.0
		% of Total	0.0%	2.0%	0.7%	1.3%	0.7%	4.6%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.481[a]	16	.490
Likelihood Ratio	15.511	16	.488
Linear-by-Linear Association	.323	1	.570
N of Valid Cases	151		

a. 17 cells (68,0%) have expected count less than 5. The minimum expected count is ,08.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q19	Strongly Agree	Count	2	16	6	6	30
		Expected Count	3.4	10.9	8.1	7.5	30.0
		% of Total	1.3%	10.6%	4.0%	4.0%	19.9%
	Agree	Count	9	29	22	26	86
		Expected Count	9.7	31.3	23.4	21.6	86.0
		% of Total	6.0%	19.2%	14.6%	17.2%	57.0%
	Neutral	Count	2	1	1	0	4
		Expected Count	.5	1.5	1.1	1.0	4.0
		% of Total	1.3%	0.7%	0.7%	0.0%	2.6%
	Disagree	Count	2	8	10	4	24
		Expected Count	2.7	8.7	6.5	6.0	24.0
		% of Total	1.3%	5.3%	6.6%	2.6%	15.9%
	Strongly Disagree	Count	2	1	2	2	7
		Expected Count	.8	2.5	1.9	1.8	7.0
		% of Total	1.3%	0.7%	1.3%	1.3%	4.6%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.105[a]	12	.146
Likelihood Ratio	15.068	12	.238
Linear-by-Linear Association	.013	1	.911
N of Valid Cases	151		

a. 10 cells (50,0%) have expected count less than 5. The minimum expected count is ,45.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q20	Strongly Agree	Count	23	36	59
		Expected Count	23.8	35.2	59.0
		% of Total	15.2%	23.8%	39.1%
	Agree	Count	29	46	75
		Expected Count	30.3	44.7	75.0
		% of Total	19.2%	30.5%	49.7%
	Neutral	Count	8	8	16
		Expected Count	6.5	9.5	16.0
		% of Total	5.3%	5.3%	10.6%
	Disagree	Count	1	0	1
		Expected Count	.4	.6	1.0
		% of Total	0.7%	0.0%	0.7%
Total		Count	61	90	151
		Expected Count	61.0	90.0	151.0
		% of Total	40.4%	59.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.230[a]	3	.526
Likelihood Ratio	2.557	3	.465
Linear-by-Linear Association	.772	1	.380
N of Valid Cases	151		

a. 2 cells (25,0%) have expected count less than 5. The minimum expected count is ,40.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q20	Strongly Agree	Count	0	25	14	16	2	57
		Expected Count	.4	25.9	16.1	12.6	2.0	57.0
		% of Total	0.0%	17.2%	9.7%	11.0%	1.4%	39.3%
	Agree	Count	1	35	20	14	2	72
		Expected Count	.5	32.8	20.4	15.9	2.5	72.0
		% of Total	0.7%	24.1%	13.8%	9.7%	1.4%	49.7%
	Neutral	Count	0	5	7	2	1	15
		Expected Count	.1	6.8	4.2	3.3	.5	15.0
		% of Total	0.0%	3.4%	4.8%	1.4%	0.7%	10.3%
	Disagree	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
Total		Count	1	66	41	32	5	145
		Expected Count	1.0	66.0	41.0	32.0	5.0	145.0
		% of Total	0.7%	45.5%	28.3%	22.1%	3.4%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	7.176[a]	12	.846
Likelihood Ratio	7.627	12	.814
Linear-by-Linear Association	.505	1	.477
N of Valid Cases	145		

a. 13 cells (65,0%) have expected count less than 5. The minimum expected count is ,01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q20	Strongly Agree	Count	18	19	22	59
		Expected Count	20.7	19.1	19.1	59.0
		% of Total	11.9%	12.6%	14.6%	39.1%
	Agree	Count	27	24	24	75
		Expected Count	26.3	24.3	24.3	75.0
		% of Total	17.9%	15.9%	15.9%	49.7%
	Neutral	Count	7	6	3	16
		Expected Count	5.6	5.2	5.2	16.0
		% of Total	4.6%	4.0%	2.0%	10.6%
	Disagree	Count	1	0	0	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.7%	0.0%	0.0%	0.7%
Total		Count	53	49	49	151
		Expected Count	53.0	49.0	49.0	151.0
		% of Total	35.1%	32.5%	32.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.049[a]	6	.670

Likelihood Ratio	4.427	6	.619
Linear-by-Linear Association	2.370	1	.124
N of Valid Cases	151		

a. 3 cells (25,0%) have expected count less than 5. The minimum expected count is ,32.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q20	Strongly Agree	Count	0	13	24	17	5	59
		Expected Count	1.2	9.4	27.4	13.7	7.4	59.0
		% of Total	0.0%	8.6%	15.9%	11.3%	3.3%	39.1%
	Agree	Count	2	10	37	14	12	75
		Expected Count	1.5	11.9	34.8	17.4	9.4	75.0
		% of Total	1.3%	6.6%	24.5%	9.3%	7.9%	49.7%
	Neutral	Count	1	1	8	4	2	16
		Expected Count	.3	2.5	7.4	3.7	2.0	16.0
		% of Total	0.7%	0.7%	5.3%	2.6%	1.3%	10.6%
	Disagree	Count	0	0	1	0	0	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	3	24	70	35	19	151
		Expected Count	3.0	24.0	70.0	35.0	19.0	151.0
		% of Total	2.0%	15.9%	46.4%	23.2%	12.6%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.190[a]	12	.599
Likelihood Ratio	11.389	12	.496
Linear-by-Linear Association	.117	1	.732

N of Valid Cases	151		

a. 11 cells (55,0%) have expected count less than 5. The minimum expected count is ,02.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q20	Strongly Agree	Count	7	20	15	17	59
		Expected Count	6.6	21.5	16.0	14.8	59.0
		% of Total	4.6%	13.2%	9.9%	11.3%	39.1%
	Agree	Count	8	29	21	17	75
		Expected Count	8.4	27.3	20.4	18.9	75.0
		% of Total	5.3%	19.2%	13.9%	11.3%	49.7%
	Neutral	Count	2	6	5	3	16
		Expected Count	1.8	5.8	4.3	4.0	16.0
		% of Total	1.3%	4.0%	3.3%	2.0%	10.6%
	Disagree	Count	0	0	0	1	1
		Expected Count	.1	.4	.3	.3	1.0
		% of Total	0.0%	0.0%	0.0%	0.7%	0.7%
Total		Count	17	55	41	38	151
		Expected Count	17.0	55.0	41.0	38.0	151.0
		% of Total	11.3%	36.4%	27.2%	25.2%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.194[a]	9	.898
Likelihood Ratio	3.994	9	.912
Linear-by-Linear Association	.052	1	.819
N of Valid Cases	151		

a. 7 cells (43,8%) have expected count less than 5. The minimum expected count is ,11.

CROSSTABULATIONS

			Q1		
			Female	Male	Total
Q21	Strongly Agree	Count	38	54	92
		Expected Count	37.4	54.6	92.0
		% of Total	25.3%	36.0%	61.3%
	Agree	Count	14	25	39
		Expected Count	15.9	23.1	39.0
		% of Total	9.3%	16.7%	26.0%
	Neutral	Count	8	10	18
		Expected Count	7.3	10.7	18.0
		% of Total	5.3%	6.7%	12.0%
	Disagree	Count	1	0	1
		Expected Count	.4	.6	1.0
		% of Total	0.7%	0.0%	0.7%
Total		Count	61	89	150
		Expected Count	61.0	89.0	150.0
		% of Total	40.7%	59.3%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.949[a]	3	.583
Likelihood Ratio	2.293	3	.514
Linear-by-Linear Association	.085	1	.771
N of Valid Cases	150		

a. 2 cells (25,0%) have expected count less than 5. The minimum expected count is, 41.

CROSSTABULATIONS

			Q2					
			Diploma	Degree	Honours Degree/Post Graduate Diploma	Master's Degree	Doctorate Degree	Total
Q21	Strongly Agree	Count	0	41	25	21	3	90
		Expected Count	.6	41.3	25.6	19.4	3.1	90.0
		% of Total	0.0%	28.5%	17.4%	14.6%	2.1%	62.5%
	Agree	Count	1	18	9	8	1	37
		Expected Count	.3	17.0	10.5	8.0	1.3	37.0
		% of Total	0.7%	12.5%	6.3%	5.6%	0.7%	25.7%
	Neutral	Count	0	6	7	2	1	16
		Expected Count	.1	7.3	4.6	3.4	.6	16.0
		% of Total	0.0%	4.2%	4.9%	1.4%	0.7%	11.1%
	Disagree	Count	0	1	0	0	0	1
		Expected Count	.0	.5	.3	.2	.0	1.0
		% of Total	0.0%	0.7%	0.0%	0.0%	0.0%	0.7%
Total		Count	1	66	41	31	5	144
		Expected Count	1.0	66.0	41.0	31.0	5.0	144.0
		% of Total	0.7%	45.8%	28.5%	21.5%	3.5%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.091[a]	12	.852
Likelihood Ratio	7.170	12	.846
Linear-by-Linear Association	.204	1	.651

N of Valid Cases	144		

a. 13 cells (65, 0%) have expected count less than 5. The minimum expected count is, 01.

CROSSTABULATIONS

			Q3			
			Senior Manager: Corporate Services	Chief Financial Officer	Municipal Manager	Total
Q21	Strongly Agree	Count	32	31	29	92
		Expected Count	32.5	30.1	29.4	92.0
		% of Total	21.3%	20.7%	19.3%	61.3%
	Agree	Count	14	11	14	39
		Expected Count	13.8	12.7	12.5	39.0
		% of Total	9.3%	7.3%	9.3%	26.0%
	Neutral	Count	6	7	5	18
		Expected Count	6.4	5.9	5.8	18.0
		% of Total	4.0%	4.7%	3.3%	12.0%
	Disagree	Count	1	0	0	1
		Expected Count	.4	.3	.3	1.0
		% of Total	0.7%	0.0%	0.0%	0.7%
Total		Count	53	49	48	150
		Expected Count	53.0	49.0	48.0	150.0
		% of Total	35.3%	32.7%	32.0%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.635[a]	6	.853
Likelihood Ratio	2.882	6	.823

Linear-by-Linear Association	.118	1	.731
N of Valid Cases	150		

a. 3 cells (25,0%) have expected count less than 5. The minimum expected count is ,32.

CROSSTABULATIONS

			Q4					
			Less than one year	One to two years	Three to five years	Six to ten years	Over ten years	Total
Q21	Strongly Agree	Count	2	17	43	19	11	92
		Expected Count	1.8	14.7	42.9	20.9	11.7	92.0
		% of Total	1.3%	11.3%	28.7%	12.7%	7.3%	61.3%
	Agree	Count	0	4	17	11	7	39
		Expected Count	.8	6.2	18.2	8.8	4.9	39.0
		% of Total	0.0%	2.7%	11.3%	7.3%	4.7%	26.0%
	Neutral	Count	1	3	9	4	1	18
		Expected Count	.4	2.9	8.4	4.1	2.3	18.0
		% of Total	0.7%	2.0%	6.0%	2.7%	0.7%	12.0%
	Disagree	Count	0	0	1	0	0	1
		Expected Count	.0	.2	.5	.2	.1	1.0
		% of Total	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%
Total		Count	3	24	70	34	19	150
		Expected Count	3.0	24.0	70.0	34.0	19.0	150.0
		% of Total	2.0%	16.0%	46.7%	22.7%	12.7%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.667[a]	12	.879
Likelihood Ratio	7.617	12	.814
Linear-by-Linear Association	.019	1	.891

N of Valid Cases	150		

a. 12 cells (60,0%) have expected count less than 5. The minimum expected count is, 02.

CROSSTABULATIONS

			Q5				
			One to two times	Three to five times	Six to ten times	Over ten times	Total
Q21	Strongly Agree	Count	13	38	17	24	92
		Expected Count	10.4	33.7	25.1	22.7	92.0
		% of Total	8.7%	25.3%	11.3%	16.0%	61.3%
	Agree	Count	2	12	16	9	39
		Expected Count	4.4	14.3	10.7	9.6	39.0
		% of Total	1.3%	8.0%	10.7%	6.0%	26.0%
	Neutral	Count	2	5	8	3	18
		Expected Count	2.0	6.6	4.9	4.4	18.0
		% of Total	1.3%	3.3%	5.3%	2.0%	12.0%
	Disagree	Count	0	0	0	1	1
		Expected Count	.1	.4	.3	.2	1.0
		% of Total	0.0%	0.0%	0.0%	0.7%	0.7%
Total		Count	17	55	41	37	150
		Expected Count	17.0	55.0	41.0	37.0	150.0
		% of Total	11.3%	36.7%	27.3%	24.7%	100.0%

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.137[a]	9	.118
Likelihood Ratio	13.948	9	.124
Linear-by-Linear Association	1.610	1	.204
N of Valid Cases	150		

a. 8 cells (50, 0%) have expected count less than 5. The minimum expected count is, 11.

ANNEXURE 'I': CHI-SQUARE TEST CORRELATIONS

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Strix
Q1	Pearson Correlation	1	.194*	.424**	.265**	.256**	.160*	-.189*	-.039	-.027	-.031	-.044	.118	.001	.021	-.070	.025	.007	-.076	.065	-.069	-.031	-.050	.288**
	Sig. (2-tailed)		.017	.000	.001	.001	.049	.020	.637	.738	.705	.591	.149	.990	.796	.391	.756	.932	.352	.429	.396	.701	.539	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q2	Pearson Correlation	.194*	1	.269**	.576**	.591**	.390**	-.188*	.070	.072	.112	-.132	.034	.006	.183*	-.096	.175*	.007	-.050	.088	-.052	-.042	-.028	.495**
	Sig. (2-tailed)	.017		.001	.000	.000	.000	.020	.390	.380	.168	.104	.677	.940	.024	.242	.031	.931	.545	.283	.525	.607	.732	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q3	Pearson Correlation	.424**	.269**	1	.254**	.313**	.275**	-.082	.033	-.056	.050	-.087	.089	.048	.148	-.027	.077	.054	-.067	.059	-.123	-.037	-.046	.486**
	Sig. (2-tailed)	.000	.001		.002	.000	.001	.317	.682	.490	.538	.288	.277	.557	.068	.742	.345	.505	.409	.470	.133	.648	.571	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q4	Pearson Correlation	.265**	.576**	.254**	1	.737**	.245**	-.214**	-.060	.015	-.021	-.162*	.037	-.016	.147	-.202*	.224**	.046	.062	-.048	.030	.004	-.065	.426**
	Sig. (2-tailed)	.001	.000	.002		.000	.002	.008	.465	.857	.798	.046	.653	.846	.071	.013	.006	.571	.451	.560	.714	.961	.429	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q5	Pearson Correlation	.256**	.591**	.313**	.737**	1	.202*	-.190*	-.030	-.004	.072	-.127	.083	-.077	.202*	-.263**	.182*	-.044	.114	-.010	-.018	.095	-.049	.457**
	Sig. (2-tailed)	.001	.000	.000	.000		.013	.019	.711	.960	.375	.120	.310	.345	.013	.001	.025	.593	.162	.905	.828	.245	.547	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152

Q6	Pearson Correlation	.160*	.390**	.275**	.245**	.202*	1	-.205*	.406**	.320**	.346**	-.291**	.151	.352**	.119	.067	.087	.405**	-.113	.031	-.040	-.066	-.152	.634**
	Sig. (2-tailed)	.049	.000	.001	.002	.013		.011	.000	.000	.000	.000	.063	.000	.145	.412	.287	.000	.166	.700	.628	.420	.061	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q7	Pearson Correlation	-.189*	-.188*	-.082	-.214**	-.190*	-.205*	1	-.045	.010	-.167*	.109	.044	-.002	.177*	.098	.104	.064	.215**	-.028	.260**	.191*	.059	.069
	Sig. (2-tailed)	.020	.020	.317	.008	.019	.011		.582	.902	.040	.183	.593	.980	.029	.230	.203	.435	.008	.736	.001	.018	.468	.396
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q8	Pearson Correlation	-.039	.070	.033	-.060	-.030	.406**	-.045	1	.394**	.343**	-.092	.088	.469**	-.030	.142	-.030	.415**	-.155	.036	.041	.079	-.150	.511**
	Sig. (2-tailed)	.637	.390	.682	.465	.711	.000	.582		.000	.000	.260	.283	.000	.711	.081	.712	.000	.057	.661	.616	.333	.065	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q9	Pearson Correlation	-.027	.072	-.056	.015	-.004	.320**	.010	.394**	1	.261**	-.042	-.226**	.313**	-.090	.263**	-.101	.217**	-.243**	-.054	-.041	-.066	-.037	.346**
	Sig. (2-tailed)	.738	.380	.490	.857	.960	.000	.902	.000		.001	.610	.005	.000	.271	.001	.215	.007	.003	.511	.614	.422	.655	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q10	Pearson Correlation	-.031	.112	.050	-.021	.072	.346**	-.167*	.343**	.261**	1	-.160*	.097	.386**	-.118	.043	-.175*	.355**	-.083	-.055	-.060	.001	-.245**	.380**
	Sig. (2-tailed)	.705	.168	.538	.798	.375	.000	.040	.000	.001		.049	.236	.000	.147	.600	.031	.000	.310	.497	.464	.986	.002	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q11	Pearson Correlation	-.044	-.132	-.087	-.162*	-.127	-.291**	.109	-.092	-.042	-.160*	1	-.003	-.190*	.048	.114	-.034	-.211**	-.061	-.029	.026	-.082	.262**	-.061
	Sig. (2-tailed)	.591	.104	.288	.046	.120	.000	.183	.260	.610	.049		.972	.019	.553	.162	.682	.009	.456	.727	.750	.314	.001	.452
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q12	Pearson Correlation	.118	.034	.089	.037	.083	.151	.044	.088	-.226**	.097	-.003	1	-.091	.159*	-.273**	.184*	.109	.144	.159	.078	.085	-.178*	.316**

	Sig. (2-tailed)	.149	.677	.277	.653	.310	.063	.593	.283	.005	.236	.972		.262	.050	.001	.023	.181	.077	.051	.343	.295	.028	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q13	Pearson Correlation	.001	.006	.048	-.016	-.077	.352**	-.002	.469**	.313**	.386**	-.190*	-.091	1	-.236**	.313**	-.223**	.335**	-.120	-.052	-.027	-.077	-.135	.378**
	Sig. (2-tailed)	.990	.940	.557	.846	.345	.000	.980	.000	.000	.000	.019	.262		.003	.000	.006	.000	.141	.524	.744	.348	.098	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q14	Pearson Correlation	.021	.183*	.148	.147	.202*	.119	.177*	-.030	-.090	-.118	.048	.159*	-.236**	1	-.104	.502**	-.027	.161*	.013	.142	.087	-.031	.296**
	Sig. (2-tailed)	.796	.024	.068	.071	.013	.145	.029	.711	.271	.147	.553	.050	.003		.202	.000	.745	.047	.873	.080	.286	.702	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q15	Pearson Correlation	-.070	-.096	-.027	-.202*	-.263**	.067	.098	.142	.263**	.043	.114	-.273**	.313**	-.104	1	-.125	.032	-.111	-.049	-.021	-.078	.177*	.122
	Sig. (2-tailed)	.391	.242	.742	.013	.001	.412	.230	.081	.001	.600	.162	.001	.000	.202		.125	.698	.174	.547	.797	.338	.029	.134
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q16	Pearson Correlation	.025	.175*	.077	.224**	.182*	.087	.104	-.030	-.101	-.175*	-.034	.184*	-.223**	.502**	-.125	1	-.034	.242**	.046	.178*	.096	-.076	.254**
	Sig. (2-tailed)	.756	.031	.345	.006	.025	.287	.203	.712	.215	.031	.682	.023	.006	.000	.125		.673	.003	.574	.028	.241	.354	.002
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q17	Pearson Correlation	.007	.007	.054	.046	-.044	.405**	.064	.415**	.217**	.355**	-.211**	.109	.335**	-.027	.032	-.034	1	-.097	-.071	.045	.030	-.191*	.427**
	Sig. (2-tailed)	.932	.931	.505	.571	.593	.000	.435	.000	.007	.000	.009	.181	.000	.745	.698	.673		.233	.387	.585	.715	.018	.000
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q18	Pearson Correlation	-.076	-.050	-.067	.062	.114	-.113	.215**	-.155	-.243**	-.083	-.061	.144	-.120	.161*	-.111	.242**	-.097	1	-.084	.387**	.355**	-.105	.073
	Sig. (2-tailed)	.352	.545	.409	.451	.162	.166	.008	.057	.003	.310	.456	.077	.141	.047	.174	.003	.233		.302	.000	.000	.200	.374
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152

Q19	Pearson Correlation	.065	.088	.059	-.048	-.010	.031	-.028	.036	-.054	-.055	-.029	.159	-.052	.013	-.049	.046	-.071	-.084	1	-.031	-.100	-.015	.169*
	Sig. (2-tailed)	.429	.283	.470	.560	.905	.700	.736	.661	.511	.497	.727	.051	.524	.873	.547	.574	.387	.302		.707	.219	.850	.038
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q20	Pearson Correlation	-.069	-.052	-.123	.030	-.018	-.040	.260**	.041	-.041	-.060	.026	.078	-.027	.142	-.021	.178*	.045	.387**	-.031	1	.652**	-.013	.226**
	Sig. (2-tailed)	.396	.525	.133	.714	.828	.628	.001	.616	.614	.464	.750	.343	.744	.080	.797	.028	.585	.000	.707		.000	.874	.005
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q21	Pearson Correlation	-.031	-.042	-.037	.004	.095	-.066	.191*	.079	-.066	.001	-.082	.085	-.077	.087	-.078	.096	.030	.355**	-.100	.652**	1	.008	.208*
	Sig. (2-tailed)	.701	.607	.648	.961	.245	.420	.018	.333	.422	.986	.314	.295	.348	.286	.338	.241	.715	.000	.219	.000		.923	.010
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Q22	Pearson Correlation	-.050	-.028	-.046	-.065	-.049	-.152	.059	-.150	-.037	-.245**	.262**	-.178*	-.135	-.031	.177*	-.076	-.191*	-.105	-.015	-.013	.008	1	-.117
	Sig. (2-tailed)	.539	.732	.571	.429	.547	.061	.468	.065	.655	.002	.001	.028	.098	.702	.029	.354	.018	.200	.850	.874	.923		.151
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
Strix	Pearson Correlation	.288**	.495**	.486**	.426**	.457**	.634**	.069	.511**	.346**	.380**	-.061	.316**	.378**	.296**	.122	.254**	.427**	.073	.169*	.226**	.208*	-.117	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.396	.000	.000	.000	.452	.000	.000	.000	.134	.002	.000	.374	.038	.005	.010	.151	
	N	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).