

**An Examination of the Influence of Market-
Oriented Behaviours on the Layers of
Organisational Culture**

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Abstract

An Examination of the Influence of Market-Oriented Behaviours on the Layers of Organisational Culture

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Examines the Influence that Market-Oriented behaviours have on the layers of an organisation's culture: namely, its values, norms and artifacts.

Since the early 1980s there has been a surge of research in the area of Market Orientation from which two perspectives of this concept have transpired: namely, a Cultural Perspective and a Behavioural Perspective. The traditional and widely supported Cultural Perspective of Market Orientation is of the belief that culture drives behaviour(s) in organisations. However, in recent years, this perspective has been challenged by an emerging Behavioural Approach to Market Orientation, which is of the belief that behaviours create and drive Organisational Culture.

This thesis considers a causal relationship between Market-Oriented behaviour and Market-Oriented culture. The relationships between Market-Oriented behaviours and the three specific layers of an organisation's culture (i.e. values, norms and artifacts) have remained unexplored from this perspective. Consequently, the role that behaviours play in creating and driving the specific culture of Market Orientation was unclear.

Adopting a large-scale (n = 952) quantitative survey by questionnaire, this study examines the identified research gap.

Correlation analysis identifies a positive relationship in all three cases: increases in Market-Oriented behaviours are associated with increases in cultural values ($r = .48$), norms ($r = .64$) and artifacts ($r = .45$). Moreover, multiple regression analysis demonstrates that, the higher the degree of Market-Oriented behaviour, the higher an organisation is likely to score on its values, norms and artifacts overall.

In all, the research findings indicate that Market-Oriented behaviours have a positive influence on all three layers of an organisation's culture, particularly its norms ($R^2 = 32.4\%$), thus influencing Organisational Culture as a whole. Supported by the literature, these findings theoretically imply that Market-Oriented behaviour may be an antecedent and, ultimately, the inception of a Market-Oriented Organisational Culture. Consequently, this study concludes that the Behavioural Approach to Market Orientation, and Market-Oriented behaviour in general, is worthy of much more consideration and attention than it has previously been awarded in the literature

Drawing on these research findings, clear and practical guidance is offered to managers who are seeking to actively change their organisation's culture and/or become Market-Oriented. In such a case, managers are advised to employ Market Orientation as a behavioural construct, rather than the cultural construct that has dominated the literature, and use this as their starting point. It is recommended that managers assess the degree to which they engage in the relevant behaviours and, then, proactively work to strengthen this degree. Strong implementation of the relevant behaviours will encourage corresponding values, norms and artifacts to transpire, ultimately embedding a Market-Oriented Organisational Culture. This is desirable as a strong, positive connection

between Market Orientation and organisational performance is now widely recognised in the literature.

Acknowledgements and Dedication

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This thesis is dedicated to the loving memory of my uncle, Liam Doyle.



Postgraduate Thesis Declaration

- I declare that all material in this thesis submission is entirely my own work except where duly acknowledged.
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1. Introduction

1.1 Introduction

The purpose of this chapter is to provide a general introduction to this particular piece of research.

This chapter begins by providing the background to this study, which ultimately leads to the identification of the specific research gap under investigation. The relevant research questions and hypotheses are then presented.

The chapter subsequently proceeds to provide justifications for this study, as well as present an overview of the precise methodology employed to examine the research problem of interest.

An outline of the structure of this thesis is subsequently presented.

The definition assigned to each key concept associated with this study is then clarified.

Finally, the chapter concludes by outlining the boundaries that apply to the overall scope of this piece of research.

1.2 Background to the Research

The purpose of this study is to examine the influence that Market-Oriented behaviours have on the layers of an organisation's culture: namely, its values, norms and artifacts.

Since the early 1980s there has been a surge of research in the area of Market Orientation, a concept that has remained at the heart of marketing literature for quite some time (Deshpandé and Farley, 2004; Sheppard, 2011; Hajipour *et al.*, 2013). This concept implies that an organisation is strongly focused on its market, particularly the customer (Gheysari *et al.*, 2012). The associated surge in research has been underpinned by a recognised link to organisational performance: essentially, there is widespread agreement that organisations who achieve a strong degree of Market Orientation “generally do outperform” other organisations (Deshpandé and Farley, 2004, p. 4; Deshpandé *et al.*, 1993; Liao *et al.*, 2011).

Market Orientation is said to be driven by two key factors: namely, Organisational Culture and behaviour (Homburg and Pflesser, 2000; Farrell, 2005; Gainer and Padanyi, 2005).

The first driving factor, Organisational Culture, consists of three distinguishable layers: namely, values, norms and artifacts (Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010). The second driving factor, on the other hand, refers to three specific behaviours that are concerned with implementing the marketing concept: namely, generation of market intelligence, dissemination of market intelligence and responsiveness to market intelligence (Kohli *et al.*, 1993; Harris and Ogbonna, 1999; Homburg and Pflesser, 2000; Varela and R  o, 2003; Hajipour *et al.*, 2013).

Combining the above points, it can be concluded that Market Orientation consists of a total of four layers: specifically, three cultural layers (i.e. values, norms and artifacts) and a behavioural layer (Homburg and Pflesser, 2000; Farrell, 2005). Resultantly, two broad perspectives of Market Orientation have transpired: a Cultural Perspective and a Behavioural Perspective (Homburg and Pflesser, 2000; Gainer and Padanyi, 2005; Farrell, 2005; Gonz  lez-Benito and Gonz  lez-Benito, 2005; Carr and Burnthorne-Lopez, 2007; Gheysari *et al.*, 2012).

The vast majority of studies have adopted the traditional Cultural Perspective, which considers Market Orientation to be an organisational attitude (Narver and Slater, 1990; Sheppard, 2011). From this perspective, Market-Oriented values have been found to positively influence Market-Oriented norms. These norms have then been found to positively influence Market-Oriented artifacts which, in turn, positively influence Market-Oriented behaviours (Homburg and Pflesser, 2000; Farrell, 2005). In short, the Cultural Perspective assumes that culture (i.e. values, norms and artifacts) drives behaviour in organisations (Narver and Slater, 1990; Homburg and Pflesser, 2000; Farrell, 2005; Gainer and Padanyi, 2005; Sheppard, 2011).

However, considering that “no agreement has been reached on the exact nature of market orientation”, it has been argued as illogical that alternative perspectives are rarely investigated (Gainer and Padanyi, 2005, p. 854). So, some researchers have shifted their focus towards the Behavioural Perspective, which “describes market orientation in terms of [the three] specific behaviors” mentioned above (Homburg and Pflesser, 2000, p. 449) (See, for example, Gainer and Padanyi, 2005; Gonz  lez-Benito and Gonz  lez-Benito, 2005; Taras *et al.*, 2009). Consequently, a new “behaviours-create-culture” approach to Market Orientation has emerged (Gainer and Padanyi, 2005, p. 856).

While this new approach has gained credibility from researchers such as Gainer and Padanyi (2005) and González-Benito and González-Benito (2005), aspects of it have yet to be ascertained: In particular, the relationships between Market-Oriented behaviours and the three distinguishable layers of an organisation’s culture (i.e. values, norms and artifacts) remain unexplored from this perspective. So, while it is widely agreed that these four layers of Market Orientation are closely interrelated (Hatch, 1993; Homburg and Pflesser, 2000; Schein, 2010), the influence that Market-Oriented behaviours have on cultural values, norms and artifacts is yet to be determined. Consequently, the role that behaviours play in creating and driving a Market-Oriented Organisational Culture remains unclear.

It is this research gap, which is summarised in Figure 1.1 as follows, that this particular study aims to address:

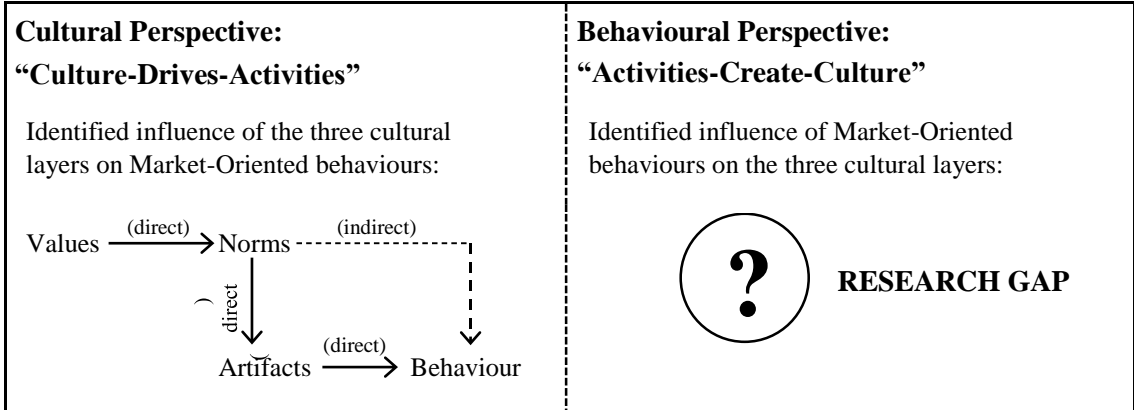


Fig. 1.1 “Identified Research Gap” (created by the researcher)

1.3 Research Problem: Research Questions and Hypotheses

In light of the identified research gap (Figure 1.1), one key research question was established, the answer to which ultimately became the primary objective of this piece of research. This question asked:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation’s culture?

In order to answer this question and, thus, achieve the research objective set out, three relevant sub-questions were formed each of which was assigned a corresponding hypothesis. These are set out in Table 1.1, as follows:

Table 1.1 – Research Questions and their Corresponding Hypotheses

Research Question	Corresponding Research Hypothesis
Q1: Do Market-Oriented behaviours have a positive influence on cultural artifacts?	H1: Market-Oriented behaviours have a positive influence on cultural artifacts.
Q2: Do Market-Oriented behaviours have a positive influence on cultural norms?	H2: Market-Oriented behaviours have a positive influence on cultural norms.
Q3: Do Market-Oriented behaviours have a positive influence on cultural values?	H3: Market-Oriented behaviours have a positive influence on cultural values.

The research hypotheses presented in Table 1.1 essentially originated from the Literature Review. Hence, the deduction and development of each one is documented in Chapter 2 (Section 2.8).

1.4 Justification for the Research

As mentioned earlier, there has been a surge of research in the area of Market Orientation (Deshpandé and Farley, 2004; Sheppard, 2011; Hajipour *et al.*, 2013). This surge has been mainly due to the fact that, over the last two decades, an abundance of studies have investigated and confirmed a positive relationship between Market Orientation and organisational performance (Narver and Slater, 1990; Jaworski and Kohli, 1993; Pitt *et al.*, 1996; Homburg and Pflesser, 2000; Harris, 2001; Liao *et al.*, 2011). While the exact nature of this relationship is yet to be settled, there is widespread agreement that organisations who are strongly Market-Oriented “generally do outperform” other organisations (Deshpandé and Farley, 2004, p. 5; Deshpandé *et al.*, 1993).

Despite being a well-researched topic with a vast body of associated literature, “no agreement has been reached on the exact nature of market orientation” (Gainer and Padanyi, 2005, p. 854). Resultantly, Market Orientation can, generally, be considered from either a Cultural Perspective or a Behavioural Perspective, although there is a notably stronger focus on the former throughout the literature (Sheppard, 2011).

Previous research in the field of Market Orientation has failed to make a distinction between its four distinguishable layers: namely, behaviours, values, norms and artifacts (Homburg and Pflesser, 2000; Farrell, 2005; Byrne, 2014). So, while it is agreed that these layers are closely interrelated (Hatch 1993; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010), the body of research that aims to examine and understand the relationship(s) between them remains surprisingly scant, particularly from a Behavioural

Perspective (Farrell, 2005; Taras *et al.*, 2009). Consequently, the role that behaviours play in creating and driving a Market-Oriented Organisational Culture remains unclear.

Building on previous studies of Market Orientation, particularly those of Homburg and Pflesser (2000) and Gainer and Padanyi (2005), this study contributes to the closure of this research gap by examining the influence that Market-Oriented behaviours have on the layers of an organisation's culture.

Theoretically, this thesis provides insight into these relationships, thus providing an understanding of the role that these behaviours play in creating and driving Market Orientation. This, in turn, provides theoretical insight into the relationship between the Cultural and Behavioural Perspectives of Market Orientation, thus building a further understanding of the nature of Market Orientation as a whole. Overall, this research contributes to theory in its related fields of Organisational Culture, Market Orientation and Strategic Marketing Management.

From a more practical point of view, this research offers clear and practical guidance to managers who are seeking to change their organisation's culture and/or become Market-Oriented. Such guidance is desirable due to the recognised positive relationship between Market Orientation and organisational performance, which was mentioned above (Narver and Slater, 1990; Jaworski and Kohli, 1993; Pitt *et al.*, 1996; Homburg and Pflesser, 2000; Harris, 2001; Liao *et al.*, 2011). Conclusively, the practical advice offered in this study may provide organisations with somewhat of a competitive advantage, ultimately allowing them to successfully "outperform" other organisations (Deshpandé and Farley, 2004, p. 5).

The theoretical and practical contributions emanating from this study are documented in full throughout Chapter 5.

1.5 Overview of Research Methodology

In order to investigate the three research questions and each of their corresponding hypotheses, all of which were set out in Section 1.3 above, a purely quantitative research strategy was employed. This led to the implementation of a large-scale cross-sectional survey, which adopted a self-administered questionnaire method.

The survey instrument used in this study (Appendix 16) was, in essence, an adaptation of the works of Homburg and Pflesser (2000) and Kohli *et al.* (1993). Following pre-test and pilot test procedures, the questionnaire was administered by mail to the “Top 1,000 Companies in Ireland” (The Irish Times, 2014) accompanied by a cover letter (Appendix 18) and a pre-paid return address envelope (Appendix 19).

IBM’s Statistical Package for the Social Sciences (SPSS) was then used to analyse the data from the 251 responses received. Two statistical tests were conducted in order to examine each of the three hypotheses: namely, correlation and multiple regression analysis.

The research methodology implemented in this study is detailed in full throughout Chapter 3, where its justification and limitations are also presented.

1.6 Outline of the Thesis

Subsequent to presenting the current chapter, this thesis progresses as follows:

Chapter 2: Literature Review

This chapter allows for the development of an understanding of the research conducted to date, in the areas of Organisational Culture and Market Orientation that are relevant to this study. Conducting a review of the relevant literature, ultimately, enables this chapter to advance to the formulation of the study’s research hypotheses.

Chapter 3: Methodology

The third chapter begins by outlining the philosophical stance adopted in this particular piece of research. It then goes on to fully document and justify the methodological procedures used to examine the research problem, which has been outlined in Section 1.3 above.

Chapter 4: Presentation of Findings

Having analysed the data using the relevant statistical tests documented in Chapter 3, Chapter 4 presents the key findings relating to each research hypothesis.

Chapter 5: Discussion and Implications

The fifth, and final, chapter discusses the research findings in light of the associated literature, ultimately tying Chapters 2 and 4 together. A discussion of each individual research question (Table 1.1) is provided, prior to presenting a discussion of the overall research problem. The chapter then highlights the various theoretical contributions that this study has made to the associated fields of Organisational Culture and Market Orientation. Practical implications of the research are then discussed. The limitations of this study and suggestions for future research are outlined before, finally, bringing the thesis to a close.

1.7 Definitions

As detailed in Chapter 2, there is a multitude of definitions relating to each of the key concepts associated with this study. Therefore, clear definitions are important in order to clarify how each concept has been interpreted in the research.

Definitions help to create a basic understanding of the key elements that form the foundations upon which the research is built. Furthermore, they also allow for a clearer understanding of how the study in question relates to its existing body of associated literature, thus allowing for fairer and more accurate comparisons to be made (Perry, 1998).

Ultimately, definitions create clarity.

This section, Section 1.7, sets out the definition that has been assigned to each of the key concepts featured in this study. The concepts defined here are elaborated on throughout Chapter 2.

1.7.1 Organisational Culture

The first key concept associated with this study is Organisational Culture. This concept has been assigned a multitude of definitions in its vast body of associated literature (Homburg and Pflesser, 2000; Taras *et al.*, 2009). However, one of its most widely recognised definitions is that of Schein (2010):

The culture of a group can now be defined as a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 2010, p. 18)

While this definition touches on specific components of Organisational Culture, these components remain quite latent within the definition. Contrastingly, Homburg and Pflesser (2000) state that:

Organizational culture consists of four distinguishable but interrelated components. They include shared basic values, behavioral norms, different types of artifacts, and behaviors (Homburg and Pflesser, 2000, p. 450)

So, for the purpose of this study, Organisational Culture is defined as:

A group's shared set of distinct . . . values, [norms], practices [i.e. behaviours], and artifacts that are formed and retained over a long period of time (Taras *et al.*, 2009, p. 359)

This definition explicitly captures four specific components, or layers, of Organisational Culture: namely, values, norms, artifacts and behaviours. These layers are fundamental to the research questions and hypotheses, which were set out in Section 1.3. Additionally, as detailed in Section 2.2.1, this definition also captures commonalities that are “present in virtually all” definitions of Organisational Culture (Taras *et al.*, 2009, p. 359). Further justifications for the use of this definition are presented in Chapter 5 (Section 5.4.3).

1.7.2 Market Orientation

The second key concept associated with this study is that of Market Orientation. This concept is synonymous with Organisational Culture. That is, Market Orientation represents a specific Organisational Culture, of which “the customer is the most important component” (Gheysari *et al.*, 2012, p. 545; Homburg and Pflesser, 2000; Raju *et al.*, 2011; Hajipour *et al.*, 2012).

Consequently, for the purpose of this study, Market Orientation is defined as:

A group's shared set of distinct [market-focused and, in particular, customer-focused] . . . values, [norms], practices [i.e. behaviours], and artifacts that are formed and retained over a long period of time (Taras *et al.*, 2009, p. 359)

Generally, Market Orientation is considered as either a cultural construct or a behavioural construct (Gainer and Padanyi, 2005).

As a cultural construct, Market Orientation is thought of as an organisational attitude (Avlonitis and Gounaris, 1999) and has been defined as:

the organizational culture . . . that most effectively and efficiently creates the necessary behaviors for the creation of superior value for [customers] and, thus, continuous superior

performance for the business (Narver and Slater, 1990, quoted by Homburg and Pflesser, 2000, p. 449)

On the other hand, as a behavioural construct, Market Orientation is concerned with the implementation of specific behaviours and, thus, has been defined as:

the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence (Kohli *et al.*, 1993, p. 467)

Further definitions of Market Orientation are presented and discussed throughout Section 2.3. However, the definition adopted by this study supports its conclusions regarding the nature of Market Orientation, most notably, that this construct may be thought of as “a hybrid” of both culture and behaviour (Gainer and Padanyi, 2005, p. 854). This conclusion is discussed in Chapter 5, where additional conclusions that further support the adopted definition are also discussed (Section 5.4.2).

Additionally, and perhaps more importantly, the definition used in this study is similar to the adopted definition of Organisational Culture, in that it captures the four distinct layers of interest, that is, values, norms, artifacts and behaviours. As these four layers are at the heart of the research questions and hypotheses under investigation (Section 1.3), they will now also be defined in the context of this particular piece of research.

1.7.3 Values

In this study, values are defined as:

A conception . . . of the desirable (Kluckhohn, 1951, cited in Homburg and Pflesser, 2000, p. 450)

So, in essence, values refer to a group’s sense of how they think or feel something ought to be, as opposed to how it actually is (Schein, 1984; Hatch, 1993; Schein, 2010). They include:

Social principles, philosophies, goals and standards considered to have intrinsic worth . . . [as well as] taken-for-granted beliefs about reality and human nature (Hatch, 1993, p. 659)

Values relating specifically to Market Orientation are addressed in Section 2.6.1.

1.7.4 Norms

Norms are defined as:

expectations about behaviour or its results that are at least partially shared by a social group (Homburg and Pflesser, 2000, p. 450)

Hence, norms determine the behaviour(s) that an organisation's members pressure each other to follow (Kilman *et al.*, 1985, cited in Homburg and Pflesser, 2000, p. 452, and also cited in Farrell, 2005, p. 262).

Norms differ from values in that they have a stronger pertinence to actual behaviour(s) (Katz and Kahn, 1978, cited in Homburg and Pflesser, 2000, p. 450, and also cited in Farrell, 2005, p. 262); norms guide behaviour(s), whereas values provide general behavioural guidelines (O'Reilly, 1989, cited in Homburg and Pflesser, 2000, p. 451).

Norms relating specifically to Market Orientation are identified in Section 2.6.2.

1.7.5 Artifacts

Artifacts are defined as:

The visible, audible, tangible and/or symbolic representations that a group creates and leaves behind, which are reflective of their culture (Hatch, 1993; Homburg and Pflesser, 2000; Schein, 2010)

In terms of Market Orientation, artifacts can be divided into four categories: namely, stories, arrangements, rituals, and language (Homburg and Pflesser, 2000, p. 450). These are detailed throughout Section 2.6.3.

1.7.6 Behaviours

The fourth and final layer of an organisation's culture is its behaviours. The behaviours investigated in this study are those that relate specifically to Market Orientation. These Market-Oriented behaviours are defined as:

the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence (Kohli *et al.*, 1993, p. 467)

This definition captures three specific behaviours of a Market-Oriented Organisational Culture: namely, generation of market intelligence, dissemination of market intelligence and responsiveness to market intelligence. These behaviours are discussed throughout Section 2.6.4.

1.8 Delimitations of Scope

As is the case when undertaking any piece of research, there are particular boundaries that apply to the overall scope of this study, according to which the generalisability of its findings is limited (Perry, 1998).

These boundaries were firstly defined by the research problem at hand. From the research questions and hypotheses posed (Table 1.1), four variables of interest were identified: namely, Market-Oriented behaviours, values, norms and artifacts. Given the “broad” nature of Market Orientation (Liao *et al.*, 2011, p. 306), it is likely that many additional variables are concerned with this specific culture and its implementation. However, considering that “we do not yet know the complete map of culture, nor are we likely to in the near future”, the researcher followed the literature’s advice for exploring this concept (Taras *et al.*, 2009, p. 362). Resultantly, the four aforementioned layers, which were determined to be highly applicable to the research questions and hypotheses (Table 1.1), were used to guide the overall research enquiry (Taras *et al.*, 2009; Jung *et al.*, 2009).

In short, for the purpose of this piece of research, Market Orientation was examined merely in terms of its associated behaviours, values, norms and artifacts.

The examination of the study’s key concepts was strongly influenced by the definition assigned to each one (Section 1.7), as well as by the reviewed literature. Based on these two factors, the researcher attempted to paint as complete a picture of Market Orientation as possible in the context of the research problem under investigation. Nevertheless, the Market-Oriented behaviours, values, norms and artifacts, identified in this study, are by no means a complete inventory of these concepts.

The research problem of interest determined not only the specific aspects of Market Orientation to be investigated, but also the research methodology to be employed for the purpose of this investigation. As mentioned earlier (Section 1.5), a purely quantitative methodological strategy was adopted. This strategy has been fully justified throughout Chapter 3. Resultantly, no qualitative examination was undertaken by the researcher.

The overall scope of this study was finally bound by its chosen sample of the Irish Times’

“Top 1,000 Companies in Ireland”. Based on the nature of this sample, it can be concluded that the results of this study are intended to be generalised to medium or large¹, well-established² organisations operating in an Irish setting.

In order to draw broadly generalisable conclusions from this particular study, no distinction was made between sectors or business-to-business (B2B) and business-to-consumer (B2C) organisations during data analysis.

Moreover, guided by the works of Kohli *et al.* (1993), Homburg and Pflesser (2000) and Gainer and Padanyi (2005), all of which are at the heart of this study, Market Orientation was researched on an organisational level as opposed to an individual level e.g. employee or customer level.

1.9 Conclusion

The purpose of this introductory chapter was to lay the foundations for this particular thesis. Thus, the chapter began by introducing the research gap of interest, along with its associated research questions and hypotheses.

Some of the justifications for the need to conduct this study were then highlighted, followed by an outline of the research methodology that was employed to investigate the research problem.

The structure of this thesis was subsequently outlined.

Relevant definitions adopted by the researcher were clarified.

Finally, the chapter concluded by identifying the boundaries that apply to the overall scope of this piece of research.

Having laid these foundations, this thesis proceeds to present the Literature Review, from which this study’s hypotheses are subsequently deduced and developed.

¹ 86.1% of respondents had a minimum of 50 employees and, thus, were classified as either a medium or a large organisation (Enterprise Ireland, 2014).

² 93.6% of respondents had been in business for a minimum of eleven years. A further 6% had been in business for a period of between one and ten years.

2. Literature Review

2.1 Introduction

This chapter allows for the development of an understanding of the research conducted to date, in the areas of Organisational Culture and Market Orientation that are relevant to this study. Therefore, it sets the background and context for this piece of research and, ultimately, allows the reader to gain an understanding of the research topic in question.

In order to fulfil this purpose, the researcher consulted a number of academic databases and reviewed a variety of relevant academic journals, articles and books, thus allowing for the identification of key authors, findings and developments in the fields of Organisational Culture and Market Orientation.

Furthermore, this chapter also enabled the researcher to identify a research gap of interest and progress to the development of a number of research hypotheses.

The literature review conducted for this piece of research now follows:

2.2 Organisational Culture

2.2.1 Defining Organisational Culture

Since the early 1980s there has been a surge of research in the area of Organisational Culture, particularly from a management perspective. This has led to the production of a vast body of literature based on the concept of Organisational Culture (Deshpandé *et al.*, 1993; Hatch, 1993; Homburg and Pflesser, 2000). However, despite this, the definition of Organisational Culture remains widely disputed and, thus, a universally accepted definition has failed to establish (Deshpandé and Webster, 1989; Brown, 1998; Taras *et al.*, 2009). Furthermore, the number of definitions of the concept is expanding. This is due to the fact that culture has been studied under a wide range of disciplines and, so, has been assigned many different titles and perspectives (Taras *et al.*, 2009).

Upon reviewing an extensive range of definitions, Deshpandé and Webster (1989) conclude that Organisational Culture can be defined as:

The pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization (Deshpandé and Webster, 1989, p. 4)

This definition is not only one of a rare few that are gaining widespread acceptance (Homburg and Pflesser, 2000), but is also similar to many other proposed definitions, for example:

Organisational Culture refers to the pattern of beliefs, values and learned ways of coping with experience that have developed during the course of an organisation's history, and which tend to be manifested . . . in the behaviours of its members (Brown, 1998, p. 9)

Organisational culture is . . . beliefs that are shared by members of an organisation, that operate unconsciously and define in a basic taken-for-granted fashion an organisation's view of itself and its environment . . . contributes to how groups of people respond and behave in relation to issues they face (Johnson *et al.*, 2008, p. 189)

Culture . . . is a pattern of beliefs and expectations shared by the organization's members. These beliefs and expectations produce norms that powerfully shape the behavior of individuals and groups in the organization (Schwartz and Davis, 1981, p. 33)

These definitions all agree that an organisation's culture allows its members to comprehend the organisation, based on their shared values and beliefs which, in turn, create norms that influence their behaviour.

While the above may capture the general concept of Organisational Culture, one could argue that such definitions are somewhat limited as they do not reflect the dynamics and complexities of the concept. A similar argument has been implied by Kotler and Keller (2009).

Schein (2010) goes beyond the scope of such simplistic definitions. He extends the definition to:

A pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 2010, p. 18)

This definition introduces new aspects of Organisational Culture and, therefore, adds further depth to the concept (Halliday, 2002). For example, it explicitly introduces the notion of "basic assumptions", which Schein (2010) believes are at the heart of Organisational Culture. Their addition means that symbols and tangible objects also need to be considered as part of the concept, as it is believed that these capture and reflect assumptions, which are otherwise unconscious and unspoken in nature (Smircich, 1983, cited in Halliday, 2002, p. 140).

While the numerous definitions of Organisational Culture vary, Taras *et al.* (2009, p. 358) isolate four commonalities that are “present in virtually all of them”.

Culture:

1. Has multiple levels;
2. Is shared among individuals who belong to a particular group (in this context a particular organisation);
3. Takes a relatively long time to form; and
4. Is relatively durable.

Hence, they conclude that culture can be defined as:

A group’s shared set of distinct basic assumptions, values, practices, and artifacts [sic] that are formed and retained over a long period of time (Taras *et al.*, 2009, p. 359)

From the above, it becomes clear that Organisational Culture is much more dynamic and complex than is indicated in the first set of proposed definitions. It “is [therefore] likely to remain a complex and contested concept” (Jung *et al.*, 2009, p. 1092), which is perhaps too difficult to capture in a single statement. Hence, the production of a universally accepted definition is restricted.

It may be the case that one needs to go beyond trying to describe the concept in a single definition and rather focus on it from a broader perspective (Jung *et al.*, 2009; Gheysari *et al.*, 2012), in order to allow one to truly capture and understand Organisational Culture.

2.2.2 Exploring and Measuring Organisational Culture

Corresponding with the surge of research on Organisational Culture, the 1980s onwards brought about the production of a vast range of instruments for assessing and/or measuring this concept. These instruments have been developed and applied across a wide array of settings (Jung *et al.*, 2009).

It is beyond the scope of this piece of research to individually assess and analyse each instrument; rather the researcher will provide a concise review on exploring and measuring Organisational Culture.

Jung *et al.* (2009) identify 70 instruments that can be used to explore Organisational Culture, most of which are at an introductory phase.

The purposes of these instruments vary from “formative” i.e. they aim to aid the creation of an Organisational Culture, to “diagnostic” i.e. they aim to identify and evaluate Organisational Culture. Furthermore, the approaches of these instruments also vary from a “dimensional approach” i.e. they explore the degree to which different dimensions of culture are present, to a “typological approach” i.e. they aim to categorise the organisation’s culture into a predefined type, based on its predominant characteristics (Jung *et al.*, 2009).

In a similar study carried out by Taras *et al.* (2009), 121 different instruments that can be used to measure culture were identified. This would lead one to conclude that their review of the literature is much broader than that of Jung *et al.* (2009) and, thus, it is likely that, in actual fact, there is a much wider range of instruments that can be used to explore Organisational Culture than is initially indicated.

Both of these studies found that, since the 1980s, there has been a trend toward using quantitative approaches to measuring Organisational Culture. Ordinarily, measurement instruments aim to measure dimensions and/or sub-dimensions of culture. Therefore, researchers generally take the approach of defining exactly what constitutes Organisational Culture in the context of their research. They then aim to identify the boundaries of each identified dimension and generate a representative list that is used to measure the degree to which each dimension is present in an organisation (Taras *et al.*, 2009).

This similar approach, which has been adopted across the board, has led to self-reported questionnaires becoming, by far, the most prominent tool used to measure Organisational Culture. Such questionnaires generally use Likert scales, with anything from five to nine points, accompanied by a set of statements to which respondents are asked to rate their level of agreement (Taras *et al.*, 2009; Jung *et al.*, 2009).

Furthermore, practically all 121 instruments identified for measuring culture were found to take an “etic approach” as opposed to an “emic approach” i.e. they assume that dimensions of culture are universal to all cultures, rather than being culture-specific and therefore non-transferable from one cultural society to another. Many researchers now believe that these approaches should be used simultaneously in order to genuinely understand and capture culture (Taras *et al.*, 2009).

Both studies come to a similar conclusion: it is questionable whether or not there is a single, ideal instrument that can be used to explore and/or measure Organisational Culture (Taras *et al.*, 2009; Jung *et al.*, 2009). It is likely that it is impossible for any single model or instrument to capture every aspect of Organisational Culture, due to its dynamic and complex nature (Taras *et al.*, 2009): “We do not yet know the complete map of culture, nor are we likely to in the near future” (Taras *et al.*, 2009, p. 362). Therefore, in order to successfully explore and/or measure Organisational Culture, researchers must firstly consider the purpose and context of their study. They must then select the cultural dimensions that are most applicable to their research questions, and use these as their guide in determining the most suitable model, instrument and/or methods (Taras *et al.*, 2009; Jung *et al.*, 2009).

2.3 Market Orientation

Prior to this discussion the researcher wishes to acknowledge the following:

Many researchers use the term “Marketing Orientation” when discussing the concept of Market Orientation (Kohli and Jaworski, 1990; Hajipour *et al.*, 2013).

Kohli and Jaworski (1990) offer three explanations as to why “Marketing Orientation” is considered to be incorrect terminology:

- Firstly, it implies that the concept is only of concern for the marketing department when, in actual fact, it is of concern for all departments within an organisation;
- Secondly, it overemphasises the importance of the marketing department’s role in the concept and, therefore, is less likely to be accepted by other departments; and
- Finally, it does not place any emphasis on the market, which includes customers around whom the concept is centred.

Therefore, the term “Market Orientation” will be used for the purpose of this piece of research.

2.3.1 Defining Market Orientation

The 1980s brought a surge of research not only in the area of Organisational Culture, but also Market Orientation; a concept that is now one of the most widely studied aspects of marketing and has remained at the heart of marketing literature for quite some time

(Deshpandé and Farley, 2004; Sheppard, 2011; Hajipour *et al.*, 2013). Resultantly, Market Orientation “is now too broad a concept to deal with completely in any single review” (Liao *et al.*, 2011, p. 306).

With this in mind, one may find it remarkable that, similarly to Organisational Culture, a universally accepted definition of Market Orientation has failed to develop. Rather, there is widespread disagreement among researchers as to how it should be defined (Halliday, 2002; Sheppard, 2011). Consequently, to date, the concept has been appointed multiple definitions, which have been interpreted in many different ways (Kohli *et al.*, 1993; Sheppard, 2011; Hajipour *et al.*, 2013).

Based on the reviewed literature, it is likely that the following two factors are major contributors to the difficulty in defining Market Orientation:

1. Market Orientation’s link to Organisational Culture; and
2. Different Perspectives of Market Orientation.

2.3.2 Market Orientation’s Link to Organisational Culture

It is evident from the literature that there is a strong link between Market Orientation and Organisational Culture. Often, the two are considered synonymous. For example:

Market Orientation [is] the Organisational Culture . . . (Homburg and Pflesser, 2000, p. 449)

MO pertains to an organizational culture . . . (Raju *et al.*, 2011, p. 1320)

[Market] Orientation [is the] adoption of organizational culture . . . (Hajipour *et al.*, 2013, p. 93)

This may help to explain why the definition of Market Orientation remains widely disputed: As it is strongly linked to Organisational Culture, a concept which, as discussed earlier, has varying definitions in the literature, this link is, in turn, likely to inhibit the production of a universally agreed definition of Market Orientation.

Perhaps until a universal definition of Organisational Culture is developed, then the same cannot be done for Market Orientation, as the two are synonymous.

Furthermore, as will now be discussed, the concept of Market Orientation is also strongly linked to the marketing concept. This link has been viewed from many different perspectives, which further contributes to the difficulty in defining Market Orientation.

2.3.3 The Link between Market Orientation and the Marketing Concept

The marketing concept can be described as an organisational philosophy that achieves long-term success and profitability through the *coordination of all of its activities*, in order to satisfy its *customers' needs* better than its *competitors* can (Sheppard, 2011; Deng and Dart, 1994, cited in Hajipour *et al.*, 2013, p. 96; Gheysari *et al.*, 2012).

In their study, Narver and Slater (1990, pp. 21-22) found Market Orientation to consist of three components:

1. A focus on the customer, which they refer to as “Customer Orientation”;
2. A focus on competitors, which they refer to as “Competitor Orientation”; and
3. An alignment between functions, which they refer to as “Interfunctional Coordination”.

As emphasised above, these three components of Market Orientation strongly reflect the marketing concept. Hence, the two are closely related. Their relationship can be perceived in two different ways:

Perspective 1 (Cultural): Market Orientation can either be considered as “the adoption of the marketing concept as a business philosophy” (González-Benito and González-Benito, 2005, p. 799) and, thus, can be thought of as representing the link between the concept of marketing and Organisational Culture (Turner and Spencer, 1997); or

Perspective 2 (Behavioural): As Sheppard (2011) explains, in order to be Market Oriented one must put the marketing concept into action. Therefore, Market Orientation can otherwise be thought of as “the implementation of the marketing concept” (Kohli and Jaworski, 1990, p.1; Harris and Ogbonna, 1999; Halliday, 2002; Gainer and Padanyi, 2005; Liao *et al.*, 2011; Gheysari *et al.*, 2012; Sheppard, 2013).

As highlighted above, the relationship that one considers between the two is dependent upon the perspective or approach that one takes towards Market Orientation.

2.4 Different Perspectives of Market Orientation

To date, no agreement has been made on the nature of Market Orientation (Gainer and Padanyi, 2005). Sheppard (2011) notes that numerous perspectives of the concept have been taken; in fact, some researchers have identified as many as five different perspectives. However, two main broad perspectives are identifiable: a Cultural Perspective and a Behavioural Perspective (Homburg and Pflesser, 2000; Gainer and Padanyi, 2005; Farrell, 2005; González-Benito and González-Benito, 2005; Carr and Burnthorne-Lopez, 2007; Gheysari *et al.*, 2012).

2.4.1 A Cultural Perspective of Market Orientation

From a Cultural Perspective, also known as an Attitudinal Perspective, Market Orientation is viewed as an organisational attitude (Avlonitis and Gounaris, 1999): its focus is on values and norms that create the necessary behaviours for Market Orientation (Sheppard, 2011).

The most widely recognised definition of Market Orientation based on this perspective is that of Narver and Slater (1990):

Market Orientation [is] the organizational culture . . . that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (Narver and Slater, 1990, quoted by Homburg and Pflesser, 2000, p. 449)

Hence, from a Cultural Perspective, Market Orientation is considered to:

1. Be “the adoption of the marketing concept as a business philosophy” (GonzálezBenito and González-Benito, 2005, p. 799); and
2. Represent a specific Organisational Culture (González-Benito and GonzálezBenito, 2005).

Other definitions from this perspective include:

Market Orientation is a state of mind, a posture, an attitude (Lear, 1963, p. 59)

[Market Orientation] involves the entire organisation viewed from the customers’ point (Drucker, 1954, quoted by Avlonitis and Gounaris, 1999, p. 1004)

Market orientation means the true understanding of market [and] customers’ demands (Hajipour *et al.*, 2013, p. 92)

It has been argued that a Cultural Perspective is more favourable than a Behavioural Perspective, as, if Market Orientation was a purely behavioural concept, then any organisation could easily be Market-Oriented, which is not the case (Narver and Slater, 1990; Narver and Slater, 1990, cited in Homburg and Pflesser, 2000, p. 449).

2.4.2 A Behavioural Perspective of Market Orientation

On the other hand a Behavioural Perspective, also known as an Operational Perspective, “describes market orientation in terms of specific behaviors” that are concerned with implementing the marketing concept (Homburg and Pflesser, 2000, p. 449; Sheppard, 2011; González-Benito and González-Benito, 2005). These behaviours are proof that an organisation is committed to the marketing concept (Carr and Burnthorne-Lopez, 2007).

The most widely recognised definition from this perspective is that of Kohli *et al.* (1993):

Market orientation [is] the organization-wide generation of market intelligence pertaining to current and future needs of customers, dissemination of intelligence horizontally and vertically within the organization, and organization-wide action or responsiveness to market intelligence (Kohli *et al.*, 1993, p. 467)

This definition identifies three specific behaviours of Market Orientation:

1. Generation of Market Intelligence;
2. Dissemination of Market Intelligence; and
3. Organisation-wide Responsiveness to Market Intelligence (Kohli *et al.*, 1993; Harris and Ogbonna, 1999; Varela and Río, 2003; Hajipour *et al.*, 2013).

These behaviours are reflected in other proposed definitions from this perspective, for example:

[Market orientation] has to do with information . . . using that information well . . . and putting it to use in changing the behaviours, goods and services provided by the firm (Halliday, 2002, pp. 138 & 139)

(Note: Market-Oriented behaviours are discussed in more detail shortly – see section 2.6.4)

A Behavioural Perspective has been argued as being more favourable than a Cultural one, as its clear focus on specific behaviours has allowed for the development of measurement scales that allow an organisation to assess the degree to which it is Market-Oriented (Kohli *et al.*, 1993; Sheppard, 2011).

As highlighted in the literature, no organisation can completely ignore the customer. Therefore, Market Orientation should not be thought of as being absent or present in an organisation; rather, one should consider to what degree it is present (Lear, 1963; Narver and Slater, 1990). A Behavioural Perspective allows for such consideration.

The following is a diagrammatic representation of the above discussion: it attempts to act as a conceptual framework which combines the two perspectives of Market Orientation discussed:

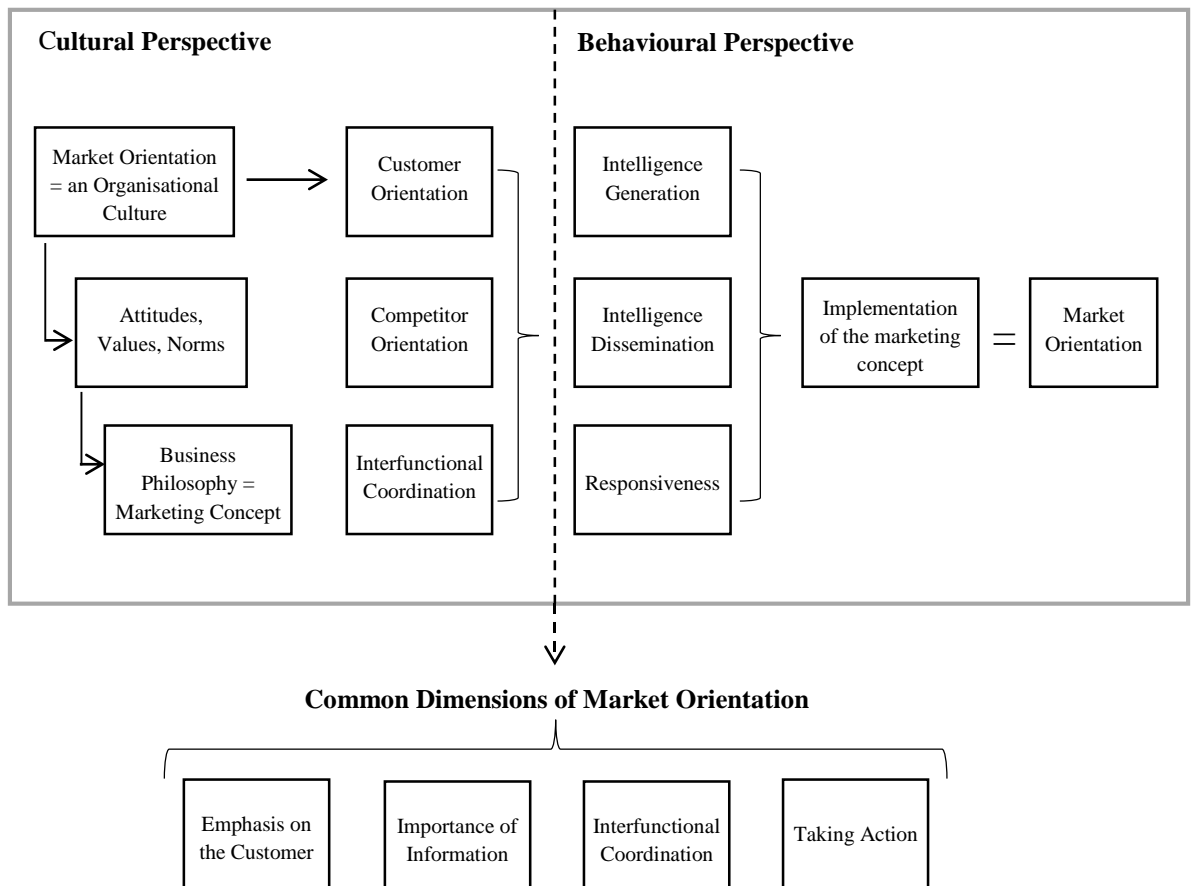


Fig. 2.1 “A Conceptual Framework for Market Orientation Cultural and Behavioural Perspectives” (adapted by the researcher from Lafferty and Hult, 2001, cited in Gheysari *et al.*, 2012, p. 546; Narver and Slater, 1990; Kohli and Jaworski, 1990)

2.4.3 The Link between the Cultural and Behavioural Perspectives of Market Orientation

As suggested in Figure 2.1, although the Cultural and Behavioural Perspectives of Market Orientation differ, “there is a fair amount of overlap” between the two (Helfert *et al.*, 2001, cited in Sheppard, 2011, p. 37). Their major similarity is their focus on the customer

i.e. “the customer is the most important component” from both perspectives (Gheysari *et al.*, 2012, p. 545).

Furthermore, it is argued that in order to engage in Market-Oriented behaviours there must be a corresponding culture deeply embedded in the organisation (Shapiro, 1988).

A connection between the two perspectives was both proposed and proven by GonzálezBenito and González-Benito (2005) and by Avlonitis and Gounaris (1999). They conclude that Market Orientation “represents the combined outcome of . . . attitude with . . . behaviour” (Avlonitis and Gounaris, 1999, p. 1027). Conclusively, Market Orientation can be considered as “a hybrid incorporating both cultural and behavioral aspects” (Gainer and Padanyi, 2005, p. 854). This point is illustrated in Figure 2.2, as follows:

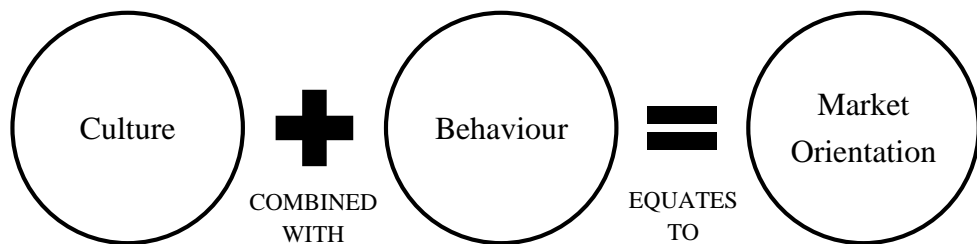


Fig. 2.2 “A Diagrammatic Representation of Market Orientation” (created by the researcher)

2.5 The Importance of Market Orientation: Its Link to Performance

As mentioned earlier, there has been a surge of research in the area of Market Orientation (Kohli *et al.*, 1993; Farrell, 2005; Sheppard, 2011; Liao *et al.*, 2011). This has been mainly due to the fact that, over the last two decades, an abundance of studies have investigated and confirmed a positive relationship between Market Orientation and organisational performance (Narver and Slater, 1990; Jaworski and Kohli, 1993; Pitt *et al.*, 1996; Homburg and Pflesser, 2000; Harris, 2001; Liao *et al.*, 2011).

It is often felt that “no single indicator will give a comprehensive picture of performance” (Xiaoming and Junchen, 2012, p. 31). Generally, one or a combination of two aspects of

performance are assessed: financial (e.g. profit) and/or non-financial (e.g. customer satisfaction rates) (Xiaoming and Junchen, 2012).

Furthermore, performance can also be measured objectively or subjectively (Harris, 2001). The majority of studies have adopted subjective measures, which tend to indicate a stronger relationship than objective measures do. However, despite this, both measures have been known to find a positive relationship between Market Orientation and organisational performance (González-Benito and González-Benito, 2005).

Due to the different approaches adopted by researchers (financial versus non-financial measures, and subjective versus objective measures), varying beliefs exist about the nature of the relationship between Market Orientation and organisational performance. While some studies conclude a direct positive relationship between the two (e.g. Narver and Slater, 1990), others have found an indirect positive relationship (e.g. Harris, 2001).

In a study carried out by Homburg and Pflesser (2000), Market Orientation was found to have a positive impact on market performance i.e. a Market-Oriented organisation has a better likelihood of attaining higher customer satisfaction, stronger customer loyalty and increased customer numbers. Homburg and Pflesser (2000) conclude that, through its direct impact on market performance, Market Orientation has an indirect positive impact upon financial performance.

Similarly, González-Benito and González-Benito (2005) found that “the output of market orientation is better reflected by reputation, image, customer satisfaction . . . product quality, etc.” (González-Benito and González-Benito, 2005, p. 809), factors all of which ultimately lead to positive financial performance.

It is clear that there are many questions still to be answered about the exact nature of the relationship between Market Orientation and organisational performance (Langerak, 2003). Hence, “The study of the market orientation – performance relationship . . . is very much an on-going research field” (Deshpandé and Farley, 2004, p. 6). Nonetheless, there is growing agreement in the literature that organisations who are strongly Market-Oriented “generally do outperform” other organisations (Deshpandé and Farley, 2004, p. 5; Deshpandé *et al.*, 1993).

2.6 The Layers of a Market-Oriented Organisational Culture

As is conveyed in virtually every definition, Organisational Culture is considered to be multi-dimensional in nature (Taras *et al.*, 2009). It can be thought of as “the source of a family of concepts” (Pettigrew, 1979, p. 2) and, so, consists of a number of components, often referred to as layers or levels (Hatch, 1993; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010). Namely, these are: shared values, norms and artifacts (Homburg and Pflesser, 2000; Farrell, 2005).

Furthermore, as per Figure 2.2, Market Orientation is also concerned with specific behaviours. These were identified earlier as: Generation of Market Intelligence; Dissemination of Market Intelligence; and Responsiveness to Market Intelligence (Kohli *et al.*, 1993). These behaviours represent the fourth and final layer of a Market-Oriented Organisational Culture (Homburg and Pflesser, 2000; Farrell, 2005). Recognition of these four layers further emphasises a connection between the cultural and behavioural perspectives of Market Orientation.

The principal aim of a Market-Oriented Organisational Culture is to have each of these four layers strongly focused on the market, particularly the customer (Homburg and Pflesser, 2000, cited in Farrell, 2005, p. 264).

2.6.1 Values

Values can be defined as:

A conception . . . of the desirable which influences the selection from available modes, means and ends of action (Kluckhohn, 1951, quoted by Homburg and Pflesser, 2000, p. 450)

Therefore, organisational values refer to a group’s sense of how they think or feel something ought to be, as opposed to how it actually is (Schein, 1984; Hatch, 1993; Schein, 2010).

The concept of values can be subdivided into two differentiating types (Schein, 1984; Hatch, 1993; Schein, 2010):

1. Unconcealed, upheld “values”, which are described as “Social principles, philosophies, goals and standards considered to have intrinsic worth” (Hatch, 1993, p. 659); and

2. Absolute, taken-for-granted values, which are more appropriately termed “assumptions”. These “represent taken-for-granted beliefs about reality and human nature” (Hatch, 1993, p. 659).

Often, assumptions originate from unconcealed values (Schein, 2010):

In order to be shared, values have to be proven to be effective. Thus, they have to be put into action. If a value continuously solves a group’s problem(s), it becomes socially validated and, eventually, it is taken for granted. Hence, it is converted into a basic assumption (Schein, 1984; Schein, 2010). Assumptions can, therefore, be considered as “the products of socialization into an organizational . . . culture” (Gjerald and Øgaard, 2012, p. 2).

Although latent and unconscious in nature, it is believed that assumptions manifest themselves in the layers of an organisation’s culture i.e. overt values, norms, artifacts, and behaviours reflect assumptions (Hatch, 1993; Schein, 2010). For this reason, assumptions are widely considered to be at the heart of Organisational Culture (Schwartz and Davis, 1981; Schein, 1984; Hatch, 1993; Schein, 2010).

According to Homburg and Pflesser (2000), Market Orientation is more likely to be supported by values than by any of the other layers of culture. This is due to the belief that values create norms which, in turn, guide behaviour(s) in organisations (Schwartz and Davis, 1981; Homburg and Pflesser, 2000; Schein, 2010). Consequently, it is believed that values have the ability to generate Market-Oriented behaviours.

Although the literature on values specific to Market Orientation appears scant, Homburg and Pflesser (2000) identify eight value dimensions that have been found to support such a culture (Homburg and Pflesser, 2000; Byrne, 2014). These are: “success, innovativeness and flexibility, openness of internal communication, quality and competence, speed, interfunctional cooperation, responsibility of the employees, and appreciation of the employees” (Homburg and Pflesser, 2000, p. 453). It is interesting to note that none of these eight value dimensions place any emphasis on the market, which includes customers around whom the concept of Market Orientation is centred (Kohli and Jaworski, 1990).

Contrastingly, Gebhardt *et al.* (2006, p. 43) identify “Market as the Raison D’être” as being the “central cultural value” of Market Orientation. They also identify an additional five value dimensions that support Market Orientation, two of which are similar to those of Homburg and Pflesser (2000) i.e. collaboration; and openness, and three of which differ from those found by Homburg and Pflesser (2000) i.e. keep promises; respect/empathy/perspective taking; and trust.

Combined, the above fourteen value dimensions strongly reflect the six “essential building blocks of a Market-Oriented culture” as proposed by Kasper (2005, p. 2); in particular, those which he refers to as “internal cooperation, internal communication, drive to be the best, [and a] lack of pursuing self interest”.

2.6.2 Norms

Norms can be defined as “expectations about behaviour or its results that are at least partially shared by a social group” (Homburg and Pflesser, 2000, p. 450). Therefore, norms determine the behaviour(s) that an organisation’s members pressure each other to follow (Kilman *et al.*, 1985, cited in Homburg and Pflesser, 2000, p. 452, and also cited in Farrell, 2005, p. 262). If an individual violates a group’s cultural norms, they may be expelled from the group unless the group’s norms alter to accommodate this violation (Schwartz and Davis, 1981).

Organisational norms are believed to originate from shared values (Schwartz and Davis, 1981; Homburg and Pflesser, 2000; Schein, 2010; Byrne, 2014). Consequently, Market-Oriented norms that have been identified in the literature relate directly to Market-Oriented values (Homburg and Pflesser, 2000; Gebhardt *et al.*, 2006; Byrne, 2014). For example, Homburg and Pflesser (2000, p. 459) identify the following norms found to support Market Orientation: Market-related success orientation; Market-related innovativeness and flexibility; Openness of market-related internal communication; Market-related quality orientation; Market-related speed; Market-related interfunctional cooperation; Market-related responsibility of the employees; and Market-related appreciation of the employees. These norms correspond directly to Homburg and Pflesser’s (2000) Market-Oriented values (see section 2.6.1 above).

Norms differ from values, in that they have a stronger pertinence to actual behaviour(s) (Katz and Kahn, 1978, cited in Homburg and Pflesser, 2000, p. 450, and also cited in

Farrell, 2005, p. 262); norms guide behaviour(s), whereas values provide general behavioural guidelines (O'Reilly, 1989, cited in Homburg and Pflesser, 2000, p. 451).

2.6.3 Artifacts

Artifacts [sic] are recognised in the literature as being a crucial element of culture (Taras *et al.*, 2009). They are defined as “visible organizational structures, processes and behaviour” (Bonavia *et al.*, 2009, p. 3). Hence, artifacts are tangible manifestations that a group creates and leaves behind (Snow, 2005; Schein, 2010). Often, they are presented as organisational representations such as trademarks, uniforms, logos and brand names (Turner and Spencer, 1997).

Artifacts can be thought of as “cultural keys . . . to the past” that reveal the values, norms, and behaviours of a group, and ultimately reveal their culture (Snow, 2005, p. 15). In this sense, it is believed that artifacts have the ability to indicate the degree to which an organisation is Market-Oriented (Homburg and Pflesser, 2000).

Artifacts possess strong symbolic meaning (Hatch, 1993; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010) and have even been described as “physical symbols” (Turner and Spencer, 1997, p. 115) and the “symbolic representation of market orientation” (Hart, 2003, p. 105). Their symbolic nature implies that there is a surplus meaning, either conscious or unconscious, as well as a literal meaning attached to them i.e. their meaning is associated “with some wider, usually more abstract, concept” (Hatch, 1993, p. 669).

Despite being the most visible layer of culture, artifacts are often difficult to interpret due to their subjective and ambiguous nature (Homburg and Pflesser, 2000; Schein, 2010). It is argued that their meaning only becomes clear if one “lives in the group long enough”, otherwise, one must try to assess the values and norms of the group in order to decipher its artifacts (Schein, 2010, p. 25).

Artifacts are often categorised in the literature. The four most common categories are: stories, arrangements, rituals, and language (Homburg and Pflesser, 2000; Hart, 2003; Farrell, 2005).

2.6.3.1 Stories

Stories are most often based on true events that occurred in an organisation's history.

Consequently, they “anchor an organization’s past to its present” (Brady and Haley, 2013, p. 41; Turner and Spencer, 1997). They are told in order to reinforce an organisation’s values (Turner and Spencer, 1997). Thus, stories create a sense of identity for an organisation’s members, allowing it to differentiate itself from others (Brady and Haley, 2013).

With regard to Market Orientation, Homburg and Pflesser (2000, p. 455) found there to be two categories of stories: “stories about heroes of market orientation [and] stories about problems of market orientation”.

2.6.3.2 Arrangements

Arrangements refer to the physical layout of an organisation i.e. the styling of both the interior and exterior (Hart, 2003). Market-Oriented arrangements should be customer-focused and support communication. For example, one would expect the reception area of a Market-Oriented organisation to be presented to customers in a friendly and inviting manner (Trice and Beyer, 1993, cited in Homburg and Pflesser, 2000, p. 451).

2.6.3.3 Rituals

Rituals usually refer to planned events, often held for special occasions. These can be aimed at employees (e.g. staff outings), or at customers (e.g. an open day) (Homburg and Pflesser, 2000; Hart, 2003; Farrell, 2005). Such events create a sense of belonging and can reflect the organisation’s values. Therefore, rituals reinforce values, allowing for their mutual understanding by both the organisation’s employees and customers (Turner and Spencer, 1997).

Rituals also include reward systems. From a Market Orientation perspective, these should aim to reward employees who are customer-focused (Homburg and Pflesser, 2000; Hart, 2003).

2.6.3.4 Language

Language is considered to be an important artifact, particularly for Market Orientation:

If managers actively and consistently align words with action, the chance of employees adopting the values and behaviours expressed, is increased. Thus, language can reinforce and strengthen Market Orientation (Turner and Spencer, 1997).

According to Turner and Spencer (1997), language is epitomised in an organisation's mission statement. Similarly to all other artifacts, language can indicate the degree to which an organisation is Market-Oriented (Homburg and Pflesser, 2000).

With regard to Market Orientation, Homburg and Pflesser (2000, p. 455) found there to be two dimensions of language: "market-oriented language and . . . non-market-oriented language".

2.6.4 Market-Oriented Behaviours

Behaviours represent the fourth and final layer of a Market-Oriented Organisational Culture. As highlighted in Figure 2.3 (below), there are three specific behaviours associated with Market Orientation. These will now be discussed in more detail.

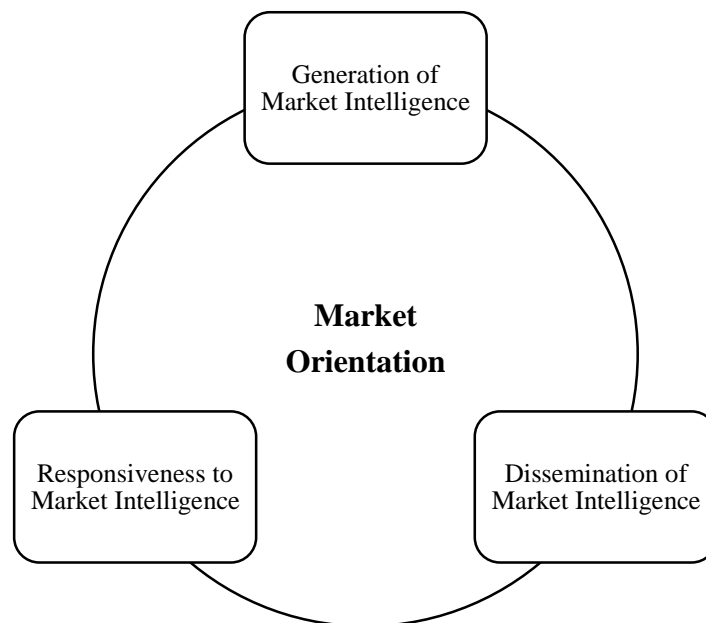


Fig. 2.3 "A Diagrammatic Representation of Market Orientation from a Behavioural Perspective" (created by the researcher from Kohli *et al.*'s definition and explanation of Market Orientation, 1993, p. 467)

2.6.4.1 Generation of Market Intelligence

Generation of market intelligence is considered to be the inception of Market Orientation (Kohli and Jaworski, 1990; Harris and Ogbonna, 1999).

In order for an organisation to successfully maintain a competitive advantage, it must fully understand its customers' wants and needs. Furthermore, it is vital to also understand the factors that influence these wants and needs (Hamadu *et al.*, 2011). Therefore, generation of market intelligence is much broader than the gathering and analysing of information about the customer. Rather, intelligence on the factors that influence customer preferences e.g. competition and/or technology, must also be proactively generated (Kohli and Jaworski, 1990; Kohli *et al.*, 1993; Jaworski and Kohli, 1993; Harris and Ogbonna, 1999; Varela and R  o, 2003; Hamadu *et al.*, 2011; Hajipour *et al.*, 2013). Consequently, successful generation of market intelligence will identify, not only customers' present wants and needs, but also their latent and future ones (Kohli and Jaworski, 1990; Hamadu *et al.*, 2011).

Market intelligence is generated not only from formal sources (e.g. market research), but also from informal sources (e.g. informal discussions with customers) (Kohli and Jaworski, 1990). It is important to note that it is not the sole responsibility of the marketing department. As Kohli *et al.*'s (1993, p. 467) definition states, "Market orientation [is] the organization-wide generation of market intelligence". Hence, this behaviour is applicable throughout the entire organisation (Varela and R  o, 2003; Cadogan *et al.*, 2008; Hamadu *et al.*, 2011). By taking this approach, each department is given the opportunity to better understand the customer and, ultimately, become customer-focused (Cadogan *et al.*, 2008).

It is believed that the extent to which an organisation carries out each of the three behaviours determines its level of Market Orientation (Ruekert, 1992, cited in Hamadu *et al.*, 2011, p. 55). So, many measures of Market Orientation have worked to determine the extent to which each behaviour is adopted, rather than to determine the quality of the behaviour. In a preliminary study (that admittedly needs further investigation and, thus, cannot be generalised) Cadogan *et al.* (2008) found that the greater the speed, regularity and organisation-wide involvement of information generated, the greater the generation process quality. Varela and R  o (2003) also found intelligence generation to possess a

speed factor i.e. the more Market-Oriented an organisation is, the faster it will generate market intelligence.

2.6.4.2 Dissemination of Market Intelligence

Once market intelligence has been generated it “must [then] be communicated, disseminated, and perhaps even sold to relevant departments and individuals in the organization” (Kohli and Jaworski, 1990, p. 5). The behaviour of dissemination is similar to generation of market intelligence in the following ways:

Firstly, dissemination occurs both formally and informally (Kohli and Jaworski, 1990; Cadogan *et al.*, 2008; Hamadu *et al.*, 2011). Maltz and Kohli (1996, p. 48) point out that the level of “dissemination formality” is determined by two factors, namely, spontaneity (i.e. whether or not the dissemination of intelligence was planned in advance) and verifiability (i.e. whether or not there is a third person to confirm that the intelligence was, in fact, disseminated from the sender to the receiver).

Formal dissemination (e.g. a staff meeting) is characterised by being non-spontaneous and verifiable. Due to its nature of accountability, it encourages the exchange of high quality intelligence and, also, encourages the use of intelligence. On the other hand, informal dissemination (e.g. “hall talk” among employees) is characterised by being spontaneous and non-verifiable; consequently, it supports the dissemination of intelligence that is of a sensitive and/or confidential nature (Maltz and Kohli, 1996).

In their research on intelligence dissemination, Maltz and Kohli (1996) found that formal and informal dissemination are less effective when used in isolation, rather there should be a fairly equal incorporation of the two (Kohli and Jaworski, 1990; Maltz and Kohli, 1996; Cadogan *et al.*, 2008; Hamadu *et al.*, 2011).

Secondly, dissemination of market intelligence is similar to the generation of market intelligence in that it is not the sole responsibility of the marketing department; rather it is an organisation-wide activity that should occur both vertically and horizontally (Kohli and Jaworski, 1990; Hajipour *et al.*, 2013). This is considered to be an essential aspect of Market Orientation (Maltz and Kohli, 1996; Narver and Slater, 1990, cited in Hamadu *et al.*, 2011, p. 56).

Dissemination of market intelligence is important because:

- It encourages organisation-wide exchange of market intelligence, thus reducing the probability of important information being missed by those who require it for effective decision-making (Slater and Narver, 1995, cited in Cadogan *et al.*, 2008, p. 1266);
- It provides common ground for different departments on which to focus their actions and activities (Kohli and Jaworski, 1990; Hajipour *et al.*, 2013); and
- It can influence the receiver's perception of the quality of market intelligence and, thus, determines whether or not the intelligence is put to use (Deshpandé and Zaltman, 1982, cited in Maltz and Kohli, 1996, p. 48).

In their preliminary research, Cadogan *et al.* (2008) found that the greater the speed and regularity of information disseminated, the greater the quality of the dissemination process. They further found that the summarisation of information during this process plays an additional role in its quality. Similarly, Varela and Ríó (2003) also found intelligence dissemination to possess a speed factor i.e. the more Market-Oriented an organisation is, the faster it will disseminate market intelligence.

2.6.4.3 Responsiveness to Market Intelligence

Often, organisations have means of generating the same market intelligence as each other. Therefore, it is increasingly the case that a competitive advantage is gained through the *use* of market intelligence, rather than through the generation of market intelligence (Maltz and Kohli, 1996). Consequently, once an organisation has generated and disseminated market intelligence, it must then act on it, otherwise very little is achieved (Kohli and Jaworski, 1990; Hajipour *et al.*, 2013).

Responsiveness is the action that an organisation takes based on the market intelligence that it has generated and disseminated (Kohli and Jaworski, 1990; Kohli *et al.*, 1993; Harris and Ogbonna, 1999; Hajipour *et al.*, 2013). It has been described as comprising of two activities: i.) Response design i.e. the use of market intelligence to create plan(s) of action, and ii.) Response implementation i.e. putting the plan(s) made during response design into action (Harris and Ogbonna, 1999; Varela and Ríó, 2003; Kohli and Jaworski, 1993, cited in Hamadu *et al.*, 2011, p. 56).

Maltz and Kohli (1996) propose two types of market intelligence use: i.) Instrumental use i.e. intelligence is used for decision making and/or problem solving, and ii.) Conceptual

use i.e. intelligence is used to change the way something is envisaged, without it leading to immediate visible action.

During implementation an organisation should try to further generate and disseminate market intelligence (Ruekert, 1992, cited in Hamadu *et al.*, 2011, p. 56). The focus should be on utilising resources in a coordinated manner, with the overall aim of creating superior customer value and thus creating a competitive advantage. Therefore, similarly to generation and dissemination, responsiveness is also an organisation-wide behaviour (Narver and Slater, 1999, cited in Hamadu *et al.*, 2011, p. 56).

Cadogan *et al.* (2008) found that the greater the speed, scope, use of market information and risk-taking during responsiveness, the greater the quality of the response process.

2.6.5 A Summary of the Layers of a Market-Oriented Organisational Culture

Figure 2.4, which follows, provides a summary of the four layers of a Market-Oriented Organisational Culture as discussed above:

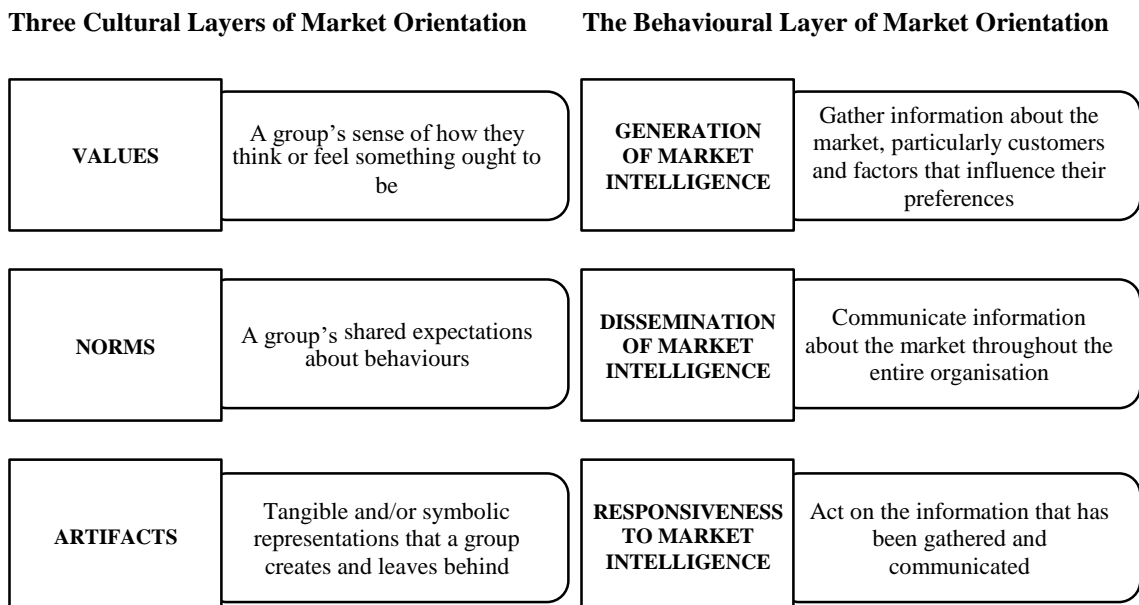


Fig. 2.4 “A Summary of the Layers of a Market-Oriented Organisational Culture” (created by the researcher from Kohli *et al.*, 1993 and Schein, 2010)

2.7 Relationships among the Layers of a Market-Oriented Organisational Culture

From the above, it is clear that the layers of an organisation's culture are widely recognised in the literature. While it is agreed that these layers are closely interrelated

(Hatch 1993; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010), the body of research that aims to examine and understand the relationship(s) between them remains surprisingly scant (Farrell, 2005). Consequently, “the strength [and the nature] of the relationship[s] between [the] different layers of culture is still unclear” (Taras *et al.*, 2009, p. 359).

Furthermore, as the majority of the definitions of Organisational Culture follow Schein’s (1984; 2010) assumption that values create norms which, in turn, influence behaviour (Schwartz and Davis, 1981; Deshpandé and Webster, 1989; Brown, 1998; Johnson *et al.*, 2008), a strong focus on the Cultural Approach to Market Orientation has transpired (Sheppard, 2011). Resultantly, the relationships between values, norms, artifacts and behaviours are most commonly considered from the Cultural Perspective (Homburg and Pflesser, 2000; Farrell, 2005).

2.7.1 Hatch’s “Cultural Dynamics Model”

In an attempt to explain potential relationships between the different layers of culture, Hatch (1993) introduced “The Cultural Dynamics Model”, which is illustrated in Figure 2.5, as follows:

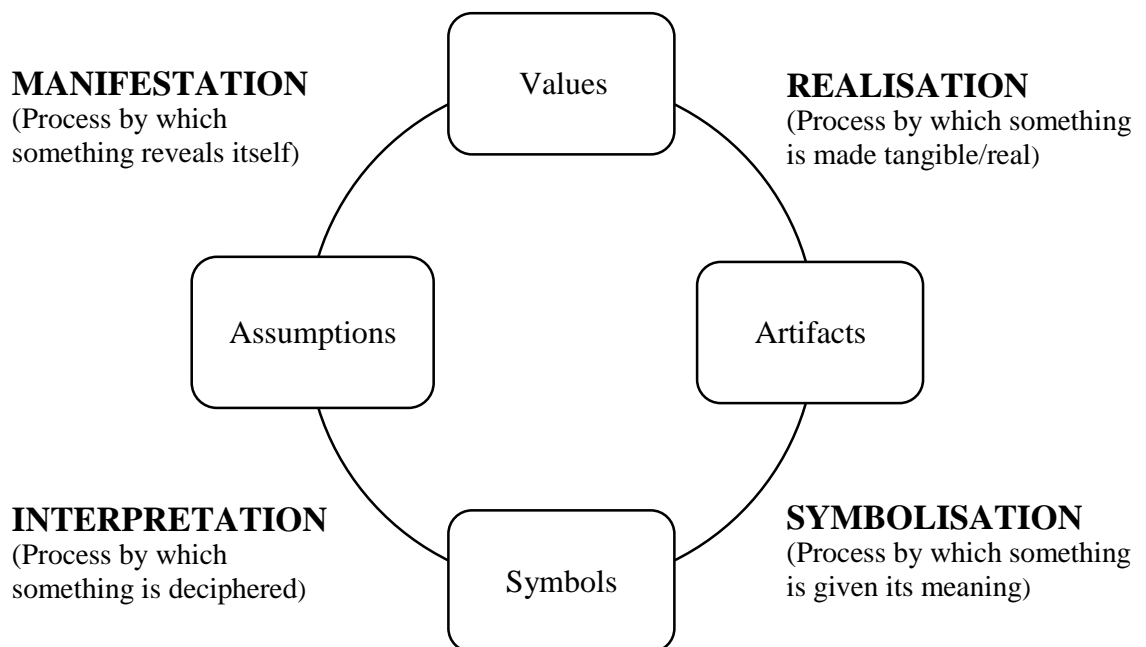


Fig. 2.5 “The Cultural Dynamics Model” (adapted by the researcher from Hatch, 1993, p. 660)

She describes this model as a wheel that can be entered at any point and flow in either a clockwise or an anti-clockwise direction, thus illustrating the dynamic nature of Organisational Culture. The model focuses on four theoretical relationships between the different layers of culture, namely, Manifestation, Realisation, Symbolisation and Interpretation (Figure 2.5).

Manifestation refers to the process by which something reveals itself. In the case of “The Cultural Dynamics Model”, Hatch (1993) states that the process of manifestation converts assumptions into overt values (as represented by the clockwise direction in Figure 2.5). She argues that, in turn, values can either preserve or change assumptions (this is represented by the anti-clockwise direction in Figure 2.5). Change is most likely to occur if new values are introduced e.g. new top management comes on board (Hatch, 1993).

The process of *realisation* creates tangibility, that is, it makes something real. From the clockwise perspective of the model, realisation turns values into artifacts. On the other hand, from the anti-clockwise perspective, the realisation process can cause artifacts to either preserve or renew values. For example, Hatch (1993) argues that if artifacts are the result of another culture e.g. a now obsolete culture that once existed in the organisation, then they may have the ability to renew values, otherwise these now irrelevant artifacts may simply be ignored or discarded.

As mentioned earlier (Section 2.6.3), artifacts are often referred to as symbols. In the case of “The Cultural Dynamics Model”, Hatch (1993) separates symbols from artifacts so as to enable her to include, and highlight, the importance of the symbolisation process. *Symbolisation*, from a clockwise perspective, gives artifacts their surplus meaning. From an anti-clockwise perspective, symbolisation enhances the surplus/symbolic meaning of an artifact (Hatch, 1993).

The final relationship/process proposed by Hatch (1993) is *interpretation*, which has two potential outcomes: it can either lead symbols to alter assumptions (represented by the clockwise perspective in Figure 2.5) or it can cause assumptions to influence and, ultimately, alter symbolic meaning (represented by the anti-clockwise perspective in Figure 2.5).

One of the major shortcomings of “The Cultural Dynamics Model” from the point of view of this piece of research is that it does not focus specifically on Market Orientation. This

point, coupled with the fact that the model adopts the traditional Cultural Perspective, leaves many questions to be answered about Market Orientation, particularly with regard to Market-Oriented behaviours and their relationship(s) with the other layers of culture.

Furthermore, the model is heavily reliant on the literature and, thus, is very theoretically based. To the best of the researcher's knowledge, the model has not been tested, rather it has only been applied to specific cases: for example, Halliday (2002) analysed her research findings by applying "The Cultural Dynamics Model", without questioning, testing, or altering it.

However, despite these limitations, an interesting aspect of the model is the fact that Hatch (1993) claims that it can flow in either direction (clockwise or anti-clockwise) and be entered at any point. This begs the question: If the wheel were specifically focused on a Market-Oriented Organisational Culture and, therefore, also included Market-Oriented behaviours, could behaviour be used as a starting point, given the basic idea of the model? In other words, could it be the case that behaviour can create culture?

2.7.2 Homburg and Pflesser's "Framework for Market-Oriented Organizational Culture"

In contrast to Hatch (1993), a study carried out by Homburg and Pflesser (2000) focuses specifically on Market Orientation.

Their study builds upon Kohli *et al.*'s (1993) widely recognised, and utilised, "MARKOR" measurement tool that measures Market Orientation in terms of its specific behaviours (intelligence generation, dissemination and responsiveness). By extending this instrument, Homburg and Pflesser (2000) ultimately became the first to introduce a measurement tool that takes each of the four layers of Market Orientation into account. Consequently, their study is a crucial stepping stone for those wishing to explore, and measure, the relationship(s) among the different layers of a Market-Oriented Organisational Culture.

Homburg and Pflesser (2000) found that values have a positive impact on norms which, in turn, have a positive impact on artifacts. These artifacts were found to have a positive impact on Market-Oriented behaviours.

Therefore, they believe that, through their direct impact on artifacts, values and norms indirectly impact on Market-Oriented behaviours. Hence, Homburg and Pflesser's (2000)

study concludes that artifacts are of major importance in determining Market-Oriented behaviour.

Homburg and Pflesser's (2000) hypothesised model is illustrated in Figure 2.6, as follows:

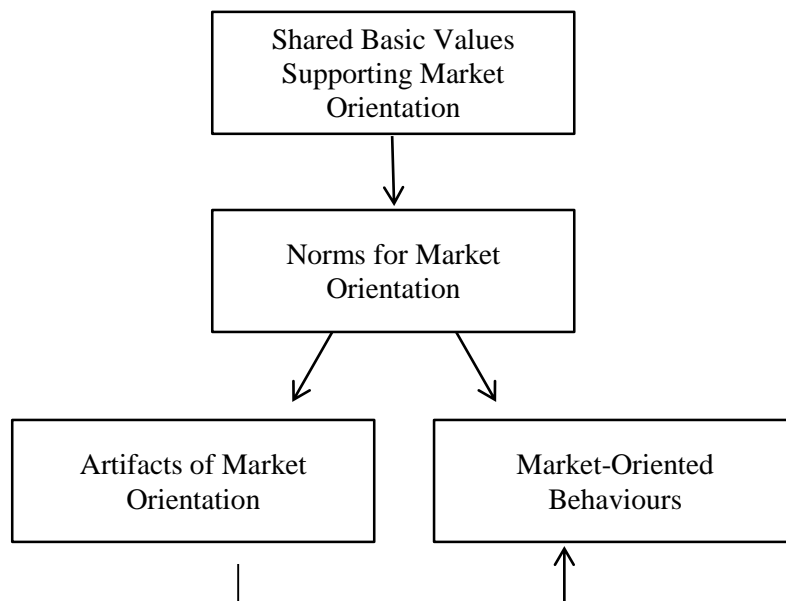


Fig. 2.6 “Framework for Market-Oriented Organisational Culture” (Homburg and Pflesser, 2000, p. 451)

However, this hypothesised model (Figure 2.6) fails to depict an accurate representation of Homburg and Pflesser's (2000) actual research findings. For example, the model's hierarchical structure implies that there is a direct relationship between values, norms and behaviours, rather than an indirect relationship, which their research found. Furthermore, the model also suggests that Market-Oriented behaviours can be produced purely by values and norms, without the presence of artifacts when, in actual fact, from their findings, Homburg and Pflesser (2000) believe the opposite to be true.

Interestingly, a follow-up study carried out by Farrell (2005, p. 271), that focuses on the individual (salesperson) level as opposed to the organisational level investigated by

Homburg and Pflesser (2000), finds “a complete lack of support” for the relationship between artifacts and behaviours. Hence, Farrell’s (2005) findings are extremely contradictory to those of Homburg and Pflesser (2000).

Surprisingly, Farrell (2005, p. 271) concludes that “Despite our findings, we agree with Homburg and Pflesser (2000) that market-oriented artifacts should have an effect on the market-oriented behaviours of the sales-force” and, thus, ultimately rejects his own findings without considering the following points:

- Homburg and Pflesser’s (2000) study was conducted in Germany, whereas Farrell’s (2005) was conducted in Australia; this may have led to varying results due to cultural differences (e.g. differing business etiquette and/or processes);
- Farrell (2005) changed the behaviours scale from traditional Market-Oriented behaviours (intelligence generation, dissemination and responsiveness) to individual salesperson behaviours (salesperson’s customer orientation, job satisfaction, organisational commitment and role conflict), which may also have contributed to differing results; or
- Contrary to widespread belief, it may be the case that artifacts do not actually impact on Market-Oriented behaviours and, thus, further investigation may be necessary.

Similarly to the preceding literature, Homburg and Pflesser (2000) and Farrell (2005) assume, and adopt, the traditional Cultural Approach to Market Orientation. The Behavioural Approach was neither considered nor tested in either of these studies. It is interesting to note, especially with regard to the final point above, that such an approach could be explanatory of findings that Farrell (2005, p. 271) finds “puzzling” e.g. that artifacts do not directly impact behaviour.

If the Behavioural Approach was considered, then perhaps it could be the case that artifacts are a result of behaviour rather than a cause of it and, therefore, would be indirectly supportive rather than directly supportive of a Market-Oriented Organisational Culture.

2.7.3 Gainer and Padanyi’s Emerging “Activities-Create-Culture” Approach

As mentioned above, the traditional Cultural Approach has been widely assumed, and adopted, in the literature i.e. the majority of the literature is supportive of the idea that culture drives behaviour(s) in organisations.

However, in more recent years, growing concern for this rationale has been expressed (Gainer and Padanyi, 2005; Taras *et al.*, 2009). Taking into consideration that “no agreement has been reached on the exact nature of market orientation” (Gainer and Padanyi, 2005, p. 854), it can be argued as irrational that the traditional Cultural Approach is always taken. In fact, “It may be possible that [the] reverse order is also worthy of consideration” (Gainer and Padanyi, 2005, p. 854).

In an exploratory study carried out by Gainer and Padanyi (2005, p. 856), both the traditional Cultural Approach (which they term “Culture-Drives-Activities”) and an emerging Behavioural Approach (which they term “Activities-Create-Culture”) were tested:

While their traditional “Culture-Drives-Activities” model produced a poor fit, their emerging “Activities-Create-Culture” model, which is illustrated in Figure 2.7, as follows, produced an exceptional fit:

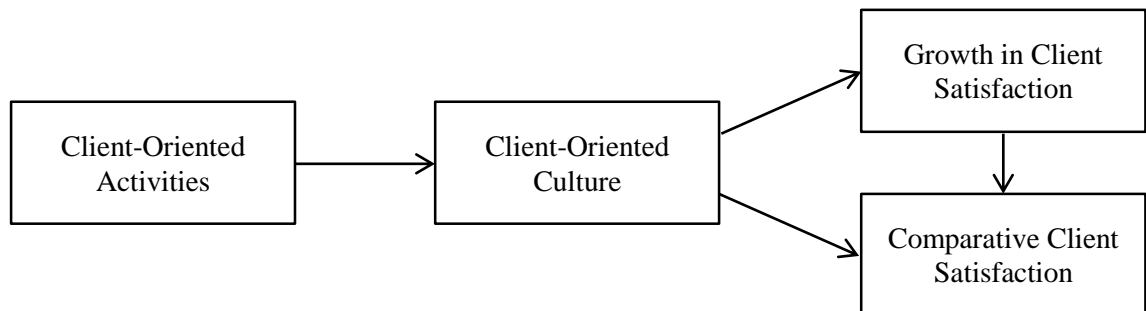


Fig. 2.7 “Relationship between Market-Oriented Culture and Behaviours in Non-Profit Organisations” (Gainer and Padanyi, 2005, p. 858)

Gainer and Padanyi’s (2005, p. 860) study also concluded that “the relationship between norms and behaviors is insignificant” and, so, similarly to Farrell (2005), their findings also contradict those of Homburg and Pflesser (2000).

It is important to note that Gainer and Padanyi's (2005) work was conducted in a nonprofit setting and, thus, measurement scales were adjusted accordingly for the context of their research. Consequently, questions remain as to whether or not their Behavioural "Activities-Create-Culture" Approach is applicable outside of a non-profit setting (Gainer and Padanyi, 2005, p. 856).

2.7.4 Further Support for Gainer and Padanyi's Approach

A Behavioural Approach has also been supported by both Griffiths and Grover (1998) and González-Benito and González-Benito (2005), all of whom believe that Market-Oriented Behaviour may be an antecedent of Market-Oriented Culture. In fact, when tested by González-Benito and González-Benito (2005), they found that, while both the Cultural and Behavioural Perspectives of Market Orientation are related, culture is not necessarily an antecedent of behaviour as has been traditionally assumed. So, while behaviour is often considered to be a consequence of culture, there may be support for "inverse reasoning" (González-Benito and González-Benito, 2005, p. 808). That is, Market-Oriented Culture may be a consequence of Market-Oriented Behaviour.

While González-Benito and González-Benito's (2005) findings cannot be generalised due to research limitations, they do provide support for merit in Gainer and Padanyi's (2005, p. 856) "Activities-Create-Culture" approach to Market Orientation.

2.8 Development of Research Hypotheses

Despite growing support for the Behavioural Approach to Market Orientation (Gainer and Padanyi, 2005; Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 805; González-Benito and González-Benito, 2005; Taras *et al.*, 2009), to date, no research has focused specifically on the layers of a Market-Oriented Organisational Culture from this approach. In particular, the relationships between Market-Oriented behaviours and the three cultural layers of Market Orientation (values, norms and artifacts) remain unexplored from this perspective. So, while it is widely agreed that the four layers of Market Orientation are closely interrelated (Hatch, 1993; Homburg and Pflesser, 2000; Schein, 2010), the influence that Market-Oriented behaviours have on cultural values, norms and artifacts is yet to be determined.

This research gap is summarised in Figure 2.8, as follows:

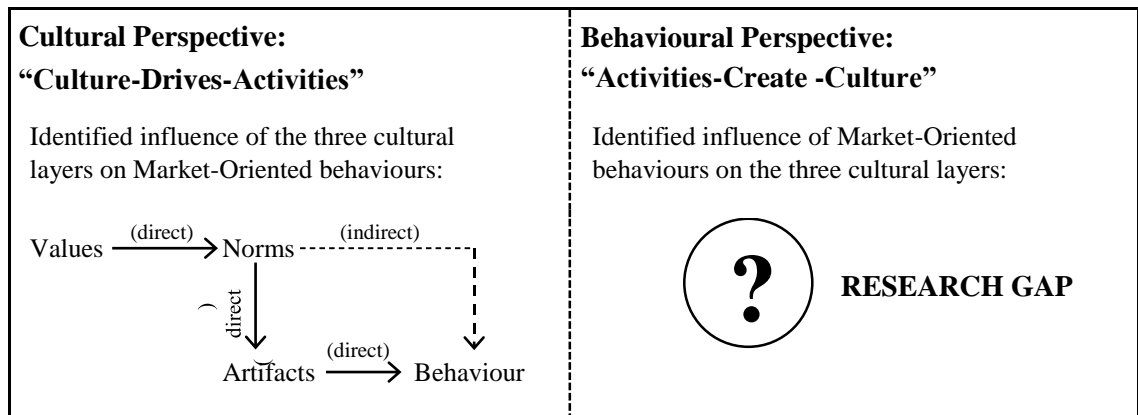


Fig. 2.8 “Identified Research Gap” (created by the researcher from Homburg and Pflesser, 2000 and Gainer and Padanyi, 2005, p. 856)

It is against this background that the researcher wishes to propose, and test, three hypotheses aimed at addressing the identified research gap (Figure 2.8).

As explained earlier, Homburg and Pflesser (2000) focused their research on a similar topic. However, they adopted the traditional Cultural Approach. As the researcher is adopting a Behavioural Approach, then one could expect the hypotheses for this piece of research to be the inverse of those of Homburg and Pflesser (2000), given the differing perspectives but, otherwise, similar nature of the studies in question.

Therefore, the following hypotheses are proposed for the purpose of this study:

Table 2.1 – Research Hypotheses	
H1	Market-Oriented behaviours have a positive influence on cultural artifacts.
H2	Market-Oriented behaviours have a positive influence on cultural norms.
H3	Market-Oriented behaviours have a positive influence on cultural values.

As these hypotheses indicate, this research coincides with Homburg and Pflesser’s (2000) study in that it is focusing on an organisational level as opposed to an individual (e.g. salesperson) level.

Evidence from the literature that lends support to each of these three hypotheses is now provided.

2.8.1 Hypothesis 1: Market-Oriented behaviours have a positive influence on cultural artifacts

Following on from the above, while Homburg and Pflesser (2000) hypothesised that Market-Oriented artifacts have a positive influence on Market-Oriented behaviours, this piece of research hypothesises the reverse i.e. behaviours have a positive influence on artifacts.

Support for this hypothesis can be obtained from the literature much of which, ironically, is based on the traditional Cultural Approach to Market Orientation:

Both Snow (2005) and Schein (2010) agree that an artifact is a tangible manifestation a group creates and leaves behind that is reflective of their culture. Based on this understanding, one could assume that, in order for a tangible manifestation to be created, action (i.e. behaviours) must first materialise. Snow (2005, p. 15) lends additional strengthening support for this argument when he says that “Artifacts are keys to the past . . . [from which] we come to know . . . [an organisation’s] behaviors”. This strongly implies that artifacts originate from and, thus, are influenced by behaviours.

To convey this point using a practical example, one could take the fact that stories are a classification of artifacts (Hart, 2003). As mentioned earlier, stories are most often based on true events that occurred in an organisation’s history (Turner and Spencer, 1997) and are likely to be about “heroes of market orientation” (Homburg and Pflesser, 2000, p. 455). Therefore, behaviour has to initially occur in order for these stories to develop and transpire. In this case, behaviour precedes and influences the artifact.

Furthermore, Kohli *et al.* (1993) claim that the stronger the Market-Oriented behaviours of an organisation, the greater the degree to which an organisation is Market-Oriented, while Homburg and Pflesser (2000, cited in Farrell, 2005, p. 263) claim that “the presence or absence . . . of market-oriented artifacts indicates . . . [the] level of market orientation”. Combining these two claims, one could conclude that if Market-Oriented behaviours create a high degree of Market Orientation, this, in turn, will be reflected in the organisation’s artifacts. Thus, behaviours precede and influence artifacts.

Based on the above arguments it is hypothesised that:

H1: Market-Oriented behaviours have a positive influence on cultural artifacts.

2.8.2 Hypothesis 2: Market-Oriented behaviours have a positive influence on cultural norms

Secondly, the researcher hypothesises that Market-Oriented behaviours have a positive influence norms. Again, this is the reverse of Homburg and Pflesser (2000) who hypothesised that Market-Oriented norms have a positive impact on Market-Oriented behaviours.

Similarly to hypothesis 1, support for the second hypothesis can be drawn upon from the existing literature:

As Gainer and Padanyi (2005) point out, much of the “adoption–entrenchment” theory proposed by Zeitz *et al.* (1999), which falls under the fields of institutional theory and new management processes, is in agreement with and, thus, supportive of their “Activities-Create-Culture” approach to Market Orientation (Zeitz *et al.*, 1999; Gainer and Padanyi, 2005, p. 860).

Within adoption–entrenchment theory, adoption refers to the selection and initial use of a practice that is new to an organisation (Caleche and Lilien, 1986, cited in Zeitz *et al.*, 1999, p. 743). Once a practice has been adopted, it may then become entrenched, meaning that it is very unlikely to be ceased by the organisation (Zeitz *et al.*, 1999). If entrenchment does not occur, then the practice is considered to be merely a fad that can be easily abandoned by the organisation at any time (Abrahamson, 1999, cited in Zeitz *et al.*, 1999, p. 743).

So, the basic idea behind adoption–entrenchment theory is that “practices, once adopted, become embedded or entrenched within organizations . . . such that they resist removal” (Zeitz *et al.*, 1999, p. 742). One would assume that Market-Oriented practices (i.e. behaviours) are entrenched in strongly Market-Oriented organisations, rather than being mere fads.

As highlighted in Section 2.6.2, norms are shared “expectations about behaviour” (Homburg and Pflesser, 2000, p. 450). They determine the behaviours that members of an organisation pressure each other to follow (Kilman *et al.*, 1985, cited in Homburg and Pflesser, 2000, p. 452, and also cited in Farrell, 2005, p. 262). Therefore, based on the

above explanation, an adopted practice (i.e. a fad) does not constitute a norm, as it can be easily abandoned at any time. Consequently, pressure to follow it does not ensue. However, once a practice becomes entrenched it resists removal (Zeitz *et al.*, 1999) and, so, pressure to adhere to the practice develops. Hence, entrenchment of a practice essentially creates a norm. Conclusively, the practice (behaviour) precedes and influences the norm.

Furthermore:

as one actor (individual, organization, etc.) adopts and uses a given practice, this fact will be known to other actors, who will be motivated to adopt the practice themselves (Banerjee, 1995, cited in Zeitz *et al.*, 1999, p. 750)

This process, which Zeitz *et al.* (1999, p. 746) refer to as “imitative propensity”, facilitates entrenchment and lends further support to the argument that behaviours precede and influence norms.

Therefore, on the basis of the above, it is hypothesised that:

H2: Market-Oriented behaviours have a positive influence on cultural norms.

2.8.3 Hypothesis 3: Market-Oriented behaviours have a positive influence on cultural values

The third and final hypothesis is based on the belief that Market-Oriented behaviours have a positive influence on values. Again, this hypothesis is supported in the existing literature, particularly in the works of Zeitz *et al.* (1999) and González-Benito and González-Benito (2005):

According to Zeitz *et al.* (1999, p. 743) “An entrenched practice implies . . . connection with . . . deeply held values”. Hence, a link between behaviours and values is identified. For this particular piece of research, however, the important question is whether or not behaviours can influence values?

Zeitz *et al.* (1999) lend subtle support for the idea that behaviours can, in fact, influence values. They refer to personal identity which they define as “what a person believes to

be his or her enduring and distinctive character” (Jabes, 1978, cited in Zeitz *et al.*, 1999, p. 746; Weick, 1995, cited in Zeitz *et al.*, 1999, p. 746). Hence, personal identity is closely linked to one’s values. Zeitz *et al.* (1999, p. 746) argue that personal identity and organisational identity are related, and that “such identities result from numerous actions and interactions”. This implies that behaviours may precede and influence values.

Moreover, this hypothesis is overtly supported by González-Benito and González-Benito (2005), who acknowledge that there are grounds for the belief that behaviour may lead to culture and, ultimately, “foster the formation of . . . values within the organization” (Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 805).

They further argue that some firms may implement Market-Oriented behaviours without necessarily possessing Market-Oriented values. In such cases, behaviour acts as the foundation for the “progressive development of the . . . values . . . that make up the organizational culture” (Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 799).

Essentially, González-Benito and González-Benito (2005) argue that behaviour can provide the foundation for the formation of values and, ultimately, the organisation’s culture itself. This leads the researcher to hypothesise that:

H3: Market-Oriented behaviours have a positive influence on cultural values.

2.9 Conclusion

Upon review of the literature, it is clear that since the early 1980s there has been a major surge of research in the areas of Organisational Culture and Market Orientation. This has resulted in the production of a vast body of literature surrounding these concepts (Deshpandé *et al.*, 1993; Kohli *et al.*, 1993; Hatch, 1993; Homburg and Pflesser, 2000; Farrell, 2005; Sheppard, 2011; Liao *et al.*, 2011). However, despite this, a universally accepted definition of each concept has failed to establish (Deshpandé and Webster, 1989; Brown, 1998; Halliday, 2002; Taras *et al.*, 2009; Sheppard, 2011). Nonetheless, it is widely agreed that the two are synonymous i.e. Market Orientation represents a specific

Organisational Culture (Homburg and Pflesser, 2000; Raju *et al.*, 2011; Hajipour *et al.*, 2013).

The vast majority of studies have adopted the traditional Cultural Perspective, which considers Market Orientation to be an organisational attitude (Sheppard, 2011). From this perspective, Market-Oriented values have been found to positively influence Market-Oriented norms. These norms have then been found to positively influence Market-Oriented artifacts which, in turn, positively influence Market-Oriented behaviours (Farrell, 2005; Homburg and Pflesser, 2000). In short, the Cultural Perspective assumes that culture (values, norms and artifacts) drives behaviour in organisations (Homburg and Pflesser, 2000; Narver and Slater, 1990; Sheppard, 2011).

While the researcher acknowledges strong merit in this approach, it is interesting to note that in recent years it has been argued as illogical that alternative perspectives have rarely been investigated (Gainer and Padanyi, 2005; González-Benito and González-Benito, 2005). This argument is mainly due to the fact that “no agreement has been reached on the exact nature of market orientation” (Gainer and Padanyi, 2005, p. 854; Taras *et al.*, 2009).

Consequently, some researchers have shifted their focus towards the Behavioural Perspective, which “describes market orientation in terms of [the three] specific behaviours” aforementioned (Section 2.6.4; Homburg and Pflesser, 2000, p. 449; see, for example, Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 805; González-Benito and González-Benito, 2005; Taras *et al.*, 2009; Gainer and Padanyi, 2005). Resultantly, a new “Activities-Create-Culture” approach to Market Orientation has emerged (Gainer and Padanyi, 2005, p. 856).

While this new approach has gained credibility from researchers such as Gainer and Padanyi (2005) and González-Benito and González-Benito (2005), aspects of it have yet to be ascertained: In particular, the relationships between Market-Oriented behaviours and the three cultural layers of Market Orientation (values, norms and artifacts) remain unexplored from this perspective. So, while it is widely agreed that the four layers of Market Orientation are closely interrelated (Hatch, 1993; Homburg and Pflesser, 2000; Schein, 2010), the influence that Market-Oriented behaviours have on cultural values,

norms and artifacts is yet to be determined. Consequently, the role that behaviours play in creating and driving a Market-Oriented Organisational Culture remains unclear.

The researcher wishes to contribute to this research area by testing three hypotheses aimed at addressing this gap (Figure 2.8).

Figure 2.9, which follows, depicts a diagrammatic summary of the three hypotheses for this piece of research, justification for which has been provided throughout Section 2.8:

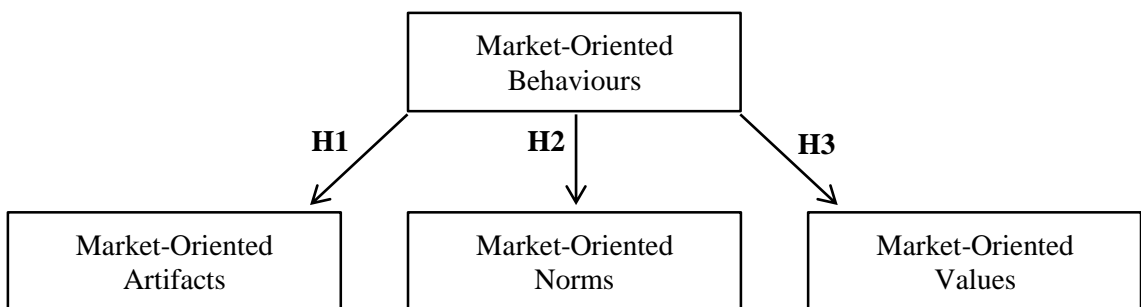


Fig. 2.9 “A Diagrammatic Representation of the Research Hypotheses” (created by the researcher)

3. Methodology

3.1 Introduction

This chapter documents the research methodology that was employed to examine the research problem.

It begins by summarising the relevant research gap and highlighting its associated research questions and hypotheses.

The chapter then goes on to develop an appropriate research methodology and, consequently, present a refined questionnaire tool aimed at addressing the identified research gap. Specific procedures used to collect and analyse primary data are detailed.

Finally, the chapter concludes by acknowledging limitations of the research methodology.

3.2 Research Gap

Upon review of the literature in the areas of Organisational Culture and Market Orientation an existing research gap was identified:

The literature highlights that, generally, a Market-Oriented Organisational Culture may be viewed from one of two perspectives: a Cultural Perspective or a Behavioural Perspective (Homburg and Pflesser, 2000; Gainer and Padanyi, 2005; Farrell, 2005; González-Benito and González-Benito, 2005; Carr and Burnthorne-Lopez, 2007; Gheysari *et al.*, 2012).

The vast majority of studies have adopted the traditional Cultural Perspective, which considers Market Orientation to be an organisational attitude and assumes that culture drives behaviour in organisations (Gainer and Padanyi, 2005; Sheppard, 2011) i.e. Market-Oriented values have a positive influence on Market-Oriented norms. These norms have a positive influence on Market-Oriented artifacts which, in turn, have a positive influence on Market-Oriented behaviour(s) (Homburg and Pflesser, 2000; Farrell, 2005).

However, in recent years growing concern for this rationale has been expressed (Gainer and Padanyi, 2005; Taras *et al.*, 2009). Taking into consideration that “no agreement has been reached on the exact nature of market orientation” it is argued as irrational that the traditional Cultural Perspective is always taken (Gainer and Padanyi, 2005, p. 854). In fact, “It may be possible that [the reverse] . . . is also worthy of consideration” (Gainer and Padanyi, 2005, p. 854).

Resultantly, some researchers have begun to challenge the traditional Cultural Approach (see, for example, Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 805; González-Benito and González-Benito, 2005; Taras *et al.*, 2009; Gainer and Padanyi, 2005). These researchers have shifted their focus to the Behavioural Perspective and, so, a new “Activities-Create-Culture” approach to Market Orientation has emerged (Gainer and Padanyi, 2005, p. 856).

Despite gaining merit from researchers such as González-Benito and González-Benito (2005) and Gainer and Padanyi (2005), all of whom have tested and consequently support this new approach, many gaps remain in the knowledge of it; in particular, questions remain about the relationships between Market-Oriented behaviours and the layers of an organisation’s culture (values, norms and artifacts).

It is this research gap, which is summarised in Figure 3.1 as follows, that the researcher wishes to address in this piece of research:

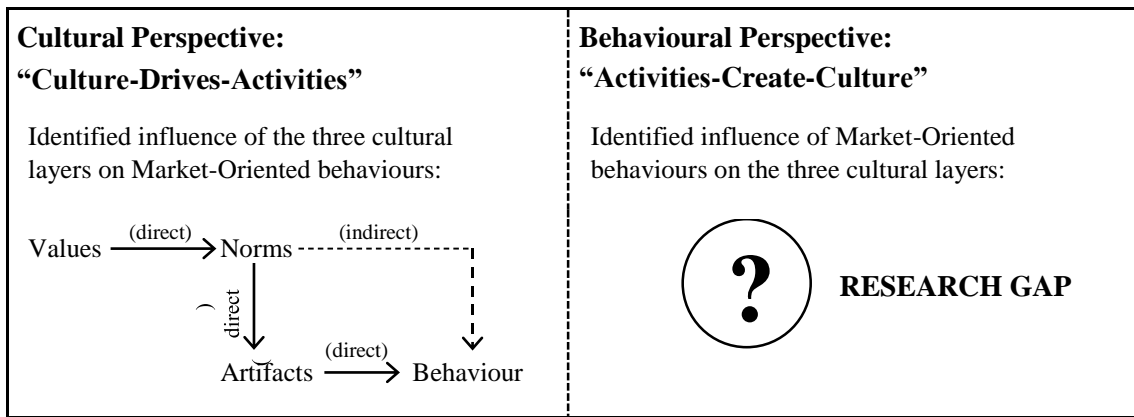


Fig. 3.1 “Identified Research Gap” (created by the researcher)

3.3 Research Questions and Hypotheses

In light of the identified research gap (Figure 3.1) one key research question was established, the answer to which ultimately became the primary objective of this piece of research:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation’s culture?

In order to answer this question and, thus, achieve the research objective set out, three relevant sub-questions were formed. These were operationalised (i.e. made measurable) through the development of three corresponding hypotheses (Section 2.8).

The research questions and hypotheses investigated in this piece of research are summarised in Table 3.1, as follows:

Table 3.1 – Research Questions and their Corresponding Hypotheses	
Research Question	Corresponding Research Hypothesis
Q1: Do Market-Oriented behaviours have a positive influence on cultural artifacts?	H1: Market-Oriented behaviours have a positive influence on cultural artifacts.
Q2: Do Market-Oriented behaviours have a positive influence on cultural norms?	H2: Market-Oriented behaviours have a positive influence on cultural norms.
Q3: Do Market-Oriented behaviours have a positive influence on cultural values?	H3: Market-Oriented behaviours have a positive influence on cultural values.

3.4 Grix’s “Building Blocks of Research” Framework

Grix (2002, p. 179) documents a framework for the “directional, and logical, relationship between the key components of research”. This framework, which is illustrated in Figure

3.2 as follows, was used to create a “philosophical solution” for the research (Holden and Lynch, 2004, p. 398) and, ultimately, aid the development of this chapter:

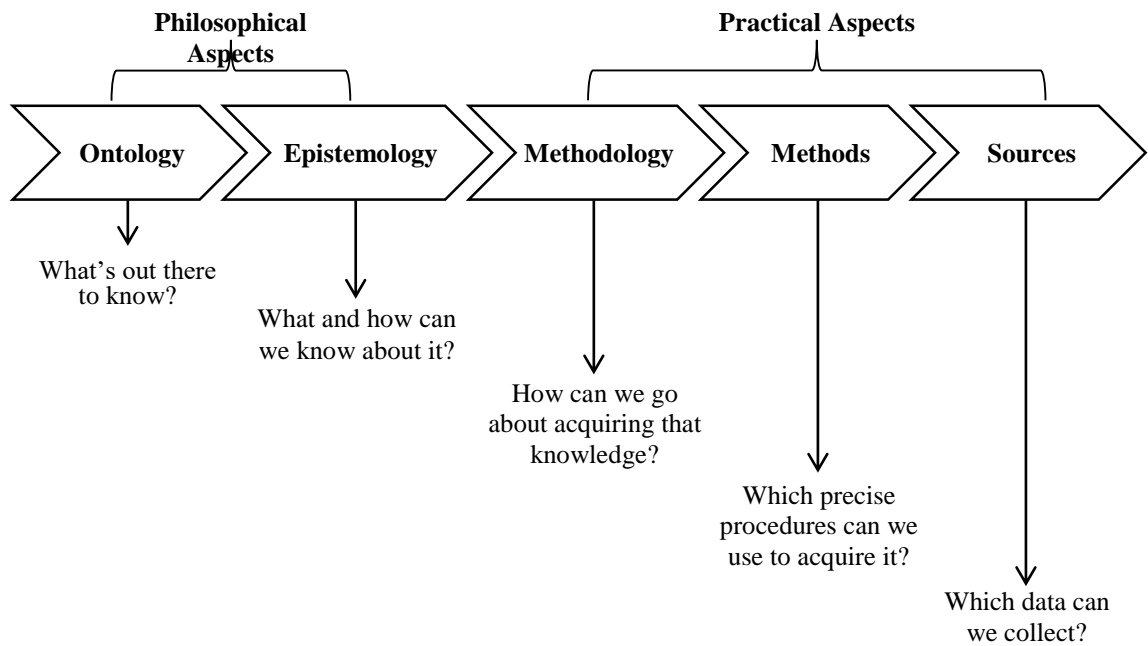


Fig. 3.2 “The Interrelationship between the Building Blocks of Research” (adapted from Hay, 2002, by Grix, 2002, p. 180, further adapted by the researcher)

3.5 Ontology

As indicated in Figure 3.2, the starting point is to define one’s ontological position.

Ontology is “the study of being” (Gray, 2009, p. 17). Specifically it is:

claims and assumptions that are made about the nature of social reality, claims about what exists . . . In short . . . [ontology is] concerned with what we believe constitutes social reality (Blaikie, 2000, quoted by Grix, 2002, p. 177)

Two main alternative ontological positions exist: Objectivism and Constructivism (Grix, 2002; Bryman, 2008).

3.5.1 Objectivism versus Constructivism

As illustrated in Figure 3.3, which follows, these two ontological positions lie at opposite ends of the spectrum (Vrasidas, 2000; Holden and Lynch, 2004):



Fig. 3.3 “The Constructivism-Objectivism Continuum” (Vrasidas, 2000, p. 2) They can be compared and summarised as follows:

Table 3.2 – Objectivism versus Constructivism		
	Objectivism	Constructivism
Nature of Reality	One reality; independent of the human mind	Formed within the human mind; constantly revised
Nature of Knowledge	Objective	Constructed

(Created by the researcher from Vrasidas, 2000; Grix, 2002; Bryman, 2008)

3.5.2 Selected Ontological Position

Objectivists achieve objectivity by:

Requiring that theories . . . and explanations be empirically testable [, this] ensures that they will be intersubjectively certifiable since different (but reasonably competent) investigators with differing attitudes, opinions, and beliefs will be able to make observations and conduct experiments to ascertain their truth content (Hunt, 1993, quoted by Holden and Lynch, 2004, p. 402)

With regard to this piece of research, the three hypotheses (Table 3.1) reduced the research problem to smaller components and attempted to make these components measurable. Therefore, they aimed to allow the research results to be quantifiable and, thus, independent of the researcher’s own thoughts and views.

Conclusively, the researcher held a strong objectivist ontological position. This is common with research in the area of business (Holden and Lynch, 2004).

3.6 Epistemology

Next, one must define one’s epistemological position (Figure 3.2).

Epistemology originates from the Greek language – “*episteme* (knowledge) and *logos* (reason)” (Grix, 2002, p. 177) and, so, is concerned with the reasoning behind knowledge (Hamlyn, 1995, cited in Crotty, 1998, p. 8; Grix, 2002; Bryman, 2008).

In short, [epistemology refers to] claims about how what is assumed to exist can be known (Blaikie, 2000, quoted by Grix, 2002, p. 177)

Two main alternative epistemological positions exist: Positivism and Interpretivism (Grix, 2002; Bryman, 2008).

3.6.1 Positivism versus Interpretivism

Similarly to objectivism and constructivism, the two epistemological positions of positivism and interpretivism lie at opposite ends of the spectrum. They can be compared and summarised as follows:

Table 3.3 – Positivism versus Interpretivism		
	Positivism	Interpretivism
How can Social Sciences/Reality be Studied?	Scientific methods (adhere to what can be observed and measured)	Generally more subjective methods rather than objective methods
Corresponding Ontological Position	Objectivism	Constructivism

(Created by the researcher from Crotty, 1998; Grix, 2002; Social Research Methods, 2006a; Bryman, 2008; Gray, 2009)

3.6.2 Post-Positivism

Since the 1960s there has been movement away from positivism to what is now termed post-positivism (Social Research Methods, 2006a; Bryman, 2008). This has occurred due to concerns about the status assigned to scientific findings from the traditional positivist approach. Resultantly, a post-positivist approach challenges the complete certitude and objectivity of scientific findings (Crotty, 1998; Gray, 2009; Creswell, 2014).

Post-positivists, therefore, acknowledge that knowledge “established in research is always imperfect and fallible” (Creswell, 2014, p. 7) and, so, “all theory is revisable” (Social Research Methods, 2006a). Ultimately, the post-positivist’s goal is to uncover truth about reality while acknowledging that this goal will never be fully attainable (Social Research Methods, 2006a).

As post-positivists believe that being objective is an essential part of research, they test factors such as validity and reliability in order to help eliminate bias and, thus, enhance their objectivity (Creswell, 2014).

3.6.3 Selected Epistemological Position

As explained above, post-positivism is linked to objectivism and, so, corresponds with the researcher’s ontological position.

In addition, this piece of research was strongly compatible with major elements of the “Post-Positivist Worldview” (Creswell, 2014, p. 6). Table 3.4, which follows, documents these elements and states how each one related to this piece of research. Resultantly, this table provides strong justification for the selection of a post-positivist epistemological position.

Table 3.4 – Major Elements of the Post-Positivist Worldview and their Applicability to this Piece of Research	
Element of Post-Positivist Worldview	Applicable to this Research?
Determination (belief that a cause probably determines an outcome)	Yes: Behaviour can probably determine culture – see research hypotheses (Table 3.1)
Reductionism (research problem is reduced to smaller components)	Yes: Research questions and hypotheses (Table 3.1)
Table 3.4 – Continued	
Element of Post-Positivist Worldview	Applicable to this research?
Empirical observation and measurement	Yes: Measuring behaviour and culture
Theory verification	Yes: Research hypotheses (Table 3.1) to be accepted or rejected upon completion of the research

(Created by the researcher from Creswell, 2014)

Taking all of the above into consideration, the researcher adopted a strong post-positivist epistemological position.

3.7 Reasoning in Research

There are two broad methods of reasoning used in research, namely: Inductive Reasoning and Deductive Reasoning (Social Research Methods, 2006b; Bryman, 2008). Again, these lie at opposite ends of the spectrum.

3.7.1 Inductive versus Deductive Reasoning

Inductive reasoning is concerned with the “discovery” of theory (Dewey, 1933, cited in Gray, 2009, p. 14). It moves from small fragmented observations to “broader generalizations and theories” and, so, tends to be open-ended, exploratory and subjective

in nature (Social Research Methods, 2006b; Gray, 2009). It is often informally referred to as a “bottom up” approach (Social Research Methods, 2006b).

On the other hand, deductive reasoning is concerned with “proof” and, so, aims to test theory rather than develop it (Dewey, 1933, cited in Gray, 2009, p. 14; Creswell, 2014). Deductive reasoning moves from a general, broader view back to more specific particulars (Social Research Methods, 2006b; Gray, 2009). Consequently, it is often informally referred to as a “top down” approach (Social Research Methods, 2006b).

Inductive and deductive reasoning can be compared and summarised as follows:

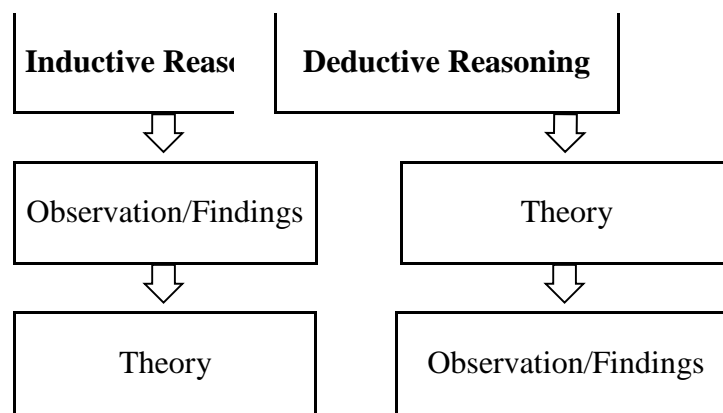


Fig. 3.4 “Inductive versus Deductive Reasoning” (adapted by the researcher from Bryman, 2008, p. 11)

3.7.2 Selected Method of Reasoning

As established in section 2.8, the researcher deduced three hypotheses from the literature to be tested and, subsequently, accepted or rejected based on the research findings.

Conclusively, the researcher followed “the process of deduction” which is illustrated in Figure 3.5, as follows:



Fig. 3.5 “The Process of Deduction” (Bryman, 2008, p. 10)

Hence, the researcher utilised deductive reasoning.

Deductive reasoning is objective in nature and, therefore, was in agreement with the researcher's ontological position (objectivist) and epistemological position (postpositivist).

3.8 Methodology

Once the philosophical aspects of research have been addressed (i.e. ontology and epistemology), the next step is to determine the most appropriate research methodology (Figure 3.2).

At this point, it is important to note that methodology and methods are *very often* confused and, so, are frequently used interchangeably despite the fact that they are two distinct entities (Grix, 2002; Blaxter *et al.*, 2006). As the steps in developing one's methodology are "successive" (Blaxter *et al.*, 2006, p. 61; Grix, 2002), the distinction between methods and methodology must be clearly understood in order to complete these steps in the correct, consecutive manner:

Methodology has a more philosophical meaning, and usually refers to the approach [and/] or paradigm that underpins the research (Blaxter *et al.*, 2006, p. 58, italics in original) On the other hand:

The term *method* can be understood to relate principally to the tools of data collection or analysis: techniques such as questionnaires and interviews (Blaxter *et al.*, 2006, p. 58, italics in original)

So, while methodology is concerned with how one can broadly go about acquiring knowledge, methods are concerned with the specific tools that can be used to acquire the desired knowledge (Grix, 2002).

There are two consecutive steps involved in determining the most appropriate methodology (Blaxter *et al.*, 2006, p. 61):

1. Research *Family* selection (i.e. Methodological Strategy); and
2. Research *Approach* selection (i.e. Methodological Design).

3.8.1 Step 1: Methodological Strategy

Researchers are faced with a choice of two contrasting methodological research strategies (Smith, 1983; Bryman, 2008; Gray, 2009; Creswell, 2014), namely:

1. A Qualitative Strategy; or

2. A Quantitative Strategy.

A comparison of these strategies is provided in Table 3.5 below.

Alternatively, researchers may opt to use a combination of both a qualitative and a quantitative strategy. This is referred to as a mixed methods approach and “is becoming increasingly recognized as the third major research [strategy]” (Johnson *et al.*, 2007, cited in Gray, 2009, p. 203).

In order to penetrate the problem of which strategy to use, one must consider three questions:

1. What is the relationship of the investigator to what is investigated?
2. What is the relationship between facts and values in the process of investigation?
and
3. What is the goal of investigation? (Smith, 1983, p. 6)

In short, selection of the most appropriate strategy should be inextricably linked to three factors: the research problem; the researcher’s ontological position; and the researcher’s epistemological position (Smith, 1983; Bryman, 2008; Creswell, 2014).

With regard to this piece of research, the three hypotheses (Table 3.1) attempt to predict expected relationships between Market-Oriented behaviours and the layers of an organisation’s culture. They, therefore, fit the description of “quantitative hypotheses” (Creswell, 2014, p. 143).

As outlined in Table 3.5 below, a quantitative strategy follows the process of deduction (Figure 3.5) and, so, is associated with the researcher’s ontological position of objectivism (Bryman, 2008).

Furthermore:

postpositivist assumptions . . . hold true more for quantitative research than qualitative research (Creswell, 2014, p. 7)

Conclusively, the research problem, the researcher’s ontological position and the researcher’s epistemological position were all in favour of a quantitative strategy.

The following table, Table 3.5, highlights some of the major differences between a qualitative and a quantitative strategy. This table lends final support and further

justification for the selection of a quantitative strategy, as opposed to a qualitative or a mixed methods strategy, for this particular piece of research:

Table 3.5 – A Qualitative versus a Quantitative Strategy and their Applicability to this Piece of Research				
	Qualitative Strategy	Applicable?	Quantitative Strategy	Applicable?
Ontological Position	Constructivist	No	Objectivist	Yes
Epistemological Position	Interpretivist	No	Positivist and PostPositivist	Yes
Table 3.5 – Continued				
	Qualitative Strategy	Applicable?	Quantitative Strategy	Applicable?
Inductive/Deductive	Inductive	No	Deductive	Yes
Researcher/Participant Relationship	Close (emotionally and/or physically)/Insider	No	Distant (emotionally and/or physically)/Outsider	Yes
Level of Control	Participants in driving seat	No	Researcher in driving seat	Yes
Research Focus	Meanings/Words	No	Facts/Numbers	Yes
Level of Structure	Un-structured/openended	No	Structured – examine precise concepts/issues	Yes
Nature of Associated Methods	Subjective	No	Objective	Yes
Nature of Data	Rich, deep, based upon text	No	Hard, reliable, based upon numbers	Yes
Nature of Findings	Theory emerging	No	Theory testing	Yes
Scope of Findings	Contextual understanding	No	Large-scale generalisation	Yes

(Adapted by the researcher from Bryman, 2008, p. 393 and Gray, 2009, p. 200)

3.8.2 Step 2: Methodological Design

The next step is to determine the most appropriate methodological design (Blaxter *et al.*, 2006).

You can never empirically or logically determine the best approach [i.e. design]. This can only be done reflectively by considering a situation to be studied and your own opinion of life . . . [we cannot] rank one approach above another . . . The only thing we can do is try to make explicit the special characteristics on which the various approaches are based (Arbner and Bjerke, 1997, quoted by Blaxter *et al.*, 2006, p. 58)

Hence, selection of one’s methodological design should be based upon its applicability to one’s: ontological position; epistemological position; research problem; and methodological strategy (Blaxter *et al.*, 2006).

Table 3.6, which follows, features some of the most common methodological designs used in research and highlights key characteristics relating to each one. This table aided the researcher in assessing the applicability of each design to this piece of research based on the above four determining factors.

Table 3.6 – Common Methodological Designs, their Key Characteristics and their Level of Applicability to this Piece of Research	
<p style="text-align: center;">CASE STUDY</p> <ul style="list-style-type: none"> • Generally focused on a single case/example • Concerned with detailed analysis of data; deeply analyses the research problem/phenomena in question • Data based on participants’ experiences – subjective • Difficult to generalise results • Concerned with answering research questions that ask “how” or “why” □ <p style="text-align: center;">Generally more qualitative than quantitative</p>	Low Applicability
<p style="text-align: center;">EXPERIMENT</p> <ul style="list-style-type: none"> • Concerned with testing the effect of the manipulation of an independent variable on an outcome • An experimental group and a control group involved • Concerned with answering research questions that ask “how” or “why” • Strongly associated with a positivist approach • Strongly Quantitative 	Low Applicability

<p>ACTION RESEARCH</p> <ul style="list-style-type: none"> • Focused on both research and action • Concerned with problem-solving • Generates knowledge • Generally not suited to small-scale research projects • Associated with mixed methods • Strongly linked to constructionism • Strongly linked to interpretivism 	<p>Low Applicability</p>
<p>CROSS-SECTIONAL SURVEY</p> <ul style="list-style-type: none"> • Same information collected about all of the cases in an identified sample; all participants asked the same questions • Concerned with standardisation; defined questions which researcher wants answered • Concerned with systematic collection of data • Frequently generalises results • Concerned with answering research questions that ask “what” • Primarily quantitative; numerical data • Associated with post-positivism; therefore, objective 	<p>Strong Applicability</p>

(Created by the researcher from Holden and Lynch, 2004; Blaxter *et al.*, 2006; Bryman, 2008; Gray, 2009; Creswell, 2014)

Note: Other methodologies include narrative, phenomenology, ethnography and grounded theory. However, these methodologies are primarily qualitative and were, therefore, not applicable to this piece of research (Creswell, 2014). Accordingly, they were not included for consideration in Table 3.6.

As indicated in Table 3.6, taking the key characteristics of each methodological design into consideration, a cross-sectional survey possessed the strongest applicability in terms of the researcher’s ontological position (objectivist), epistemological position (postpositivist), research problem (Table 3.1) and research strategy (quantitative).

Furthermore, the three alternative methodologies considered in Table 3.6 were determined to possess low applicability in relation to these determining factors.

Consequently, a cross-sectional survey methodological design was chosen for this piece of research.

3.8.3 A Cross-Sectional Survey Methodology

A cross-sectional survey can be defined as:

Research [which] comprises a cross-sectional design in relation to which data are collected predominantly by questionnaire or by structured interview on *more than one case* (usually quite a lot more than one) and at *a single point in time* in order to collect a body of *quantitative* or *quantifiable data* in connection with two or more variables (usually many more than two), which are then examined to detect *patterns of association* (Bryman, 2008, p. 46, italics in original)

There are two categories of survey design, namely: Descriptive and Analytical (Gray, 2009).

A descriptive survey design adopts an inductive approach and, so, uses open-ended questions to explore participants' differing perspectives with regard to the research problem. On the other hand, an analytical survey design adopts a deductive approach and, so, aims to test theory and generalise results (Gray, 2009).

As established in Section 3.7.2, the researcher utilised a deductive approach and, consequently, adopted an analytical approach to the survey design.

Table 3.7, which follows, highlights some of the advantages and disadvantages associated with the chosen methodological design:

Table 3.7 – Advantages and Disadvantages Associated with a Cross-Sectional Survey Methodological Design	
Advantages	Disadvantages
<ul style="list-style-type: none"> • Can measure reliability and validity • Often replicable • Due to the two points above it lends support for the important factors in evaluating quantitative research • Can often generalise results • Generally easier to conduct than experiments as it does not involve the manipulation of variables 	<ul style="list-style-type: none"> • Can have poor internal validity; therefore, while it can identify relationships it often cannot allow the researcher to draw causal inferences • Data can lack depth • Concerned more with desk work than field work; so, as the researcher often isn't present for data collection there may be a lack of understanding and/or accuracy from participants

(Created by the researcher from Blaxter *et al.*, 2006 and Bryman, 2008)

3.9 Methods

Subsequent to defining one's research methodology, the next step is to select the precise tool(s) or method(s) that can be used to acquire the desired knowledge (Figure 3.2).

This selection should be based on the researcher's chosen methodology (Grix, 2002). Hence, methods relate directly to the research strategy and design and are, therefore, also influenced by the researcher's ontological position, epistemological position and research problem.

Furthermore, a combination of practical considerations such as time, budget and/or desired data format also influences the researcher's choice of method(s) (Phellas *et al.*, 2011).

With regard to this piece of research, Bryman (2008) makes the researcher's options explicit when he states that:

the term 'survey' [is] reserved for research that employs a cross-sectional research design . . . in which the data are collected by questionnaire or by structured interview (Bryman, 2008, p. 45)

These two methods, i.e. questionnaire and structured interview, are "at the heart of . . . survey research" (Blaxter *et al.*, 2006, p. 79; Gray, 2009).

Questionnaires and structured interviews are "remarkably similar" (Bryman, 2008, p. 217). The major difference between them, however, is that while there is an interviewer present to conduct an interview, there is no interviewer/researcher present in the case of a questionnaire; the questionnaire must be independently completed by the participant(s). Resultantly, questionnaires are often referred to as "self-completion questionnaires" and/or "self-administered questionnaires" (Bryman, 2008, p. 216).

Although the two possess many similarities, self-administered questionnaires exhibit a number of advantages over structured interviews that are appealing to this piece of research. These advantages are as follows (Bryman, 2008; Phellas *et al.*, 2011):

- Broader choice of administration options – post, e-mail, online and/or face to face;
- Generally less time-consuming – appealing as time constraints apply;
- Generally cheaper to conduct – appealing as resources are limited;
- Generally can administer to wider geographical area due to the above points – easier to conduct large-scale research;
- No interviewer present to sway participants and, consequently, introduce bias – appealing as the researcher holds an objectivist ontological position and, therefore, wishes to avoid introducing subjectivity to the research;

- Can be completed in participants' own time and at their own pace – appealing as participants can think their answers through carefully.

Furthermore, the two major advantages that structured interviews are considered to hold over self-administered questionnaires are less appealing to this piece of research:

The first advantage is the presence of an interviewer who can ultimately clarify any questions or concerns which participants may have. However, a well thought out and designed questionnaire should eliminate this need (Bryman, 2008).

The second advantage of interviews is that they allow the researcher to probe deeper and elaborate on participants' answers. However, this is not advantageous in the case of this piece of research as the researcher has adopted an objectivist ontological position and, so, does not wish to introduce subjectivity to the study (Bryman, 2008; Phellas *et al.*, 2011).

Moreover, in considering the selection of a self-administered questionnaire the researcher considered the main disadvantages associated with this method and was confident that they could be overcome. This point is illustrated in Table 3.8, as follows:

Table 3.8 – Disadvantages Associated with Self-Administered Questionnaires and Methods used to Overcome them	
Disadvantage	Method(s) used to Overcome the Disadvantage
Tendency to receive low response rates	This issue has been addressed in several academic books and articles (O'Rourke, 1999; Edwards, 2002; Bryman, 2008). Therefore, the researcher studied this area in order to identify strategies which can help to overcome this disadvantage and improve the overall response rate of the study.
Cannot be sure who completes the questionnaire	The researcher made it abundantly clear on the questionnaire who the desired participant was within each organisation (e.g. CEO). Furthermore, the researcher also attempted to use a database which provided the desired participant's name, so that the questionnaire could be personalised to the attention of this person.

Risk of missing data i.e. some questions left blank with no answer	<p>The researcher overcame each of these three disadvantages through a well thought out and well-designed questionnaire. Thus, the researcher studied the area of “best practice” in terms of designing questionnaires.</p> <p>Furthermore, the adaptation of two existing research instruments also facilitated good questionnaire design, as the relevant scales had already been tested to a degree.</p> <p>The questionnaire was pre-tested and piloted prior to administration. It was then targeted to specific, appropriate individuals in each organisation. Also, the researcher provided contact details so that participants could seek clarification in relation to any concerns or queries they may have had.</p>
Cannot clarify uncertainties	
May not be appropriate for all participants e.g. low literacy rates; or English represents a second or third language for the participant so, as a result, they may have trouble understanding the questionnaire	

(Created by the researcher from Bryman, 2008 and Phellas *et al.*, 2011)

3.9.1 Selected Method

Taking the above into consideration, the researcher selected a self-administered questionnaire as the most appropriate method to acquire the desired knowledge for this piece of research.

This method was identified in the literature review as being the most prominent tool used for exploring Organisational Culture (Taras *et al.*, 2009; Jung *et al.*, 2009). The development of an appropriate research methodology, aided by use of Grix’s (2002, p. 180) “building blocks of research” framework (Figure 3.2), ultimately led to the agreement and continuation of this approach by the researcher.

Table 3.9, which follows, documents many of the researchers identified in the literature review who adopted a quantitative approach, applied a survey methodology and, subsequently, utilised a self-administered questionnaire method. Resultantly, this table provides support for the above point by highlighting the popularity and widespread use of such an approach among researchers in the associated fields of Organisational Culture and Market Orientation:

Table 3.9 – Researchers Identified in the Literature Review who have Adopted a Quantitative Approach, Applied a Survey Methodology and, Consequently, Utilised a Self-Administered Questionnaire Method			
Researcher(s)	Year	Focus of Study	Nature of Study/Method(s) Used

Narver & Slater	1990	Market Orientation and Performance	Quantitative – Questionnaire (mail)
Jaworski & Kohli	1993	Market Orientation – Antecedents	Quantitative – Questionnaire (mail)
Deshpandé, Farley & Webster	1993	Organisational Culture – Market Orientation	Qualitative – Interviews Quantitative – Questionnaire (mail)
Kohli, Jaworski & Kumar	1993	Market Orientation – MARKOR	Qualitative – Interviews (used to develop questionnaire) Quantitative – Questionnaire (mail) Primary focus: Quantitative
Maltz & Kohli	1996	Market Orientation – Intelligence Dissemination	Quantitative – Questionnaire (mail)
Pitt, Caruana & Berthon	1996	Market Orientation and Performance	Qualitative – Personal Interviews Quantitative – Questionnaire (mail)
Table 3.9 – Continued			
Researcher(s)	Year	Focus of Study	Nature of Study/Method(s) Used
Avlonitis & Gounaris	1999	Market Orientation – Determinants	Quantitative – Questionnaire (mail)
Homburg & Pflesser	2000	Market Orientation – Relationship among layers	Qualitative – content analysis and field interviews (used to develop questionnaire) Quantitative – Questionnaire (mail) Primary focus: Quantitative
Harris	2001	Market Orientation and Performance	Quantitative – Questionnaire (mail)
González-Benito & GonzálezBenito	2005	Market Orientation – Cultural vs operational	Quantitative – Questionnaire (mail)
Farrell	2005	Market Orientation – Cultural effect on behaviour	Quantitative – Questionnaire (mail)
Gainer & Padanyi	2005	Market Orientation – Cultural vs operational	Quantitative – Questionnaire (mail)

Carr & BurnthorneLopez	2007	Market Orientation – Culture and conduct	Quantitative – Questionnaire (mail)
Cadogan, Souchon & Procter	2008	Market Orientation – Quality of behaviours	Quantitative – Questionnaire (mail)
Bonavia, Molina & Boada	2009	Market Orientation – Artifacts	Quantitative – Questionnaire (face to face)
Gjerald & Øgaard	2012	Market Orientation – Behaviours	Quantitative – Questionnaire (pen and paper, and electronic)

3.10 Questionnaire Development

Once the most appropriate research method had been chosen, the researcher then had to determine precisely *what* needed to be measured and *how* it would be measured (Field, 2009). In other words, the researcher needed to develop a questionnaire tool appropriate to the research problem (Table 3.1).

As was established in the literature review:

We do not yet know the complete map of culture, nor are we likely to in the near future (Taras *et al.*, 2009, p. 362)

Therefore, researchers must select the cultural dimensions that are most applicable to their study, and use these as their guide in determining the most suitable research instrument (Taras *et al.*, 2009; Jung *et al.*, 2009).

In order to do this, the research hypotheses were consulted as these “contain concepts” (Bryman and Cramer, 2005, p. 66). From the hypotheses (Table 3.1), four applicable concepts i.e. dimensions of a Market-Oriented Organisational Culture were identified, namely:

1. Behaviours;
2. Values;
3. Norms; and
4. Artifacts.

Accordingly, the questionnaire for this study needed to be “multidimensional” in nature as per “all existing known . . . [cultural] survey instruments” (Taras *et al.*, 2009, p. 360).

Homburg and Pflesser’s (2000) survey instrument was identified in the literature review as being the first and virtually only instrument that takes each of these dimensions, i.e. the layers of an organisation’s culture, into account. Resultantly, this survey instrument, which incorporates Kohli *et al.*’s (1993) widely recognised MARKOR measurement tool, was used as a guide in this piece of research. This resulted in the development of an appropriate questionnaire tool that was, essentially, an adaptation of these two works.

Other studies that are similar in nature have also taken this approach. For example, Farrell (2005) and Byrne (2014) adapted Homburg and Pflesser’s (2000) survey instrument for their studies, while Gainer and Padanyi (2009) utilised Kohli *et al.*’s (1993) MARKOR measurement tool in their study.

Based on the research questions and hypotheses (Table 3.1), as well as previous studies in the area of Market Orientation, particularly that of Homburg and Pflesser (2000), it was concluded that the questionnaire should consist of five key sections:

Market-Oriented:

1. Behaviours;
2. Values;
3. Norms;
4. Artifacts; and finally
5. Company Demographics.

3.10.1 Measurement of the Applicable Dimensions

Once the applicable concepts were identified they then needed to be made measurable (Bryman and Cramer, 2005; Bryman, 2008; Taras *et al.*, 2009). This would ultimately allow the researcher to test the research hypotheses (Table 3.1). Hence, “operationalisation” was the next step (Bryman, 2008, p. 141).

To make a concept measurable “*indicators* are required which will stand for” that concept (Bryman and Cramer, 2005, p. 67, italics in original). In most cases, more than one indicator is needed to effectively capture a concept, so, “researchers often favour

multiple-item measures” (Bryman and Cramer, 2005, p. 67; Taras *et al.*, 2009). Generally, a minimum of four items are used to represent a concept, although there is no defined correct amount (Swanson and Holton III, 2005).

Collectively, items form a scale that represents the overall concept being measured.

For this piece of research, scales were needed to represent Market-Oriented behaviours, values, norms and artifacts. Homburg and Pflesser’s (2000) questionnaire tool was used as a guide in developing these scales, as it is the first and virtually only instrument to contain scales that represent each of these four concepts.

The development of each of these scales is now discussed in more detail.

3.10.1.1 Development of the Scales for Market-Oriented Behaviours

Three scales were required to operationalise Market-Oriented behaviours: one to measure generation of market intelligence, a second to measure dissemination of market intelligence and, finally, a third to measure responsiveness to market intelligence.

In order to systematically develop these scales the researcher created an eight step development process (Appendix 1). This process involved reviewing Homburg and Pflesser’s (2000) scales, which strongly incorporate Kohli *et al.*’s (1993) original MARKOR scales, identifying any existing gaps between them and the literature and attempting to address any gaps that were found.

Subsequently, Market-Oriented behaviours were operationalised as follows:

Generation of market intelligence was measured using a 6-item scale that consisted of the four items used by Homburg and Pflesser (2000), plus an additional two from MARKOR’s 32-item scale (Kohli *et al.*, 1993). Implementation of the process that arrived at the final 6-item scale used in this study is documented in Appendix 2.

Dissemination of market intelligence was measured using a 4-item scale. This scale consisted of three of the four items used by Homburg and Pflesser (2000), plus an additional item from MARKOR’s 32-item scale (Kohli *et al.*, 1993). Implementation of the process that arrived at the researcher’s final 4-item scale is documented in Appendix 3.

Finally, the researcher measured responsiveness to intelligence using Homburg and Pflesser's (2000) 4-item scale as, in this case, no gaps were identified between it and the literature. The process which concluded that these four items should be retained and utilised is outlined in Appendix 4.

Combined, the above three scales (fourteen items in total) made up the first section of the questionnaire, which the researcher labelled "How we collect, communicate and act on information" (Appendix 14).

3.10.1.2 Development of the Scale for Market-Oriented Values

In order to systematically develop a scale to measure Market-Oriented values, the researcher created a seven step development process (Appendix 5). Similarly to Market-Oriented behaviours, this process involved reviewing Homburg and Pflesser's (2000) scale, identifying any existing gaps between it and the literature and attempting to address any gaps that were found.

Furthermore, Homburg and Pflesser (2000, p. 458) recommend that "it might be useful to develop more parsimonious measures" of Market Orientation as their survey instrument is admittedly lengthy in nature. Consequently, the researcher's development process also included a strategy for minimising Homburg and Pflesser's (2000) scale, which originally consisted of 22 items. This was achieved by combining items that were deemed comparable enough to do so. Such an approach has been adopted in similar research carried out by Byrne (2014).

It was hoped that reducing the scale would help to minimise "response biases caused by boredom or fatigue" (Swanson and Holton III, 2005, p. 166) and increase the overall response rate, while simultaneously allowing the researcher to follow Homburg and Pflesser's (2000) recommendation.

Subsequently, Market-Oriented values were measured using a 14-item scale consisting of eleven items adapted from Homburg and Pflesser (2000) and a further three items adapted from Gebhardt *et al.* (2006). Implementation of the process that arrived at this scale can be found in Appendix 6.

The values scale made up the second section of the researcher's questionnaire. This section was titled "Our company's aspirations and values" (Appendix 14).

3.10.1.3 Development of the Scale for Market-Oriented Norms

The scale for Market-Oriented norms was developed using a five step process created by the researcher (Appendix 7). This took an almost identical approach to the process used to create the values scale as has been outlined above.

Resultantly, the researcher measured norms using a 13-item scale. This scale consisted of ten items adapted from Homburg and Pflesser's (2000) original 25 items, with the remaining three items being adapted from Gebhardt *et al.* (2006). Implementation of the process that arrived at this scale is recorded in Appendix 8.

The norms scale represented the third section of the questionnaire. This section was labelled "Expectations about our routines and practices" (Appendix 14).

3.10.1.4 Development of the Scale for Market-Oriented Artifacts

Similarly to the above, the scale for Market-Oriented artifacts was systematically developed using a seven step process created by the researcher (Appendix 9).

This process followed the same premise as the preceding processes.

Resultantly, Homburg and Pflesser's (2000) original 19-item scale was reduced to twelve items. Of these twelve items, eleven were adapted from Homburg and Pflesser (2000), while one was created by the researcher. Implementation of the process that arrived at the researcher's 12-item scale is documented in Appendix 10.

This scale represented the fourth section of the questionnaire, which was titled "Our company's observable and visible aspects" (Appendix 14).

3.10.2 Likert Scales

The development of the above scales ultimately allowed the researcher to define exactly what needed to be measured. Hence, the next step was to determine *how* these scales would be measured (Field, 2009).

The researcher opted to use a Likert scale measurement approach. This approach is common with research involving multiple-item measures, as well as with research in the area of Organisational Culture (Bryman and Cramer, 2005; Jung *et al.*, 2009). Furthermore, Likert scales were also used in the works of Kohli *et al.* (1993) and

Homburg and Pflesser (2000), both of which formed the basis of the researcher’s questionnaire.

A Likert scale consists of multiple statements that relate to a particular concept. Participants are asked to indicate their level of agreement with each statement based on, most often, either a five-point or a seven-point scale (Bryman and Cramer, 2005; Bryman, 2008).

Pitt *et al.* (1996, p. 9) note that using a seven-point scale, as opposed to a five-point scale, “should help reliability”. Therefore, similarly to Homburg and Pflesser (2000), the researcher selected a seven-point scale.

As the scale was measuring the extent to which participants agreed with each statement it moved from negative to positive, remaining neutral in the middle (Bryman, 2008). This is illustrated in Figure 3.6, as follows:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree

Fig. 3.6 “Likert Scale used by the Researcher” (created by the researcher)

The use of a Likert scale allowed each statement to be pre-coded resulting in easier and more efficient data entry.

Furthermore, although ordinal in nature, Likert scales can be treated as interval data (Jamieson, 2004; Bryman and Cramer, 2005; Field, 2009). Consequently, the Likert scale was advantageous as it enabled a wide array of statistical tests to be performed during data analysis (Jamieson, 2004; Bryman and Cramer, 2005; Pallant, 2011). This is discussed in more detail shortly (Section 3.14.2.1).

3.10.3 Development of Company Demographics

The fifth and final section of the researcher’s questionnaire aimed to gather demographic data about each participating company. Accordingly, it was titled “Company Information”.

Similarly to the other four sections of the questionnaire, this section was developed systematically using a five step process created by the researcher (Appendix 11). This

process involved examining relevant studies in the areas of Organisational Culture and Market Orientation in order to identify demographic factors applicable to this study.

Subsequently, it was concluded that information about five demographic factors should be sought, namely: the sector in which the company operates; the participant's position within the company; the number of years that the company has been in operation; the number of people employed in the company; and, finally, the number of years that the participant has been employed by the company. Implementation of the process which resulted in these particular demographic factors being selected is documented in Appendix 12.

The purpose of obtaining these data was to allow the researcher to verify who completed the questionnaire; to determine if the organisation was in operation long enough to have an established culture; to determine if the respondent was likely to have a good understanding of the organisation's culture; and, finally, to potentially allow the researcher to make comparisons and/or draw conclusions that may, ultimately, enhance the overall research findings.

3.10.4 Questionnaire Refinement

On completion of the development processes for all sections, the researcher then proceeded to refine and finalise the questionnaire.

A potential problem facing the researcher was the risk of "response sets", particularly "acquiescence bias", whereby participants tend to consistently agree with a given set of statements regardless of the content (Bryman, 2008, p. 147; Taras *et al.*, 2009, p. 366).

This form of response bias is especially relevant to multiple-indicator measures, where respondents reply to a battery of related questions or items, of the kind found in a Likert scale (Bryman, 2008, p. 210)

Consequently, a number of negatively-worded statements were dispersed throughout the questionnaire. The purpose of these was to act as a corrective measure and allow participants who exhibited this behaviour to be identified (Bryman, 2008; Schimmack *et al.*, 2005 and Smith, 2004, both cited in Taras *et al.*, 2009, p. 366; Gray, 2009).

Strong agreement with a negatively-worded statement indicated a weak degree of Market Orientation; therefore, reverse coding was employed. This premise is illustrated in Figure 3.7, as follows:

	Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
Positive Statement	1	2	3	4	5	6	7
Negative Statement	7	6	5	4	3	2	1

Fig. 3.7 “Coding used by the Researcher” (created by the researcher)

Statements numbered 2, 4, 16, 23, 35, 49, 52 and 53 were all negatively-worded and, so, were subject to reverse coding (Appendix 14³).

Finally, minor word changes were made throughout the entire questionnaire. These were deemed necessary in order to simplify each item and, ultimately, make the questionnaire more understandable for participants. The researcher was careful to ensure that the meaning of each item was not altered at this point. Appendix 13 details all changes made.

The resulting questionnaire is documented in Appendix 14.

3.11 Pre-Test

In order to identify any potential problems and/or ambiguity with the initial questionnaire (Appendix 14), the researcher conducted a pre-test using an “expert panel” approach (Czaja, 1998, p. 59). Such an approach facilitates feedback from a number of different perspectives; it involves distributing the questionnaire to a small number of people, generally 3-8, who are knowledgeable about the subject area and/or have experience in research, particularly survey design (Czaja, 1998). The questionnaire (Appendix 14) was, therefore, administered to six academic staff.

Based on the feedback received, it was concluded that major word changes were required to better convey statements numbered 19 and 28. The researcher also decided to sharpen question 54 by using the Irish Times’ (2014) classification of sectors, rather than the condensed version of the CSO’s (2014) classifications.

³ In order to avoid alerting participants to the negative statements dispersed throughout, reverse coding was not illustrated on the pilot-test version (Appendix 15) or the final version (Appendix 16) of the questionnaire.

Revisions were made to improve the questionnaire's introduction and instructions. Finally, minor word and layout changes were made throughout the entire questionnaire to improve its overall flow and aesthetic appeal.

The resulting, amended, questionnaire is documented in Appendix 15.

3.12 Pilot Test

Subsequent to conducting the pre-test, a pilot test was carried out to re-assess the questionnaire (Blaxter *et al.*, 2006). This allowed the researcher to put contemplated research procedures into practice and ensure that the questionnaire functioned as intended (Blaxter *et al.*, 2006; Bryman, 2008; Creswell, 2014).

As explained earlier, the use of a self-administered questionnaire meant that the researcher would not be present to clarify any questions and/or concerns that participants may have. Therefore, pilot testing was of particular importance in attempting to bring unexpected problems to light, thus allowing them to be rectified before proceeding with the actual study (Bryman, 2008; Phellas *et al.*, 2011).

Generally, pilot testing involves administering the questionnaire to a small number of participants comparable to those who will be used in the actual study (Bryman, 2008; Phellas *et al.*, 2011; Pallant, 2011). Resultantly, the questionnaire (Appendix 15) was mailed to eleven well-established companies in Ireland, accompanied by a cover letter (Appendix 17) and a pre-paid return address envelope. Nine companies responded.

Of these, most respondents had ticked multiple boxes when asked to indicate the sector in which they operate (question 54). Consequently, to allow for potential overlap between sectors, the researcher altered the instructions to indicate that multiple boxes could be ticked, rather than just one.

Some additional minor word changes were also made. These completed the required amendments.

The resulting, finalised version of the questionnaire is documented in Appendix 16.

3.13 Data Collection

Once the questionnaire had been finalised (Appendix 16), the researcher was then able to proceed with data collection. This involved identifying relevant participants and taking a number of ethical considerations into account before, finally, administering the questionnaire.

3.13.1 Identifying Participants

The final step in Grix's (2002, p. 180) "building blocks of research" framework is concerned with identifying exactly where the desired data can be sourced (Figure 3.2). So, once the questionnaire had been finalised, the researcher then needed to identify appropriate participants to complete it.

The first step in achieving this was to define the population of interest i.e. the exact units, in this case organisations, to be included in the study (Bryman, 2008; Gray, 2009). To generate this definition, the literature review was consulted:

Here, it was established that strongly Market-Oriented organisations "generally do outperform" other organisations. Also highlighted was the fact that studies focusing on the relationship between Organisational Culture and performance have defined and assessed the latter in various different ways e.g. financially and/or non-financially, objectively and/or subjectively (Deshpandé and Farley, 2004, p. 5; Harris, 2001; Xiaoming and Junchen, 2012). However, in their review of such studies, Xiaoming and Junchen (2012, p. 30) conclude that financial performance is arguably deemed the "most important" overall indicator of organisational performance.

Resultantly, the population of interest for the purpose of this study was defined as highperforming companies in Ireland based on financial turnover. Considering the above points, it was felt that such companies were likely to be Market-Oriented and, thus, relevant to the study. Turnover was selected as it would indicate a relatively high number of interactions with customers and was perceived to be a more obtainable figure than, for example, profit.

Once the population had been defined, a sample (i.e. a segment from the population) then needed to be selected to participate in the study. The selected sample would be used to represent the overall population (Bryman, 2008; Gray, 2009; Field, 2009). One of two

strategies could be employed here: i) A Probability Sampling Strategy; or ii) A Nonprobability Sampling Strategy (Blaxter *et al.*, 2006; Bryman, 2008; Gray, 2009).

If a probability sampling strategy is used, then each unit in the population has an equal chance of being selected for the study. On the other hand, if a non-probability sampling strategy is used, then certain units in the population have a greater chance of being selected than others (Blaxter *et al.*, 2006; Bryman, 2008; Gray, 2009).

For the purpose of this piece of research, a non-probability sampling strategy was employed as no definitive list of the population was obtainable. This led the researcher to adopt a purposive sampling technique, which involved strategically selecting companies believed to be representative of the defined population and relevant to the research questions (Table 3.1) (Gray, 2009). Consequently, The Irish Times' database of the "Top 1,000 Companies in Ireland", which ranks companies based on their turnover, was selected as the sample for this study.

This database can be described as "a representative, multi-industry set of Irish-based operations [featuring] both indigenous Irish companies and foreign-owned companies with operations in Ireland" (Flood *et al.*, 2008, p. 6; O'Regan, 2011, p. 44). It has been used as a sample in research conducted on behalf of both government and independent agencies (see, for example, Flood *et al.*, 2008) as well as in research conducted for educational purposes (see, for example, Kennelly, 2008; O'Regan, 2011). Conclusively, The Irish Times "Top 1,000 Companies in Ireland" is widely recognised as a credible source.

Similar samples have been used in previous studies in the areas of Organisational Culture and Market Orientation (see, for example, Jaworski and Kohli, 1993; Kohli *et al.*, 1993; Harris, 2001; Farrell, 2005; Carr and Burnthorne-Lopez, 2007). Furthermore, as is noted by Raju *et al.* (2011, p. 1325), "the well-known MO [Market Orientation] scales have all been constructed in the context of larger organizations". Therefore, it was felt that this sample would be well suited to the questionnaire (Appendix 16).

An internet search was conducted in order to cleanse the database. This allowed the address of each company to be verified. Furthermore, it also allowed the researcher to identify a specific individual within each company to whom the questionnaire would be

addressed. Appropriate individuals were identified mainly through the companies' own websites and/or LinkedIn.

Given the content and nature of the questionnaire, it was decided to primarily target Marketing Managers. In cases where specific marketing personnel could not be identified, the researcher targeted individuals who were likely to be knowledgeable about the company's marketing activities. Therefore, PR/Communications Managers, Sales Managers, Business Development Managers, General Managers and Chief Executive Officers were also targeted. Again, this approach was similar to relevant studies in the area of Market Orientation (Homburg and Pflesser, 2000; Farrell, 2005; Gainer and Padanyi, 2005; Cadogan *et al.*, 2008; Gjerald and Øgaard, 2012).

Finally, the cleansing process identified a number of companies to be omitted from the study; for example, some companies had ceased operating in Ireland since the database had been compiled. This resulted in a final sample size of 952 companies.

3.13.2 Ethical Considerations

Research should always be ethical. That is to say, it should be carried out in a morally responsible manner (Gray, 2009). Therefore, it was necessary to consider the ethical concerns associated with this piece of research (Blaxter *et al.*, 2006; Bryman, 2008).

Four key concerns were identified. Table 3.10, as follows, documents these concerns, highlights methods that were used to reduce and/or eliminate them, and indicates the subsequent level of risk that each concern posed to the research:

Table 3.10 – Ethical Concerns Taken into Consideration, Methods used to Reduce and/or Eliminate them, and the Subsequent Level of Risk that each Concern Posed to the Research		
Ethical Concern	Method(s) used to Reduce and/or Eliminate the Concern	Subsequent Level of Risk

Harm to Participants (through stress and/or breach of confidentiality)	<p>Stress can be eliminated if disturbances to participants and their environment are minimal – the self-administered questionnaire could be considered noninvasive in nature and, thus, facilitated minimal disturbances.</p> <p>Quantitative research supports confidentiality by allowing research findings to be reported in a manner that attains anonymity – this approach was employed by the researcher.</p>	Low
Lack of Informed Consent	<p>Informed consent was achieved by clearly highlighting the following to all participants:</p> <ul style="list-style-type: none"> - Research purpose and objectives; - What was expected of the participant; - What the data collected would be used for; and - Their right to participate on a purely voluntary basis. The above points were communicated through the questionnaire’s introduction (Appendix 16) and its accompanying cover letter (Appendix 18). 	Low
Invasion of Privacy	<p>Strongly linked to the above two concerns. Therefore, the risk of an invasion of privacy was minimised by addressing these.</p> <p>Risk was further minimised by ensuring that only information which was relevant and necessary to the study was sought.</p>	Low

Table 3.10 – Continued		
Ethical Concern	Method(s) used to Reduce and/or Eliminate the Concern	Subsequent Level of Risk
Deception	<p>Linked to the previous three concerns. Therefore, the risk of deception was minimised by addressing these as indicated above.</p>	Low

(Created by the researcher from Diener and Crandall, 1978, cited in Bryman, 2008, p. 118; IT Carlow, 2006; Bryman, 2008; Gray, 2009)

As these concerns could be minimised (Table 3.10), it was considered unlikely that the research would present participants with any stress beyond what is experienced in their everyday lives (Teddlie and Tashakkori, 2009). Resultantly, the researcher was confident that this study carried minimal risk.

To verify this, an application detailing the proposed research procedures and their associated ethical considerations was submitted to an educational institution's ethics committee, which was comprised of several professionals. This submission facilitated an independent ethical review of the intended research. An evaluation report was subsequently provided that granted ethical approval.

Nonetheless, ethical considerations in social research will always be "wide-ranging and challenging" (Cohen *et al.*, 2000, p. 50) and, thus, will never be static. Consequently, the researcher made a conscious effort to ensure that the ethical policies and procedures as set out by IT Carlow (2006) continued to influence the research throughout its entire progression.

3.13.3 Administering the Questionnaire

As was indicated earlier, there are a number of different ways in which researchers can go about administering questionnaires. Broadly speaking, these can be divided into two categories: i) Traditional paper-based questionnaires; and ii) Electronic-based questionnaires (Kwak and Radler, 2002; Shih and Fan, 2008; Medway and Fulton, 2012).

The decision as to how to administer the questionnaire should be based upon practical considerations such as time, cost and the nature of the study, as well as the skills and resources available to the researcher (Boynton, 2004; Phellas, 2011).

Upon careful consideration, it was concluded that the questionnaire would be administered by mail in the traditional paper-based format. The following points influenced this decision:

- **Response Rate:** Numerous studies that have examined the use of mail versus electronic surveys have concluded that the response rate is generally higher for mail surveys (Sheehan, 2001; Kwak and Radler, 2002; Shannon and Bradshaw, 2002; McDonald and Adam, 2003). This conclusion has been reached particularly in the context of organisational studies (Shermis and Lombard, 1999; Klassen and

Jacobs, 2001; Shih and Fan, 2008; Fan and Yan, 2010; Lin and Van Ryzin, 2011; Medway and Fulton, 2012). As this particular piece of research utilised a purely quantitative strategy, achieving a high response rate was crucial to its overall success and credibility. Therefore, the potential to yield a higher response rate was the primary influencing factor in the decision to utilise a mail-based questionnaire.

- Previous Studies: Table 3.9 identified sixteen studies in the areas of Organisational Culture and Market Orientation that utilised a self-administered questionnaire tool. Seven of these were conducted between 1990 and 1999, while the remaining nine were conducted between 2000 and 2012.

Of these sixteen studies, fifteen administered their survey instrument by mail, including Kohli *et al.* (1993), Homburg and Pflesser (2000), and Gainer and Padanyi (2005); three studies that are at the heart of this piece of research. The remaining study opted for a face to face administration method (Bonavia *et al.*, 2009). Conclusively, administration by mail is common practice and in line with previous research in the related fields.

Furthermore, mail surveys have been successfully employed by other Irish Masters students (see, for example, Cullen, 1998; Kennelly, 2008; and O'Regan, 2011).

- Professionalism: A mail-based questionnaire enabled the cover letter to be printed on headed paper, which added credibility and professionalism to the study (Appendix 18). Furthermore, it also facilitated increased personalisation as the researcher was able to individually and personally sign each cover letter.

Overall, it was felt that a mail-based questionnaire provided stronger tangibility and a better reflection of the time and effort that had been put into creating the questionnaire.

- Junk Mail: Often, e-mails from unknown sources can be considered as unwanted mail by the receiver. Such e-mails can trigger the worry of potentially carrying harmful computer viruses and can sometimes end up in the receiver's "spam" or "junk mail" folder, often going unnoticed. Using a mail option, as opposed to an electronic administration option, was considered to be a potential way around

these problems; it was felt that a tangible letter would have a better likelihood of being opened and read than an e-mail from an unknown sender.

- Pilot Study: A mail-based questionnaire had already been tested as the administrative procedure for this study during the pilot test and had proven to work well.

Although generally more expensive, time-consuming, and tedious in terms of data entry, it was felt that the above factors deemed a mail-based questionnaire to be more appropriate for this study than an electronic-based questionnaire (Shannon and Bradshaw, 2002; Bryman, 2008).

Consequently, the questionnaire (Appendix 16) was administered by mail to all 952 identified participants, accompanied by a cover letter (Appendix 18) and a pre-paid return address envelope (Appendix 19).

3.13.4 Response Rate

When implementing a survey methodology “the confidence one can have in [one’s] data is related to the response rate” (O’Rourke, 1999, p. 107; Baruch and Holtom, 2008). Therefore, achieving a good response rate was crucially important to the overall success and credibility of this piece of research.

In order to encourage a positive response rate, the researcher studied the area of best practice and, consequently, put a number of relevant strategies into practice. These were as follows:

- Length of the Questionnaire: The overall length of the questionnaire was kept as reasonable as possible (Carroll, 1998; O’Rourke, 1999). This was achieved by reducing Homburg and Pflesser’s (2000) original scales down from 78 items to a total of 53 items as was detailed in Section 3.10.1.1 – Section 3.10.1.4.
- Questionnaire Design: The questionnaire (Appendix 16) was designed in a userfriendly and professional manner with clear instructions throughout. Furthermore, coloured ink was used to add visual appeal to the overall final product (Carroll, 1998; O’Rourke, 1999; Edwards *et al.*, 2012).
- Pre-Test and Pilot Test: The questionnaire was pre-tested and pilot tested resulting in a number of improvements which, ultimately, aimed to increase the final

response rate of the study (Gray, 2009; Creswell, 2014). These test procedures were discussed in Sections 3.11 and 3.12.

- Administration Method: Mail-based questionnaires have been found to yield a higher response rate than electronic-based questionnaires, particularly in the context of organisational studies (Shih and Fan, 2008). Therefore, the questionnaire was administered by mail, as was discussed in Section 3.13.3.
- Association: The researcher's association with a well-known third-level organisation was communicated to participants by printing the cover letter on relevant headed paper (Appendix 18) and featuring the applicable logos on the questionnaire itself (Appendix 16). This added trust and credibility to the survey (O'Rourke, 1999; Greer *et al.*, 2000, cited in Baruch and Holtom, 2008, p. 1145).
- Personalisation: The cover letter (Appendix 18) was addressed to a specific individual within each organisation and was signed by the researcher resulting in a strong degree of personalisation (Carroll, 1998; Edwards *et al.*, 2012).
- Incentive: Based on the subject matter, it was felt that the research findings may be of particular interest to participants. Therefore, the final questionnaire (Appendix 16) provided an "opt-in" option for respondents to receive a copy of the key research findings should they wish to do so. It was felt that this incentive may be of value to participants and, thus, encourage their response without being coercive in nature (Carroll, 1998; O'Rourke, 1999; Singer and Bossarte, 2006).
- Return Address Envelope: A pre-paid return address envelope (Appendix 19) was provided with every questionnaire to further encourage participants to respond (Greer *et al.*, 2000, cited in Baruch and Holtom, 2008, p. 1145; Edwards *et al.*, 2012).
- Appreciation: Finally, although appearing perhaps basic in nature, the researcher was careful to ensure that the importance of showing appreciation was not overlooked (Carroll, 1998). Resultantly, all participants were thanked for their time and informed that their response would be a valued contribution to the study. This appreciation was expressed through both the cover letter (Appendix 18) and the questionnaire itself (Appendix 16).

Combined, it was hoped that the above strategies would generate a positive response rate.

From the 952 questionnaires administered, 242 usable responses were received. Of these 242 responses, 137 (i.e. 56.61%) opted to receive a copy of the research findings.

A further fourteen questionnaires were returned by the postal service marked as “undeliverable”.

The response rate was calculated using the following formula (Bryman, 2008, p. 181):

$$\frac{\text{number of usable questionnaires}}{\text{total sample - unsuitable or uncontactable members of the sample}} \times 100$$

Hence, it was calculated as follows:

$$\frac{242 \text{ usable questionnaires}}{\text{total sample of } 952 - 14 \text{ uncontactable members of the sample}} \times 100$$

This gave an initial response rate of 25.8%.

However, it was subsequently determined that the pilot test participants could also be included in the actual study. This conclusion was drawn from the fact that these participants were comparable to those used in the final study and no significant changes had been made to the questionnaire.

Consequently, the response rate was re-calculated as follows:

$$\frac{251 \text{ usable questionnaires}}{\text{total sample of } (952 + 11) 963 - 14 \text{ uncontactable members of the sample}} \times 100$$

This gave an amended final response rate of 26.4%, which is within the expected range for an organisational study and, hence, was deemed satisfactory (Baruch and Holtom, 2008).

3.14 Data Analysis

Subsequent to achieving a satisfactory response rate, the data were analysed using IBM’s Statistical Package for the Social Sciences (SPSS Version 22). Pallant’s (2011) data analysis process, which follows, acted as a guide during this phase:

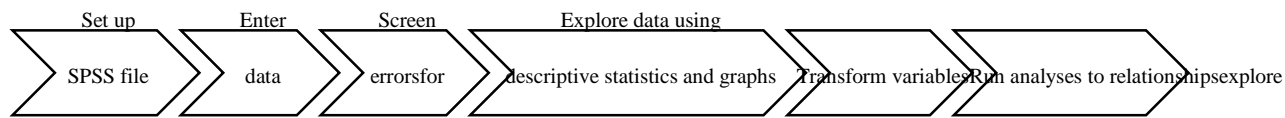


Fig. 3.8 “Flow Chart of Data Analysis Process” (adapted by the researcher from Pallant, 2011, p. 28)

3.14.1 Data Preparation

To prepare the data for analysis, an SPSS file appropriate to the final questionnaire (Appendix 16) was created. Each response was assigned an identification number and was then entered manually into the SPSS file using the predefined coding scheme (Figure 3.7). All entries were cross-checked by displaying their assigned value labels, thus allowing the researcher to confirm their accuracy.

Nonetheless, as the data were entered manually, it remained open to the threat of human error. Therefore, it was necessary to check the file for errors that could otherwise distort the overall results. Descriptive statistics were used to identify the minimum and maximum value of each variable (Coakes *et al.*, 2010; Pallant, 2011). All values were found to be within their expected range and, so, the researcher was satisfied that the data were accurate and no major errors existed.

As mentioned earlier, statements numbered 2, 4, 16, 23, 35, 49, 52 and 53 (Appendix 16) were all negatively-worded and, so, were subject to reverse coding. Total scale scores were then calculated for Market-Oriented behaviours, values, norms and artifacts. For example, the Market-Oriented values scale consisted of fourteen items (Appendix 6); SPSS combined the scores allocated to these fourteen items to calculate the total scale score awarded by each respondent.

Next, the data were checked for outliers i.e. values that deviate greatly from the mean, as these can affect many statistical tests. To identify outliers, boxplots were generated for the Market-Oriented behaviours, values, norms and artifacts scales. None of these boxplots contained any extreme outliers i.e. points “that extend more than three boxlengths from the edge of the box” (Pallant, 2011, p. 64). Nonetheless, a number of nonextreme outliers were identified. All of these occurred at the lower end of the scale and were represented by small circles accompanied by their assigned identification

number (Pallant, 2011). Hence, specific cases were easily isolated for a review. All were found to have been entered correctly and were deemed to be sincere. Therefore, all cases were retained.

Furthermore, the 5% trimmed mean was calculated for the four scales. To generate this figure, SPSS omits the top and bottom 5% of scores and recalculates the mean accordingly. No significant differences were found between the mean, median and the 5% trimmed mean values. Therefore, it was concluded that outliers would not be an issue (Coakes *et al.*, 2010; Pallant, 2011).

Finally, in order to allow for more effective data analysis, the total Market-Oriented behaviours scale was categorised. This would allow comparisons to be made between those with differing degrees of Market-Oriented behaviours. Upon consideration of a number of different strategies, the scale was divided into three approximately equal groups, or categories. This was achieved through the “visual binning” function in SPSS. The mean score for the total Market-Oriented behaviours scale was 75, with the highest possible score being 98. Due to this relatively high mean, the categories were assigned the following names: “Moderate”, “High” and “Exceptional” degree of Market-Oriented behaviours. Each category is summarised in Table 3.11, as follows:

Table 3.11 – A Summary of the Three Categories Created for the Total Market-Oriented Behaviours Scale		
Category Name	Score on Original Scale	No. of Cases/Participants⁴
Moderate degree of Market-Oriented behaviours	72 or below	85
Table 3.11 – Continued		
Category Name	Score on Original Scale	No. of Cases/Participants⁵
High degree of Market-Oriented behaviours	From 73 to 80	84
Exceptional degree of Market-Oriented behaviours	81 or above	80

⁴ Respondents with missing data were filtered out during this process. Consequently, n < 251, n = 249.

⁵ Respondents with missing data were filtered out during this process. Consequently, n < 251, n = 249.

The above process essentially transformed the original scale into categorical data. However, as will be detailed further shortly (Section 3.14.2.1), many statistical tests require data to be interval rather than categorical in nature. Therefore, it was necessary to create dummy variables in order to include these categories in such tests. Dummy variables are a way of representing each category using only zeros and ones, thus satisfying the assumption of interval data. Zero indicates the absence of a category, while one indicates its presence (Field, 2009; Presidion, 2015).

Consequently, the “Moderate” and the “Exceptional” degree of Market-Oriented behaviours categories were both recoded into dummy variables. A potential problem when creating dummy variables is the risk of coding missing data as zeros, rather than omitting them. This error would result in distorted results. Therefore, precautions were taken to ensure that any missing data were excluded prior to undertaking the recoding process. The “High” degree of Market-Oriented behaviours category was retained as the reference category, which would be used when interpreting the results of the analysis (Field, 2009; Presidion, 2015).

3.14.2 Assumptions of the Relevant Parametric Tests (Pre-Analysis)

Many statistical tests, called parametric tests, assume that the population from which one’s sample has been selected possesses certain characteristics (Bryman and Cramer, 2005). As a result, it is argued that parametric tests should only be employed if the data in question fulfil particular criteria that meet these assumptions (Bryman and Cramer, 2005; Field, 2009; Pallant, 2011). Failure to satisfy these assumptions ultimately restricts one’s ability to make accurate generalisations from the sample to the population (Field, 2009; Pallant, 2011). Hence, it was necessary to assess the relevant assumptions before proceeding with any parametric tests.

3.14.2.1 Assumption 1: Level/Scale of Measurement

Parametric tests require data to be measured at interval level (Bryman and Cramer, 2005; Field, 2009; Coakes *et al.*, 2010; Pallant, 2011). This means that not only do the scores on the measurement scale follow a logical order, but also that the intervals between the scores are equal (Field, 2009; Brown, 2011).

The questionnaire used in this study featured a Likert-type scale (Figure 3.6). Although the scores on the scale followed a logical order, the intervals between them could not be presumed equal (Jamieson, 2004; Brown, 2011). For example, the difference between “disagree” and “strongly disagree” could not be presumed equal to the difference between “agree” and “strongly agree”. Hence, one could initially conclude that the data were ordinal rather than interval (Jamieson, 2004).

Nonetheless, “it has become common practice to assume that Likert-type categories constitute interval-level measurement” (Blaikie, 2003, cited in Jamieson, 2004, p. 1217; Bryman and Cramer, 2005; Brown, 2011). Whether data obtained through Likert-type scales should be considered ordinal or interval, however, remains widely disputed (Knapp, 1990, cited in Jamieson, 2004, p. 1218; Jamieson, 2004; Norman, 2010).

Bryman and Cramer (2005, p. 145) suggest that this is not a hugely important debate as parametric “tests apply to numbers and not to what those numbers signify . . . [so], data are treated as if they are interval or ratio scaling [regardless]”. This sentiment is echoed by Norman (2010, p. 630) who found that parametric tests are “extremely robust with respect to violation” of the assumption of interval data. Thus, ordinal data can be easily used in parametric tests (Bryman and Cramer, 2005; Norman, 2010).

However, according to Brown (2011), much of the ordinal/interval debate can be clarified by distinguishing whether the data are being analysed using Likert items (that is, individual items) or Likert scales (that is, summed scores of a set of Likert items). He argues that while Likert items may be ordinal in nature, Likert *scale* data can in fact be considered interval and have been effectively analysed as such (Brown, 2011; Norman, 2010).

As outlined in Section 3.14.1 above, the scores awarded to individual items were combined to give total scale scores for Market-Oriented behaviours, values, norms and artifacts. These were used in the first statistical analysis undertaken (i.e. Correlation Analysis). Hence, this analysis was carried out using summed scores i.e. Likert *scales* as opposed to individual Likert *items*. Consequently, the data in this analysis were treated as interval data (Bryman and Cramer, 2005; Norman, 2010; Brown, 2011).

Furthermore, as also explained in Section 3.14.1 above, the Market-Oriented behaviours scale was divided into three categories: Moderate, High and Exceptional degree of

Market-Oriented behaviours. Dummy variables were used to represent these categories in the second statistical analysis undertaken (i.e. Multiple Regression Analysis). As is noted by Presidion (2015, p. 76) “it is also appropriate to consider [dummy variables] as interval [data]”. This sentiment is echoed by Field (2009). Consequently, the data used in this analysis were also treated as interval data.

3.14.2.2 Assumption 2: Related Pairs

The second assumption, related pairs, is concerned with the scoring of the relevant variables by participants. Each participant is required to provide a score on both the X and Y variable(s) being used in parametric tests; hence the term “related pairs” (Coakes *et al.*, 2010, Pallant, 2011). Similarly to assumption 1, satisfying this assumption is heavily reliant on the research design (Coakes *et al.*, 2010).

With regard to this piece of research, participants were mailed a self-administered questionnaire that required them to provide scores for all of the variables being examined in the study, thus satisfying the assumption of related pairs.

3.14.2.3 Assumption 3: Independence of Observations

Thirdly, parametric tests assume that observations are independent of one another. This means that one participant’s behaviour is not influenced by another participant’s behaviour (Field, 2009; Pallant, 2011).

For this study, observations were gathered using a self-administered questionnaire that was mailed to a single informant in each participating company. Hence, observations were made on an individual basis and no interaction between participants was involved (Pallant, 2011). Consequently, the assumption of independence of observations was not violated.

3.14.2.4 Assumption 4: Normal Distribution

Parametric tests also assume normal distribution (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011; Ghasemi and Zahediasl, 2012). This means that the majority of scores fall around the middle of the distribution, while less frequent scores deviate away from the middle. Hence, normal distribution is represented by a bell-shaped curve that is perfectly symmetrical (Field, 2010; Pallant, 2011).

The distribution of the data was, therefore, assessed for normality.

Firstly, skewness and kurtosis values were examined. These provide information about “the shape of the distribution” (Coakes *et al.*, 2010, p. 42). Skewness is concerned with symmetry, while kurtosis is concerned with ‘peakedness’. If the data were perfectly normally distributed, then both of these values would be zero (Pallant, 2011, p. 57; Field, 2009; Coakes *et al.*, 2010; Ghasemi and Zahediasl, 2012). Table 3.12, which follows, provides a summary of the skewness and kurtosis values obtained in this study:

Table 3.12 – Summary of Skewness and Kurtosis Results				
	Behaviours	Values	Norms	Artifacts
Skewness	Negative (-0.676)	Negative (-1.044)	Negative (-0.818)	Negative (-0.317)
Kurtosis	Positive (0.255)	Positive (1.840)	Positive (0.535)	Positive (0.108)

As highlighted in Table 3.12 above, all skewness values were found to be negative implying that the majority of scores were clustered to the right of the scale i.e. from 5 “agree” to 7 “strongly agree”. This suggests that the chosen sample included companies who believed themselves to be Market-Oriented, as was intended (Section 3.13.1). Correspondingly, all kurtosis values were found to be positive implying that the distribution was relatively peaked (Field, 2009; Pallant, 2011).

Overall, these results indicated that the distribution was not normal. However, skewness and kurtosis values can be over-sensitive when large samples are involved (Pallant, 2011). Consequently, the Kolmogorov-Smirnov, or K-S test for short, was used to further assess the distribution.

The K-S test takes the actual scores obtained in the study and compares them to a set of normally distributed scores that possess the same mean and standard deviation. If the significance value, referred to as *p*, is above .05 then the test is said to be non-significant. This implies that the sample’s distribution is similar to a normal distribution. However, a result of *p* less than .05 indicates that the test is significant. This means that the sample’s distribution differs significantly from a normal distribution (Field, 2009; Ghasemi and Zahediasl, 2012; Presidion, 2014). The results obtained in this study are as follows:

- Behaviours: $D(249) = 0.09, p < .05$;
- Values: $D(249) = 0.12, p < .05$;
- Norms: $D(250) = 0.09, p < .05$; and □ Artifacts: $D(248) = 0.07, p < .05$.

As reported above, all K-S test results were found to be significant ($p < .05$) indicating that the distribution was not normal. However:

In large samples these tests can be significant even when the scores are only slightly different from a normal distribution (Field, 2009, p. 148)

A large sample has been described as one that contains more than 30 or 40 cases (Field, 2009; Pallant, 2011; Ghasemi and Zahediasl, 2012). Therefore, as the final sample exceeded 40 cases ($n = 251$), visual tests were deemed more decisive than statistical tests in assessing normality (Field, 2009). Resultantly, histograms, box plots and Q-Q plots were used to visually assess the shape of the distribution (Appendix 20) (Field, 2009; Pallant, 2011). For a normal distribution, the following would be observed (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011):

- The histogram would be symmetrical;
- The median line would be positioned exactly in the centre of the box plot; and □
Scores would be plotted in a reasonably straight line on the Q-Q plot.

Table 3.13, which follows, provides a summary of the observations made upon assessing the relevant visual outputs (Appendix 20):

Table 3.13 – Summary of Observations Made During Visual Tests for Normality				
	Behaviours	Values	Norms	Artifacts
Histogram	Slightly clustered to the right	Clustered to the right	Clustered to the right	Quite symmetrical
Box Plot	Median very slightly above centre of box	Median very slightly above centre of box	Median above centre of box	Median very slightly above centre of box
Q-Q Plot	Reasonably straight line – some outliers	Reasonably straight line – some outliers	Slight curve to the line – some outliers	Reasonably straight line – some outliers

As documented in Table 3.13 above, the visual outputs identified some deviation away from normality. However, for the most part, the data appeared to be reasonably normally distributed.

Furthermore:

In large samples (> 30 or 40), the sampling distribution tends to be normal, regardless of the shape of the data (Ghasemi and Zahediasl, 2012).

This sentiment is echoed by both Field (2009) and Pallant (2011). Therefore, as the final sample for this study exceeded 40 cases ($n = 251$), the data were considered to be normally distributed.

3.14.2.5 Assumption 5: Linearity

When conducting parametric tests, it is assumed that there is a linear relationship between the variables being tested (Coakes *et al.*, 2010; Pallant, 2011).

This assumption was investigated by examining scatterplots generated for each of the three hypotheses (Appendix 21). In all three cases an approximately straight line, as opposed to a curved line, was observed. This indicated that the relationships between the relevant variables were indeed linear (Coakes *et al.*, 2010; Pallant, 2011).

3.14.2.6 Assumption 6: Homoscedasticity/Homogeneity of Variance

Homoscedasticity, also known as homogeneity of variance, is concerned with how the scores for the relevant variables are dispersed. More specifically, it means that variability in scores for the independent variable is similar or equal to the variability in scores for the dependent variable (Bryman and Cramer, 2005; Field, 2009; Coakes *et al.*, 2010; Pallant, 2011). Thus, the scores for both variables possess a fairly equal spread.

Similarly to Linearity, the assumption of Homoscedasticity was assessed by examining the scatterplots generated for each of the three hypotheses (Appendix 21). Coakes *et al.* (2010, p. 67) note that in order for this assumption to be met “the scores [should] cluster uniformly around the regression line”. Upon inspection of the relevant scatterplots, no serious deviations away from this criterion were identified.

Furthermore, Bryman and Cramer (2005) note that:

studies [that] have been carried out . . . which have been artificially set up to violate [homoscedasticity] have been found not to differ greatly from those for samples which have been drawn from populations which do not violate these conditions (Bryman and Cramer, 2005, p. 145)

Consequently, the data were considered to have satisfied the assumption of homoscedasticity.

3.14.3 Assumptions of the Relevant Parametric Tests (Post-Analysis)

The above six assumptions were all assessed prior to conducting the relevant statistical analyses. However, subsequent to conducting multiple regression analysis, it was necessary to ensure that a number of additional assumptions had been met. Many of these post-analysis assumptions were primarily concerned with the nature of the residuals produced.

Residuals are described as the differences between the actual values observed in the sample and the values that have been predicted in the analysis (Field, 2009; Presidion, 2015). Hence, residuals convey the error present in the associated model (Field, 2009).

Post-analysis assumptions were assessed using information provided in the relevant statistical outputs. They are now addressed in the context of this piece of research.

3.14.3.1 Assumption 1: Sample Size/Ratio of Cases to Independent Variables Firstly, in order to produce meaningful results, there must be a substantial ratio of cases/participants to the number of independent variables used in the analysis (Princeton University, 2007; Tabachnick and Fidell, 2007, cited in Pallant, 2011, p. 150; Coakes *et al.*, 2010; Pallant, 2011). “The issue at stake here is generalisability” (Pallant, 2011, p. 150).

To date, no agreement has been reached as to what the exact ratio should be. However, Tabachnick and Fidell (2007, cited in Pallant, 2011, p. 150) suggest the following formula as a general rule of thumb: minimum number of cases = $50 + 8m$, whereby “m” represents the number of independent variables in question.

In this particular piece of research, multiple regression analysis was conducted for each of the three hypotheses (Table 3.1). For all three hypotheses, two independent variables were entered into the relevant analysis. Therefore, based on the above formula, the minimum requirement for each analysis was 66 cases ($50 + 16$). The actual number of cases was as follows:

- Analysis for hypothesis 1: 246 cases
- Analysis for hypothesis 2: 248 cases
- Analysis for hypothesis 3: 248 cases

Hence, the actual number of cases strongly exceeded the recommended minimum requirement of 66 for all three analyses.

Furthermore, the actual number of cases also comfortably surpassed minimum requirements recommended by other authors. For example, Stevens (1996, cited in Pallant, 2011, p. 150) recommends a minimum of 15 cases for each independent variable, while Coakes *et al.* (2010) suggest that the number of cases should be at least five times the number of independent variables being used.

Consequently, the ratio of cases to independent variables was deemed to be more than sufficient.

3.14.3.2 Assumption 2: Independent Residuals/Lack of Autocorrelation

Secondly, it is assumed that the residuals are uncorrelated. In other words, it is assumed they are independent of one another. This means that the residuals do not influence each other from one case to the next (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011; Presidion, 2014; Presidion, 2015). The Durbin-Watson test was used to assess this assumption (Field, 2009).

Specifically, Durbin-Watson “tests whether adjacent residuals are correlated” (Field, 2009, p. 220). It is presented as a value between zero and four. Ideally, the result should be as close as possible to two, indicating that the residuals are not correlated. A result less than one or greater than three indicates a serious violation of this assumption (Field, 2009).

The Durbin-Watson test results obtained for each of the three hypotheses are as follows:

- Analysis for hypothesis 1: Durbin-Watson = 2.071
- Analysis for hypothesis 2: Durbin-Watson = 2.166
- Analysis for hypothesis 3: Durbin-Watson = 2.044

As indicated above, all three Durbin-Watson test results are close to two, thus satisfying the assumption of a lack of autocorrelation.

3.14.3.3 Assumption 3: Normally Distributed Residuals/Mean of Zero

As well as being independent of one another, it is also assumed that the residuals are normally distributed (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011; Presidion, 2014; Presidion, 2015). The concept of normal distribution was discussed in Section 3.14.2.4 above. Hence, this assumption was initially investigated in a similar manner to the aforementioned, that is, both visually and statistically.

Visual assessment involved examining the relevant histograms (Appendix 22) (Field, 2009; Presidion, 2014; Presidion, 2015). Upon their examination, a number of relatively minor deviations were observed: outliers were identified in all three cases, while two of the three distributions appeared somewhat peaked.

Subsequently, this assumption was statistically assessed using the K-S test (Field, 2009; Presidion, 2015). The results obtained are as follows:

- Analysis for hypothesis 1: $D(246) = 0.05$, $p > .05$
- Analysis for hypothesis 2: $D(248) = 0.08$, $p < .05$
- Analysis for hypothesis 3: $D(248) = 0.08$, $p < .05$

As reported above, the K-S test results were found to be significant for hypothesis 2 and hypothesis 3 ($p < .05$), again indicating that these two distributions were deviating away from normality (Field, 2009).

However, with regard to normally distributed residuals, Field (2009, p. 221) notes that “this assumption simply means that the [residuals] are most frequently zero or very close to zero, and that differences much greater than zero happen only occasionally”. In other words, it is assumed that the residuals have a mean of zero (Field, 2009; Presidion, 2015).

Consequently, in order to make a final judgement about the nature of the distributions, the relevant mean values were investigated. These are reported as follows:

- Analysis for hypothesis 1: mean of residuals = .000
- Analysis for hypothesis 2: mean of residuals = .000
- Analysis for hypothesis 3: mean of residuals = .000

Based on the observed histograms (Appendix 22), Field's (2009) explanation of this assumption and the mean values obtained, it was concluded that the residuals were fairly normally distributed.

3.14.3.4 Assumption 4: Outliers/Influential Cases

As highlighted in the above assumption, a number of outliers were identified upon examination of the residual histograms. Checking for outliers was highlighted in Section 3.14.1 as being part of the initial data preparation process (Pallant, 2011). During this process it was decided to retain non-extreme outliers that had been identified in the data. However, regression analysis can be particularly sensitive to these (Coakes *et al.*, 2010; Pallant, 2011).

Therefore, in order to ensure that outliers had no undue influence on the results, Mahalanobis' and Cook's distances were examined (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011).

Based on the fact that two independent variables were entered into each of the three regression analyses, Mahalanobis' distance had a corresponding critical chi-square value of 13.82 (Tabachnick and Fidell, 2007, cited in Pallant, 2011, p. 159). Hence, any value exceeding this figure would indicate that outliers had been unduly influential on the regression results.

The maximum Mahalanobis' distances obtained for each of the three analyses were as follows:

- Analysis for hypothesis 1: Maximum Mahalanobis' distance: 2.067
- Analysis for hypothesis 2: Maximum Mahalanobis' distance: 2.131
- Analysis for hypothesis 3: Maximum Mahalanobis' distance: 2.092

These results are all well below the critical chi-square value of 13.82.

Furthermore, the maximum Cook's distance values obtained for each of the three analyses were as follows:

- Analysis for hypothesis 1: Maximum Cook's distance: .048
- Analysis for hypothesis 2: Maximum Cook's distance: .061
- Analysis for hypothesis 3: Maximum Cook's distance: .076

These values are all well below one, thus indicating that outliers were not a problem (Field, 2009; Tabachnick and Fidell, 2007, cited in Pallant, 2011, p. 160).

Conclusively, based on the evidence from Mahalanobis' and Cook's distances it was determined that outliers had no undue influence on the results: no influential cases appeared to exist (Field, 2009; Pallant, 2011).

3.14.3.5 Assumption 5: Linearity

The fifth post-analysis assumption is concerned with linearity. Specifically, it is assumed that the residuals have a linear relationship with the predicted dependent variable scores (Tabachnick and Fidell, 2007, cited in Pallant, 2011, p. 151; Field, 2009; Coakes *et al.*, 2010; Pallant, 2011).

This assumption is strongly reliant on the previous assumption of linearity (i.e. PreAnalysis Assumption 5 – Section 3.14.2.5).

This is because if the IVs [independent variables] and DV [dependent variable] are linearly related, then the relationship between the residuals and the predicted DV scores will [also] be linear (Princeton University, 2007)

Hence, satisfying the previous assumption of linearity will, in turn, satisfy the current assumption of linearity.

As was investigated in the previous corresponding assumption (Section 3.14.2.5), total Market-Oriented behaviours were found to have a linear relationship with total artifacts, norms and values. Hence, there was a linear relationship associated with each of the three hypotheses.

Moreover, as was explained in Section 3.14.1, the total Market-Oriented behaviours scale was subsequently divided into categories that were used as the independent variables in the three regression analyses conducted. These independent variables were dichotomous in nature, meaning that they had only two possible values: zero or one (Field, 2009).

Princeton University (2007) notes that such variables “can only have a linear relationship with another variable”.

Therefore, given the linear relationships associated with each of the three hypotheses and the dichotomous nature of the independent variables used in the analyses, the assumption

that residuals have a linear relationship with the predicted dependent variable scores had, resultantly, been satisfied.

3.14.3.6 Assumption 6: Homoscedasticity/Homogeneity of Residuals

Furthermore, it is assumed that the residuals are homoscedastic (Tabachnick and Fidell, 2007, cited in Pallant, 2011, p. 151; Princeton University, 2007; Field, 2009; Coakes *et al.*, 2010; Pallant, 2011). The concept of homoscedasticity was discussed in Section 3.14.2.6 above. Hence, the same principles apply here. In short, this assumption implies that the variability in the residual scores is approximately equal across all of the predicted dependent variable scores (Princeton University, 2007; Field, 2009; Coakes *et al.*, 2010; Pallant, 2011)

Generally, this assumption is checked by ensuring that the points on the relevant scatterplot(s) are randomly distributed in an approximately rectangular shape, as opposed to following a particular pattern (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011). However, when utilising dummy variables the distribution of points tends to appear nonrandom. This is due to the fact that dummy variables can only take on a value of either zero or one. Hence, the scale's range is extremely restricted (Presidion, 2015).

Consequently, this assumption was examined, in the context of this piece of research, by ensuring that the majority of scores fell within the same band: hence, it should be possible to draw two horizontal lines across the scatterplot, between which, the majority of scores should be fairly evenly distributed (Presidion, 2015).

Upon examination of the three relevant scatterplots (Appendix 23), a number of mild violations were identified. These occurred due to the fact that the data were not perfectly normally distributed (Princeton University, 2007). However, no serious violation of this assumption was observed: for the most part, the majority of scores were determined to be fairly evenly clustered within the same band.

Overall, the residuals were considered to be homoscedastic rather than heteroscedastic in nature. Consequently, there were no serious violations of the relevant assumption (Princeton University, 2007; Presidion, 2014)

3.14.3.7 Assumption 7: Multicollinearity and Singularity

The final assumption relates to multicollinearity and singularity. These are both concerned with the degree to which the relevant independent/predictor variables are correlated (Coakes *et al.*, 2010; Pallant, 2011).

Multicollinearity occurs when the relevant independent/predictor variables are strongly correlated (Field, 2009; Coakes *et al.*, 2010; Pallant, 2011). Singularity occurs when there is a perfect correlation between two or more of the relevant independent/predictor variables (Coakes *et al.*, 2010; Pallant, 2011).

Both of these assumptions were checked by running “part and partial correlations” and “collinearity diagnostics” during the data analysis procedure (Field, 2009; Pallant, 2011).

With regard to the part and partial correlations provided, the independent/predictor variables were all found to correlate to some degree with the dependent variable in each of the three analyses: all exceeded the recommended threshold of .3. Furthermore, the independent/predictor variables achieved a correlation below the recommended cut-off point of .7 (Pallant, 2011). Hence, these results initially suggested that the assumptions of multicollinearity and singularity had been satisfied. However, Pallant (2011, p. 158) notes that there may be “problems with multicollinearity that may not be evident in the correlation matrix”.

Consequently, these assumptions were further investigated using the Variance Inflation Factor (VIF) and tolerance statistics generated as a result of running the collinearity diagnostics. Both of these measures indicate whether or not there is collinearity present in the data (Field, 2009).

In terms of the VIF, multicollinearity is indicated if the result is above 10 (Field, 2009; Pallant, 2011). The VIF values obtained in each of the three analyses are as follows:

- Regression Analysis 1: VIF = 1.33
- Regression Analysis 2: VIF = 1.32
- Regression Analysis 3: VIF = 1.32

As highlighted above, the VIF values obtained for each of the three hypotheses were all well below the cut-off point of 10.

Finally, tolerance levels were used to further assess multicollinearity. A tolerance level below .1 indicates that there may be a serious problem, while a value below .2 indicates that there may be a potential problem with multicollinearity (Field, 2009; Pallant, 2011).

The values obtained in this study are as follows:

- Regression Analysis 1: Tolerance = .750
- Regression Analysis 2: Tolerance = .756
- Regression Analysis 3: Tolerance = .756

These tolerance levels are all well above .1 and, thus, indicate that multicollinearity was not an issue.

Conclusively, based on the correlations, VIF and tolerance statistics obtained, it was concluded that the assumptions of multicollinearity and singularity had not been violated.

3.14.4 Statistical Analysis Undertaken

Having met the relevant statistical assumptions, the three hypotheses (Table 3.1) were then investigated using relevant parametric tests: namely, Correlation Analysis and Multiple Regression Analysis.

3.14.4.1 Correlation Analysis

All three hypotheses (Table 3.1) were initially investigated using Pearson productmoment correlation coefficient, or Pearson correlation coefficient for short.

Correlation analysis was conducted for two key reasons: Firstly, it enabled the researcher to quantitatively confirm whether or not there was, in fact, a relationship between the relevant variables in each hypothesis. Secondly, it provided some initial insight into the relationships identified (Field, 2009; Pallant, 2011).

Pearson correlation coefficient, denoted by r , is presented as a value between ± 1 . A plus sign indicates a positive correlation, meaning that as the independent/predictor variable increases, the dependent/outcome variable also increases. A minus sign indicates a negative correlation, meaning that as the independent/predictor variable increases, the dependent/outcome variable decreases (Taylor, 1990; Field, 2009; Pallant, 2011).

Additionally, the value of r provides information about the strength of the relationship between the variables in question, thus enabling their relationship to be quantified. Table

3.14, which follows, highlights how the strength of the correlation/relationship can be interpreted:

Table 3.14 – Interpretation of the Value of Pearson Correlation Coefficient (r)	
Value of r (\pm)	Strength of Relationship
0	No relationship exists
.10 to .29	Small/low/weak relationship
.30 to .49	Medium/moderate relationship
.50 to 1	Large/high/strong relationship

(created by the researcher from Field, 2009 and Pallant, 2011)

In short, Pearson correlation coefficient provided information about the direction (indicated by \pm sign) and strength (indicated by the absolute value of r) of the relationships between the relevant variables for each of the three hypotheses (Taylor, 1990; Field, 2009; Pallant, 2011). An important point to note here, however, is that correlation analysis does not infer causality. So, while it may indicate that two variables are indeed related, it does not indicate “that one variable *causes* the other” (Pallant, 2011, p. 124; Field, 2009).

The results obtained from the correlation analysis for each of the three hypotheses (Table 3.1) are documented throughout Chapter 4.

3.14.4.2 Multiple Regression Analysis

Having gained some initial insight into the relationships identified through correlation analysis, all three hypotheses were then further examined, and quantified, using the more sophisticated statistical technique of multiple regression analysis (Pallant, 2011).

This analysis provided three useful pieces of information relevant to the research hypotheses (Table 3.1):

Firstly, it provided an R^2 value for each of the three hypotheses. R^2 indicates the amount of explained variance. So, in the case of hypothesis 1, R^2 indicated the percentage of variance in artifacts (dependent/outcome variable) that could be explained by MarketOriented behaviours (independent/predictive variable). The same premise applied to the remaining hypotheses (Pallant, 2011, p. 153).

When interpreting R^2 , it is important to consider its “effect size”. This gives an objective indication of how meaningful or important the result actually is (Field, 2009). The effect size can be categorised and interpreted as follows:

Table 3.15 – Interpretation of the “Effect Size”		
Value of R^2	% of Explained Variance	Effect Size
.01	1%	Small
.09	9%	Medium
.25	25%	Large

(created by the researcher from Field, 2009, p. 57)

Secondly, multiple regression provided unstandardized coefficient beta values (β) for the independent/predictor variables used in the analysis. As explained in section 3.14.1, once the Market-Oriented behaviours scale had been categorised, dummy variables were created for the “Moderate” and “Exceptional” degree of Market-Oriented behaviours categories. This allowed these categories to be entered into the analysis as the independent/predictor variables. β indicates “the change in the outcome [dependent variable] due to a unit change in the predictor [independent variable(s)]” (Field, 2009, p. 259). In this context, a unit change is essentially a change from zero to one whereby zero is the reference category. As mentioned in section 3.14.1, the reference category in this piece of research was the “High” degree of Market-Oriented behaviours category. Consequently, the β values obtained in this study indicated how those with a “Moderate” or “Exceptional” degree of Market-Oriented behaviours scored on the total artifacts, norms and values scales, in comparison to those with a “High” degree of Market-Oriented behaviours.

Finally, multiple regression analysis is most commonly used as a predictive tool: it attempts to predict an outcome (dependent) variable from one or more predictive (independent) variable(s) (Griffith, 2010; Presidion, 2014; Presidion, 2015). Therefore, multiple regression was lastly used to predict how each category of Market-Oriented behaviours would score on the total artifacts, norms and values scales respectively.

The results obtained from the multiple regression analysis for each of the three hypotheses (Table 3.1) are documented throughout Chapter 4.

3.15 Data Quality

In order to evaluate the overall questionnaire and, thus, the quality of its resulting data, two fundamental properties were assessed: specifically, reliability and validity (Bryman, 2008; Field, 2009; Tavakol and Dennick, 2011).

Assessing these two properties essentially “gives [one] confidence that [the research instrument] is doing its job properly” (Field, 2009, p. 11). Therefore, as mentioned earlier, reliability and validity are of notable concern to the post-positivist, quantitative researcher (Golafshani, 2003; Bryman, 2008). As such, their assessment was strongly applicable to this piece of research.

Given that the questionnaire (Appendix 16) was, in essence, an adaptation of the works of Kohli *et al.* (1993) and Homburg and Pflesser (2000), its validity and reliability had, to an extent, already been established (Bryman, 2008). Nonetheless, researchers should never solely rely on previously reported results: rather, these two properties should be assessed “each time the test is administered” (Tavakol and Dennick, 2011, p. 53). Therefore, it was necessary to assess reliability and validity in order to ensure that the questionnaire and, thus, its resulting data, exhibited both properties in this piece of research.

3.15.1 Reliability

The first property, reliability, is primarily concerned with consistency and features both an external and an internal aspect (Bryman and Cramer, 2005; Bryman, 2008; Field, 2009; Tavakol and Dennick, 2011).

External reliability can be defined as:

The extent to which results are consistent over time . . . If the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be [externally] reliable (Joppe, 2000, quoted by Golafshani, 2003, p. 598)

Hence, external reliability is closely related to the replicability and generalisation of results (Golafshani, 2003; Bryman, 2008). This aspect of reliability is most often assessed using a test-retest method (Golafshani, 2003; Bryman and Cramer, 2005). However, this method has been identified in the literature as being a problematic approach (Bryman and Cramer, 2005; Bryman, 2008). The main associated problem is that “there is no easy way of disentangling the effects of a lack of stability in the measure from ‘real’ changes” that

may have occurred since the original testing (Bryman, 2008, p. 150). Moreover, a test-retest method is likely to turn “the investigation of reliability into a major project in its own right” (Bryman, 2008, p. 150). For these reasons, among others, this method is very rarely used to evaluate reliability (Bryman, 2008).

Internal reliability, on the other hand, is primarily concerned with internal consistency, that is, the degree to which each scale measures a single concept (Bryman and Cramer, 2005; Bryman, 2008; Field, 2009; Tavakol and Dennick, 2011). Hence, “internal reliability is particularly important in connection with multiple-item scales”, as have been used in this study (Bryman and Cramer, 2005, p. 77). This aspect of reliability is most often assessed using a statistical technique known as Cronbach’s alpha (α) (Golafshani, 2003; Bryman, 2008; Field, 2009; Peer and Gamliel, 2011).

Given the cross-sectional nature of this study and the fact that Organisational Culture can vary over time, a test-retest assessment of external reliability was not considered feasible⁶ (Bryman and Cramer, 2005; Bryman, 2008). Therefore, reliability was statistically assessed in terms of its internal aspect using Cronbach’s α .

Cronbach’s α is the most commonly used objective measure of reliability (Bryman, 2008; Field, 2009; Peer and Gamliel, 2011). Moreover, it is the most widely reported measure in the relevant research fields (Taras *et al.*, 2009).

Essentially, Cronbach’s α measures internal consistency by determining how well a set of items are inter-related (Bryman, 2008; Field, 2009; Tavakol and Dennick, 2011). This is achieved by splitting the relevant scale in half. The resulting halves are then correlated with one another. Cronbach’s test repeats this process halving the scale in every possible way. Finally, the correlations are averaged to produce Cronbach’s α , which is presented as a value between 0 (no internal consistency) and 1 (perfect internal consistency) (Bryman and Cramer, 2005; Field, 2009; Peer and Gamliel, 2011).

Table 3.16, which follows, provides a general rule of thumb for interpreting the value of Cronbach’s α :

Table 3.16 – Interpretation of the Value of Cronbach’s Alpha (α)

⁶ While a test-retest assessment of reliability was not conducted in this particular piece of research, a transparent methodology was provided to facilitate future researchers who may wish to engage in such an assessment and/or replicate this study.

Value of α	Interpretation
.9 to 1	Excellent
.8 to .9	Good
.7 to .8	Acceptable
.6 to .7	Questionable
.5 to .6	Poor
Less than .5	Unacceptable

(created by the researcher from George and Mallery, 2003, cited in Gliem and Gliem, 2003, p. 87)

Although Table 3.16 indicates that a value in the range of .9 to 1 is excellent, the literature notes that “If alpha is too high it may suggest that some items are redundant . . . [therefore,] a maximum alpha value of .90 has been recommended” (Tavakol and Dennick, 2011, p. 54). Consequently, rather than considering .7 to .8 as being merely acceptable, numerous authors have described this lower range as being a generally ideal target (Field, 2009; Pallant, 2011; Tavakol and Dennick, 2011). Thus, it was considered as such in this study.

With regard to self-administered questionnaires, Peer and Gamliel (2011, p. 1) note that Cronbach’s α may be “artificially inflate[d]” by response bias. This form of bias occurs when respondents exhibit “a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content” (Paulhus, 1991, quoted by Peer and Gamliel, 2011, p. 1). Hence, response bias leads to “artificially consistent responses [resulting in] inflated internal consistency” (Peer and Gamliel, 2011, p. 2). To ensure that the reported reliability was genuine, a number of precautions were taken to prevent response bias occurring in this study. These precautions included:

- Keeping the overall length of the questionnaire as reasonable as possible by reducing Homburg and Pflesser’s (2000) original 78 items down to 53 items (Carroll, 1998; O’Rourke, 1999; Swanson and Holton III, 2005);
- Dispersing a number of negatively-worded items throughout the questionnaire (Bryman, 2008; Gray, 2009);

- Engaging in pre-test and pilot test procedures (Blaxter *et al.*, 2006; Bryman, 2008);
- Providing clear and neutral instructions throughout the questionnaire;
- Ensuring that participants had no affiliation and/or obligation to the researcher or the third-level institution associated with this study; and
- Anonymising responses, thus allowing respondents to comfortably provide honest and accurate answers (Bryman, 2008; Gray, 2009).

As established in Section 3.10, the researcher’s questionnaire (Appendix 16) aimed to measure four dimensions of Market Orientation: specifically, behaviours, values, norms and artifacts. “Generally, reliabilities are assessed separately for each dimension included in the” research instrument (Taras *et al.*, 2009, p. 368). Hence, Cronbach’s α was applied accordingly.

Table 3.17, which follows, provides a summary of the results obtained:

Table 3.17 – A Summary of the Cronbach’s Alpha (α) Results Obtained			
Scale	No. of Items	Cronbach’s α	Interpretation
Behaviours	14	.771	Within ideal target
Values	14	.870	Within ideal target
Norms	13	.863	Within ideal target
Artifacts	12	.718	Within ideal target

As highlighted in Table 3.17, each scale achieved the targeted level of internal consistency ($\alpha > .7, \alpha < .9$).

These α results were comparable to those reported by Homburg and Pflesser (2000)⁷. Moreover, all four scales achieved and/or surpassed the average α value of .72, which was reported by over 500 studies in the field of Organisational Culture (Taras *et al.*, 2009).

Consequently, the questionnaire was deemed to be satisfactorily reliable.

⁷ The mean Cronbach’s α reported by Homburg and Pflesser was .78, with results ranging from .63 to .91.

3.15.2 Validity

The second property used to evaluate the overall questionnaire was that of validity.

Validity is concerned with whether the research instrument truly measures what it is intended to measure (Golafshani, 2003; Bryman and Cramer, 2005; Bryman, 2008; Field, 2009; Tavakol and Dennick, 2011). This property is of fundamental importance as a lack thereof leads to the production of questionable data. In short, the integrity of the research findings is at stake (Bryman, 2008).

Table 3.18, which follows, documents the main types of validity and details the method(s) used to establish each one in this particular study:

Table 3.18 – Types of Validity and the Method(s) used to Establish each one		
Type of Validity	Brief Explanation	Method(s) used to Establish the Specified Type of Validity
Face Validity	Concerned with the concept in question being reflected in its associated measure.	Established by pre-testing the relevant measures with six academic professionals who subsequently determined that face validity was present (Section 3.11).
Measurement Validity	Concerned with the specified measures accurately assessing the construct(s) that they are intended to. Considered to be the most important type of validity in quantitative research. Also referred to as construct validity. Linked to reliability – cannot achieve measurement validity if the measure is unreliable.	Used existing measures that had strong links to the relevant literature; therefore, measurement validity had already been established to a degree. Further established by confirming the reliability of each of the four relevant scales (Section 3.14.2.1).
Table 3.18 – Continued		
Type of Validity	Brief Explanation	Method(s) used to establish the Specified Type of Validity

Ecological Validity	Concerned with the applicability of the research findings to people's everyday lives in their natural environment. The more disturbances that the research imposes on the participants' natural environment, the more likely the research findings are to be ecologically invalid.	Established during the ethical considerations phase of the research by ensuring that participants and their environment(s) would experience minimal disturbances during data collection (Section 3.13.2) Further established by anonymising responses, thus allowing respondents to answer as truthfully and accurately as possible.
Internal Validity	Concerned with the level of confidence that one can have in drawing causality from the research findings.	Established by carrying out an extensive review of the relevant literature (Chapter 2). Causality was not inferred from the research findings; rather, inferences were made in light of the associated literature.
External Validity	Concerned with the generalisability of the research findings. Sample selection is fundamental to achieving this type of validity.	Established by ensuring that the chosen sample was representative of the defined population (Section 3.13.1). Further established by assessing non-response bias (see below).

(created by the researcher from Golafshani, 2003; Bryman and Cramer, 2005; Bryman, 2008 and Field, 2009)

As highlighted in Table 3.18, it was necessary to assess non-response bias in order to ensure that external validity had been established. This form of bias is of particular concern to research that employs a self-administered questionnaire and, so, was of notable relevance to this particular piece of research (Miller and Smith, 1983; Lindner *et al.*, 2001).

Non-response bias occurs when the subjects who respond to a questionnaire differ to the subjects who do not respond. This results in data that “may not represent the opinions of the entire sample or population” (Miller and Smith, 1983, p. 45; Lindner *et al.*, 2001).

In its most basic sense, non-response bias begs the question:

Are the data from [the 251 respondents] truly representative of the [overall sample of 952] to whom the questionnaire was mailed? (Miller and Smith, 1983, p. 46)

If the results are not true to the overall sample, then they cannot be generalised to the population from which the sample has been drawn. Thus, the key issue at stake is generalisability (Miller and Smith, 1983; Lindner *et al.*, 2001).

In an attempt to minimise non-response bias, a number of strategies were employed that aimed to produce a high response rate (Section 3.13.4) (Miller and Smith, 1983; Lindner *et al.*, 2001). Although a satisfactory response rate was attained, the final response rate was “less than 100%” (Lindner *et al.*, 2001, p. 51). Resultantly, it was necessary to assess non-response bias. This was achieved by comparing early respondents to late respondents (Miller and Smith, 1983; Lindner *et al.*, 2001).

Research has found “that subjects who respond late are similar to non-respondents” (Pace, 1939, cited in Lindner *et al.*, 2001, p. 51; Miller and Smith, 1983; Lindner *et al.*, 2001). Therefore, if no major differences are found between early and late respondents, then one can conclude that the results are truly representative of the overall sample (Pace, 1939, cited in Lindner *et al.*, 2001, p. 51; Miller and Smith, 1983; Lindner *et al.*, 2001). This is the most widely used method for assessing non-response bias in the social sciences (Lindner *et al.*, 2001).

To conduct this assessment, the first 10% of subjects who responded to the questionnaire were categorised as “early respondents”. All of the subjects included in this category responded to the questionnaire within seven working days. These were then compared to the final 10% of subjects, who were classified as “late respondents”. Incorporated in the late respondents were four participants whose responses were received too late to be included in the final study. Overall, “late respondents” took a minimum of 30 working days to respond to the questionnaire. The response from the final subject included in the study was received in 50 working days, while the overall final response was received 92 working days after the original mailing.

Table 3.19, which follows, provides a comparison of the mean score awarded to the total behaviours, values, norms and artifacts scales by both the early and late respondents:

Table 3.19 – A Comparison of Early versus Late Respondents

Mean Score	Early Respondents ⁸	Late Respondents ⁸
Behaviours	76	73
Values	79	78
Norms	72	71
Artifacts	56	58

As highlighted in Table 3.19, no major differences between early and late respondents were identified. Therefore, “with late respondents assumed typical of non-respondents” Table 3.19 provides evidence that the respondents were true to the overall sample (Miller and Smith, 1983, p. 48).

Moreover, those who responded to the questionnaire were found to be demographically comparable to the overall sample. Hence, “the assumption could be made that the respondents [were] a subpopulation of the total population” (Miller and Smith, 1983, p. 47). This point is detailed fully in the next chapter (Section 4.2.1).

Overall, in assessing non-response bias it was concluded that the respondents were truly representative of the overall sample. This meant that the results were generalisable to the population from which this sample was drawn. Conclusively, non-response bias had not compromised external validity in this particular study (Miller and Smith, 1983; Lindner *et al.*, 2001).

As highlighted in Table 3.18, a number of strategies were employed to ensure that validity was established in this study. Taking all of the above into consideration, the researcher was confident that the questionnaire and, thus, its resulting data, exhibited a satisfactory degree of validity.

3.16 Limitations

Having presented the research methodology in its entirety, a number of methodological limitations⁹ are identifiable. Most notably, these include:

⁸ n = 25 (251 respondents + 4 late respondents not included in the study = 255 x 10% = 25 cases) ⁹ The limitations presented here relate merely to the implementation of the research methodology. Limitations relating to the overall study are presented in Chapter 5 (Section 5.6).

- **A Lack of Control over Respondents:** The self-administered nature of the method used in this study meant that the researcher had no control over the completion of the questionnaire. In an attempt to ensure that the questionnaire was filled out by an appropriate candidate, a specific individual was targeted in each participating company (Section 3.13.1). Moreover, when completing the questionnaire, respondents were required to verify their position within the company (Appendix 16). Nevertheless, despite these measures, there is no way to fully ascertain exactly who completed the questionnaire.
- **Sampling Error:** This limitation occurs as “a result of . . . measuring a characteristic in some, but not all, of the units or people in the population of interest” (Lindner *et al.*, 2001, p. 43). Therefore, a sampling error is likely to be applicable to this study due to the fact that a non-probability sampling strategy was employed (Section 3.13.1) (Lindner *et al.*, 2001). In an attempt to minimise this limitation, the researcher carefully selected a large sample that was considered to be fairly representative of the population of interest (Section 13.3.1). Testing for non-response bias (Section 3.15.2) allowed the researcher to conclude that “respondents [from this sample were, indeed,] truly representative of the population” (Miller and Smith, 1983, p. 47). Ultimately, “this [adopted] rationale is the same that probabilistic (random) sampling provides” (Miller and Smith, 1983, p. 48). However, despite adopting this rationale, there is no way of knowing the magnitude of the sampling error that may be involved.
- **Measurement Error:** This limitation occurs when there is “a discrepancy between the numbers [used] to represent the [construct being measured] and the actual value of the [construct in question]” (Field, 2009, p. 11; Lindner *et al.*, 2001). Such an error is common with self-reported measures, as have been used in this study (Field, 2009). “Reducing this source of error requires that the researcher use items that are valid, reliable, and unambiguous to the research subjects” (Lindner *et al.*, 2001, p. 43). Therefore, to minimise measurement error, data quality was assessed in terms of its reliability and validity, both of which were determined to be present to a satisfactory degree (Section 3.15).
- **External Reliability:** As discussed and justified in Section 3.15.1, a test-retest assessment of external reliability was not undertaken in this study. Consequently,

the degree of external reliability (i.e. the replicability of the research findings) remains uncertain. The researcher did, however, provide a transparent methodology to facilitate future researchers who may wish to engage in such an assessment and/or replicate this study.

- **Inability to Infer Causality:** This study's research questions and hypotheses (Table 3.1) "imply a causal link between" Market-Oriented behaviours and the three layers of an organisation's culture (Field, 2009, p. 13). However, all of these variables in question were measured simultaneously. Therefore, from the statistical tests undertaken, "[one] cannot say which variable causes a change in the other; [one] can merely say that the variables co-occur in a certain way" (Field, 2009, p. 15; Pallant, 2011). In short, as all of the variables were measured at a single point in time, one cannot know for certain which variable came first (Field, 2009; Tiernan, 2015). Therefore, as "the key to answering the research question[s] was] to uncover how the proposed cause and the proposed outcome relate to each other" (Field, 2009, p. 13), causality was not inferred from the research findings; rather, inferences were suggested in light of the associated literature. Nevertheless, one cannot "rule out [the possibility of] confounding variables" (Field, 2009, p. 14), which may ultimately challenge the conclusions drawn.
- **Use of a Single Informant:** This study sought information from a single individual in each participating company. Resultantly, the researcher "cannot assess informant bias, which may be present in the context of abstract concepts such as organizational culture" (Homburg and Pflesser, 2000, p. 458; Gainer and Padanyi, 2005). This limitation is elaborated on in Chapter 5 (Section 5.6), where its implications for future research are discussed.

3.17 Conclusion

This chapter consisted of five major aspects:

Firstly, aided by use of Grix's (2002, p. 180) "building blocks of research" framework, this chapter developed an appropriate research methodology aimed at addressing the research gap being examined in this study (Table 3.1). The application of the aforementioned framework to this particular study is summarised in Figure 3.9, as follows:

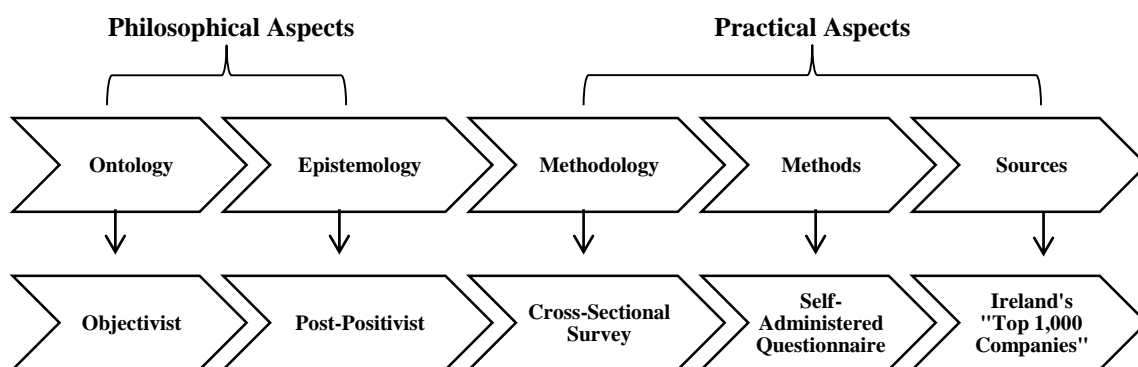


Fig. 3.9 “A Summary of the Application of Grix’s ‘Building Blocks of Research’ Framework to this Particular Study” (created by the researcher; Grix, 2002, p. 180)

Next, the development of the researcher’s refined questionnaire tool (Appendix 16) was detailed, which included a discussion on the implementation of the relevant pre-test and pilot test procedures.

Thirdly, data collection methods were recorded, which included addressing the issues of identifying participants, undertaking ethical considerations, administering the questionnaire and achieving a satisfactory response rate.

This was followed by the relevant data analysis procedures, where it was established that the statistical tests of correlation and multiple regression analysis would be used to examine the study’s three research hypotheses (Table 3.1).

Finally, the chapter concluded with some of the limitations of the research methodology employed.

A common thread throughout this chapter was the issue of generalisability. More specifically, the deductive reasoning, quantitative strategy and cross-sectional survey methodology adopted in this study, are all factors that ultimately aim to generalise research findings (Social Research Methods, 2006b; Blaxter *et al.*, 2006; Bryman, 2008; Gray, 2009; Creswell, 2014). With regard to the generalisability of this particular study, the following points were noted throughout this chapter:

- A large sample that was deemed to be fairly representative of the defined population was carefully selected for use in the study (Section 3.13.1);

- A satisfactory response rate was achieved (Section 3.13.4);
- All of the pre-analysis and post-analysis assumptions associated with the relevant parametric tests were determined to have been satisfied (Sections 3.14.2 and 3.14.3). This indicated that accurate generalisations could be made from the sample to the population (Field, 2009; Pallant, 2011);
- The ratio of cases to independent variables used in the statistical analyses was deemed to be more than sufficient (Section 3.14.3.1);
- The study was determined to be satisfactorily reliable and valid (Section 3.15); and, finally
- In assessing non-response bias, it was concluded that the study's respondents were true to the overall sample, thus indicating that the results were generalisable to the population from which this sample was drawn (Section 3.15.2).

Taking the above points into consideration, it can be concluded that findings of this study are generalisable to its defined population. These findings are presented in Chapter 4, which now follows.

4. Presentation of Findings

4.1 Introduction

Having undertaken the relevant statistical tests documented in Chapter 3, this chapter proceeds to present the research findings obtained.

Firstly, demographic data relating to the participants are presented, thus providing the reader with an overview of the types of organisations and individuals that responded to the study.

Findings from the correlation and multiple regression analyses are then presented for each of the three hypotheses.

Finally, the chapter concludes with a synopsis of the overall research findings.

4.2 Demographic Information

Demographic data relating to the participants in this study were obtained through the questionnaire (Appendix 16).

In all, five pieces of demographic information were sought, three of which pertained to characteristics of the participating company. The remaining two pieces of information pertained to characteristics of the individual respondents. Thus, the demographic information has been divided and is presented accordingly.

A response to each of the five relevant questions was provided by all 251 respondents; hence, there were no missing data involved.

4.2.1 Company Demographics

As mentioned, each respondent provided three pieces of information relating to the characteristics of the participating company with which they were associated: specifically, the sector(s) in which the company operates, the number of years that the company has been in business and the number of people employed in the company.

Table 4.1, which follows, provides a summary of the results:

Table 4.1 – Company Demographics

Sector⁹	No. of Cases (n)	Valid %
Agribusiness	27	10.8
Communications	22	8.8
Construction	30	12.0
Energy	22	8.8
Financial Services	15	6.0
Food and Beverage	28	11.2
Health	21	8.4
Manufacturing	51	20.3
Media and Marketing	12	4.8
Non-Profit	7	2.8
Pharmaceuticals	20	8.0
Professional Services	12	4.8
Property	1	0.4
Resources	4	1.6
Retailing	29	11.6
Technology	43	17.1
Tourism	5	2.0
Transport	30	12.0
Other	27	10.8
No. of Years in Business	No. of Cases (n)	Valid %
Less than 1 year	1	0.4
1 – 10 years	15	6.0
11 – 20 years	50	19.9
21 – 30 years	46	18.3
31 – 40 years	43	17.1
41+ years	96	38.2
No. of Employees	No. of Cases (n)	Valid %
Less than 10 employees	2	0.8
10 – 49 employees	33	13.1
50 – 249 employees	90	35.9

⁹ For question 54 (Appendix 16), respondents were permitted to tick multiple sectors. Consequently, the total number of cases (406) exceeds the total number of respondents that answered the question (251) and the total percentage (162.2%) exceeds 100.

250+ employees	126	50.2
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As highlighted in Table 4.1, the research findings displayed representation from each possible sector: no sector contained zero participants. Moreover, no individual sector was identified as being particularly dominant. Upon comparing the participants' sectors with those of the overall sample, i.e. The Irish Times' "Top 1,000 Companies in Ireland", a number of commonalities were identified. In both cases, manufacturing, technology, transport and retailing were among the top five sectors. Furthermore, property, resources, tourism, non-profit and media and marketing all featured in the bottom five sectors for both the participants and the overall sample.

Of the 251 companies that participated in the study, 93.6% had been in business for a minimum of eleven years. A further 6% had been in business for a period of between one and ten years. Consequently, the vast majority of participating companies were considered extremely likely to have an established culture (Harris, 2001).

Approximately 14% of the participating companies were described as small (employees < 50), 36% were described as medium (50 – 249 employees), while the remaining 50% were described as large (employees > 250) (Enterprise Ireland, 2014). Again, these results were comparable to the overall sample, which consisted of approximately 20% small, 34% medium and 46% large organisations.

Overall, the participants in this study can be described as medium to large, well-established companies that operate across a broad range of sectors.

Given their similarity in terms of sectors and size, the participants were deemed to be relatively true to the overall sample. Moreover, as was established in Section 3.13.1, the overall sample was determined to be representative of the defined population. Hence, the participants were considered to be fairly representative of not just the overall sample, but of the overall population also (Miller and Smith, 1983).

4.2.2 Respondent Demographics

In addition to the above, the individual respondents provided two pieces of information about themselves: namely, their position within the company and the number of years that they have been employed with the company.

Table 4.2, which follows, provides a summary of the results:

Table 4.2 – Respondent Demographics		
Position within the Company	No. of Cases (n)	Valid %
Managing Director	34	13.5
CEO	9	3.6
Marketing Manager	82	32.7
PR/Communications Manager	5	2.0
General Manager	33	13.1
Sales Manager	33	13.1
Other	55	21.9
No. of Years employed with the Company	No. of Cases (n)	Valid %
Less than 1 year	17	6.8
1 – 10 years	124	49.4
11 – 20 years	70	27.9
21 – 30 years	27	10.8
31 – 40 years	11	4.4
41+ years	2	0.8

As indicated in Table 4.2, the majority of respondents (32.7%) held the position of Marketing Manager, which was the primary target for this study. Overall, 78.1% of participants held a position that had been directly targeted by the researcher. The remaining 21.9% of participants selected the “Other” option.

Of the 55 people who selected “Other”, 80% held either a director or management position. These included Business Development Managers, Product Managers, Commercial Managers and Customer Service Managers. Furthermore, 10.9% of participants who selected “Other” proceeded to specify a marketing-based position. These included titles such as Marketing Assistant, Marketing Executive and Vice President of Sales and Marketing.

As well as indicating their position within the company, respondents also indicated how long they had been employed with that particular company. 49.4% had been employed for a period of between one and ten years, while a further 43.9% had been employed for a minimum of eleven years.

Taking these findings into consideration, the researcher was confident that the vast majority of respondents were likely to have an understanding of the organisation’s marketing activities as well as its culture and, thus, were in a position to accurately complete the questionnaire.

4.3 Research Findings for Hypothesis 1

4.3.1 Correlation Analysis

The first hypothesis for this piece of research aimed to determine whether or not MarketOriented behaviours had a positive influence on cultural artifacts.

As mentioned earlier, this hypothesis was firstly examined using correlation analysis, the basic premise of which has been described in Section 3.14.4.1. Hence, a Pearson correlation coefficient (r) was calculated to gain some initial insight into the relationship between these two variables.

The following figure, Figure 4.1, visually represents the result obtained:

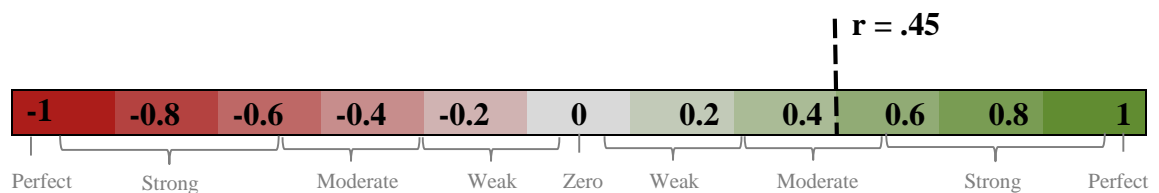


Fig. 4.1 “A Visual Representation of the Pearson Correlation Coefficient Result Obtained for Hypothesis 1” (created by the researcher, aided by use of Table 3.14)

As illustrated in Figure 4.1, the Pearson correlation coefficient result indicated that there was a moderate, positive relationship between Market-Oriented behaviours and artifacts, $r = .45$, $n = 246$, p (one-tailed) $< .01$ ¹⁰.

Overall, this result established that these two variables moved in tandem. In other words, as Market-Oriented behaviours increased, artifacts also increased (Field, 2009; Pallant, 2011).

¹⁰ Spearman’s rho, which is a non-parametric alternative to Pearson correlation coefficient, generated similar results: $r_s = .42$, $n = 246$, p (one-tailed) $< .01$, $p = .000$ (Field, 2009; Pallant, 2011)

Such a relationship was implied visually on the relevant scatterplot that was generated prior to conducting this analysis (Appendix 21). Hence, the Pearson correlation coefficient result ultimately confirmed and quantified this suspected relationship.

As indicated by $p < .01$, the Pearson correlation coefficient was found to be statistically significant, meaning that the probability of obtaining this result was very unlikely to have occurred by chance ($p = .000$). Consequently, the relationship between Market-Oriented behaviours and artifacts was deemed to be genuine (Field, 2009; Pallant, 2011).

4.3.2 Multiple Regression Analysis

Subsequent to conducting the correlation analysis, hypothesis 1 was further explored and quantified using multiple regression analysis with dummy variables. The concept of dummy variables has been discussed in Section 3.14.1, while the basic premise behind multiple regression analysis has been outlined in Section 3.14.4.2.

From the multiple regression analysis conducted, an R^2 value of .184 was obtained. As stated earlier, R^2 represents the amount of explained variance. Hence, this R^2 value of .184 indicated that 18.4% of the variance in total artifacts could be accounted for by Market-Oriented behaviours (Field, 2009; Pallant, 2011; Presidion, 2015). This percentage of explained variance equated to a medium effect size (Table 3.15) and, thus, was considered to be a meaningful result (Field, 2009).

Furthermore, the analysis achieved a significance value of less than .0005 ($p = .000$), indicating that the regression results were statistically significant. In other words, the probability that the association between Market-Oriented behaviours and artifacts occurred by chance was highly unlikely. Consequently, the regression results were deemed to be genuine (Field, 2009; Presidion, 2015).

In addition to the above, the multiple regression analysis provided unstandardized coefficient beta values (β). As explained in Section 3.14.4.2, these β values essentially indicated how those with a “Moderate” or “Exceptional” degree of Market-Oriented behaviours scored on the artifacts scale, in comparison to those with a “High” degree of Market-Oriented behaviours (Field, 2009; Presidion, 2015).

The results indicated that organisations with a “Moderate” degree of Market-Oriented behaviours scored, on average, 5 points lower on the total artifacts scale than those with

a “High” degree of Market-Oriented behaviours ($\beta = -5.055$, Sig. = .000). Furthermore, organisations with an “Exceptional” degree of Market-Oriented behaviours scored, on average, 2 points higher on the total artifacts scale than those with a “High” degree of Market-Oriented behaviours ($\beta = 2.058$, Sig. = .040).

These β values were subsequently entered into the following straight line equation (Presidion, 2015, p. 79):

$Y=A+\beta x$, wherein:

- Y is the dependent/outcome variable (in this case artifacts);
- A is the intercept or constant term (in this case 59.317);
- B is the relevant unstandardized coefficient beta value (in this case -5.055 for “Moderate”, 0 for “High” and 2.058 for “Exceptional degree of Market-Oriented behaviours); and
- x is the independent/predictor variable (in this case the relevant degree of MarketOriented behaviours¹¹).

This equation was used to predict how organisations with differing degrees of MarketOriented behaviours would score on the total artifacts scale.

The following figure, Figure 4.2, provides a visual representation of the resulting predicted scores¹²:

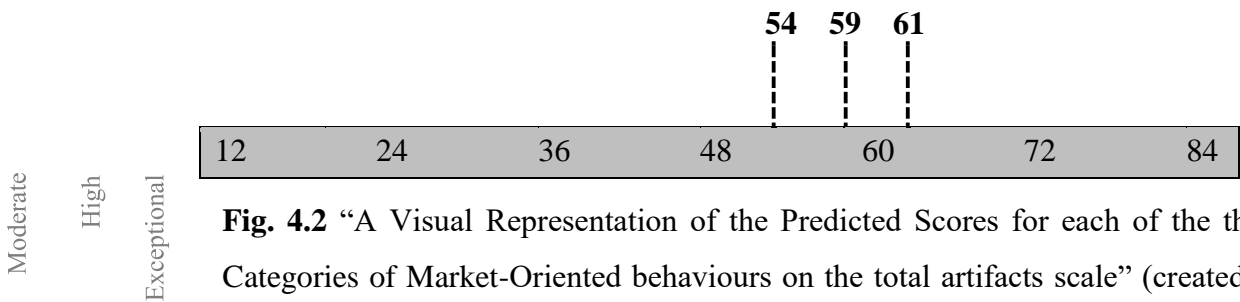


Fig. 4.2 “A Visual Representation of the Predicted Scores for each of the three Categories of Market-Oriented behaviours on the total artifacts scale” (created by the researcher)

¹¹ As explained in Section 3.14.1, in the context of using dummy variables zero indicates the absence of a category, while one indicates its presence (Field, 2009; Presidion, 2015). Therefore, to include the relevant independent/predictor variable in each equation x must = 1.

¹² The scale for artifacts consisted of a total of 12 items (Appendix 10). Therefore, the highest possible score that an organisation could award the overall scale was 84 (12 items multiplied by the maximum possible score of 7 per item). No missing data were included in the analysis; hence, the lowest possible score was 12 (12 items multiplied by the minimum possible score of 1 per item).

Overall, Figure 4.2 demonstrates that, as the degree of Market-Oriented behaviours increased, the predicted score for total artifacts also increased. Hence, the multiple regression results coincided with the results from the correlation analysis (Section 4.3.1).

4.3.3 Summary of Findings for Hypothesis 1

Hypothesis 1 aimed to establish whether or not Market-Oriented behaviours had a positive influence on cultural artifacts. This hypothesis was investigated using two appropriate statistical techniques.

Firstly, correlation analysis was used to confirm and describe the relationship between the two relevant variables. More specifically, it enabled the researcher to gauge the strength and direction of the relationship in question.

Overall, the Pearson correlation coefficient result indicated that there was a moderate, positive relationship associated with hypothesis 1 (Figure 4.1): increases in Market-Oriented Behaviours were associated with increases in artifacts (Field, 2009; Pallant, 2011). Consequently, correlation analysis supported the idea that Market-Oriented behaviours had a positive influence on cultural artifacts.

This hypothesis was subsequently investigated using multiple regression analysis, which demonstrated that Market-Oriented behaviours could statistically predict artifacts. More specifically, the higher the degree of Market-Oriented behaviours, the higher the predicted score on the total artifacts scale (Figure 4.2). Ultimately, the multiple regression results added substance to the preceding findings and, thus, provided further support for hypothesis 1.

Neither of the above analyses attempted to purposely manipulate the variables in question. Rather, they allowed the variables to be investigated “as they exist[ed] naturally” (Pallant, 2011, p. 121). Furthermore, both were found to be statistically significant, meaning that their results were very unlikely to have occurred by chance. Consequently, the support gained for hypothesis 1 from these analyses was considered to be authentic.

The above research findings are discussed in light of the relevant literature throughout Chapter 5.

4.4 Research Findings for Hypothesis 2

4.4.1 Correlation Analysis

The second hypothesis for this piece of research aimed to establish whether or not Market-Oriented behaviours had a positive influence on cultural norms.

Similarly to the preceding hypothesis, this hypothesis was firstly investigated using correlation analysis (Section 3.14.4.1). So, a Pearson correlation coefficient (r) was calculated to provide some initial insight into the relationship between the two relevant variables.

Figure 4.3, which follows, provides a visual representation of the result obtained:

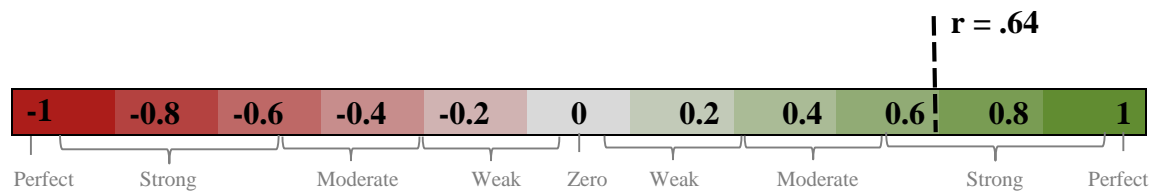


Fig. 4.3 “A Visual Representation of the Pearson Correlation Coefficient Result Obtained for Hypothesis 2” (created by the researcher, aided by use of Table 3.14)

As highlighted by Figure 4.3, the Pearson correlation coefficient result indicated that there was a strong, positive relationship in question, $r = .64$, $n = 248$, p (one-tailed) $< .01$ ¹³.

Overall, this result demonstrated that these two variables moved alongside one another. More specifically, norms were found to increase as Market-Oriented behaviours increased (Field, 2009; Pallant, 2011).

This strong, positive relationship was implied visually on the relevant scatterplot that was generated prior to implementing the correlation analysis (Appendix 21). As in the case of hypothesis 1, the Pearson correlation coefficient result confirmed and quantified the suspected relationship.

As indicated by $p < .01$, these correlation results were found to be statistically significant

¹³ Spearman’s rho, which is a non-parametric alternative to Pearson correlation coefficient, generated similar results: $r_s = .63$, $n = 248$, p (one-tailed) $< .01$, $p = .000$ (Field, 2009; Pallant, 2011)

($p = .000$) and, thus, were highly unlikely to have occurred by chance. Consequently, the relationship between Market-Oriented behaviours and norms was deemed to be genuine (Field, 2009; Pallant, 2011).

4.4.2 Multiple Regression Analysis

Following the same data analysis procedures as for hypothesis 1, hypothesis 2 was then explored using multiple regression analysis with dummy variables (Sections 3.14.1 and 3.14.4.2).

From the multiple regression analysis conducted, an R^2 value of .324 was obtained. This demonstrated that 32.4% of the variance in total norms could be accounted for by Market-Oriented behaviours (Field, 2009; Pallant, 2011; Presidion, 2015). Overall, this percentage of explained variance was equivalent to a large effect size (Table 3.15) and, so, was considered to be a substantial result (Field, 2009).

In addition to having achieved a large effect size, the analysis also accomplished a significance value of less than .0005 ($p = .000$). Hence, the results were statistically significant. Resultantly, the association between Market-Oriented behaviours and norms was considered to be true to real life, rather than having occurred by chance. In other words, the regression results were deemed to be genuine (Field, 2009; Presidion, 2015).

The unstandardized coefficient beta values (β) obtained in the analysis indicated that organisations with a “Moderate” degree of Market-Oriented behaviours scored, on average, 8 points lower on the total norms scale than those with a “High” degree of Market-Oriented behaviours ($\beta = -8.475$, Sig. = .000). Furthermore, organisations with an “Exceptional” degree of Market-Oriented behaviours scored, on average, 5 points higher on the total norms scale than those with a “High” degree of Market-Oriented behaviours ($\beta = 5.000$, Sig. = .000).

These β values were subsequently entered into the following straight line equation (Presidion, 2015, p. 79):

$Y=A+\beta x$, wherein:

- Y is the dependent/outcome variable (in this case norms);
- A is the intercept or constant term (in this case 73.405);

- β is the relevant unstandardized coefficient beta value (in this case -8.475 for “Moderate”, 0 for “High” and 5.000 for “Exceptional” degree of Market-Oriented behaviours); and
- x is the independent/predictor variable (in this case the relevant degree of MarketOriented behaviours¹⁴).

This equation was used to predict how organisations with differing degrees of MarketOriented behaviours would score on the total norms scale.

Figure 4.4, which follows, provides a visual representation of the resulting predicted scores¹⁵:

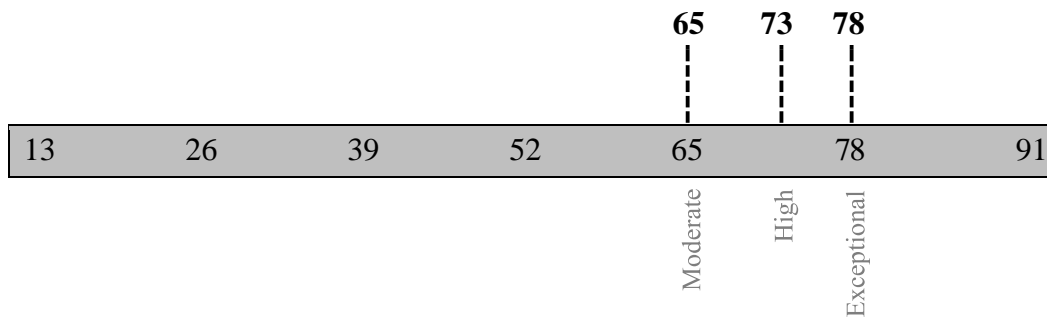


Fig. 4.4 “A Visual Representation of the Predicted Scores for each of the three Categories of Market-Oriented Behaviours on the Total Norms Scale” (created by the researcher)

Overall, Figure 4.4 demonstrates that as the degree of Market-Oriented behaviours increased, the predicted score for total norms also increased. Therefore, similarly to hypothesis 1, the regression results coincided with the results from the correlation analysis (Section 4.4.1).

4.4.3 Summary of Findings for Hypothesis 2

Hypothesis 2 aimed to determine whether or not Market-Oriented behaviours had a positive influence on cultural norms.

¹⁴ As explained in Section 3.14.1, in the context of using dummy variables zero indicates the absence of a category, while one indicates its presence (Field, 2009; Presidion, 2015). Therefore, to include the relevant independent/predictor variable in each equation x must = 1.

¹⁵ The scale for norms consisted of a total of 13 items (Appendix 8). Therefore, the highest possible score that an organisation could award the overall scale was 91 (13 items multiplied by the maximum possible score of 7 per item). No missing data were included in the analysis; hence, the lowest possible score was 13 (13 items multiplied by the minimum possible score of 1 per item).

As in the case of the first hypothesis, this hypothesis was investigated using the statistical procedures of correlation and multiple regression analysis.

Overall, the Pearson correlation coefficient result demonstrated that there was a strong, positive relationship associated with hypothesis 2 (Figure 4.3): increases in Market-Oriented behaviours were associated with increases in norms (Field, 2009; Pallant, 2011). So, the correlation results ultimately provided support for the idea that Market-Oriented behaviours had a positive influence on cultural norms.

This hypothesis was further supported by the multiple regression analysis, which overall found that the higher the degree of Market-Oriented behaviours, the higher the predicted score on the total norms scale (Figure 4.4).

Considering that the correlation and multiple regression analyses allowed the relevant variables to be investigated “as they exist[ed] naturally” (Pallant, 2011, p. 121) and that both analyses were found to be statistically significant, the support provided for hypothesis 2 was deemed to be genuine.

These research findings are discussed in light of the associated literature throughout Chapter 5.

4.5 Research Findings for Hypothesis 3

4.5.1 Correlation Analysis

The third and final hypothesis aimed to determine whether or not Market-Oriented behaviours had a positive influence on cultural values.

As with the two preceding hypotheses, this hypothesis was initially examined using correlation analysis (Section 3.14.4.1). Hence, a Pearson correlation coefficient (r) was calculated to gauge the strength and direction of the relationship between these two variables.

Figure 4.5, which follows, provides a visual representation of the result obtained:

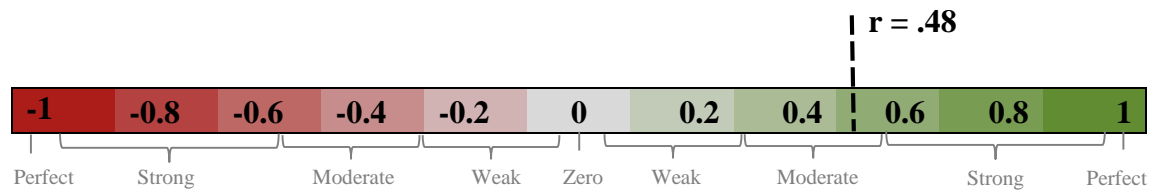


Fig. 4.5 “A Visual Representation of the Pearson Correlation Coefficient Result Obtained for Hypothesis 3” (created by the researcher, aided by use of Table 3.14)

As Figure 4.5 illustrates, the Pearson correlation coefficient result established that there was a moderate, positive relationship between Market-Oriented behaviours and values, $r = .48$, $n = 248$, p (one-tailed) $< .01$ ¹⁶.

Overall, this result indicated that these two variables moved in tandem. Put simply, as Market-Oriented behaviours increased, values also increased (Field, 2009; Pallant, 2011).

The corresponding scatterplot that was generated prior to conducting this analysis (Appendix 21) had previously suggested such a relationship. Like the other hypotheses, the Pearson correlation coefficient result confirmed and quantified the suspected relationship.

These correlation results were found to be statistically significant ($p < .01$, $p = .000$) and, so, were highly unlikely to have occurred by chance. Resultantly, the relationship between Market-Oriented behaviours and values was deemed to be genuine (Field, 2009; Pallant, 2011).

4.5.2 Multiple Regression Analysis

Following the same data analysis procedures as for the preceding two hypotheses, hypothesis 3 was further examined and quantified using multiple regression analysis with dummy variables (Sections 3.14.1 and 3.14.4.2).

From this analysis, an R^2 value of .196 was obtained. This indicated that 19.6% of the variance in total values could be accounted for by Market-Oriented behaviours (Field,

¹⁶ Spearman’s rho, which is a non-parametric alternative to Pearson correlation coefficient, generated similar results: $r_s = .49$, $n = 248$, p (one-tailed) $< .01$, $p = .000$ (Field, 2009; Pallant, 2011)

2009; Pallant, 2011; Presidion, 2015). This percentage of explained variance equated to a medium effect size (Table 3.15) and, thus, was considered to be a meaningful result.

Moreover, the regression analysis achieved a significance value of less than .0005 ($p = .000$), indicating that the results were statistically significant. In other words, the probability that the association between Market-Oriented behaviours and values occurred by chance was highly unlikely. Resultantly, the regression results were deemed to be genuine (Field, 2009; Presidion, 2015).

Based on the unstandardized coefficient beta values (β) obtained in the analysis, organisations with a “Moderate” degree of Market-Oriented behaviours were found to have scored, on average, 6 points lower on the total values scale than those with a “High” degree of Market-Oriented behaviours ($\beta = -6.357$, Sig. = .000). Furthermore, organisations with an “Exceptional” degree of Market-Oriented behaviours scored, on average, 4 points higher on the total values scale than those with a “High” degree of Market-Oriented behaviours ($\beta = 4.080$, Sig. = .003).

These β values were subsequently entered into the following straight line equation (Presidion, 2015, p. 79):

$Y=A+\beta x$, wherein:

- Y is the dependent/outcome variable (in this case values);
- A is the intercept or constant term (in this case 80.845);
- β is the relevant unstandardized coefficient beta value (in this case -6.357 for “Moderate”, 0 for “High” and 4.080 for “Exceptional” degree of Market-Oriented behaviours); and
- x is the independent/predictor variable (in this case the relevant degree of MarketOriented behaviours¹⁷).

This equation was used to predict how organisations with differing degrees of MarketOriented behaviours would score on the total values scale.

¹⁷ As explained in Section 3.14.1, in the context of using dummy variables zero indicates the absence of a category, while one indicates its presence (Field, 2009; Presidion, 2015). Therefore, to include the relevant independent/predictor variable in each equation x must = 1.

Figure 4.6, which follows, provides a visual representation of the resulting predicted scores¹⁸:

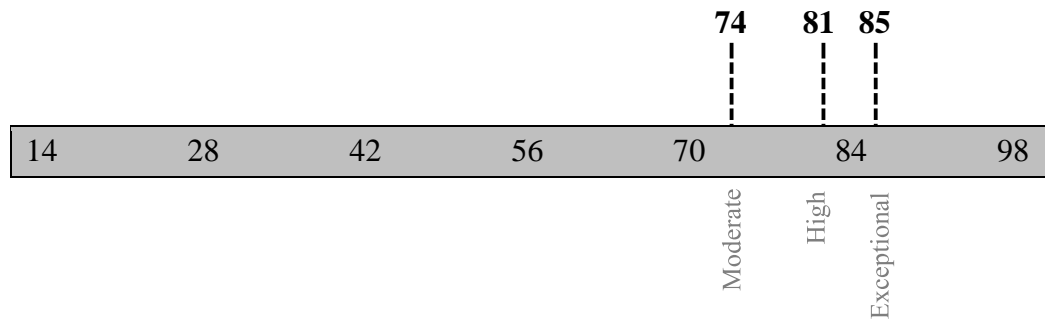


Fig. 4.6 “A Visual Representation of the Predicted Scores for each of the three Categories of Market-Oriented Behaviours on the Total Values Scale” (created by the researcher)

Overall, Figure 4.6 illustrates that, as the degree of Market-Oriented behaviours increased, the predicted score for total values also increased. Therefore, the regression results once again coincided with the results from the correlation analysis (Section 4.5.1).

4.5.3 Summary of Findings for Hypothesis 3

Hypothesis 3 aimed to determine whether or not Market-Oriented behaviours had a positive influence on cultural values.

This hypothesis was examined in the same manner as the preceding two hypotheses. Hence, the statistical techniques of correlation and multiple regression analysis were employed.

Overall, the Pearson correlation coefficient result indicated that there was a moderate, positive relationship associated with hypothesis 3 (Figure 4.5): increases in Market-Oriented behaviours were associated with increases in values (Field, 2009; Pallant, 2011). Hence, similarly to the other hypotheses, correlation analysis supported the third and final hypothesis.

Moreover, the multiple regression results again added substance to this support by demonstrating that Market-Oriented behaviours could statistically predict values. More

¹⁸ The scale for values consisted of a total of 14 items (Appendix 6). Therefore, the highest possible score that an organisation could award the overall scale was 98 (14 items multiplied by the maximum possible score of 7 per item). No missing data were included in the analysis; hence, the lowest possible score was 14 (14 items multiplied by the minimum possible score of 1 per item).

notably, the higher the degree of Market-Oriented behaviours, the higher the predicted score on the total values scale (Figure 4.6).

Given the fact that the correlation and multiple regression analyses allowed the relevant variables to be investigated “as they exist[ed] naturally” (Pallant, 2011, p. 121) and that both analyses were found to be statistically significant, the support provided for hypothesis 3 was determined to be authentic.

The above research findings are discussed in light of the related literature throughout Chapter 5.

4.6 A Synopsis of the Overall Findings

This piece of research examined three hypotheses (Table 3.1) that aimed to determine whether or not Market-Oriented behaviours had a positive influence on the three layers of an organisation’s culture: specifically, artifacts (Hypothesis 1), norms (Hypothesis 2) and values (Hypothesis 3).

Each hypothesis was firstly investigated using correlation analysis. Hence, a Pearson correlation coefficient (r) was calculated to gauge the strength and direction of the relationship involved. Table 4.3, which follows, provides a summary of the results obtained:

Table 4.3 – A Summary of the Pearson Correlation Coefficient Results Obtained			
	H1: Behaviours influence Artifacts	H2: Behaviours influence Norms	H3: Behaviours influence Values
Pearson’s r	.45**	.64**	.48**
Strength	Moderate	Strong	Moderate
Direction	Positive	Positive	Positive

** p (1-tailed) < .01

As highlighted in Table 4.3, the variables in each of the three hypotheses were found to be positively correlated. Hence, increases in Market-Oriented behaviours were associated with increases in artifacts, norms and values. Overall, these results provided support for each of the three hypotheses. Of the three layers of an organisation’s culture, the results (Table 4.3) indicated that Market-Oriented behaviours had the strongest influence on norms.

All three Pearson correlation coefficients results were found to be statistically significant, indicating that the correlations were genuine rather than having occurred by chance – p (1-tailed) < .01.

Each of the three hypotheses were subsequently investigated using multiple regression analysis with dummy variables. Table 4.4, which follows, provides a summary of the results:

Table 4.4 – A Summary of the Multiple Regression Results Obtained			
	H1: Behaviours influence Artifacts	H2: Behaviours influence Norms	H3: Behaviours influence Values
R-square (R²)	.184 (18.4%)	.324 (32.4%)	.196 (19.6%)
Effect Size	Medium	Large	Medium
Sig.	.000	.000	.000

As indicated by the R² values obtained, Market-Oriented behaviours accounted for the specified percentage of explained variance in artifacts, norms and values respectively (Field, 2009; Presidion, 2015). These percentages equated to a medium effect size for hypotheses 1 and 3, while the percentage for hypothesis 2 equated to a large effect size. Hence, similarly to the correlation results, these results suggested that Market-Oriented behaviours had the strongest influence on norms. Based on these effect sizes, all three percentages were deemed to be substantial (Field, 2009).

Furthermore, all three regression analyses were found to be statistically significant (p < .0005, $p = .000$), meaning that their results were highly unlikely to have occurred by chance. Consequently, the results were deemed to be genuine (Field, 2009; Presidion, 2015).

Additionally, the multiple regression analyses provided unstandardized coefficient beta values (β) for each of the three hypotheses. As explained earlier, these β values essentially indicated how organisations with a “Moderate” or “Exceptional” degree of Market-Oriented behaviours scored on the artifacts, norms and values scales, in comparison to those with a “High” degree of Market-Oriented behaviours (Field, 2009; Presidion, 2015).

The results are summarised in Table 4.5, as follows:

Table 4.5 – A Summary of the Unstandardized Coefficient Beta Values (β) Obtained			
Degree of Behaviour	H1: Artifacts – Points Difference	H2: Norms – Points Difference	H3: Values – Points Difference
Moderate	-5.055 (Sig .000)	-8.475 (Sig .000)	-6.357 (Sig .000)
Exceptional	2.058 (Sig .040)	5.000 (Sig .000)	4.080 (Sig .003)

Overall, Table 4.5 demonstrates that organisations with a “Moderate” degree of Market-Oriented behaviours scored consistently lower on the artifacts, norms and values scales than those with a “High” degree of Market-Oriented behaviours. This is represented by the negative β values obtained. Moreover, organisations with an “Exceptional” degree of Market-Oriented behaviours scored consistently higher on the artifacts, norms and values scales when compared to those with a “High” degree of Market-Oriented behaviours.

This is indicated by the positive β values obtained (Field, 2009; Presidion, 2015).

As outlined in Sections 4.3.2, 4.4.2 and 4.5.2, these β values were subsequently entered into the following straight line equation: $Y=A+\beta x$ (Presidion, 2015, p. 79). This equation was used to predict how organisations with differing degrees of Market-Oriented behaviours would score on the artifacts¹⁹, norms²⁰ and values²¹ scales. Table 4.6, which follows, provides a summary of the relevant predicted scores:

Table 4.6 – A Summary of the Predicted Scores Obtained from the Regression Equation			
Degree of Behaviour	H1: Artifacts – Predicted Score	H2: Norms – Predicted Score	H3: Values – Predicted Score
Moderate	54	65	74
High	59	73	81
Exceptional	61	78	85

Overall, Table 4.6 demonstrates that as the degree of Market-Oriented behaviours increased, the predicted scores for artifacts, norms and values increased. Thus, these findings coincided with the results of the correlation analysis.

¹⁹ For artifacts, the highest possible score was 84. The lowest possible score was 12.

²⁰ For norms, the highest possible score was 91. The lowest possible score was 13.

²¹ For values, the highest possible score was 98. The lowest possible score was 14.

In summary, the regression results indicated that Market-Oriented behaviours could account for a substantial percentage of the explained variance in artifacts, norms and values (Table 4.4). The results further demonstrated that Market-Oriented behaviours could statistically predict these three variables. More significantly, the higher the degree of Market-Oriented behaviours, the higher the predicted score for artifacts, norms and values (Table 4.6).

4.7 Conclusion

This chapter presented the key research findings obtained from the correlation and multiple regression analyses.

Overall, the research findings supported the idea that Market-Oriented behaviours had a positive influence on all three layers of an organisation's culture. Conclusively, all three hypotheses were supported.

These findings are discussed in light of the relevant literature in the following chapter, where the implications emanating from them are also addressed.

5. Discussion and Implications

5.1 Introduction

This final chapter discusses the research findings in light of the associated literature. Hence, it explicitly links Chapter 2 (Literature Review) to Chapter 4 (Presentation of Findings).

A discussion of each individual research question is provided prior to presenting a discussion of the overall research problem.

The chapter then progresses to detail the various contributions that this study has made to theory, in its associated fields of Organisational Culture and Market Orientation. The theoretical implications emanating from these contributions are also considered.

Practical implications of the research are then discussed.

The chapter concludes with limitations of the overall study and suggestions for future research before, finally, bringing the thesis to a close.

5.2 Discussion of the Three Research Questions

The key question at the heart of this study asked:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation's culture?

In order to answer this question and, thus, provide a solution to the overall research problem, three relevant sub-questions were posed. A corresponding hypothesis was then assigned to each sub-question, as is summarised in Table 5.1:

Table 5.1 – Research Questions and their Corresponding Hypotheses	
Research Question	Corresponding Research Hypothesis
Q1: Do Market-Oriented behaviours have a positive influence on cultural artifacts?	H1: Market-Oriented behaviours have a positive influence on cultural artifacts.
Q2: Do Market-Oriented behaviours have a positive influence on cultural norms?	H2: Market-Oriented behaviours have a positive influence on cultural norms.
Q3: Do Market-Oriented behaviours have a positive influence on cultural values?	H3: Market-Oriented behaviours have a positive influence on cultural values.

All three hypotheses were investigated using correlation and multiple regression analysis, the findings of which were presented throughout Chapter 4. To deduce an answer for each of the three individual research questions (Table 5.1), these findings are now discussed in light of the Literature Review.

5.2.1 Discussion of Research Question 1: The Influence of Market-Oriented Behaviours on Cultural Artifacts

The first research question asked: Do Market-Oriented behaviours have a positive influence on cultural artifacts?

To gather evidence aimed at answering this research question, its corresponding hypothesis (Table 5.1) was examined using the statistical techniques of correlation and multiple regression analysis.

From the correlation analysis it was established that Market-Oriented behaviours had a moderate, positive relationship with artifacts: increases in Market-Oriented behaviours were associated with increases in artifacts (Field, 2009; Pallant, 2011). Therefore, the correlation analysis provided initial support for hypothesis 1 (Table 5.1), thus indicating that the answer to the associated research question was yes: Market-Oriented behaviours do have a positive influence on cultural artifacts.

Evidence of this influential relationship was strengthened by the multiple regression analysis, which found that Market-Oriented behaviours could account for 18.4% of the explained variance in artifacts. Taking such a relationship into consideration, these findings suggest that Market-Oriented behaviours are likely to be reflected in the artifacts that they have influenced. Therefore, the findings agree that artifacts have the ability to reveal behaviours and, thus, can be thought of as “keys to the past . . . [from which] we come to know . . . behavior” (Snow, 2005, p. 15).

Overall, the multiple regression analysis concluded that, the stronger the degree of Market-Oriented behaviours, the higher an organisation was likely to score on the total artifacts scale. Bearing in mind that artifacts represent one layer of Market-Oriented Organisational Culture, this conclusion provides some support for the literature’s claim that, the stronger the degree of Market-Oriented behaviours, the stronger the degree of the overall culture (Ruekert, 1992, cited in Hamadu *et al.*, 2011, p. 55; Kohli *et al.*, 1993).

According to Homburg and Pflesser (2000) artifacts have the ability to indicate the degree to which an organisation is Market-Oriented. Combining this belief with the preceding argument, one could conclude that while Market-Oriented behaviours may influence the overall level of Market Orientation, artifacts communicate this level. This premise strengthens the support for the research findings in their suggestion that artifacts are a reflection of an organisation's behaviours and, ultimately, its culture.

So, while the literature believes that the role of artifacts is to reinforce values (Turner and Spencer, 1997; Schein, 2010; Brady and Haley, 2013), the findings of this study suggest that artifacts may act to communicate and, thus, reinforce behaviour(s).

Overall, the influential relationship implied by this study downplays Homburg and Pflesser's (2000, p. 449) conclusion that "artifacts play a crucial role in determining behavior". Rather, the findings suggest that artifacts are an outcome or a consequence of behaviour, as has been speculated and theoretically supported in the literature (Griffiths and Grover 1998, cited in González-Benito and González-Benito, 2005, p. 805; Avlonitis and Gounaris, 1999; González-Benito and González-Benito, 2005). Hence, artifacts are likely to reflect and, in turn, reinforce the past or existing behaviour(s) from which they were derived. In short, the research findings support the idea that artifacts may exist because of behaviours, rather than behaviours existing because of artifacts. Thus, artifacts may be considered as a consequence, rather than a cause of behaviour. Resultantly, this research challenges the certainty of Homburg and Pflesser's (2000, p. 449) conclusion that "artifacts play a crucial role in determining behavior".

This conclusion was also challenged by Farrell (2005, p. 271) who found that "marketoriented artifacts . . . do not have a significant impact on behaviour". It is interesting to note that the above may offer an explanation for this contradictory finding: If artifacts are considered as a consequence, rather than a cause of behaviour, then they are likely to merely reflect and reinforce behaviours that were/are already present in an organisation. If this is the case, then behaviours could be considered as having a significant impact on artifacts, rather than artifacts having a significant impact on behaviours.

Having considered the research findings in light of the literature, this study concludes that Market-Oriented behaviours do have a positive influence on cultural artifacts. Therefore,

not only should one “assess the values and norms of a group in order to try decipher its artifacts” (Schein, 2010, p. 25), but one should also assess behaviours as they too have an apparent pertinence.

5.2.2 Discussion of Research Question 2: The Influence of Market-Oriented Behaviours on Cultural Norms

The second question investigated in this piece of research asked: Do Market-Oriented behaviours have a positive influence on cultural norms?

Similarly to the preceding research question, this question’s corresponding hypothesis (Table 5.1) was examined using the statistical techniques of correlation and multiple regression analysis. Both of these techniques allowed evidence to be gathered that aimed to provide a realistic answer to the research question posed.

Overall, the correlation analysis demonstrated that there was a strong, positive relationship in question: increases in Market-Oriented behaviours were associated with increases in norms (Field, 2009; Pallant, 2011). Having established that these two variables moved in tandem, the correlation analysis essentially provided initial support for hypothesis 2 (Table 5.1). This support indicated that the answer to the associated research question was yes: Market-Oriented behaviours do have a positive influence on cultural norms.

The basis for this answer was subsequently strengthened by the multiple regression analysis, which demonstrated that the stronger the degree of Market-Oriented behaviours in an organisation, the higher the organisation was likely to score on the total norms scale. Moreover, it was found that Market-Oriented behaviours could account for a substantial percentage (32.4%) of the explained variance in norms. Hence, evidence of an influential relationship was supported and strengthened by the findings of the multiple regression analysis.

Of the three layers of an organisation’s culture (values, norms and artifacts), Market-Oriented behaviours were found to have the strongest influence on norms, as was reflected in all aspects of the research findings. This point, coupled with the implied influential relationship, suggests that, if Market-Oriented behaviours are strongly implemented in an organisation, then corresponding norms are likely to follow suit. So,

while norms are believed in the literature to originate from shared values (Schwartz and Davis, 1981; Homburg and Pflesser, 2000; Schein, 2010; Byrne, 2014), the findings of this study conclude that norms may originate from behaviour. Thus, similarly to artifacts, norms may be thought of as an outcome or a consequence of behaviour.

According to the literature, norms guide behaviour in organisations (Katz and Kahn, 1978, cited in Homburg and Pflesser, 2000, p. 450; O'Reilly, 1989, cited in Homburg and Pflesser, 2000, p. 451; Homburg and Pflesser, 2000; Farrell, 2005). Based on the perspective outlined above, i.e. norms are a consequence of behaviour, the findings of this study suggest the opposite: Market-Oriented behaviours strongly influence and, thus, guide norms in organisations. Therefore, in a similar manner to artifacts, norms are likely to reflect and reinforce the behaviour(s) that influenced their development.

Overall, the findings of this study support “adoption – entrenchment” theory, which provided a theoretical foundation for the idea that behaviours can precede and influence norms. Moreover, this research added substance to the stated theory by providing statistical evidence of an influential relationship between Market-Oriented behaviours and norms. Therefore, although supportive of an “Activities-Create-Culture” approach to Market Orientation overall, this study strongly contradicts and challenges Gainer and Padanyi’s (2005, p. 860) finding that the relationship between these two variables is insignificant.

Having considered the research findings in light of the relevant literature, this study concludes that Market-Oriented behaviours do have a positive influence on cultural norms.

5.2.3 Discussion of Research Question 3: The Influence of Market-Oriented Behaviours on Cultural Values

The third and final research question asked: Do Market-Oriented behaviours have a positive influence on cultural values?

Similarly to the two preceding questions, this research question was addressed by examining its corresponding hypothesis (Table 5.1) using the statistical techniques of correlation and multiple regression analysis. These analyses produced evidence that aimed to provide a realistic answer to the research question at hand.

Overall, the correlation analysis identified a moderate, positive relationship. This relationship indicated that the two relevant variables moved in tandem: increases in Market-Oriented behaviours were associated with increases in values (Field, 2009; Pallant, 2011). Therefore, the correlation analysis provided initial support for the third and final hypothesis (Table 5.1). This support indicated that the answer to the associated research question was yes: Market-Oriented behaviours do have a positive influence on cultural values.

The evidence supporting this answer was strengthened by the multiple regression analysis, which discovered that Market-Oriented behaviours could account for 19.6% of the explained variance in values. More significantly, this analysis demonstrated that the stronger the degree of Market-Oriented behaviours, the higher an organisation was likely to score on the total values scale. Overall, these findings added substance to the evidence of an influential relationship between Market-Oriented behaviours and values. Hence, multiple regression supported the correlation analysis in answering the relevant research question.

Taking this suggested influential relationship into consideration, the findings of this study concur that Market-Oriented behaviours are likely to “foster the formation of . . . values” in an organisation (Griffiths and Grover, 1998, cited in González-Benito and GonzálezBenito, 2005, p. 805; González-Benito and González-Benito, 2005). Moreover, substance was added to this claim by providing statistical evidence of an influential relationship between the two relevant variables. Resultantly, this research built further grounds for the belief that behaviour may lead to the “progressive development of . . . values . . . that make up the organizational culture” (Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 799; González-Benito and GonzálezBenito, 2005). In this sense, values may be thought of as an outcome or a consequence of behaviour.

According to the literature, values manifest themselves and, thus, are reflected in behaviours (Hatch, 1993; Schein, 2010). However, considering values as an outcome of behaviour, the findings of this study suggest the opposite: Market-Oriented behaviours influence and, thus, are likely to be reflected in an organisation’s values.

Overall, the influential relationship implied by this study downplays the importance that has been awarded to values in the literature. Rather, the findings suggest that values may be merely a consequence and, in turn, a reflection of behaviour(s). From this perspective, one could dispute the literature's claim that values lie at the heart of organisational culture (Schwartz and Davis, 1981; Schein, 1984; Hatch, 1993; Schein, 2010) and, rather, conclude that behaviours may be worthy of this position. This point is further justified in the following section, where a discussion of the overall research problem is presented.

5.3 Discussion of the Overall Research Problem: The Influence of Market-Oriented Behaviours on the Layers of an Organisation's Culture

Combined, the three research questions discussed above aimed to provide a solution to the overall research problem, which asked:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation's culture?

Having considered the three individual research questions in light of the findings and Literature Review (Section 5.2), a number of key points relating to the overall research problem were extracted. Therefore, the discussion of this research problem has been set out in the following sub-sections, under the headings of each of these key points.

5.3.1 Market-Oriented Behaviours influence Organisational Culture

While previous studies have found that culture positively influences behaviour in organisations (Homburg and Pflesser, 2000; Farrell, 2005; Byrne, 2014), the findings of this study support the opposite. That is, Market-Oriented behaviours have a positive influence on cultural values, norms and artifacts and, thus, influence Organisational Culture as a whole.

This positive influence became particularly clear when a distinction was made between organisations with differing degrees of Market-Oriented behaviours: higher levels of Market-Oriented behaviours were associated with higher levels of corresponding values, norms and artifacts.

In all, these findings coincide with Figure 2.9 (Section 2.9), which provided a diagrammatic representation of the three hypotheses investigated in this piece of research.

Therefore, in light of its concurrence with the study’s findings, this figure’s message was conveyed in a more definitive manner by amending it as follows:

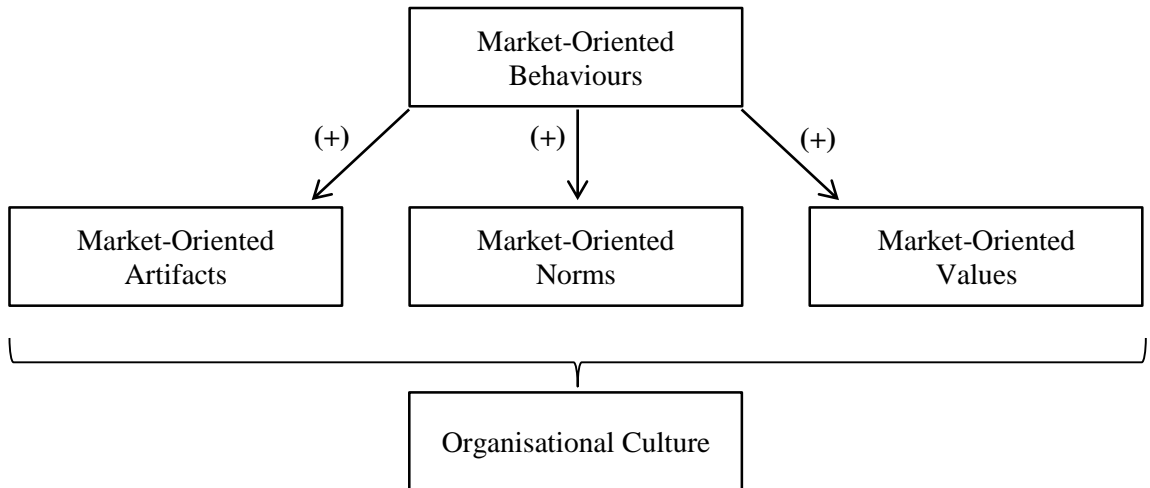


Fig. 5.1 “A Diagrammatic Representation of the Relationships between Market-Oriented Behaviours and the Layers of an Organisation’s Culture” (created by the researcher)

5.3.2 Market-Oriented Behaviours are Closely Interrelated with Cultural Values, Norms and Artifacts

Of the three layers of an organisation’s culture, Market-Oriented behaviours were found to have the strongest influence on norms, as was reflected in all aspects of the research findings. This finding implies that, if Market-Oriented behaviours are strongly implemented in an organisation, then Market-Oriented norms are likely to follow suit.

According to Griffiths and Grover (1998, cited in González-Benito and González-Benito, 2005, p. 805) “the development of norms . . . foster the formation of . . . values within the organization”. Although this study did not produce evidence to accept or reject this claim, it did provide support for the claim that “the behaviour” of an organisation also contributes to this formation (Section 5.2.3) (Griffiths and Grover 1998, cited in González-Benito and González-Benito, 2005, p. 805); Thus suggesting that, as a result of implementing the desired behaviour, corresponding values will subsequently develop.

Furthermore, the perspective adopted in this study suggests that Market-Oriented behaviours have the ability to create artifacts. Statistical evidence of this suggestion was

provided by the correlation and multiple regression analysis, while theoretical support was extracted from the Literature Review (Section 5.2.1). So, from Market-Oriented behaviours, corresponding artifacts are also likely to transpire.

In all, these findings support the idea that cultural values, norms and artifacts may be considered as an outcome or a consequence of Market-Oriented behaviours. Supported by the literature, it was argued that each of these three layers are, in turn, likely to reflect and reinforce the Market-Oriented behaviour(s) from which they were derived (Section 5.2).

Consequently, to provide a more accurate representation of these findings, Figure 5.1 was refined as follows:

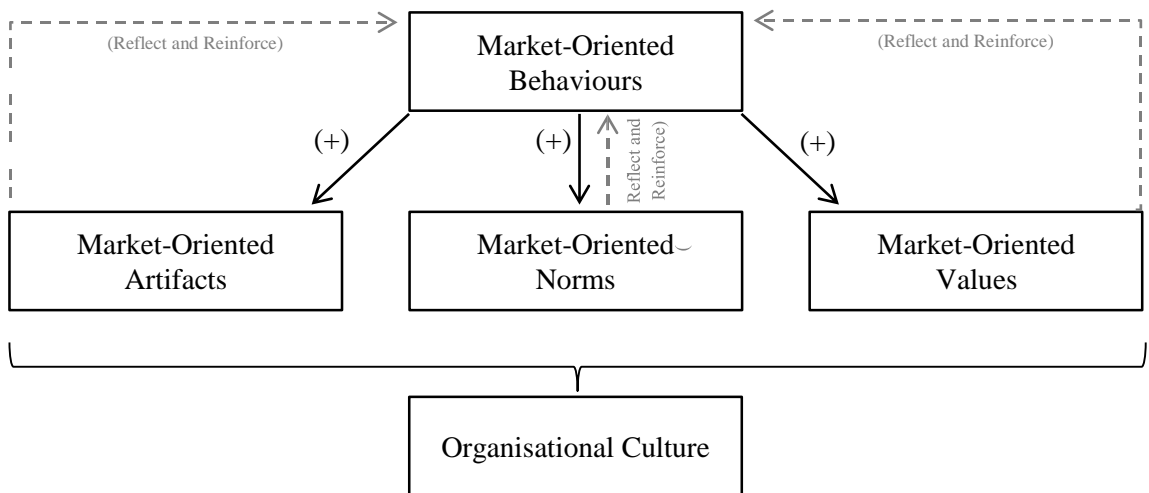


Fig. 5.2 “Refined Diagrammatic Representation of the Relationships between Market-Oriented Behaviours and the Layers of an Organisation’s Culture” (created by the researcher)

As conveyed in Figure 5.2, this study theoretically supports the literature in its belief that Market-Oriented behaviours are closely interrelated with cultural values, norms and artifacts (Hatch, 1993; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010; Byrne, 2014). Moreover, it extends this belief by demonstrating the possible nature of the interrelationships involved.

5.3.3 Market-Oriented Behaviours may be an Antecedent of Market-Oriented Culture

Additionally, Figure 5.2 coincides with González-Benito and González-Benito's (2005, p. 808) proposed "inverse reasoning". That is, it suggests that culture may be a consequence of behaviour.

Consequently, the researcher's study supports the belief that Market-Oriented behaviours may be an antecedent of Market-Oriented culture (Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 799; González-Benito and González-Benito, 2005). The grounds for this belief were strengthened by adding generalisability to González-Benito and González-Benito's (2005) study, which was previously ungeneralisable due to research limitations.

5.3.4 Market-Oriented Behaviours may be the Inception of a Market-Oriented Organisational Culture

The latter key point strongly challenges Homburg and Pflesser's (2000, p. 458) conclusion "that an organization [with] strong norms [and/or values] for market orientation will not exhibit market-oriented behaviours unless the corresponding artifacts are present".

Rather, this study finds merit in the claim that Market-Oriented behaviour, specifically generation of market intelligence, may be considered as the inception of a Market-Oriented Organisational Culture (Kohli and Jaworski, 1990; Harris and Ogbonna, 1999).

Consequently, the findings presented in Figure 5.2 dispute Shapiro's (1998) belief that, in order to engage in Market-Oriented behaviours, there must be a corresponding culture deeply embedded in the organisation.

5.3.5 Market-Oriented Behaviours may determine the Overall Level of Market Orientation

Considering Market-Oriented culture as a consequence of Market-Oriented behaviours (Section 5.3.3), this study supports the belief that the extent to which an organisation engages in the relevant behaviours determines its overall level of Market Orientation (Ruekert, 1992, cited in Hamadu *et al.*, 2011, p. 55).

In all, the multiple regression analysis concluded that, the stronger the degree of Market-Oriented behaviours, the higher an organisation was likely to score on the total

values, norms and artifacts scales. Therefore, strong implementation of Market-Oriented behaviours implies a strong influence on the overall culture of an organisation.

Conclusively, the stronger the degree of Market-Oriented behaviours, the greater the degree to which an organisation is likely to be Market-Oriented (Ruekert, 1992, cited in Hamadu *et al.*, 2011, p. 55; Kohli *et al.*, 1993).

5.3.6 Market-Oriented Behaviours are potentially the Most Important Layer of a Market-Oriented Organisational Culture

Finally, as mentioned earlier (Section 5.2.3), according to the Literature Review values manifest themselves in the layers of an organisation's culture and, so, are often considered to be at the heart of this construct (Schwartz and Davis, 1981; Hatch, 1993; Schein, 2010).

However, the findings of this study suggest that Market-Oriented behaviours influence and, thus, have the potential to manifest themselves in cultural values, norms and artifacts. Therefore, Market-Oriented behaviours are potentially worthy of being considered to be at the heart of a Market-Oriented Organisational Culture.

In fact, combining all of the key points presented in this section, Market-Oriented behaviours could potentially be described as being the most important layer of Market Orientation: behaviours have a positive influence on cultural values, norms and artifacts and, thus, influence and support this specific Organisational Culture as a whole.

5.3.7 A Summary of the Key Points Relating to the Overall Research Problem

In summary, the overall research problem investigated in this study asked:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation's culture?

In answering this fundamental research question, six key points regarding Market-Oriented behaviours were identified:

1. Market-Oriented behaviours influence Organisational Culture;
2. Market-Oriented behaviours are closely interrelated with cultural values, norms and artifacts;
3. Market-Oriented behaviours may be an antecedent of Market-Oriented culture;

4. Market-Oriented behaviours may be the inception of a Market-Oriented Organisational Culture; and
5. Market-Oriented behaviours may determine the overall level of Market Orientation.

Combined, these five key points formed the basis for the sixth and final point:

6. Market-Oriented behaviours are potentially the most important layer of a Market-Oriented Organisational Culture.

5.4 Contribution to Theory/Theoretical Implications

Having considered the research findings in light of the Literature Review, a number of additional contributions to theory in the associated fields of Organisational Culture and Market Orientation are identifiable. These contributions are discussed in the following sub-sections, where their theoretical implications are also considered.

5.4.1 An Apparent Over-Reliance on the Cultural Approach to Market Orientation

Firstly, this study uncovered a potential major shortcoming associated with the Cultural Perspective of Market Orientation. This perspective was identified in the literature as being primarily concerned with the cultural aspects of Market Orientation (i.e. values, norms and artifacts) that lead to the creation of the three specific behaviours pertaining to this culture (i.e. generation of market intelligence, dissemination of market intelligence, and responsiveness to market intelligence) (Narver and Slater, 1990; Homburg and Pflesser, 2000; Sheppard, 2011).

The most widely recognised definition from this perspective was identified as that of Narver and Slater (1990):

Market Orientation [is] the organizational culture . . . that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (Narver and Slater, 1990, quoted by Homburg and Pflesser, 2000, p. 449)

However, this explanation of Market Orientation poorly reflects the findings emanating from this study:

Overall, the findings strongly challenge the treatment of Market-Oriented behaviours as merely a consequence of culture. Rather, they suggest that Market-Oriented behaviours

influence cultural values, norms and artifacts and, thus, influence Organisational Culture as a whole.

Moreover, having considered the overall research problem in light of the Literature Review (Section 5.3), this study provided further grounds for the belief that Market-Oriented behaviours may be an antecedent of Market-Oriented culture (Griffiths and

Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 799; González-Benito and González-Benito, 2005). Resultantly, the findings can be argued to demonstrate and, thus, confirm that an “Activities-Create-Culture” approach to Market Orientation is, in fact, applicable to organisations outside of the non-profit sector (Gainer and Padanyi, 2005, p. 856).

Based on the evidence presented in this chapter, it appears that there has been an overreliance on the traditional Cultural Approach to Market Orientation, which has resulted in Market-Oriented behaviour being treated, in general, as merely a consequence of culture (Narver and Slater, 1990; Homburg and Pflesser, 2000; Farrell, 2005). This has led to an apparent underestimation of the importance of Market-Oriented behaviours and the role that they may play in establishing a Market-Oriented Organisational Culture. Therefore, the findings presented and discussed in this study conclude that the Behavioural Approach to Market Orientation, and Market-Oriented behaviour in general, is worthy of much more consideration and attention than it has previously been awarded in the literature.

5.4.2 The Nature of Market Orientation

From the Literature Review, it was established that “no agreement has been reached on the exact nature of market orientation” (Gainer and Padanyi, 2005, p. 854). Traditionally, Market Orientation has been “viewed as a cultural construct” (Gainer and Padanyi, 2005, p. 854). However, it has also been viewed as “a behavioral construct . . . [as] a hybrid incorporating both cultural and behavioral aspects . . . [and] as separate behavioral and cultural constructs that are causally related” (Gainer and Padanyi, 2005, p. 854).

The following figure, Figure 5.3, was originally presented in the Literature Review as a means of summarising the layers of a Market-Oriented Organisational Culture:

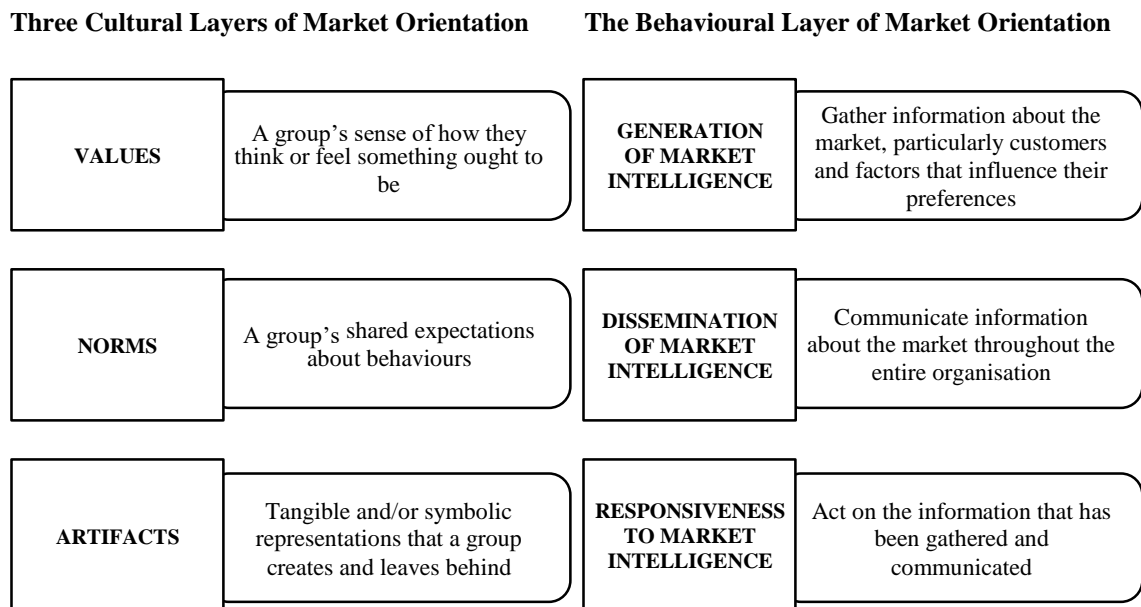


Fig. 5.3 “A Summary of the Layers of a Market-Oriented Organisational Culture” (created by the researcher from Kohli *et al.*, 1993 and Schein, 2010)

Figure 5.3 demonstrates that the cultural and behavioural aspects of Market Orientation are distinguishable from one another and, so, reflects their treatment as two distinct entities throughout this piece of research.

As discussed earlier, the findings presented in this study challenged particular aspects of previous findings that have emanated from a Cultural Perspective of Market Orientation e.g. “artifacts play a crucial role in determining behaviour” (Homburg and Pflesser, 2000, p. 449). Nonetheless, the research findings did not provide any grounds to dispute this perspective’s overall belief that culture drives behaviour in organisations; a belief that has gained widespread support throughout the literature (Narver and Slater, 1990; Homburg and Pflesser, 2000; Farrell, 2005; Schein, 2010; Byrne, 2014). On the contrary, subtle support for this belief has been provided in Figure 5.2, which illustrates that cultural

values, norms and artifacts may act to reinforce behaviour(s). Consequently, this study does not dismiss the Cultural Perspective in this regard.

The findings did, however, identify merit in González-Benito and González-Benito's (2005, p. 808) "inverse reasoning". That is to say, they provided statistical evidence that Market-Oriented behaviours positively influence all three layers of an organisation's culture. Supported by the literature, these findings provided grounds for the belief that culture may be a consequence of behaviour and, ultimately, demonstrated the applicability of an "Activities-Create-Culture" approach to organisations outside of the non-profit sector (Gainer and Padanyi, 2005, p. 856; Griffiths and Grover, 1998, cited in González-Benito and González-Benito, 2005, p. 799; González-Benito and GonzálezBenito, 2005).

Combined, the above points imply that a mutual, causal relationship between MarketOriented behaviour and Market-Oriented culture is likely to exist. Such a relationship has been subtly suggested in Figure 5.2.

Conclusively, this study views the cultural and behavioural aspects of Market Orientation as two distinct entities "that are causally related" (Gainer and Padanyi, 2005, p. 854). This proposed mutual, causal relationship is likely to combine these two entities, resulting in the establishment of a Market-Oriented Organisational Culture. Conclusively, the construct of Market Orientation may be considered as "a hybrid" of culture and behaviour (Gainer and Padanyi, 2005, p. 854; Avlonitis and Gounaris, 1999; González-Benito and González-Benito, 2005).

Considering Market Orientation in this way draws a number of theoretical implications. These are discussed in the following three sub-sections.

5.4.2.1 The Debate of the Cultural versus Behavioural Perspectives of Market Orientation

Arguments have been made throughout the literature as to why the Cultural Perspective of Market Orientation is more favourable than the Behavioural Perspective, and vice versa (Narver and Slater, 1990; Kohli *et al.*, 1993; Narver and Slater, 1990, cited in Homburg and Pflessner, 2000; Sheppard, 2011).

Although this study implies that there has been too much emphasis on the Cultural

Perspective in the literature (Section 5.4.1), that is not to say that it favours the Behavioural Perspective. Rather, the researcher disputes that such arguments should be made.

While the behavioural and cultural aspects of Market Orientation are distinguishable from one another (Figure 5.3), the proposed mutual, causal relationship between them implies that neither one stands in complete independence of the other. So, although researchers may choose to adopt either a Cultural or a Behavioural Perspective, both of these perspectives are, nonetheless, related. Therefore, it is possible that both possess equal importance and, thus, are worthy of equal consideration.

Conclusively, one perspective should not be ranked above the other.

Given that the vast majority of studies have adopted a Cultural Approach Market Orientation (Gainer and Padanyi, 2005; Sheppard, 2011), the above conclusion further supports the claim that the Behavioural Approach is worthy of much more consideration and attention than it has previously been awarded in the literature: increased attention may help to balance the knowledge of both perspectives, ultimately allowing a more holistic view of Market Orientation to emerge.

5.4.2.2 Diagrammatic Representations of Market Orientation

Considering Market Orientation as “a hybrid” of culture and behaviour (Gainer and Padanyi, 2005, p. 854), the following figure, which was originally presented in the Literature Review, can be rejected as being an accurate portrayal of Market Orientation:

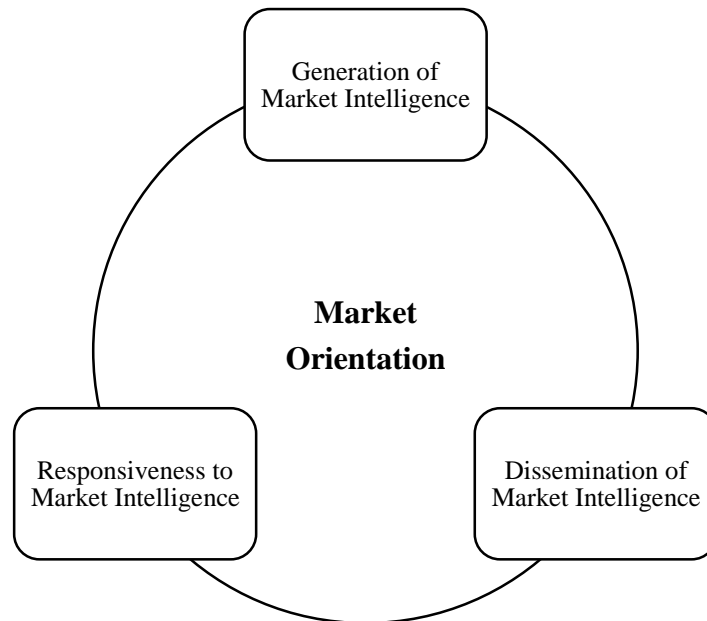


Fig. 5.4 “A Diagrammatic Representation of Market Orientation from a Behavioural Perspective” (created by the researcher from Kohli *et al.*’s definition and explanation of Market Orientation, 1993, p. 467)

Rather, this figure can be considered as an accurate representation of merely the behavioural aspect of Market Orientation and/or of Market-Oriented behaviours.

Therefore, Figure 5.4, which was originally presented in the Literature Review as Figure 2.3, should be renamed accordingly.

Contrastingly, Figure 5.2 and the following figure, which was originally presented in the Literature Review, may be considered as useful, reflective illustrations of Market Orientation:

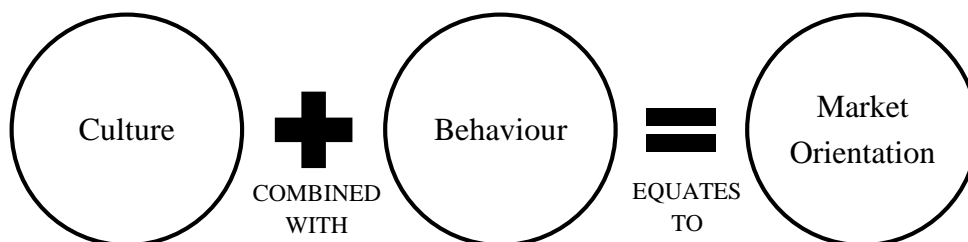


Fig. 5.5 “A Diagrammatic Representation of Market Orientation” (created by the researcher)

However, a potential shortcoming of these two figures is that neither one explicitly conveys the proposed mutual, causal relationship between the behavioural and cultural aspects of Market Orientation. Consequently, using Figure 5.5 as a guide, the following figure was created to better convey this relationship, thus resulting in a more accurate representation of Market Orientation:

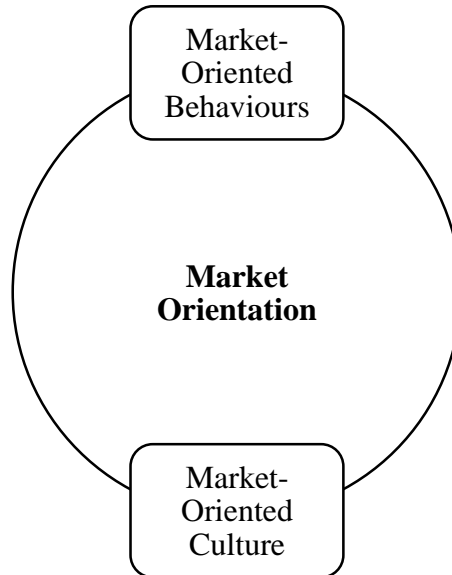


Fig. 5.6 “Refined Diagrammatic Representation of Market Orientation” (created by the researcher)

5.4.2.3 Applicability of Hatch’s “Cultural Dynamics Model”

It is interesting to note that Figure 5.6 bears a resemblance to Hatch’s (1993, p. 660) “Cultural Dynamics Model”, which is presented again, as follows:

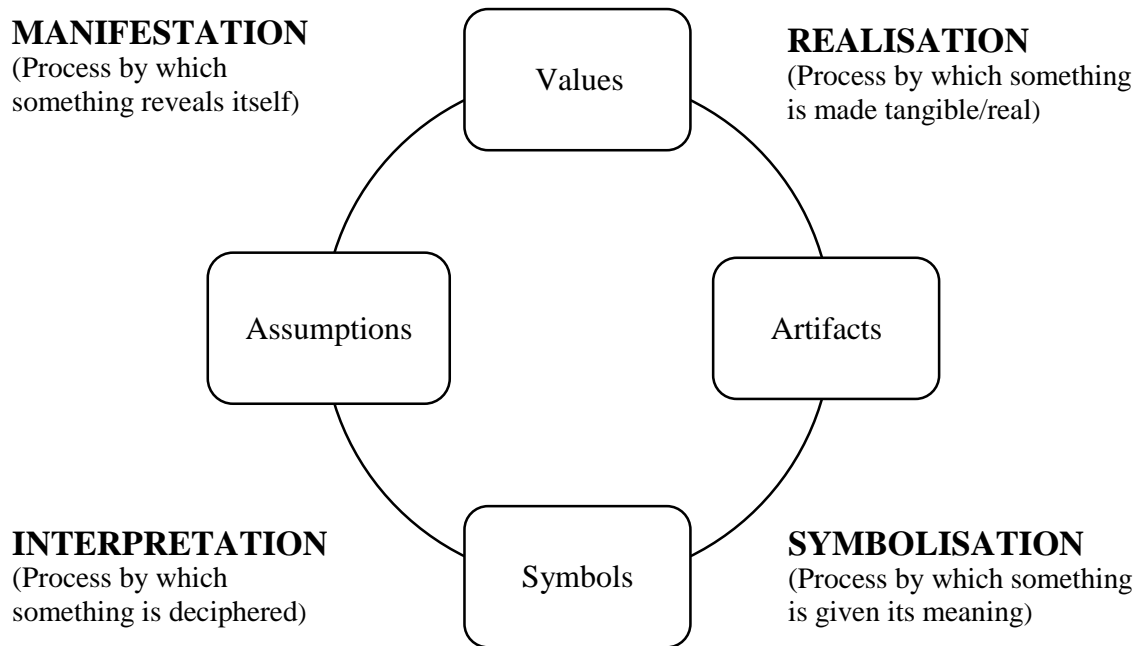


Fig. 5.7 “The Cultural Dynamics Model” (adapted by the researcher from Hatch, 1993, p. 660)

As mentioned earlier (Section 2.7.1), one of the major shortcomings of the “Cultural Dynamics Model” from the point of view of this piece of research is that it does not focus specifically on Market Orientation and, thus, it excludes Market-Oriented behaviours. Therefore, to facilitate the direct application of this model to this particular piece of research, modifications would be required to include the behavioural aspects of Market Orientation.

However, as was explained earlier, the “Cultural Dynamics Model” can be described as a wheel that can flow in either a clockwise or an anti-clockwise direction (Section 2.7.1) (Hatch, 1993). This basic premise applied to Figure 5.6 reflects and, thus, supports the proposed mutual, causal relationship between Market-Oriented behaviours and Market-Oriented culture.

While further investigation would be needed to define the specific relationships between Market-Oriented behaviours, values, norms and artifacts, Figure 5.6 suggests that the “Cultural Dynamics Model” is, at least, broadly transferable to a Market-Oriented Organisational Culture.

Conclusively, this study recognises potential merit in Hatch’s (1993) “Cultural Dynamics

Model” and suggests that this model is applicable to the specific culture of Market Orientation, provided that Market-Oriented behaviours are incorporated.

5.4.3 A Review of the Definition of Organisational Culture

Throughout this chapter, insight has been provided into the role that Market-Oriented behaviours may play in establishing a Market-Oriented Organisational Culture.

Behaviours were found to have a positive influence on cultural values, norms and artifacts, thus influencing Organisational Culture as a whole (Section 5.2). This study also recognised behaviours to be a potential antecedent and, therefore, the possible inception of a Market-Oriented Organisational Culture. Moreover, Market-Oriented behaviours were identified as having the potential to determine the overall level of this specific culture (Section 5.3).

In all, these findings suggest that behaviours play an important role in creating and driving Market Orientation. However, generally, the definitions of Organisational Culture poorly reflect these findings.

A number of such definitions were presented in the Literature Review (Section 2.2.1), all of which agreed that an organisation’s culture allows its members to comprehend the organisation, based on their shared values and beliefs which, in turn, create norms that influence their behaviour (Schwartz and Davis, 1981; Deshpandé and Webster, 1989; Brown, 1998; Johnson *et al.*, 2008).

These definitions form the foundation upon which the Cultural Perspective of Market Orientation is built (Narver and Slater, 1990; Sheppard, 2011). Therefore, the viewpoint of researchers who adopt this perspective may be restricted and, more significantly, biased by such definitions. Resultantly, the definitions of Organisational Culture are likely to have contributed greatly to the continuous treatment of behaviours as merely a product or a consequence of culture. This treatment has, in turn, downplayed the importance of behaviours in the literature and widely disregarded any suggested mutual, causal relationship between them and culture. Conclusively, these definitions are the most likely cause of the major shortcoming associated with the Cultural Perspective of Market Orientation, which was discussed in Section 5.4.1.

Based on the above, it can be argued that the definitions of Organisational Culture may be too specific, resulting in the narrowing of a broad and complex concept (Kotler and Keller, 2009). This has led to the general omission of important elements (e.g. artifacts) and/or aspects of Organisational Culture (e.g. the possibility that culture is a consequence of behaviour).

It is interesting to note that the definition, which best describes Organisational Culture in the context of this study, is considered to be that of Taras *et al.* (2009):

[Organisational] culture is a group's shared set of distinct basic assumptions, values, practices, and artifacts that are formed and retained over a long period of time (Taras *et al.*, 2009, p. 359)

Also of note, this is the broadest definition that was presented in the Literature Review (Section 2.2.1): it does not specify any of the relationships between the layers of culture, nor does it emphasise any sequential order between culture and behaviour.

Therefore, in an attempt to provide future researchers with an adequate definition of Organisational Culture according to this study, Taras *et al.*'s (2009) definition was refined as follows:

a group's shared set of distinct . . . values, [norms], practices [i.e. behaviours], and artifacts that are formed and retained over a long period of time (Taras *et al.*, 2009, p. 359)

This refined definition is considered suitable for the following five reasons:

1. It makes the four layers of an organisation's culture explicit;
2. It reflects that behaviours are, at least, an equally active and influential layer of culture;
3. It does not place any sequential order between behaviour and culture; therefore, it is likely to lessen the bias of researchers wishing to explore the specific culture of Market Orientation, thus minimising favouritism of one perspective over another (Section 5.4.2.1);
4. It does not state any of the relationships between the four layers of culture and, so, supports the continued need for their investigation; and finally

5. The definition, from which this refined version originated, was developed based on commonalities that are “present in virtually all” definitions of Organisational Culture (Taras *et al.*, 2009, p. 358).

Although the researcher’s refined definition has been justified as adequate for the above five reasons, this study, nevertheless, agrees that those wishing to truly understand and capture Organisational Culture need to go beyond trying to define it in a single statement and, rather, focus on it from a broader perspective (Jung *et al.*, 2009; Gheysari *et al.*, 2012). The same applies to Market Orientation, as the two are synonymous (Homburg and Pflesser, 2000; Raju *et al.*, 2011; Hajipour *et al.*, 2013).

5.4.4 Market-Oriented Behaviours, Values, Norms and Artifacts are identifiable in Market-Oriented Organisations

In a perhaps more subtle contribution to theory, this study found that the eight values of “success, innovativeness and flexibility, openness of internal communication, quality and competence, speed, interfunctional cooperation, responsibility of the employees and appreciation of the employees” were identifiable in the participating companies (Homburg and Pflesser, 2000, p. 453; Byrne, 2014).

Moreover, this study extended the work of Homburg and Pflesser (2000) somewhat, by demonstrating that Gebhardt *et al.*’s (2006, p. 43) additional values of “market as the raison d’être, keep promises, respect/empathy/perspective taking, and trust” were also identifiable and, thus, applicable to these organisations.

The applicability of each of the aforementioned values was reflected in the high scores awarded by participants²².

Furthermore, this study found that the corresponding norms allocated to each of these values also had an apparent applicability. This was again reflected in the high scores awarded to the relevant scale²³.

²² The highest possible score that an organisation could award the total values scale was 98. The mean score that respondents awarded to this scale was 80.

²³ The highest possible score that an organisation could award the total norms scale was 91. The mean score that respondents awarded to this scale was 72.

The same held true for Market-Oriented artifacts²⁴ and behaviours²⁵.

Conclusively, this study found that the Market-Oriented values, norms, artifacts and behaviours extracted from the Literature Review and featured in the researcher's questionnaire (Appendix 16) were identifiable in and, thus, applicable to Market-Oriented organisations. Hence, the findings concur that Organisational Culture is a multidimensional construct (Pettigrew, 1979; Hatch, 1993; Homburg and Pflesser, 2000; Farrell, 2005; Taras *et al.*, 2009; Schein, 2010).

5.5 Practical Implications

This chapter began by discussing the relationships between Market-Oriented behaviours and the layers of an organisation's culture: specifically, its values, norms and artifacts. These relationships (Figure 5.2) were identified through the correlation and multiple regression analyses, and were theoretically supported by the Literature Review.

The chapter then progressed to detail the theoretical implications emanating from these findings, which included a discussion about the nature of Market-Orientation as a whole (Section 5.4.2). Here, it was concluded that a mutual, causal relationship between Market-Oriented behaviours and Market-Oriented culture is highly likely to exist. This implied relationship was diagrammatically presented in Figure 5.6.

Considering its resemblance to Hatch's (1993) "Cultural Dynamics Model", this figure allowed the researcher to further conclude that Market Orientation may be thought of as a wheel, consisting of the relevant behaviour and culture (Figure 5.6). Like the "Cultural Dynamics Model" (Hatch, 1993), this wheel can flow in either a clockwise or an anticlockwise direction, thus reflecting the implied reciprocal relationship between its two elements.

What this chapter has failed to explicitly establish, however, is how an organisation can enter this "Market Orientation wheel" in the first instance (Figure 5.6). Therefore, clear

²⁴ The highest possible score that an organisation could award the total artifacts scale was 84. The mean score that respondents awarded to this scale was 58.

²⁵ The highest possible score that an organisation could award the total behaviours scale was 98. The mean score that respondents awarded to this scale was 75.

and practical guidance is now offered to managers who are seeking to actively change their organisation's culture and/or become Market-Oriented.

5.5.1 How can an organisation become Market-Oriented?

Section 5.3 identified and discussed six key points regarding Market-Oriented behaviours, a summary of which can be found in section 5.3.7.

These key points essentially formed the basis for the following guidelines regarding the initiation of a Market-Oriented Organisational Culture.

5.5.1.1 An apparent reliance on Market-Oriented behaviours

In all, this study strongly implies that, in order to actively change an organisation's culture, behaviour may be used as the starting point.

The findings suggest that, from Market-Oriented behaviours, Market-Oriented culture will subsequently transpire. So, if an organisation strongly implements Market-Oriented behaviours, then the desired corresponding values, norms and artifacts will follow. Figure 5.2, which was presented in Section 5.3.2, may be used to provide managers with an illustration of the basic premise behind these findings.

Consequently, this study concludes that the first step in changing an organisation's culture is to consciously manage the relevant behaviour(s). In the case of Market Orientation, these are: generation of market intelligence, dissemination of market intelligence, and responsiveness to market intelligence (Kohli *et al.*, 1993; Harris and Ogbonna, 1999; Varela and R  o, 2003; Hajipour *et al.*, 2013).

For those wishing to establish this specific culture, the researcher's refined questionnaire (Appendix 16) can be employed in a practical manner throughout this management process.

Firstly, managers may use this questionnaire to assess the degree to which their organisation engages in each of the relevant behaviours. To achieve this, the questionnaire's Likert scale approach means that managers can easily calculate a score for each of the three behaviours, as well as a combined total score for behaviours overall. These calculations would allow the manager to quantitatively categorise their level of

behaviour. So, for example, Market-Oriented behaviours were categorised in this study, as follows:

- A total score of 72 or below was categorised as a “Moderate” degree of Market-Oriented behaviours;
- A total score from 73 to 80 was categorised as a “High” degree of Market-Oriented behaviours; and
- A total score of 81 or above was categorised as an “Exceptional” degree of Market-Oriented behaviours.

As detailed in the methodology (Sections 3.13.1 and 3.14.2.4), the sample used in this study was considered to consist of strongly Market-Oriented organisations, which resulted in a relatively high mean²⁶ for the total behaviours scale. This mean value strongly influenced the creation of the above categories (Section 3.14.1). Managers may opt to use the researcher’s predefined categories or, alternatively, it may be more appropriate to tailor these categories according to the organisation’s own circumstances and/or strategy and/or industry.

Assessing the degree to which an organisation engages in each of the relevant behaviours would allow potential areas of weakness and/or specific behaviours that may require stronger implementation to be identified. A plan of action can then be drawn up accordingly in order to proactively improve these areas and strengthen the relevant behaviour(s) within the organisation. Once a conscious effort has been made to implement this plan of action, the questionnaire can then be used to quantitatively reassess the overall degree of Market-Oriented behaviours.

Moreover, the questionnaire can be used simultaneously to assess the organisation’s values, norms and artifacts, again by calculating the relevant total scale scores. According to the findings of this study, these scores should all increase as the implementation of Market-Oriented behaviours intensifies, thus demonstrating to the manager that the organisation’s overall level of Market Orientation has been strengthened.

²⁶ The highest possible score that an organisation could award the total behaviours scale was 98. The mean score that respondents awarded to this scale was 75.

Conclusively, this study found that Market-Oriented behaviours carry with them cultural implications. That is, they may have the power to transform an organisation's culture. Resultantly, managers should concentrate on developing and implementing these behaviours in advance of trying to embed a Market-Oriented Organisational Culture.

Therefore, implementing Market-Oriented behaviours should be at the heart of an organisation's plan of action to become strongly Market-Oriented.

5.5.1.2 An apparent reliance on the Market, particularly the Customer

As was established in the Literature Review, the basic concept of Market Orientation implies that an organisation is strongly focused on its market, particularly the customer (Narver and Slater, 1990; Avlonitis and Gounaris, 1999; González-Benito and GonzálezBenito, 2005; Sheppard, 2011; Gheysari *et al.*, 2012; Hajipour *et al.*, 2013). In fact, the customer has been described as “the most important component” of Market Orientation (Gheysari *et al.*, 2012, p. 545)

This suggests that, to successfully implement Market-Oriented behaviours and, more specifically, generate accurate and reliable market intelligence, an organisation must proactively interact and engage with its market, especially its customer base. So, an organisation relies not only on managing internal factors, but also managing a key external factor, that is, its market, to facilitate the successful implementation of MarketOriented behaviours. In short, Market Orientation requires one to go outside of the organisation to the marketplace.

Conclusively, while behaviour may act as an entry point to Figure 5.6, this entry is facilitated somewhat externally by the organisation's market. This premise is summarised in Figure 5.8, as follows:

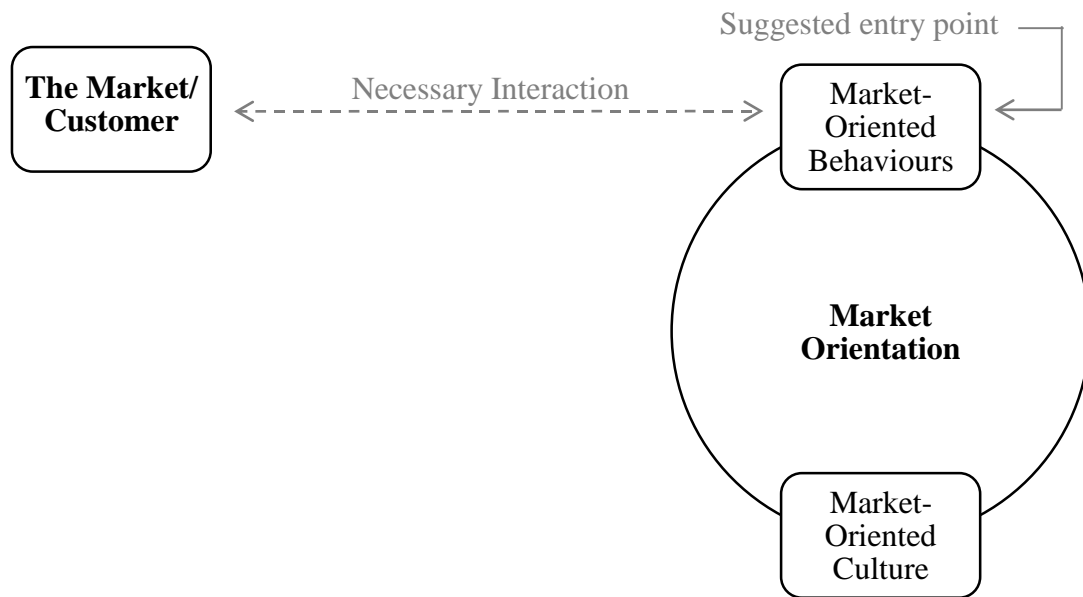


Fig. 5.8 “A Diagrammatic Representation of how to Enter the Researcher’s Market Orientation Wheel” (created by the researcher)

5.5.2 What are the advantages of this particular guidance?

As detailed in the Literature Review, Hatch’s (1993, p. 685) “Cultural Dynamics Model . . . can [theoretically] be entered at any point” (Figure 5.7). So, if the basic premise behind this model is theoretically applied to Figures 5.6 and 5.8, then this suggests that culture may be used as an alternative to behaviour in initiating Market Orientation.

However, rather than focusing on culture (i.e. values, norms and artifacts) during this initiation process, as has been advised by Homburg and Pflesser (2000), this study suggests that behaviour may be a more practical point of focus. Consequently, it encourages managers to employ Market Orientation as a behavioural construct, rather than the cultural construct that has dominated the literature (Narver and Slater, 1990; Homburg and Pflesser, 2000; Schein, 2010; Sheppard, 2011).

This guidance is of particular practicality as it allows managers to focus on a rather tangible and, therefore, perceptible aspect of Market Orientation. The observable nature of behaviours implies that they are easier to comprehend, measure and/or assess in comparison to much less tangible aspects, such as values. Resultantly, employing Market Orientation as a behavioural construct, rather than a cultural construct, is likely to be a much more understandable approach for managers and employees alike, thus allowing

the establishment of this specific culture to appear somewhat more realistic and achievable.

Furthermore, the above points imply that if a manager needs to actively encourage his/her employees to embrace the concept of Market Orientation, then its adoption as a behavioural construct is likely to make this a less complex task, with a higher chance of generating a successful outcome. In short, when attempting to establish a Market Oriented Organisational Culture, promoting behaviour may be an easier and, more importantly, a more fruitful responsibility than promoting culture (González-Benito and González-Benito, 2005).

In addition to the above, Market-Oriented behaviours are likely to have a positive influence on subjective/non-financial measures of organisational performance. For example, if an organisation proactively responds to customer feedback, then this is likely to result in increased customer satisfaction. This, in turn, is likely to have a positive influence on objective/financial measures of performance e.g. turnover (Homburg and Pflesser, 2000; González-Benito and González-Benito, 2005). Therefore, it may be the case that Market-Oriented behaviours have a more direct and quantifiable influence on organisational performance, than cultural values, norms and artifacts do. Although more investigation would be required to confirm this point, the behavioural aspect of Market Orientation has been found to have a positive influence on organisational performance that is independent of its cultural aspects (González-Benito and González-Benito, 2005).

5.5.3 What is the significance of this guidance?

As implied above and discussed explicitly in the Literature Review (Section 2.5), Market Orientation has been found to have a positive relationship with organisational performance (Narver and Slater, 1990; Jaworski and Kohli, 1993; Pitt *et al.*, 1996; Homburg and Pflesser, 2000; Harris, 2001; Liao *et al.*, 2011). While the exact nature of this relationship remains somewhat uncertain (Langerak, 2003), there is, nevertheless, widespread agreement that organisations who achieve a strong degree of Market Orientation “generally do outperform” other organisations (Deshpandé and Farley, 2004, p. 5; Deshpandé *et al.*, 1993).

The guidance offered in this study aims to provide managers with a clear and practical route to achieving their desired level of Market Orientation. If this guidance proves to be

successful, then the final outcome of its implementation may transpire as an improvement in organisational performance as a whole. Thus, this guidance may provide somewhat of a competitive advantage, ultimately enabling an organisation to “outperform” other organisations (Deshpandé and Farley, 2004, p. 5).

5.6 Limitations and Implications for Future Research

In addition to the methodological limitations that were presented in Chapter 3 (Section 3.16), there are further limitations associated with this study as a whole. These limitations “suggest a number of areas in which future research could be profitably undertaken” (Gainer and Padanyi, 2005, p. 861).

As detailed in Chapter 1 (Section 1.8), specific boundaries were placed around the overall scope of this piece of research, thus limiting its generalisability accordingly. Resultantly, the research findings are currently restricted to the Irish context in which this study was undertaken. That said, Market Orientation has been studied under a wide array of national settings and, thus, is by no means applicable to merely an Irish context. Therefore, it may be the case that some, if not all, of the research findings are internationally transferable. To verify this claim, “similarly to other studies of market orientation, [this] study needs to be extended to an international context” (Homburg and Pflesser, 2000, p. 458). In order to achieve this, future research of a similar nature should be undertaken in various geographical settings.

Furthermore, in an attempt to draw broadly generalisable conclusions from this particular study, no distinction was made between sectors or business-to-business (B2B) versus business-to-consumer (B2C) organisations during data analysis. Therefore, it may be beneficial for future researchers to adopt a more specific focus, for example, the service sector only. This sector would be of particular interest and applicability given the fact that the customer plays an important role in service delivery (Tiernan, 2015). So, essentially, the customer lies at the heart of the service sector and Market Orientation alike (Gheysari *et al.*, 2012; Tiernan, 2015). Adopting a more specific focus may identify potential differences between particular sectors and/or types of organisations, ultimately allowing more specific and tailored advice to be offered to the organisation(s) in question (Gainer and Padanyi, 2005).

Additionally, there are potential limitations associated with the measures that were employed in this study. While Homburg and Pflesser's (2000) survey instrument was justifiably used as a guide for developing these measures, additional measures, such as those proposed by Gebhardt *et al.* (2006), were also found to be applicable to the relevant concepts (Section 5.4.4). This suggests that the scales used in this study are by no means a complete inventory of the behaviours, values, norms and artifacts that exist in MarketOriented organisations. Hence, it is recommended that future studies should work to develop more exhaustive measures of these concepts. Moreover, if this research is to be "extended to an international context" (Homburg and Pflesser, 2000, p. 458), as recommended above, then it would be advisable to verify that "the scale items 'make sense' in other languages" and cultures (Kohli *et al.*, 1993, p. 457).

The cross-sectional nature of this study could also be considered as a limitation, as it essentially restricted the researcher's ability to infer causality from the research findings. This point was discussed in Chapter 3 (Section 3.16). However, the aim of this study was to essentially provide initial insight into the research problem at hand, by testing theory and generalising its results. An analytical cross-sectional survey was justified as being an appropriate methodology for this task (Section 3.8.3). Moreover, cross-sectional studies are "common in the market orientation literature" (Gainer and Padanyi, 2005, p. 861). Nevertheless, a longitudinal investigation would undoubtedly provide a deeper understanding of the relationships examined in this study.

Additionally, the researcher's purely quantitative approach is likely to be considered a limitation by those who hold either an interpretivist or a pragmatic philosophical stance. The use of a purely quantitative approach was strongly justified throughout Chapter 3 (Section 3.8.1). Nevertheless, the researcher recognises merit in future studies adopting a qualitative approach to further investigate the research problem. A qualitative investigation is likely to provide more narrative and descriptive data, from which new theories and/or understanding could transpire.

Further potential avenues for future research include the utilisation of a case study approach to investigate the implementation of the practical guidelines offered in this study. These guidelines could be implemented and examined at various stages of an

organisation's lifecycle, for example, a start-up versus a mature organisation. This may help to determine exactly when this guidance can be most effectively implemented.

Researchers should also continue to investigate the relationship between Market Orientation and organisational performance. As was mentioned in Section 5.5.2, it may be the case that the behavioural layer of Market Orientation has the most direct and quantifiable impact on organisational performance. However, further investigation would be required to confirm this claim (González-Benito and González-Benito, 2005).

Finally, as mentioned in the methodological limitations (Section 3.16), this study sought information from a single informant in each participating company, which resulted in the inability to assess informant bias (Homburg and Pflesser, 2000; Farrell, 2005; Gainer and Padanyi, 2005). To overcome this limitation, "future research should investigate the concept of market-oriented organizational culture using data from multiple informants" (Homburg and Pflesser, 2000, p. 458; González-Benito and González-Benito, 2005; Gainer and Padanyi, 2005). An interesting point to note here is that, it may be more fruitful for researchers to gather data from customers themselves, rather than from the organisations' employees (Tiernan, 2015). After all, the customer is "the most important component" of Market Orientation (Gheysari *et al.*, 2012, p. 545).

Engagement in the research suggested here would ultimately lead to an enhanced understanding of the research problem investigated in this study. Moreover, it may help to strengthen the evidence of this study's external reliability, by demonstrating the potential replicability of its results (Joppe, 2000, cited in Golafshani, 2003; Golafshani, 2003; Bryman, 2008).

5.7 Conclusion

The basic purpose of this final chapter was to provide a solution to the overall research problem, which asked:

Do Market-Oriented behaviours have a positive influence on the layers of an organisation's culture?

In order to deduce a solution to this problem, a discussion of each individual research question (Table 5.1) was provided in light of the associated literature, ultimately tying

Chapters 2 and 4 together (i.e. Literature Review and Presentation of Findings). This led to the extraction of the following six key points relating to the overall research problem:

1. Market-Oriented behaviours influence Organisational Culture;
2. Market-Oriented behaviours are closely interrelated with cultural values, norms and artifacts;
3. Market-Oriented behaviours may be an antecedent of Market-Oriented culture;
4. Market-Oriented behaviours may be the inception of Market-Oriented Organisational Culture;
5. Market-Oriented behaviours may determine the overall level of Market Orientation; and, finally
6. Market-Oriented behaviours are potentially the most important layer of a Market-Oriented Organisational Culture.

Having identified these six key points, the chapter then progressed to detail the various theoretical contributions that this study has made to theory, in the associated fields of Organisational Culture and Market Orientation. Three fundamental contributions were considered here: namely, an apparent over-reliance on the Cultural Approach to Market Orientation; the nature of Market Orientation; and a review of the definition of Organisational Culture.

Practical implications of the research were then addressed. Hence, the chapter proceeded to offer clear and practical guidance to managers who are seeking to actively change their organisation's culture and/or become Market-Oriented. In such a case, based on the research findings, it was suggested that behaviour may be used as the starting point: from Market-Oriented behaviours the desired corresponding values, norms and artifacts will subsequently transpire. Resultantly, managers were advised to concentrate on strongly implementing Market-Oriented behaviours in advance of trying to embed a Market-Oriented Organisational Culture. This guidance possesses a particular desirability as there is widespread agreement that organisations who achieve a strong degree of Market Orientation "generally do outperform" other organisations (Deshpandé and Farley, 2004, p. 5; Deshpandé *et al.*, 1993).

Finally, the chapter concluded with some of the limitations of this study as a whole, from which “a number of areas in which future research could be profitably undertaken” were identified (Gainer and Padanyi, 2005, p. 861).

6. References

- Avlonitis, G. and Gounaris, S. (1999). Marketing orientation and its determinants: an empirical analysis. *European Journal of Marketing*, [online], 33 (11/12), pp. 1003-1037, available: Emerald [accessed 13 September, 2013].
- Baker, M. (2002). Research Methods. *The Marketing Review*, [online], 3 (2), pp. 167-193, available: Business Source Complete [accessed 04 February 2014].
- Balthazard, P. Cooke, R. and Potter, R. (2006). Dysfunctional culture, dysfunctional organization: capturing the behavioral norms that form organizational culture and drive performance. *Journal of Management Psychology*, [online], 21 (8), pp. 709-732, available: Emerald [accessed 04 November, 2013].
- Baruch, Y. and Holtom, B. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, [online], 61 (8), pp. 1139-1160, available: http://chuang.epage.au.edu.tw/ezfiles/168/1168/attach/20/pta_39314_3204573_90797.pdf [accessed 05 November, 2014].
- Blaxter, L. Hughes, C. and Tight, M. (2006). *How to Research*. 3rd ed., ABC Asian Business Consortium [online] available: http://abcreeg.weebly.com/uploads/9/9/8/2/9982776/how_to_research.pdf [accessed 29 January, 2014].
- Bonavia, T. Molina, J. and Boada, J. (2009). Further Examination of the Organizational Culture Scale Focused on Artifacts. *Psychological Reports*, [online], 105 (3), pp. 827-834, available: Business Source Complete [accessed 04 November, 2013].
- Boynton, P. (2004). Hands-on guide to questionnaire research: Administering, analysing and reporting your questionnaire. *BMJ British Medical Journal (International Edition)*, [online], 328 (7452), pp. 1372-1375, available: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC420299/> [accessed 10 February, 2014].
- Brady, W. and Haley, S. (2013). Storytelling Defines Your Organizational Culture. *Physician Executive*, [online], 39 (1), pp. 40-43, available: Academic One File [accessed 09 October, 2013].

□

- Brown, A. (1998). *Organisational Culture*. 2nd ed., London: Financial Times Pitman Publishing.
- Brown, J.D. (2011). Likert items and scales of measurement?. *SHIKEN: JALT Testing & Evaluation SIG Newsletter*, [online], 15 (1), pp. 10-14, available: <http://jalt.org/test/PDF/Brown34.pdf> [accessed 27 January, 2015].
 - Bryman, A. (2008). *Social Research Methods*. 3rd ed., New York: Oxford University Press Inc.
 - Bryman, A. and Cramer, D. (2005). *Quantitative Data Analysis with SPSS 12 and 13: A Guide for Social Scientists*. New York: Routledge.
 - Byrne, J. (2014). *An Examination of Market Orientated Organisational Culture*. Unpublished (Master of Business) thesis, Institute of Technology Carlow.
 - Cadogan, J. Souchon, A. and Procter, D. (2008). The quality of market-oriented behaviors: Formative index construction. *Journal of Business Research*, [online], 61 (12), pp. 1263-1277, available: Science Direct [accessed 21 October, 2013].
 - Carr, J. and Burnthorne-Lopez, T. (2007). Examining Market Orientation as both Culture and Conduct: Modeling [sic] the Relationships Between Market Orientation and Employee Responses. *Journal of Marketing Theory and Practice*, [online], 15 (2), pp. 113-125, available: Business Source Complete [accessed 22 October, 2013].
 - Carroll, S. (1998). Good incentives improve response rates. *Marketing News*, [online], 32 (22), p. 38, available: Business Source Complete [accessed 04 November, 2014].
 - Coakes, S. Steed, L. and Ong, C. (2010). *SPSS Version 17.0 for Windows: Analysis without Anguish*. Australia: John Wiley & Sons Australia, Ltd.
 - Cohen, L. Manion, L. and Morrison, K. (2000). *Research Methods in Education*. 5th ed., London: RoutledgeFalmer.
 - Creswell, J. (2014). *Research Design: Qualitative, Quantitative, & Mixed Methods Approaches*. 4th ed., Thousand Oaks, California: SAGE Publications, Inc.
 - Crotty, M. (1998). *The foundations of Social Research: Meaning and Perspective in the Research Process*. London: SAGE Publications London.

- Cullen, D. (1998). *New Product Development and Technology Acquisition in Small and Medium Sized Manufacturing Firms in Ireland*. Master's Thesis, Dublin Institute of Technology.
- CSO. (2014). *Surveys and Methodology*, [online], available: <http://www.cso.ie/en/surveysandmethodology/classifications/classificationofindustrialactivity/> [accessed 05 June, 2014].
- Czaja, R. (1998). Questionnaire Pretesting Comes of Age. *Marketing Bulletin-Department of Marketing Massey University*, [online], 9 (Article 5), pp. 52-66, available: http://marketing-bulletin.massey.ac.nz/V9/MB_V9_A5_czaja.pdf [accessed 07 October, 2014].
- Deshpandé, R. and Webster, F. (1989). Organizational Culture and Marketing: Defining the Research Agenda. *Journal of Marketing*, [online], 53 (1), pp. 3-15, available: Business Source Complete [accessed 30 September, 2013].
- Deshpandé, R. Farley, J. and Webster, F. (1993). Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis. *Journal of Marketing*, [online], 57 (1), pp. 23-37, available: Business Source Complete [accessed 09 October, 2013].
- Deshpandé, R. and Farley, J. (2004). Organizational Culture, market orientation, innovativeness and firm performance: an international research odyssey. *International Journal of Research in Marketing*, [online], 21 (1), pp. 3-22, available: Science Direct [accessed 16 October, 2013].
- Edwards, P. Roberts, I. Clarke, M. DiGuseppi, C. Pratap, S. Wentz, R. and Kwan, I. (2002). Increasing response rates to postal questionnaires: systematic review. *BMJ*, [online], 324 (2002), pp. 1183-1185, available: <http://www.bmj.com/content/324/7347/1183> [accessed 22 October, 2014].
- Enterprise Ireland. (2014). *SME Definition*, [online], available: http://www.enterprise-ireland.com/EI_Corporate/en/About-Us/OurClients/SME-Definition.html [accessed 06 June, 2014].
- Fan, W. and Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior*, [online], 26 (2), pp. 132-139, available: Science Direct [accessed 16 July, 2014].

□

Farrell, M. (2005). The effect of a market-oriented organisational culture on salesforce behaviour and attitudes. *Journal of Strategic Marketing*, [online], 13 (4), pp. 261-273, available: Business Source Complete [accessed 29 October, 2013].

- Field, A. (2009). *Discovering Statistics Using SPSS*. 3rd ed., London: Sage Publications.
- Flood, P. Mkamwa, T. O'Regan, C. Guthrie, J. Liu, W. Armstrong, C. and MacCurtain, S. (2008). *New Models of High Performance Work Systems: The Business Case for Strategic HRM, Partnership and Diversity and Equality Systems*, [online], Dublin, The Equality Authority and National Centre for Partnership & Performance, available: <http://www.google.ie/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCAQFjAA&url=http%3A%2F%2Fwww.equality.ie%2FFiles%2FNew-Models-of-High-Performance-Work-Systems-RTF.rtf&ei=7xlzVKymHsGvygPtgIKgBg&usg=AFQjCNFm48fLhaB3X9qwIHMydrGdm6rz5A> [accessed 24 November, 2014].
- Gainer, B. and Padanyi, P. (2005). The relationship between market-oriented activities and market-oriented culture: implications for the development of market orientation in non-profit service organizations. *Journal of Business Research*, [online], 58 (6), pp. 854-862, available: Science Direct [accessed 16 October, 2013].
- Gebhardt, G. Carpenter, G. Sherry, J Jr. (2006). Creating a Market Orientation: A Longitudinal, Multifirm, Grounded Analysis of Cultural Transformation. *Journal of Marketing*, [online], 70 (4), pp. 37-55, available: Business Source Complete [accessed 23 April, 2014].
- Ghasemi, A. and Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology Metabolism*, [online], 10 (2), pp. 486-489, available: PubMed Central [accessed 1 December, 2014].
- Gheysari, H. Rasli, A. Roghanian, P. and Norhalim, N. (2012). A Review on the Market Orientation Evolution. *Procedia Social and Behavioural Sciences*, [online], 40, pp. 542-549, available: Science Direct [accessed 16 October, 2013].

- Gjerald, O. and Øgaard, T. (2012). Basic Assumptions of Service Employees: Influence on Job Performance and Market-Oriented Behaviors. *International Journal of Business Administration*, [online], 3 (6), pp. 1-12, available: Business Source Complete [accessed 22 October, 2013].
- Gliem, J. and Gliem, R. (2003). Calculating, Interpreting and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*, [online], available: <https://scholarworks.iupui.edu/bitstream/handle/1805/344/Gliem%20%26%20Gliem.pdf?sequence=1&isAllowed=y> [accessed 07 May, 2015].
 - Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, [online], 8 (4), pp. 597-607, available: <http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf> [accessed 07 May, 2015].
 - González-Benito, Ó. and González-Benito, J. (2005). Cultural vs. operational market orientation and objective vs. subjective performance: Perspective of productions and operations. *Industrial Marketing Management*, [online], 34 (8), pp. 797-829, available: Science Direct [accessed 22 October, 2013].
 - Gray, D. (2009). *Doing Research in the Real World*. 2nd ed., London: SAGE Publications Ltd.
 - Griffith, A. (2010). *SPSS for Dummies*. 2nd ed., Indianapolis, Indiana: Wiley Publishing
 - Grix, J. (2002). Introducing Students to the Generic Terminology of Social Research. *Politics*, [online], 22 (3), pp. 175-186, available: Academic Search Complete [accessed 16 December, 2013].
 - Hajipour, B. Rahimi, F. and Hooshmand, M. (2013). Market Orientation: Review and New Research Agenda. *Journal of Management Research*, [online], 5 (1), pp. 92-111, available: Business Source Complete [accessed 14 October, 2013].
 - Halliday, S. (2002). Barriers to customer-orientation: A case applied and explained. *European Journal of Marketing*, [online], 36 (1/2), pp. 136-158, available: Emerald [accessed 02 October, 2013].
 - Hamadu, D. Obaji, R. and Oghojafor, B. (2011). Intelligence Information Generation, Dissemination, and Responsiveness in the Performance of Insurance

□

Business in Nigeria. *Journal of Marketing Development and Competitiveness*, [online], 5 (7), pp. 53-62, available: Business Source Complete [accessed 21 October, 2013].

Harris, L. (2001). Market Orientation and Performance: Objective and Subjective Empirical Evidence from UK Companies. *Journal of Management Studies*, [online], 38 (1), pp. 17-43, available: Business Source Complete [accessed 26 November, 2013].

- Harris, L. and Ogbonna, E. (1999). Developing a market oriented culture: a critical evaluation. *Journal of Management Studies*, [online], 36 (2), pp. 177-196, available: Business Source Complete [accessed 12 September, 2013].
- Hart, S. (2003). *Marketing Changes*. Google Books [online] available: <http://books.google.ie/books?id=aPsku3o5y8EC&pg=PA105&lpg=PA105&dq=market+orientation+artifacts+arrangements&source=bl&ots=9bmOMr8e -&sig=LyUY7AFC2TJckwboUqwTRC3xTc&hl=en&sa=X&ei=czDUrzBGsKt hQeOm4GABQ&ved=0CC8Q6AEwAA#v=onepage&q=market%20orientation%20artifacts%20arrangements&f=false> [accessed 13 November, 2013].
- Hatch, M. (1993). The Dynamics of Organizational Culture. *The Academy of Management Review*, [online], 18 (4), pp. 657-693, available: JSTOR [accessed 02 October, 2013].
- Holden, M. and Lynch, P. (2004). Choosing the Appropriate Methodology: Understanding Research Philosophy. *The Marketing Review*, [online], 4 (4), pp. 397-409, available: Business Source Complete [accessed 14 January, 2014].
- Homburg, C. and Pflesser, C. (2000). A Multiple-Layer Model of MarketOriented Organizational Culture: Measurement Issues and Performance Outcomes. *Journal of Marketing Research*, [online], 37 (4), pp. 449-462, available: Business Source Complete [accessed 12 September, 2013].
- The Irish Times. (2014). *Top Companies by Industry*, [online], available: <http://www.top1000.ie/industries> [accessed 12 June, 2014].
- IT Carlow. (2006). Policy and Procedures on Ethics in Research. Carlow: IT Carlow Library Services.

- Jamieson, S. (2004). Likert scales: how to (ab)use them. *Medical Education*, [online], 38 (12), pp. 1217-1218, available: Academic Search Complete [accessed 04 November, 2014].

□

- Jaworski, B. and Kohli, A. (1993). Market Orientation: Antecedents and Consequences. *Journal of Marketing*, [online], 57 (3), pp. 53-70, available: Business Source Complete [accessed 13 September, 2013].
- Johnson, G. Scholes, K. and Whittington, R. (2008). *Exploring Corporate Strategy*. 8th ed., Harlow: Financial Times Prentice Hall.
 - Jung, T. Scott, T. Davies, H. Bower, P. Whalley, D. McNally, R. and Mannion, R. (2009). Instruments for Exploring Organizational Culture: A Review of the Literature. *Public Administration Review*, [online], 69 (6), pp. 1087-1096, available: Business Source Complete [accessed 29 October, 2013].
 - Kasper, H. (2005). The culture of market oriented organisations, [online], available: <http://arno.unimaas.nl/show.cgi?fid=3912> [accessed 24 April, 2014].
 - Kennelly, S. (2008). *Role of the Sales Manager and it's [sic] Intersection with Sales Technology*. Master's Thesis, Dublin Institute of Technology.
 - Klassen, R. and Jacobs, J. (2001). Experimental comparison of Web, electronic and mail survey technologies in operations management. *Journal of Operations Management*, [online], 19 (6), pp. 713-728, available: Science Direct [accessed 16 July, 2014].
 - Kohli, A. and Jaworski, B. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, [online], 54 (2), pp. 1-18, available: Business Source Complete [accessed 16 September, 2013].
 - Kohli, A. Jaworski, B. and Kumar, A. (1993). MARKOR: A Measure of Market Orientation. *Journal of Marketing Research*, [online], 30 (4), pp. 467-477, available: Business Source Complete [accessed 11 October, 2013].
 - Kotler, P. and Keller, K. (2009). *Marketing Management*. 13th ed., New Jersey: Prentice Hall Inc. /Pearson Education Inc.
 - Kwak, N. and Radler, B. (2002). A Comparison Between Mail and Web Surveys: Response Pattern, Respondent Profile, and Data Quality. *Journal of Official Statistics*, [online], 18 (2), pp. 257-273, available: <http://www.barold.com/www/jos%20article.pdf> [accessed 16 July, 2014].
 - Langerak, F. (2003). An Appraisal of Research on the Predictive Power of Market Orientation. *European Management Journal*, [online], 21 (4), pp. 447-464, available: Science Direct [accessed 26 November, 2013].

- Lear, R. (1963). No Easy Road to Market Orientation. *Harvard Business Review*, [online], 41 (5), pp. 53-60, available: Business Source Complete [accessed 02 October, 2013].
- Liao, S. Chang, W. Wu, C. and Katrichis, J. (2011). A survey of market orientation research (1995-2008). *Industrial Marketing Management*, [online], 40 (2), pp. 301-310, available: Science Direct [accessed 16 October, 2013].
- Lin, W. and Van Ryzin, G. (2011). Web and Mail Surveys: An Experimental Comparison of Methods for Nonprofit Research. *Nonprofit and Voluntary Sector Quarterly*, [online], 41 (6), pp. 1014-1028, available: Sage [accessed 16 July, 2014].
 - Lindner, J. Murphy, T. and Briers, G. (2001). Handling Nonresponse in Social Science Research. *Journal of Agricultural Education*, [online], 42 (4), pp. 43-53, available: <http://www.jae-online.org/attachments/article/387/42-04-43.pdf> [accessed 02 June, 2015].
 - Maltz, E. and Kohli, A. (1996). Market Intelligence Dissemination Across Functional Boundaries. *Journal of Marketing Research*, [online], 33 (1), pp. 4761, available: Business Source Complete [accessed 22 October, 2013].
 - McDonald, H. and Adam, S. (2003). A comparison of online and postal data collection methods in marketing research. *Market Intelligence and Planning*, [online], 21 (2), pp. 85-95, available: Emerald Insight [accessed 16 July, 2014].
 - Medway, R. and Fulton, J. (2012). When More Gets You Less: A Meta-Analysis of the Effect of Concurrent Web Options on Mail Survey Response Rates. *Public Opinion Quarterly*, [online], 76 (4), pp. 733-746, available: Business Source Complete [accessed 16 July, 2014].
 - Miller, L. and Smith, K. (1983). Handling nonresponse issues. *Journal of Extension*, [online], 21 (5), pp. 45-50, available: <http://www.joe.org/joe/1983september/83-5-a7.pdf> [accessed 02 June, 2015].
 - Narver, J. and Slater, S. (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*, [online], 54 (4), pp. 20-35, available: Business Source Complete, [accessed 13 November, 2013].
 - Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances in Health Sciences Education*, 15 (5), pp. 625-632, available:

□

□

<http://blogs.helsinki.fi/kvantiblogi/files/2013/09/SampleSizeNorman2010.pdf>

[accessed 05 February, 2015].

- O'Regan, C. (2011). *The Impact of High Performance Work Systems on Innovation Performance: A Study of Irish Companies*. Master's Thesis, Dublin City University.
- O'Rourke, T. (1999). The Importance of an Adequate Survey Response Rate and Ways to Improve It. *American Journal of Health Studies*, [online], 15 (2), pp. 107109, available: Academic Search Complete [accessed 22 October, 2014].
- Pallant, J. (2011). *SPSS Survival Manual: A step by step guide to data analysis using SPSS*. 4th ed., Australia: Allen & Unwin.
- Peer, E. and Gamliel, E. (2011). Too Reliable To Be True? Response Bias as a Potential Source of Inflation in Paper-And-Pencil Questionnaire Reliability. *Practical Assessment, Research & Evaluation*, [online], 16 (9), pp. 1-8, available: <http://www.pareonline.net/getvn.asp?v=16&n=9> [accessed 29 May, 2015].
- Perry, C. (1998). A Structured Approach for Presenting Theses. *Australian Marketing Journal*, [online], 6 (1), pp. 63-85, available: Science Direct [accessed 09 February, 2015].
- Pettigrew, A. (1979). On Studying Organizational Cultures. *Administrative Science Quarterly*, [online], 24 (4), pp. 570-581, available: JSTOR [accessed 7 October, 2013].
- Phellas, C. Bloch, A. and Seale, C. (2011). *Researching Society and Culture: Chapter 11 Structured Methods: Interviews, Questionnaires and Observation*. 3rd ed., Sage Publications [online] available: http://www.sagepub.com/upmdata/47370_Seale_Chapter_11.pdf [accessed 04 February, 2014].
- Pitt, L. Caruana, A. and Berthon, P. (1996). Market orientation and business performance: some European evidence. *International Marketing Review*, [online], 13 (1), pp. 5-18, available: Emerald [accessed 26 November, 2013].
- Presidion. (2014). *Applied Basic and Intermediate Statistics*. Dublin: Presidion.
- Presidion. (2015). *Introduction to Regression with IBM SPSS Statistics*. Dublin:

Presidion.

- Princeton University. (2007). *Introduction to Regression*, [online], available: http://dss.princeton.edu/online_help/analysis/regression_intro.htm [accessed 12 March, 2015].
- Raju, P. Lonial, S. and Crum, M. (2011). Market orientation in the context of SMEs: A conceptual framework. *Journal of Business Research*, [online], 64 (12), pp. 1320-1326, available: Science Direct [accessed 14 October, 2013].
- Schein, E. (1984). Coming to a New Awareness of Organizational Culture. *Sloan Management Review*, [online], 25 (2), pp. 3-16, available: [http://compass.port.ac.uk/UoP/file/9ae42a63-0544-40e3-8fc6-7be0e2ef9231/1/Police%20Culture%20\(s\)_IMSLRN.zip/media/Culture_Schein.pdf](http://compass.port.ac.uk/UoP/file/9ae42a63-0544-40e3-8fc6-7be0e2ef9231/1/Police%20Culture%20(s)_IMSLRN.zip/media/Culture_Schein.pdf) [accessed 06 November, 2013].
- Schein, E. (2010). *Organizational Culture and Leadership*. 4th ed., San Francisco: Jossey-Bass.
- Schwartz, H. and Davis, S. (1981). Matching Corporate Culture and Business Strategy. *Organizational Dynamics*, [online], 10 (1), pp. 30-48, available: Business Source Complete [accessed 07 October, 2013].
- Shannon, D. and Bradshaw, C. (2002). A Comparison of Response Rate, Response Time, and Costs of Mail and Electronic Surveys. *The Journal of Experimental Education*, [online], 70 (2), pp. 179-192, available: Taylor & Francis Online [accessed 16 July, 2014].
- Shapiro, B. (1988). What the Hell Is 'Market Oriented'?. *Harvard Business Review*, [online], 66 (6), pp. 119-125, available: Business Source Complete [accessed 15 October, 2013].
- Sheehan, K. (2001). E-mail survey response rates: A review. *Journal of Computer-Mediated Communication*, [online], 6 (2), available: <http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2001.tb00117.x/full> [accessed 16 July, 2014].
- Sheppard, R. (2011). The Evolution and Conceptualization of Market Orientation: What Managers Ought to Know. *Journal of Management Policy and Practice*, [online], 12 (6), pp. 30-45, available: Business Source Complete [accessed 14 October, 2013].

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- Shermis, M. and Lombard, D. (1999). A Comparison of Survey Data Collected by Regular Mail and Electronic Mail Questionnaires. *Journal of Business and Psychology*, [online], 14 (2), pp. 341-354, available: Business Source Complete [accessed 16 July, 2014].
- Shih, T. and Fan, X. (2008). Comparing response rates from web and mail surveys: A meta-analysis. *Field Methods*, [online], 20 (3), pp. 249-271, available: Sage Journals [accessed 16 July, 2014].
- Singer, E. and Bossarte, R. (2006). Incentives for Survey Participation: When are they “Coercive”? *American Journal of Preventive Medicine*, [online], 31 (5), pp. 411-418, available: Science Direct [accessed 04 March, 2014].
- Smith, J. (1983). Quantitative versus Qualitative Research: An Attempt to Clarify the Issue. *Educational Researcher*, [online], 12 (3), pp. 6-13, available: JSTOR [accessed 23 January, 2014].
- Snow, D. (2005). Cultural Artifacts: What would Indiana Jones Say?. *Leadership Excellence*, [online], 22 (5), pp. 15-16, available: Business Source Complete [accessed 13 September, 2013].
- Social Research Methods. (2006a). *Research Methods Knowledge Base: Positivism & Post-Positivism*, [online], available: <http://www.socialresearchmethods.net/kb/positvsm.php> [accessed 16 January, 2014].
- Social Research Methods. (2006b). *Research Methods Knowledge Base: Deduction & Induction*, [online], available: <http://www.socialresearchmethods.net/kb/dedind.php> [accessed 20 January, 2014].
- Social Research Methods. (2006c). *Research Methods Knowledge Base: Qualitative Measures*, [online], available: <http://www.socialresearchmethods.net/kb/qual.php> [accessed 23 January, 2014].
- Swanson, R. and Holton III, E. (2005). *Research in Organizations: Foundations and Methods of Inquiry*. Google Books, [online], available:

http://books.google.ie/books?id=AyMZt9AodEEC&pg=PA166&lpg=PA166&dq=how+many+items+in+a+scale+research+in+organizations&source=bl&ots=N3vuIx2G8b&sig=blOrdk_7x-3zcQcwR5T-WrNxSnU&hl=en&sa=X&ei=r0NOU5nIOMSJ7Aay9IGoCw&ved=0CCkQ6AEwAA#v=onepage&q=how%20many%20items%20in%20a%20scale%20research%20in%20organizations&f=false [accessed 23 April, 2014].

- Taras, V. Rowney, J. and Steel, P. (2009). Half a century of measuring culture: Review of approaches, challenges, and limitations based on the analysis of 121

□

instruments for quantifying culture. *Journal of International Management*, [online], 15 (4), pp. 357-373, available: Science Direct [accessed 29 October, 2013].

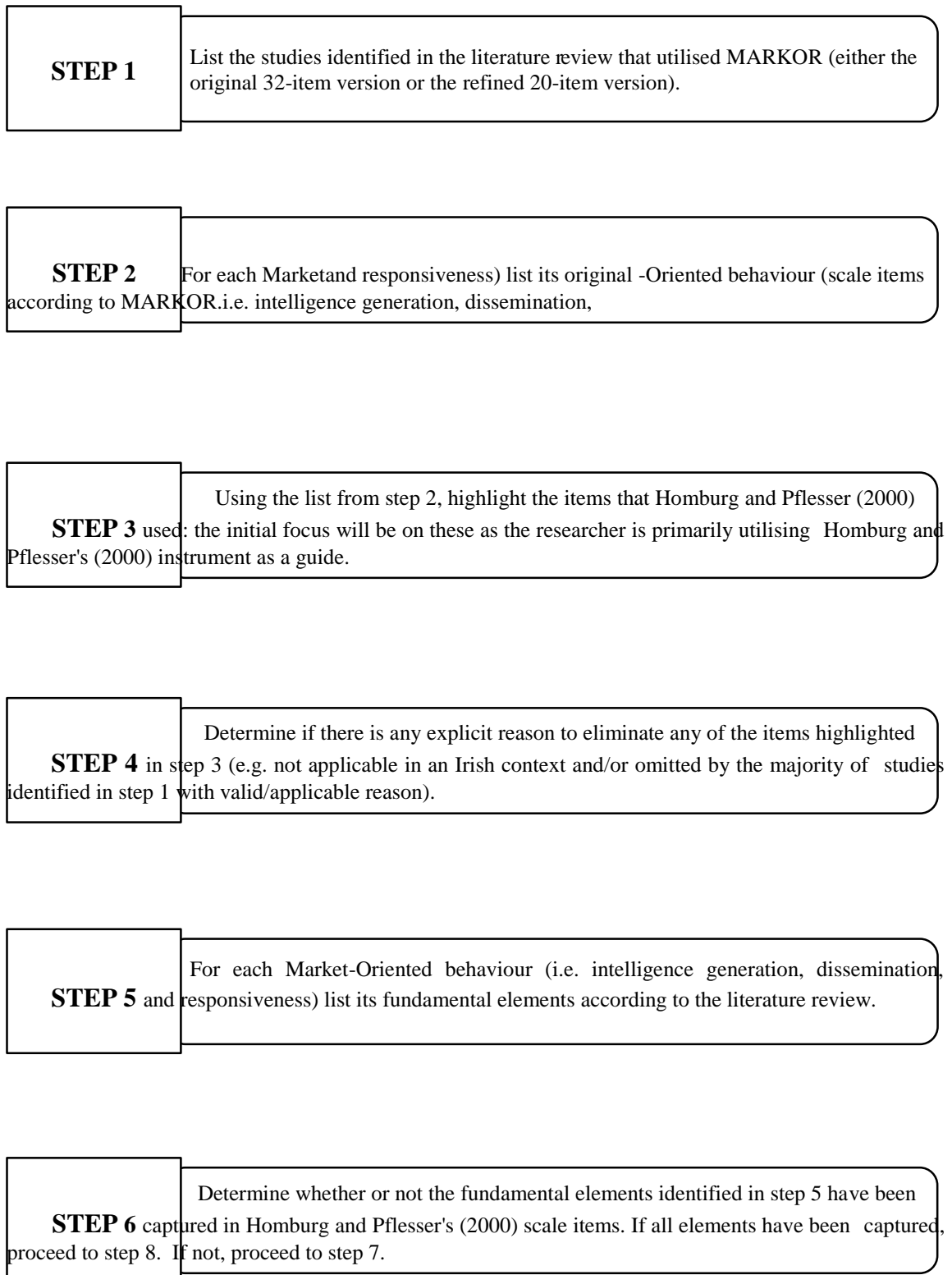
Tavakol, M. and Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, [online], 2 (53), pp. 53-55, available: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4205511/> [accessed 07 May, 2015].

- Taylor, R. (1990). Interpretation of the Correlation Coefficient: A Basic Review. *Journal of Diagnostic Medical Sonography*, [online], 6 (1), pp. 35-39, available: SAGE Journals [accessed 27 February, 2015].
- Teddlie, C. and Tashakkori, A. (2009). *Foundations of Mixed Methods Research; Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences*. Thousand Oaks, California: Sage Publications Inc.
- Tiernan, C. (2015). Interview with Lloyd Harris, 09 July, 2015. [personal communication].
- Turner, G. and Spencer, B. (1997). Understanding the marketing concept as organizational culture. *European Journal of Marketing*, [online], 31 (2), pp. 110-121, available: Emerald [accessed 09 October, 2013].
- Varela, J. and Ríó, M. (2003). Market orientation behavior: an empirical investigation using MARKOR. *Marketing Intelligence & Planning*, [online], 21 (1), pp. 6-15, available: Emerald [accessed 16 September, 2013].
- Vrasidas, C. (2000). Constructivism versus objectivism: Implications for interaction, course design and evaluation in distance education. *International Journal of Educational Telecommunications*, [online], 6 (4), pp. 1-17 (unmodified version), pp. 339-362 (modified version), available: www.cardet.org/vrasidas/pubs/continuum.pdf [accessed 13 January, 2014].
- Xiaoming, C. and Junchen, H. (2012). A Literature Review on Organization Culture and Corporate Performance. *International Journal of Business Administration*, [online], 3 (2), pp. 28-37, available: Business Source Complete [accessed 26 November, 2013].
- Zeitz, G. Mittal, V. and McAulay, B. (1999). Distinguishing Adoption and Entrenchment of Management Practices: A Framework for Analysis.

Organization Studies, [online], 20 (5), pp. 741-776, available: Business Source Complete [accessed 02 December, 2013].

7. Appendices

Appendix 1: Eight Step Development Process for the Market-Oriented Behaviours Scales



If an element has not been captured, one of four options can be taken. These options are listed in preferential order i.e. option 2 should only be considered if option 1 cannot be taken, and so on:

1. Adapt one of Homburg and Pflesser's (2000) existing items to incorporate the missing element;

STEP 7 2. Refer back to the original 20-item MARKOR instrument and determine if any of (2000) capture the missing element. If so, add the most appropriate item to the scale;

3. Refer back to the original 32-item MARKOR instrument and determine if any of the original items not used by Homburg and Pflesser (2000) capture the missing element. If so, add the most appropriate item to the scale; or 4. Create a new item that captures the missing element.

STEP 8 Review the scales as they now stand; determine whether it is necessary to retain all items.

Appendix 2: Development of the Scale used to measure Generation of Market Intelligence

Step 1: Studies identified in the literature review that utilised MARKOR:

Original 32-item version	Refined 20-item version
Jaworski and Kohli (1993) Carr and Burnthorne-Lopez (2007) Gjerald and Øgaard (2012)	Kohli <i>et al.</i> (1993) Pitt <i>et al.</i> (1993) Homburg and Pflesser (2000) Valera and Río (2003) González-Benito and González-Benito (2005) Gainer and Padanyi (2005)

Steps 2 and 3:

Intelligence Generation: Scale Items according to MARKOR	Included in the Refined 20-item Scale?
1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.	Yes
2. Individuals from our manufacturing department interact directly with customers to learn how to serve them better.	No
3. In this business unit, we do a lot of in-house market research.	Yes
4. We are slow to detect changes in our customers' product preferences. (R)	Yes
5. We poll end users at least once a year to assess the quality of our products and services.	Yes
6. We often talk with or survey those who can influence our end users' purchases (e.g. retailers, distributors).	No
7. We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners).	No
8. In our business unit, intelligence on our competitors is generated independently by several departments.	No
9. We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation). (R)	Yes

10. We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.	Yes
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Note: Grey highlight indicates that the item was used by Homburg and Pflesser (2000)

Step 4: No explicit reason to eliminate any of the above four items used by Homburg and Pflesser (2000) was identified.

Steps 5 and 6:

Generation of Market Intelligence	
Fundamental Element(s) according to the Literature Review (Section 2.6.4.1)	Element(s) captured in Homburg and Pflesser's (2000) 4-item scale?*
Gathers intelligence on customers' current and future wants and needs	Current wants and needs: items 4 and 9 and, to a lesser degree, item 5 Future wants and needs: items 1 and 5
Not just about intelligence on customers, but also factors that influence their preferences e.g. competition and/or technology	Intelligence on customers: items 1, 4 and 5 Intelligence on influential factors: item 9 and, to a lesser degree, items 1 and 4
Includes both formal and informal sources	Formal sources: item 5 and, to a lesser degree, item 1 Informal sources: Not Captured
Organisation-wide as opposed to being the sole responsibility of the marketing department	Not Captured
Possesses a speed factor	Items 4 and 9

*See grey highlight in previous table

Step 7: As indicated above, the elements of informal sources and organisation-wide responsibility were not captured in any of the four items used by Homburg and Pflesser (2000).

The researcher did not identify any adaptations that could be made to Homburg and Pflesser's (2000) existing four items, without compromising either the item's meaning and/or another fundamental element.

The remaining items from the refined 20-item MARKOR scale also failed to capture these elements.

However, item 7 from MARKOR's original 32-item scale (step 2) captured informal sources, while item 8 captured the element of organisation-wide responsibility; thus, these two items were added to scale.

The resulting scale was as follows:

- A.** In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.
- B.** We are slow to detect changes in our customers' product preferences. (R)
- C.** We poll end users at least once a year to assess the quality of our products and services.
- D.** We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation). (R)
- E.** We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners).
- F.** In our business unit, intelligence on our competitors is generated independently by several departments.

Step 8: All six items were deemed applicable and necessary based on the researcher's final check, as follows:

- Generate intelligence on customers' current needs: items **b** and **c**;
- Generate intelligence on customers' future needs: items **A** and **c**;
- Generate intelligence on factors that influence customers' wants and needs: items **D** and **e**;
- Generate customer intelligence through formal sources: items **A** and **C**;
- Generate customer intelligence through informal sources: item **E**;
- Generate customer intelligence throughout the entire organisation: item **F**; and □ Generate customer intelligence quickly: items **B** and **d**.

Note: A capital letter indicates the item(s) that best capture the stated element. A small letter indicates item(s) that capture the stated element to a lesser degree.

Appendix 3: Development of the Scale used to measure Dissemination of Market Intelligence

Step 1: See step 1 of Appendix 2 – same applies **Steps 2 and 3:**

Intelligence Dissemination: Scale Items according to MARKOR	Included in the Refined 20-item Scale?
1. A lot of informal “hall talk” in this business unit concerns our competitors’ tactics or strategies.	No
2. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.	Yes
3. Marketing personnel in our business unit spend time discussing customers’ future needs with <i>other</i> functional departments.	Yes
4. Our business unit periodically circulates documents (e.g. reports, newsletters) that provide information on our customers.	No
5. When something important happens to a major customer or market, the whole business unit knows about it within a short period.	Yes
6. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.	Yes
7. There is minimal communication between marketing and manufacturing departments concerning market developments. (R)	No
8. When one department finds out something important about competitors, it is slow to alert other departments. (R)	Yes

Note: Grey highlight indicates that the item was used by Homburg and Pflesser (2000)

Step 4: No explicit reason to eliminate any of the above four items used by Homburg and Pflesser (2000) was identified.

Steps 5 and 6:

Dissemination of Market Intelligence	
Fundamental Element(s) according to the Literature Review (Section 2.6.4.2)	Element(s) captured in Homburg and Pflesser's (2000) 4-item scale?*
Includes both formal and informal communication	Formal communication: item 2 and, to a lesser degree, items 3 and 6 Informal communication: Not Captured
Should occur both vertically and horizontally	Item 6
Organisation-wide as opposed to being the sole responsibility of the marketing department	Item 2 and, to a lesser degree, items 5 and 6
Possesses a speed factor	Item 5

*See grey highlight in previous table

Step 7: As indicated above, the element of informal communication was not captured in any of the four items used by Homburg and Pflesser (2000).

The researcher did not identify any adaptations that could be made to Homburg and Pflesser's (2000) existing four items, without compromising either the item's meaning and/or another fundamental element.

The remaining items from the refined 20-item MARKOR scale also failed to capture informal communication.

However, item 1 from MARKOR's original 32-item scale (step 2) captured this element; thus, this item was added to the scale.

Consequently, the scale was as follows:

- A. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
- B. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.
- C. When something important happens to a major customer or market, the whole business unit knows about it within a short period.

D. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.

E. A lot of informal “hall talk” in this business unit concerns our competitors’ tactics or strategies.

Step 8: Based on the researcher’s final check, which follows, item B was considered to be unnecessary.

- Includes formal means of communication: items **A, b** and **d**;
- Includes informal means of communication: item **E**;
- Occurs both vertically and horizontally: items **a, b, D** and **e**; □ Occurs throughout the entire organisation: items **a, c, D** and **e**; and □ Customer intelligence is disseminated quickly: item **C**.

Note: A capital letter indicates the item(s) that best capture the stated element. A small letter indicates item(s) that capture the stated element to a lesser degree.

Item B did not primarily capture any of the fundamental elements of dissemination of market intelligence; rather, it captured some of these elements to a lesser degree than other items did. Furthermore, as dissemination of market intelligence is an organisationwide responsibility, the researcher did not wish to focus solely on the marketing department. Consequently, item B was eliminated from the scale.

Appendix 4: Development of the Scale used to measure Responsiveness to Market Intelligence

Step 1: See step 1 of Appendix 2 – same applies

Steps 2 and 3:

Responsiveness: Scale Items according to MARKOR	Included in the Refined 20-item Scale?
1. It takes us forever to decide how to respond to our competitors' price changes. (R)	Yes
2. Principles of market segmentation drive new product development efforts in this business unit.	No
3. For one reason or another we tend to ignore changes in our customer's product or service needs. (R)	Yes
4. We periodically review our product development efforts to ensure that they are in line with what customers want.	Yes
5. Our business plans are driven more by technological advances than by market research. (R)	No
6. Several departments get together periodically to plan a response to changes taking place in our business environment.	Yes
7. The product lines we sell depends more on internal politics than real market needs. (R)	No
8. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.	Yes
9. The activities of the different departments in this business unit are well coordinated.	Yes
10. Customer complaints fall on deaf ears in this business unit. (R)	Yes
11. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (R)	Yes
12. We are quick to respond to significant changes in our competitors' pricing structures.	No
13. When we find out that customers are unhappy with the quality of our service, we take corrective action immediately.	No
14. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.	Yes

Note: Grey highlight indicates that the item was used by Homburg and Pflesser (2000)

Step 4: No explicit reason to eliminate any of the above four items used by Homburg and Pflesser (2000) was identified.

Steps 5 and 6:

Responsiveness to Market Intelligence	
Fundamental Element(s) according to the Literature Review (Section 2.6.4.3)	Element(s) captured in Homburg and Pflesser's (2000) 4-item scale?*
Two activities: response design and response implementation	Response design: items 4 and 6 Response implementation: items 9 and 14
Implementation: Coordinated in nature	Item 9
Organisation-wide as opposed to being the sole responsibility of the marketing department	Items 6 and 9

*See grey highlight in previous table

Step 7: No gaps were identified; therefore, this step was not applicable.

Subsequently, the scale was as follows:

- A.** We periodically review our product development efforts to ensure that they are in line with what customers want.
- B.** Several departments get together periodically to plan a response to changes taking place in our business environment.
- C.** The activities of the different departments in this business unit are well coordinated.
- D.** When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

Step 8: All four items were deemed applicable and necessary based on the researcher's final check, as follows:

- Activity 1 = response design: items **A** and **B**;
- Activity 2 = response implementation: items **C** and **D**;
- Implementation should be coordinated: item **C**; and
- Responsiveness should occur throughout the entire organisation: item **B** (design) and items **C** and **d** (implementation).

Note: A capital letter indicates the item(s) that best capture the stated element. A small letter indicates item(s) that capture the stated element to a lesser degree.

Appendix 5: Seven Step Development Process for the Market-Oriented Values Scale

STEP 1	List the original scale items for Market-Oriented values according to Homburg and Pflesser (2000).
STEP 2	Determine if there is any explicit reason to eliminate any of the items identified in step 1 (e.g. not applicable in an Irish context).
STEP 3	Determine whether or not any of the items are similar enough to be combined into a single item, thus reducing the overall length of the scale.
STEP 4	List the fundamental values associated with market orientation as identified in the literature review.
STEP 5	Determine whether or not the fundamental values from step 4 have been captured in Homburg and Pflesser's (2000) scale items as they now stand following steps 1-4. If all values have been captured, proceed to step 7. If not, proceed to step 6.
STEP 6	<p>If a value has not been captured, one of three options can be taken. These options are listed in preferential order i.e. option 2 should only be considered if option 1 cannot be taken, and so on:</p> <ol style="list-style-type: none">1. Refer back to Homburg and Pflesser's (2000) original items in step 1 and determine whether or not any of the items eliminated in step 2 or combined in step 3 had originally captured the missing value. If so, add the eliminated item to the scale or return the combined item back to its original form and add it to the scale;2. Refer back to the study from which the missing value originated and identify whether or not an appropriate item has been provided; if so, add it to the scale; or3. Create a new item that captures the missing value.
STEP 7	Review the scale as it now stands; determine whether it is necessary to retain all items.

Appendix 6: Development of the Scale used to measure Market-Oriented Values

Step 1:

Values: Original Scale Items from Homburg and Pflesser (2000)
1. In our SBU, we place great value on performance-oriented employees.
2. In our SBU, we strive for success very strongly.
3. In our SBU, we particularly emphasise innovativeness and creativity.
4. In our SBU, we rate the flexibility of the employees very highly.
5. In our SBU, we are very open toward innovations (e.g. related to products or processes).
6. In our SBU, open communication is valued very highly.
7. In our SBU, we aspire to a high degree of interfunctional information exchange.
8. In our SBU, we put very much value on information flow.
9. In our SBU, we aspire to proactive communication.
10. In our SBU, error-free work results are valued very highly.
11. In our SBU, we put very much value on high-quality work results.
12. In our SBU, we aspire to a maximum of qualification and competence in the subject.
13. In our SBU, we aspire to speed in all work processes.
14. In our SBU, every employee aspires to speed in the work processes.
15. In our SBU, we place great value on interfunctional teamwork.
16. In our SBU, cooperation among different functions (e.g. marketing, research and development) is valued very highly.
17. In our SBU, we aspire to cooperative work.
18. In our SBU, we value very highly that every employee thinks and acts like an entrepreneur.
19. In our SBU, the responsibility of the single employee is stressed very strongly.
20. In our SBU, the appreciation of the single employee is stressed very strongly.
21. In our SBU, we place great value on a feeling of belonging among the employees.

22. In our SBU, we aspire to high employee satisfaction.

Step 2: No explicit reason to eliminate any of Homburg and Pflesser's (2000) original 22 items was identified.

Step 3: The following items were combined to form a single item (refer to the table at step 1):

- Items 3 and 5: In our SBU, we are very open toward innovations (e.g. related to products or processes) and creativity.
- Items 6 and 9: In our SBU, we aspire to open, proactive communication.
- Items 7 and 8: In our SBU, interfunctional information exchange is valued very highly.
- Items 10 and 11: In our SBU, error-free, high-quality work results are valued very highly.
- Items 13 and 14: In our SBU, we aspire to speed in the work processes.
- Items 15 and 16: In our SBU, teamwork and cooperation among different functions (e.g. marketing, research and development) is valued very highly.

This reduced the scale from 22 items to sixteen items, as follows:

1. In our SBU, we place great value on performance-oriented employees.
2. In our SBU, we strive for success very strongly.
3. In our SBU, we are very open toward innovations (e.g. related to products or processes) and creativity.
4. In our SBU, we rate the flexibility of the employees very highly.
5. In our SBU, we aspire to open, proactive communication.
6. In our SBU, interfunctional information exchange is valued very highly.
7. In our SBU, error-free, high-quality work results are valued very highly.
8. In our SBU, we aspire to a maximum of qualification and competence in the subject.
9. In our SBU, we aspire to speed in the work processes.
10. In our SBU, teamwork and cooperation among different functions (e.g. marketing, research and development) is valued very highly.
11. In our SBU, we aspire to cooperative work.

12. In our SBU, we value very highly that every employee thinks and acts like an entrepreneur.
13. In our SBU, the responsibility of the single employee is stressed very strongly.
14. In our SBU, the appreciation of the single employee is stressed very strongly.
15. In our SBU, we aspire to high employee satisfaction.
16. In our SBU, we place great value on a feeling of belonging among the employees.

Steps 4 and 5:

Fundamental Values associated with Market Orientation		
Researcher(s)	Value	Value captured in sixteen items above?
Homburg and Pflesser (2000)	Success	Items 1 and 2
	Innovativeness	Item 3
	Flexibility	Item 4
	Openness of Internal Communication	Items 5 and 6
	Quality	Item 7
	Competence	Item 8
	Speed	Item 9
	Interfunctional Cooperation	Items 10 and 11
	Responsibility of Employees	Items 12 and 13
	Appreciation of Employees	Items 14, 15 and 16
Gebhardt <i>et al.</i> (2006)	Market as the Raison D'être	Not Captured
	Collaboration	Items 10 and 11
	Respect/empathy/perspective taking	Item 16
	Keep promises	Not Captured
	Openness	Item 5
	Trust	Not Captured

Step 6: As identified above, Homburg and Pflesser's (2000) items failed to capture the three values of market as the raison d'être, keep promises, and trust, all of which Gebhardt *et al.* (2006) found support Market Orientation.

None of these values were captured in Homburg and Pflesser's (2000) original scale prior to combining any of the items.

Gebhardt *et al.* (2006) provided statements that reflect the assumptions underlying each of these values. These are as follows:

- Market as the raison d'être: "We come together as an organisation to serve the market and make a living."
- Keep promises: "To succeed, everyone must do his or her part."
- Trust: "Everyone is committed to the same goal. Therefore, we can have positive expectations about their intentions and behaviours." (Gebhardt et al., 2006, p. 43)

Hence, these statements were used as a guide for creating items that captured these values.

Step 7: As documented in step 4, some of the values that support Market Orientation, e.g. appreciation of employees, were represented by two or more items. In such a case, the number of items was reduced so that each value was represented by a single item, with the overall scale representing Market-Oriented values. The item that was determined to be most applicable to the relevant value was retained.

Subsequently, the scale was as follows:

Items used to measure Market-Oriented Values	Value(s) being captured
1. In our SBU, we place great value on performanceoriented employees.	Success
2. In our SBU, we are very open toward innovations (e.g. related to products or processes) and creativity.	Innovativeness
3. In our SBU, we rate the flexibility of the employees very highly.	Flexibility
4. In our SBU, we aspire to open, proactive communication.	Openness of Internal Communication
5. In our SBU, error-free, high-quality work results are valued very highly.	Quality
6. In our SBU, we aspire to a maximum of qualification and competence in the subject.	Competence
7. In our SBU, we aspire to speed in the work processes.	Speed
8. In our SBU, teamwork and cooperation among different functions (e.g. marketing, research and development) is valued very highly.	Interfunctional Cooperation and Collaboration
9. In our SBU, the responsibility of the single employee is stressed very strongly.	Responsibility of the Employees

Items used to measure Market-Oriented Values – Continued	Value(s) being captured
10. In our SBU, the appreciation of the single employee is stressed very strongly.	Appreciation of the Employees
11. In our SBU, we place great value on a feeling of belonging among the employees.	Respect/Empathy/ Perspective Taking
12. In our SBU, we aspire to serve the market.	Market as the Raison D'être
13. In our SBU, every employee aspires to do his or her part.	Keep promises
14. In our SBU, everyone is committed to achieving the same goal and, thus, we can have positive expectations about their intentions and behaviours.	Trust

Note: Grey highlight indicates that the item was adapted from Gebhardt *et al.* (2006, p. 43) rather than Homburg and Pflesser (2000)

All of the above fourteen items were determined to be necessary for the scale and, thus, were retained.

Appendix 7: Five Step Development Process for the Market-Oriented Norms Scale

STEP 1 List the original Pflesser (2000)inal scale items for . Market-Oriented norms according to Homburg and

Note: change appendix reference no in main body !

STEP 2 Determine if there is any explicit reason to eliminate any of the items identified in step 1 (e.g. not applicable in an Irish context).

STEP 3 List all of the Market-Oriented values identified in the literature review and identify which norm item(s) from Homburg and Pflesser's (2 000) scale corresponds to each value. Then, identify what action can be taken in order to reduce the overall length of the scale. If Homburg and Pflesser's (2000) scale has provided a norm item to correspond to each value of market orientation, proceed to step 5. If not, proceed to step 4.

STEP 4 If a norm relating to a particular value has not been captured, one of three options can be taken. These options are listed in preferential order i.e. option 2 should only be considered if option 1 cannot be taken, and so on:

1. Refer back to Homburg and Pflesser's (2000) original items in step 1 and determine whether or not any of the items eliminated in step 2 and/or step 3 had originally captured the missing norm. If so, add the eliminated item(s) to the scale;
2. Refer back to the study from which the missing norm originated and identify whether or not an appropriate item has been provided; if so, add it to the scale; or
3. Create a new item that captures the missing norm.

STEP 5 Review the scale as it now stands; determine whether it is necessary to retain all items.

Appendix 8: Development of the Scale used to measure Market-Oriented Norms

Step 1:

Norms: Original Scale Items from Homburg and Pflesser (2000)
1. In our SBU, market performance (e.g. market share, customer satisfaction) is measured regularly.
2. In our SBU, market performance (e.g. market share, customer satisfaction) is controlled regularly.
3. In our SBU, we expect that generally accepted standardized programs are examined regularly to become more effective in serving our markets.
4. In our SBU, we expect that unbureaucratic solutions are found quickly in difficult situations (e.g. in cases of massive customer complaints).
5. In our SBU, we expect that new value-adding products and services are detected and developed permanently.
6. In our SBU, we appreciate unconventional ideas (especially if they come from the side of the customer).
7. In our SBU, we expect that interfunctional meetings (e.g. discussions about market trends) are organized regularly.
8. In our SBU, we expect that market-related problems are mentioned directly and openly.
9. In our SBU, we expect the dissemination and storage of market intelligence.
10. In our SBU, the dissemination and storage of market intelligence are controlled.
11. In our SBU, we expect that quality is assessed by customers or, at least, from the customer's perspective.
12. In our SBU, task-related and social competencies of employees with customer contact are absolutely expected.
13. In our SBU, the competence of employees with customer contact (e.g. sales, customer service, reception) is controlled regularly.
14. In our SBU, we expect that customer requests are answered at once.
15. In our SBU, we expect that customer-related processes are increased in speed continuously.
16. In our SBU, the speed of customer-related processes is controlled regularly.
17. In our SBU, a quick response on market changes is expected.
18. In our SBU, every employee expects that customers are integrated in the planning of a new product or service program (e.g. by conducting interdisciplinary teamwork or focus groups).

19. In our SBU, the availability of market information in different functional areas (e.g. marketing, research and development) is controlled.
Norms: Original Scale Items from Homburg and Pflesser (2000) – Continued
20. In our SBU, the degree of coordination of decisions about marketing activities in different areas is controlled.
21. In our SBU, we expect that every employee feels responsible for the detection and solution of potential and actual customer problems.
22. In our SBU, every employee is expected to be highly responsible for the customers.
23. In our SBU, the individuality of each employee is viewed as a competitive advantage.
24. In our SBU, we accept that high-quality performance can be reached very individually and in many different ways.
25. In our SBU, a high involvement of the employees for the fulfilment of customer needs is expected.

Step 2: No explicit reason to eliminate any of Homburg and Pflesser’s (2000) original 25 items was identified.

Step 3: The following table highlights Market-Oriented values identified in the literature review, their corresponding norm item(s) from Homburg and Pflesser’s (2000) original scale (step 1) and the proposed action(s) that aim to reduce the overall length of the scale:

Values associated with Market Orientation and their corresponding Norm Item(s)		
Value (Section 2.6.1)	Corresponding Norm Item(s)	Proposed action to reduce the Overall Scale
Success	Items 1 and 2	Retain item 1 – easier for participants to understand than item 2
Innovativeness	Items 3, 4, 5 and 6	Retain item 5 – closely linked to corresponding value item and language is easier for participants to understand than the other three items

Flexibility	Items 3, 4 and 6	Retain item 3 – items 4 and, particularly, 6 pertain more to innovativeness than flexibility
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Values associated with Market Orientation and their corresponding Norm Item(s) – Continued		
Value (Section 2.6.1)	Corresponding Norm Item(s)	Proposed action to reduce the Overall Scale
Openness of Internal Communication	Items 7, 8, 9 and 10	These four items, particularly items 7, 8 and 9, can potentially be combined/reduced to form a single item
Quality	Items 11, 12 and 13	Retain item 11 – items 12 and 13 pertain more to competence
Competence	Items 12 and 13	Retain item 12 – easier for participants to understand than item 13
Speed	Items 14, 15, 16 and 17	Retain item 17 – it is felt that this item best captures “market-related speed” and is understandable for participants
Interfunctional Cooperation	Items 18, 19 and 20	Retain item 20 – it best conveys the concept of “Interfunctional Cooperation”
Responsibility of Employees	Items 21 and 22	Both items are very similar in nature; therefore, combine into a single item
Appreciation of Employees	Items 23, 24 and 25	Combine items 23 and 25 – it is felt that these two items better capture the concept of Market-Related Appreciation of Employees than item 24 does

Market as the Raison D'être	Not captured	New item required to capture this Norm
Collaboration	Item 20	Retain item 20
Respect/empathy/perspective taking	Items 11, 12, 21 and 23	Retain items, as combined they reflect this Value
Keep promises	Not captured	New item required to capture this Norm
Values associated with Market Orientation and their corresponding Norm Item(s) – Continued		
Value (Section 2.6.1)	Corresponding Norm Item(s)	Proposed action to reduce the Overall Scale
Openness	Items 7, 8, 9 and 10	Keep the item created earlier for Openness of Internal Communication, which is a combination of items 7, 8, 9 and 10
Trust	Not captured	New item required to capture this Norm

Step 4: As identified above, Homburg and Pflesser's (2000) items failed to capture norms that relate to the values of market as the raison d'être, keep promises, and trust (Gebhardt *et al.*, 2006).

None of these norms were captured in Homburg and Pflesser's (2000) original scale prior to combining and/or eliminating any of the original items.

Gebhardt *et al.* (2006, p. 42) provided statements that reflect "the behavioral norms emanating from each [of these] value[s]", as follows:

- Market as the raison d'être: "Every decision and action must consider how it affects the market."
- Keep promises: "Each employee is responsible for following through on commitments to others."
- Trust: "Trust that your fellow employees are telling the truth and will follow through on commitments." (Gebhardt *et al.*, 2006, p. 43)

Hence, these statements were used as a guide for creating items that captured these norms.

Step 5: Subsequent to completing Steps 1- 4 above, the scale was as follows:

Items used to measure Market-Oriented Norms	Value(s) related to each Norm Item
1. In our SBU, market performance (e.g. market share, customer satisfaction) is measured regularly.	Success
Items used to measure Market-Oriented Norms – Continued	Value(s) related to each Norm Item
2. In our SBU, we expect that new value-adding products and services are detected and developed permanently.	Innovativeness
3. In our SBU, we expect that generally accepted standardized programs are examined regularly to become more effective in serving our markets.	Flexibility
4. In our SBU, we expect regular meetings between several of our departments to openly discuss and record market-related trends and/or problems.	Openness of Internal Communication
5. In our SBU, we expect that quality is assessed by customers or, at least, from the customer's perspective.	Quality and Respect/Empathy/Perspective Taking
6. In our SBU, task-related and social competencies of employees with customer contact are absolutely expected.	Competence and Respect/Empathy/Perspective Taking
7. In our SBU, a quick response on market changes is expected.	Speed
8. In our SBU, the degree of coordination of decisions about marketing activities in different areas is controlled.	Interfunctional Cooperation and Collaboration
9. In our SBU, we expect that every employee feels responsible for the customer, particularly for the detection and solution of their potential and actual problems.	Responsibility of the Employees and Respect/Empathy/Perspective Taking
10. In our SBU, the individuality of each employee is viewed as a competitive advantage; therefore, our employees are essential for the fulfilment of our customers' needs.	Appreciation of the Employees and Respect/Empathy/Perspective Taking
11. In our SBU, every decision and action must consider how it affects the market.	Market as the Raison D'être

12. In our SBU, each employee is responsible for following through on commitments to others.	Keep promises
13. In our SBU, we trust that our fellow employees are telling the truth and will follow through on commitments.	Trust

Note: Grey highlight indicates that the item was adapted from Gebhardt *et al.* (2006, p. 42) rather than Homburg and Pflesser (2000)

All of the above thirteen items were determined to be necessary for the scale and, thus, were retained.

Appendix 9: Seven Step Development Process for the Market-Oriented Artifacts Scale

STEP 1	List the original scale items for Market -Oriented artifacts according to Homburg and Pflesser (2000).
STEP 2	Determine if there is any explicit reason to eliminate any of the items identified in step 1 (e.g. not applicable in an Irish context).
STEP 3	List the categories of artifacts according to the literature review and identify their corresponding item(s) as listed in step 1.
STEP 4	Identify what initial action can be taken in order to reduce the overall length of the scale.
STEP 5	Determine whether or not there are any gaps between the literature review and the scale as it now stands. If so, proceed to step 6. If not, proceed to step 7.
STEP 6	<p>If a gap is identified, one of three options can be taken. These options are listed in preferential order i.e. option 2 should only be considered if option 1 cannot be taken, and so on:</p> <ol style="list-style-type: none">1. Refer back to Homburg and Pflesser's (2000) original items in step 1 and determine whether or not any of the items eliminated in step 2 and/or step 4 had originally captured the missing artifact. If so, add the eliminated item(s) to the scale;2. Refer back to the study from which the missing artifact originated and identify whether or not an appropriate item has been provided; if so, add it to the scale; or3. Create a new item that captures the missing artifact.
STEP 7	Review the scale as it now stands; determine whether it is necessary to retain all items.

Appendix 10: Development of the Scale used to measure Market-Oriented Artifacts Step 1:

Artifacts: Original Scale Items from Homburg and Pflesser (2000)
1. Exemplary customer-oriented behaviour of an executive (e.g. founder, chief executive, manager). (Indicate frequency)
2. Communication problems among different areas that negatively affect market orientation. (Indicate frequency)
3. Problems of the SBU because of a low level of market orientation. (Indicate frequency)
4. Unwritten laws (hidden rules) in the SBU that prevent market orientation. (Indicate frequency)
5. In our SBU, buildings and the exterior complex are styled very clearly so that visitors/customers find their ways easily.
6. In our SBU, the customer reception is well organised and clearly styled.
7. In our SBU, meeting rooms and offices are built in a style that supports communication.
8. In our SBU, attractive meeting and discussion areas (e.g. cafeterias) exist where information can be exchanged informally.
9. In our SBU, employees who are customer-oriented in an exemplary way are rewarded regularly.
10. In our SBU, we regularly organize events for important customers.
11. In our SBU, we receive customers very individually (e.g. by specifically trained employees, by a written welcome on a blackboard at the reception).
12. In our SBU, we regularly organize special sales events for customers for the delivery of products or services.
13. "If we now try to look at this problem from the customer's point of view . . ." (Indicate frequency)
14. "What is the value added to the customer by doing that?" (Indicate frequency)
15. "Can we offer the customers what they are expecting from us?"
16. "This idea sounds very interesting, but it is not realistic for our SBU."
17. "I know very well what the customers desire."
18. "I am not interested in what competitor XY plans! We need to . . ."

19. “Why should we change something in this context? I think it still works fine.”

Step 2: No explicit reason to eliminate any of Homburg and Pflesser’s (2000) original nineteen items was identified.

Steps 3 and 4: The following table highlights the four categories of Market-Oriented artifacts identified in the literature review, their corresponding artifact item(s) from Homburg and Pflesser’s (2000) original scale (step 1) and the proposed action(s) that aim to reduce the overall length of the scale:

Categories of Artifacts and their Corresponding Item(s)		
Category of Artifacts (Section 2.6.3)	Corresponding Item(s)	Proposed action to reduce the Overall Scale
Stories	Items 1, 2, 3 and 4	Items 2 and 4 are similar in nature; therefore, combine to form a single item
Arrangements	Items 5, 6, 7 and 8	Items 7 and 8 are similar in nature; therefore, combine to form a single item
Rituals	Items 9, 10, 11 and 12	Items 10 and 12 are similar in nature; therefore, combine to form a single item
Language	Items 13, 14 and 15 – Market-Oriented Items 16, 17, 18 and 19 – non-Market-Oriented	All items differ; therefore, retain all for now

Consequently, the scale was as follows:

Stories
1. Exemplary customer-oriented behaviour of an executive (e.g. founder, chief executive, manager). (Indicate frequency)
2. Factors (e.g. communication barriers, unwritten rules) that negatively affect and/or prevent market orientation. (Indicate frequency)
3. Problems of the SBU because of a low level of market orientation. (Indicate frequency)
Arrangements

4. In our SBU, buildings and the exterior complex are styled very clearly so that visitors/customers find their ways easily.
Arrangements – Continued
5. In our SBU, the customer reception is well organised and clearly styled.
6. In our SBU, meeting and discussion areas (e.g. cafeterias, offices, meeting rooms) are built in a style that supports communication.
Rituals
7. In our SBU, employees who are customer-oriented in an exemplary way are rewarded regularly.
8. In our SBU, we regularly organise special events (e.g. sales events) for our important customers.
9. In our SBU, we receive customers very individually (e.g. by specifically trained employees, by a written welcome on a blackboard at the reception).
Language
10. “If we now try to look at this problem from the customer’s point of view . . .” (Indicate frequency)
11. “What is the value added to the customer by doing that?” (Indicate frequency)
12. “Can we offer the customers what they are expecting from us?”
13. “This idea sounds very interesting, but it is not realistic for our SBU.”
14. “I know very well what the customers desire.”
15. “I am not interested in what competitor XY plans! We need to . . .”
16. “Why should we change something in this context? I think it still works fine.”

Step 5: No gaps between the literature and the above artifacts scale were identified. However, with regard to arrangements, the researcher was aware that the customer may not necessarily visit all organisations e.g. the organisation may only have an online presence for customers. Therefore, an item needed to be added to the scale in order to address this gap. Hence, it was necessary to proceed to step 6.

Step 6: No items from Homburg and Pflesser’s (2000) original scale captured the gap identified in step 5. Furthermore, the researcher did not find this gap addressed in the

literature. Therefore, using items 4 and 5 (above) as a guide, the researcher created and added a new item to the scale as follows:

“In our SBU, our online presence (e.g. company website, social media) is styled very clearly so that visitors/customers find their ways easily”.

Step 7: Upon review of the refined scale (step 4), the following changes were made:

Stories: Items 2 and 3 both represented “stories about problems with market orientation” (Homburg and Pflesser, 2000, p. 459). However, item 3 was determined to be more reflective of the concept of problems **because of** low levels of market orientation, rather than problems **with** market orientation. Hence, item 3 was eliminated from the scale.

Arrangements: All items were retained.

Rituals: Item 9 was eliminated from the scale as it was considered to possess a weaker link to the literature review and was also considered to be less understandable for participants than items 7 and 8.

Language: Items 10, 11 and 12 represented “market-oriented language” while items 13, 14, 15 and 16 represented “non-market-oriented language” (Homburg and Pflesser, 2000, p. 460). In order to reduce the overall length of the scale, only two items for each of these categories were retained. Similarly to Byrne (2014), items 10 and 12 were retained as it was felt that these best represent market-oriented language. Items 14 and 15 were also retained as it was felt that these two items best represented non-market-oriented language.

Subsequently, the scale was as follows:

Stories
1. Exemplary customer-oriented behaviour of an executive (e.g. founder, chief executive, manager). (Indicate frequency)
2. Factors (e.g. communication barriers, unwritten rules) that negatively affect and/or prevent market orientation. (Indicate frequency)
Arrangements
3. In our SBU, buildings and the exterior complex are styled very clearly so that visitors/customers find their ways easily.

4. In our SBU, the customer reception is well organised and clearly styled.
5. In our SBU, our online presence (e.g. company website, social media) is styled very clearly so that visitors/customers find their ways easily.
6. In our SBU, meeting and discussion areas (e.g. cafeterias, offices, meeting rooms) are built in a style that supports communication.

Rituals
7. In our SBU, employees who are customer-oriented in an exemplary way are rewarded regularly.
8. In our SBU, we regularly organise special events (e.g. sales events) for our important customers.
Language
9. “If we now try to look at this problem from the customer’s point of view . . .” (Indicate frequency)
10. “Can we offer the customers what they are expecting from us?”
11. “I know very well what the customers desire.”
12. “I am not interested in what competitor XY plans! We need to . . .”

Note: Grey highlight indicates that the item was created by the researcher, rather than by Homburg and Pflesser (2000)

All of the above twelve items were determined to be necessary for the scale and, thus, were retained.

Appendix 11: Five Step Development Process for Company Demographics

STEP 1 Identify studies in the areas of Organisational Culture and Market Orientation that sought demographic information from participants.

STEP 2 List the demographic information sought by the studies identified in step 1. Record any significant points that may help to determine whether or not the same information should be sought in this study.

STEP 3 Using step 2 as a guide, determine whether each piece of demographic information piece of research is considered to be relevant or irrelevant to this particular step.

STEP 4 Determine whether or not there is any additional demographic information that hasn't been identified in the above steps but should be sought for the purpose of this study.

STEP 5

Decide what would be the best way to ask respondents for the desired information e.g. use closed or open ended questions.

Appendix 12: Development of Company Demographics

Steps 1 and 2:

Researcher(s)	Demographic Information sought	Additional Point(s) to note
Homburg and Pflesser (2000)	Financial performance over last three years	An aspect of their study focused on performance outcomes
Harris (2001)	Turnover Date of registration No. of employees	Study was only interested in companies with £500,000+ annual turnover, 5 years+ in business and 300+ employees
González-Benito and González-Benito (2005)	Industry	n/a
Bonavia <i>et al.</i> (2009)	Sector Gender Length of time in current position No. of years' experience in the industry No. of years with present company	n/a

Gjerald and Øgaard (2012)	Age Gender No. of years with present company No. of years' experience in the industry Position (full-time versus part-time)	Study focused on individual employee level
Byrne (2014)	Company name Job title	Used a case study approach as opposed to a survey approach

Step 3:

The following demographic information has been determined to be irrelevant to this study:

Demographic Information	Reason(s) why Irrelevant to this study
Financial performance	Not focusing on the Market Orientation - Performance relationship; and Could be considered very confidential and, thus, lower the overall response rate
Gender	Study is focusing on organisational level as opposed to individual level
Age	Study is focusing on organisational level as opposed to individual level

Hence, the above information will not be sought in this study.

The following demographic information has been determined to be relevant to this study:

Demographic Information	Reason(s) why Relevant to this study
Industry/Sector	Provides insight into the different types of companies that have participated. May also help to identify dominant sector(s) and/or allow the researcher to make comparisons

Date of registration	Literature suggests that the longer an organisation is in business, the more likely it is to have an established culture (Harris, 2001); therefore, helps to assess this point. Additionally, may allow comparisons to be made between older versus newer companies, depending on the ratio obtained
No. of employees	Provides insight into the different types of companies that have participated. Additionally, may allow comparisons to be made between larger versus smaller companies, depending on the ratio obtained
Job title/position	Verifies who completed the questionnaire
No. of years with present company	Helps to determine whether or not the respondent is likely to have a good/developed understanding of the company's culture

Hence, the above demographic information will be sought.

Step 4: No additional demographic information has been identified as being required for this study.

Step 5:

Demographic Information Required	How to ask Respondents
Industry/Sector	Answers will be categorised for analysis; therefore, precategorise in order to allow for easier/more efficient data input and analysis. Use CSO's (2014) classification as a guide (i.e. NACE Rev. 1.1 and NACE Rev. 2 – European standards). Retain common categories e.g. Agriculture. Omit niche categories e.g. Extra-territorial organisations and bodies. Include an “other – please specify” option to cover such omissions
Date of registration	Re-word to ask how long the organisation is in business – less formal and more understandable for participants than date of registration. Pre-categorise in order to allow for easier/more efficient data input and analysis. Categorise into decades – easy for respondents to understand and less thinking for them to do than if, for example, it was categorised as 1-5years; 6-10years etc.

No. of employees	Pre-categorise in order to allow for easier/more efficient data input and analysis. Categorise according to Enterprise Ireland’s (2014) SME definition, which is in line with the EU definition: Less than 10 (micro); 10-49 (small); 50-249 (medium); 250+ (large)
Job title/position	Pre-categorise in order to allow for easier/more efficient data input and analysis. Develop categories based on who was targeted in the studies identified in Table 3.9 – these are likely to be the respondents targeted in this study; hence, the majority of respondents should fit into these categories. Include an “other – please specify” option to cover participants who do not fit into these categories
No. of years with present company	Use the same categories as used for “Date of Registration” – same points apply

Appendix 13: Changes made to Scale Items prior to Pre-Test and Pilot Test Procedures

Generation of Market Intelligence	
Original Item	Initial Change(s)
In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.	Remove “In this business unit” and begin the scale with “In our company” followed by the relevant items
We are slow to detect changes in our customers’ product preferences.	Include “and/or services” after product. Soften the negativity of the reverse coding to try to avoid biased answers e.g. “we are not always quick . . .”
We poll end users at least once a year to assess the quality of our products and services.	Change “Poll end users” to language that is likely to be clearer for the respondent e.g. “survey customers”

We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation).	Simplify the language; change “fundamental shifts” to “crucial changes”. Soften the negativity of the reverse coding to try to avoid biased answers e.g. “we are not always quick to detect . . .”
We collect industry information by informal means (e.g. lunch with industry friends, talks with trade partners).	“industry friends” and “trade partners” are not common Irish terms; therefore, change to “industry contacts”
In our business unit, intelligence on our competitors is generated independently by several departments.	“Competitors” is quite narrow. Intelligence generation is a much broader concept as per the literature review; therefore, change to “market intelligence” and provide competitors as an example. Remove the word “independently”

Dissemination of Market Intelligence	
Original Item	Initial Change(s)
We have interdepartmental meetings at least once a quarter to discuss market trends and developments.	Make “interdepartmental” more transparent e.g. use “several of our departments” instead. Also change “once a quarter” to “regular”, as no exact timeframe was identified in the literature

Dissemination of Market Intelligence – Continued	
Original Item	Initial Change(s)
When something important happens to a major customer or market, the whole business unit knows about it within a short period.	Change “the whole business unit” to “the whole company” – more suited to an Irish context/terminology
Data on customer satisfaction are disseminated at all levels on a regular basis.	Dissemination of Market Intelligence is much broader than “customer satisfaction”; therefore, change it to “market intelligence” and give an example. Remove “data on” as it is not necessary – item makes more sense without it. Change “are” to “is”

<p>A lot of informal “hall talk” in this business unit concerns our competitors’ tactics or strategies.</p>	<p>Change “hall talk” to “communication” and give an example – more suited to an Irish context/terminology Again, dissemination is a much broader concept than indicated in this statement; therefore, change “competitors’ tactics or strategies” to “business environment” and give an example</p>
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Responsiveness to Market Intelligence	
Original Item	Initial Change(s)
<p>We periodically review our product development efforts to ensure that they are in line with what customers want.</p>	<p>Change “periodically” to “regularly” to keep in line with earlier word changes. Add “and/or service” after “product”</p>
<p>Several departments get together periodically to plan a response to changes taking place in our business environment.</p>	<p>Again, change “periodically” to “regularly” to keep in line with earlier word changes</p>
<p>The activities of the different departments in this business unit are well coordinated.</p>	<p>This item does not fully capture the concept of implementation of market intelligence; therefore, it will require major word changes</p>
<p>When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.</p>	<p>“Concerted” may not be understood by all respondents; therefore, replace it with “coordinated”. The latter word is more in line with the literature</p>

Values	
Original Item	Initial Change(s)
<p>In our SBU, we place great value on performance-oriented employees.</p>	<p>Remove “In our SBU” from each of the individual scale items. Under the scale heading, insert “In our company:” Values refer to a group’s sense of how they think or feel something ought to be, as opposed to how it actually is (Schein, 2010). Therefore, where possible, adapt items such as this one to reflect this point e.g. use words such as “aspire”, “aim”, “endeavour”, “seek” and/or “strive”</p>

In our SBU, we are very open toward innovations (e.g. related to products or processes) and creativity.	Change so that the item is reverse coded – ensure negativity is kept as soft as possible to try to avoid biased answers. Again, include a word such as “strive” as per the item above. Remove “e.g.” as this is more an explanation than an example
In our SBU, we rate the flexibility of the employees very highly.	Again, change so that the item reflects how the company thinks/feels it should be as opposed to how it actually is. Change “the employees” to “our employees”
In our SBU, we aspire to open, proactive communication.	Value being captured is “openness of internal communication”; therefore, change wording to convey this e.g. add the word(s) “internal” or “between all of our departments”
In our SBU, error-free, high-quality work results are valued very highly.	Again, change so that the item reflects how the company thinks/feels it should be as opposed to how it actually is
In our SBU, we aspire to a maximum of qualification and competence in the subject.	Simplify wording to make it more understandable e.g. change “a maximum” to “achieve the highest level”. Change “in the subject” to “in our field”
In our SBU, we aspire to speed in the work processes.	Simplify e.g. we aim to carry out our work in a prompt manner
In our SBU, teamwork and cooperation among different functions (e.g. marketing, research and development) is valued very highly.	“We believe that . . .” Change “functions” to “departments”
Values – Continued	
Original Item	Initial Change(s)
In our SBU, the responsibility of the single employee is stressed very strongly.	Re-word the item so that it is reverse coded. Ensure that negativity is kept as soft as possible to try to avoid biased answers
In our SBU, the appreciation of the single employee is stressed very strongly.	Change to include word such as “strive” e.g. “We strive to emphasise our appreciation of each individual employee”

In our SBU, we place great value on a feeling of belonging among the employees.	Change to include word such as “endeavour” e.g. “We endeavour to place great value on a feeling of belonging among our employees”
In our SBU, we aspire to serve the market.	Change to “main aspiration” as measuring “Market as the Raison D’être”. Expand on “serve the market” to make it more understandable/meaningful
In our SBU, every employee aspires to do his or her part.	Change “every” to “each individual” in order to conform to earlier changes. Change “aspires” to “strives”
In our SBU, everyone is committed to achieving the same goal and, thus, we can have positive expectations about their intentions and behaviours.	Change “and, thus” to “therefore”. Add in “we feel that we can . . .”

Norms	
Original Item	Initial Change(s)
In our SBU, market performance (e.g. market share, customer satisfaction) is measured regularly.	Remove “In our SBU” from each of the individual scale items. Under the scale heading, insert “In our company we expect that:”
In our SBU, we expect that new valueadding products and services are detected and developed permanently.	Simplify: change to “new products and/or services which add value for our customers are frequently identified and developed”. Remove “permanently” as not all new products/services may work well; therefore, they should be subject to review rather than be a permanent fixture

Norms – Continued	
Original Item	Initial Change(s)

<p>In our SBU, we expect that generally accepted standardized programs are examined regularly to become more effective in serving our markets.</p>	<p>Simplify: change “standardized programs” to “standardised practices and procedures” – more understandable. Change “markets” to “customers” – reflects literature and more understandable for participants</p>
<p>In our SBU, we expect regular meetings between several of our departments to openly discuss and record market related trends and/or problems.</p>	<p>Change to “regular meetings are held between. . .” – makes the item more complete</p>
<p>In our SBU, we expect that quality is assessed by customers or, at least, from the customer’s perspective.</p>	<p>Change “customer’s perspective” to “customers’ perspective”</p>
<p>In our SBU, task-related and social competencies of employees with customer contact are absolutely expected.</p>	<p>Simplify e.g. “who have contact with customers have all of the necessary work and social skills in doing so” – similar to Byrne (2014)</p>
<p>In our SBU, a quick response on market changes is expected.</p>	<p>Reverse code the item: We cannot always respond quickly to market changes Give an example: competitors’ actions</p>
<p>In our SBU, the degree of coordination of decisions about marketing activities in different areas is controlled.</p>	<p>Want this item to capture “market-related interfunctional cooperation”. More to do with “market information” than “marketing activities”; therefore, change to: “Decisions based on our market intelligence (e.g. customer satisfaction) are made in a coordinated manner by several of our departments”</p>
<p>In our SBU, we expect that every employee feels responsible for the customer, particularly for the detection and solution of their potential and actual problems.</p>	<p>Change “every” to “each individual” and “the customer” to “our customers” to stay in line with earlier word changes. Change “the detection and solution of” to “identifying and solving” – simplifies the statement</p>
<p>In our SBU, the individuality of each employee is viewed as a competitive advantage; therefore, our employees are essential for the fulfilment of our customers’ needs.</p>	<p>First half and second half of the item indicate the same thing; therefore, remove the first half and retain the second half – more understandable</p>

Norms – Continued	
Original Item	Initial Change(s)
In our SBU, every decision and action must consider how it affects the market.	Change to “We always consider how our decisions and actions will affect our market, particularly our customers” – more in line with previous changes
In our SBU, each employee is responsible for following through on commitments to others.	Change “each” to “each individual” – in line with previous changes. Remove “to others” at end as it’s not necessary
In our SBU, we trust that our fellow employees are telling the truth and will follow through on commitments.	Remove “we trust that our fellow employees” and replace with “Our employees”. Change “telling the truth” to “honest” – more subtle

Artifacts	
Original Item	Initial Change(s)
All of the items that follow.	Rather than using the frequency scale that Homburg and Pflesser (2000) did, adapt to use Likert statements that can be measured using the same Likert scale as for behaviours, values and norms. This will facilitate easier and more uniformed data analysis
Exemplary customer-oriented behaviour of an executive (e.g. founder, chief executive, manager).	Change “oriented” to “focused” and “an executive” to “management” – less American/more suited to an Irish context. Change “exemplary” to “exceptional” – more understandable
Factors (e.g. communication barriers, unwritten rules) that negatively affect and/or prevent market orientation.	Change “market orientation” to “customer focused” – in line with the item above and more understandable for participants. Move e.g. to the end of the statement – clearer to read

In our SBU, buildings and the exterior complex are styled very clearly so that visitors/customers find their ways easily.	Remove “In our SBU” from each of the individual scale items. Under the scale heading, insert “In our company:” Change “exterior complex” to “exterior surroundings” and “styled” to “laid out” – less American/more suited to an Irish context
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Artifacts – Continued	
Original Item	Initial Change(s)
In our SBU, the customer reception is well organised and clearly styled.	Again change “styled” to “laid out”– less American/more suited to an Irish context. Change “customer reception” to “reception area”
In our SBU, our online presence (e.g. company website, social media) is styled very clearly so that visitors/customers find their ways easily.	Change from “is styled” as far as “easily” to “is designed to allow easy navigation and browsing for customers” – more suited to the context of the item
In our SBU, meeting and discussion areas (e.g. cafeterias, offices, meeting rooms) are built in a style that supports communication.	Change “cafeterias” to “canteens” – less American/more suited to an Irish context. Change “built in a style that supports” to “designed to support” – more concise and clearer flow
In our SBU, employees who are customer-oriented in an exemplary way are rewarded regularly.	Change “oriented” to “focused” and “exemplary” to “exceptional” – more understandable and in line with previous changes
In our SBU, we regularly organise special events (e.g. sales events) for our important customers.	Remove the example, “special” and “important” – not necessary
“If we now try to look at this problem from the customer’s point of view . . .”	Remove first half of statement and start with “from the customer’s . . .”. Add “is a statement, or similar to a statement, that we often hear” at the end to make it a Likert-type item
“Can we offer the customers what they are expecting from us?”	Change “the” to “our”. Remove “from us” – not necessary. Add “is a statement, or similar to a statement, that we often hear” at the end to make it a Likert-type item

<p>“I know very well what the customers desire”</p>	<p>Change “the” to “our” – in line with earlier changes. Change “desire” to “want” and “very well” to “exactly” – less formal given that it’s representing a spoken statement. Add “is a statement, or similar to a statement, that we often hear” at the end to make it a Likert-type item</p>
<p>“I am not interested in what competitor XY plans! We need to . . .”</p>	<p>Add “is a statement, or similar to a statement, that we often hear” at the end to make it a Likert-type item</p>

Appendix 14: Questionnaire Version 1 (Pre-Test Version)

Creating a Customer-Focused Organisational Culture Research by:

Catherine Tiernan, Postgraduate Researcher, Institute of Technology Carlow, Wexford Campus

A strong Customer-Focused Culture has been proven to lead to a positive organisational performance. This research aims to understand how organisations can go about creating such a Culture.

This questionnaire does not seek any sensitive or confidential information about your company. All data collected will be used for the sole purpose of this study and all results will be anonymised. Completion of the questionnaire will take just a few minutes of your time, my appreciation for which will be expressed through my pledge to make a charitable donation to the Irish Cancer Society.

Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns.

Please indicate your level of agreement with the following statements by circling the most accurate number for each one:

		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
How we collect, communicate and act on information								
In Our Company:								
1.	We meet with customers at least once a year to find out what products or services they will need in the future.	1	2	3	4	5	6	7
2.	We are not always quick to detect changes in our customers' product and/or service preferences.	7	6	5	4	3	2	1
3.	We survey customers at least once a year to assess the quality of our products and/or services.	1	2	3	4	5	6	7
4.	We are not always quick to detect crucial changes in our industry (e.g. competition, technology and/or regulation).	7	6	5	4	3	2	1
5.	We collect industry information by informal means (e.g. lunch and/or talks with our industry contacts).	1	2	3	4	5	6	7
6.	Market intelligence (e.g. customers, competitors, technology) is generated by several of our departments.	1	2	3	4	5	6	7
7.	We have regular meetings involving several of our departments to discuss market trends and developments.	1	2	3	4	5	6	7
8.	When something important happens to a major customer or market, the whole company knows about it within a short period.	1	2	3	4	5	6	7
9.	Market intelligence (e.g. customers, competitors, technology) is communicated at all levels within our company on a regular basis.	1	2	3	4	5	6	7
10.	A lot of informal communication (e.g. conversations during break times) concerns our business environment (e.g. customers, competitors, technology).	1	2	3	4	5	6	7
11.	We regularly review our product and/or service development efforts to ensure that they are in line with what customers want.	1	2	3	4	5	6	7
12.	Several of our departments get together regularly to plan a response to changes taking place in our business environment.	1	2	3	4	5	6	7
13.	When implementing plans based on our market intelligence (e.g. customers, competitors, technology), our different departments carry out their activities in a coordinated manner.	1	2	3	4	5	6	7
14.	When we find that customers would like us to modify a product or service, the departments involved make coordinated efforts to do so.	1	2	3	4	5	6	7
Our company's aspirations and values								
In Our Company:								
15.	We aim to place great value on performance-oriented employees.	1	2	3	4	5	6	7
16.	We are not always open toward innovations and creativity related to products and/or processes.	7	6	5	4	3	2	1
17.	We feel that the flexibility of our employees should be rated very highly.	1	2	3	4	5	6	7

Our company's aspirations and values contd.		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
18.	We aspire to open, proactive communication between all of our departments.	1	2	3	4	5	6	7
19.	We feel that error-free, high quality work results should be valued very highly.	1	2	3	4	5	6	7
20.	We aspire to achieve the highest level of qualification and competence in our field.	1	2	3	4	5	6	7
21.	We aim to carry out our work in a prompt manner.	1	2	3	4	5	6	7
22.	We believe that teamwork and cooperation among our various departments should be valued very highly.	1	2	3	4	5	6	7
23.	The responsibility of each individual employee is not always emphasised.	7	6	5	4	3	2	1
24.	We strive to emphasise our appreciation of each individual employee.	1	2	3	4	5	6	7
25.	We endeavour to place great value on a feeling of belonging among our employees.	1	2	3	4	5	6	7
26.	Our main aspiration is to deliver the best possible service and/or solutions to our market (e.g. customers).	1	2	3	4	5	6	7
27.	Each individual employee strives to do his or her part.	1	2	3	4	5	6	7
28.	Everyone is committed to achieving the same goal therefore, we feel that we can have positive expectations about their intentions and/or behaviours.	1	2	3	4	5	6	7

Expectations about our routines and practices		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company We Expect That:								
29.	Market performance (e.g. market share, customer satisfaction) is measured regularly.	1	2	3	4	5	6	7
30.	New products and/or services which add value for our customers are frequently identified and developed.	1	2	3	4	5	6	7
31.	Standardised practices and procedures are reviewed regularly to improve efficiency in serving our customers.	1	2	3	4	5	6	7
32.	Regular meetings are held between several of our departments to openly discuss and record market related trends and/or problems.	1	2	3	4	5	6	7
33.	Quality is assessed by customers or, at least, from the customers' perspective.	1	2	3	4	5	6	7
34.	Employees who have contact with customers have all of the necessary work and social skills in doing so.	1	2	3	4	5	6	7
35.	We cannot always respond quickly to market changes (e.g. competitors' actions).	7	6	5	4	3	2	1
36.	Decisions based on our market intelligence (e.g. customer satisfaction) are made in a coordinated manner by several of our departments.	1	2	3	4	5	6	7
37.	Each individual employee feels responsible to our customers, particularly for the detection and solution of their potential and actual problems.	1	2	3	4	5	6	7
38.	Our employees are essential to us in fulfilling our customers' needs.	1	2	3	4	5	6	7
39.	We always consider how our decisions and actions will affect our market, particularly our customers.	1	2	3	4	5	6	7
40.	Each individual employee is responsible for following through on commitments.	1	2	3	4	5	6	7
41.	Our employees are honest and will follow through on commitments.	1	2	3	4	5	6	7



Our company's observable and visible aspects		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
42.	Our buildings and their exterior surroundings are laid out very clearly so that visitors/customers can easily find their way.	1	2	3	4	5	6	7
43.	Our reception area is well organised and clearly laid out.	1	2	3	4	5	6	7
44.	Our online presence (e.g. company website, social media) is designed to allow easy navigation and browsing for customers.	1	2	3	4	5	6	7
45.	Our meeting and discussion areas (e.g. canteens, offices, meeting rooms) are designed to support communication.	1	2	3	4	5	6	7
46.	Employees who are customer-focused in an exceptional way are rewarded regularly.	1	2	3	4	5	6	7
47.	We regularly organise events for our customers.	1	2	3	4	5	6	7
48.	We often hear about exceptional customer-focused behaviour of management (e.g. founder, chief executive, manager).	1	2	3	4	5	6	7
49.	We often hear about factors that negatively affect and/or prevent us from being customer focused (e.g. communication barriers, unwritten rules).	7	6	5	4	3	2	1
50.	"From the customer's point of view . . ." is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
51.	"Can we offer our customers what they are expecting?" is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
52.	"I know exactly what our customers want" is a statement, or similar to a statement, that we often hear.	7	6	5	4	3	2	1
53.	"I am not interested in what competitor XY plans! We need to . . ." is a statement, or similar to a statement, that we often hear.	7	6	5	4	3	2	1

Company information

The following questions aim to gain a broad overview of your company and do not seek any sensitive or confidential information. Please tick the most appropriate box for each one as applicable to you and your organisation:

54. What industry/sector is your company in?			
Agriculture <input type="checkbox"/>	Environment and Waste Management <input type="checkbox"/>	Energy Supply <input type="checkbox"/>	
Trade Services <input type="checkbox"/>	Computer, Internet and Software <input type="checkbox"/>	Communication and Information <input type="checkbox"/>	
Financial Services <input type="checkbox"/>	Insurance <input type="checkbox"/>	Real Estate <input type="checkbox"/>	
Motor Trade <input type="checkbox"/>	Transportation and Storage <input type="checkbox"/>	Wholesale and Retail of Goods <input type="checkbox"/>	
Hospitality & Leisure <input type="checkbox"/>	Education <input type="checkbox"/>	Health and Social Work <input type="checkbox"/>	
Legal Services <input type="checkbox"/>	Manufacturing <input type="checkbox"/>	Construction <input type="checkbox"/>	
Other (Please specify) <input type="checkbox"/>	_____		
55. What is your position within the company?			
Owner Manager <input type="checkbox"/>	CEO <input type="checkbox"/>	Marketing Manager <input type="checkbox"/>	Sales Manager <input type="checkbox"/>
General Manager <input type="checkbox"/>	Other (Please specify) <input type="checkbox"/> _____		
56. How long has your company been in business?			
Less than 1 year <input type="checkbox"/>	1-10 years <input type="checkbox"/>	11-20 years <input type="checkbox"/>	21-30 years <input type="checkbox"/>
31-40 years <input type="checkbox"/>	41years + <input type="checkbox"/>		
57. How many people are employed in your company?			
Less than 10 <input type="checkbox"/>	10-49 <input type="checkbox"/>	50-249 <input type="checkbox"/>	250+ <input type="checkbox"/>
58. How long have you have been employed with your present company?			
Less than 1 year <input type="checkbox"/>	1-10 years <input type="checkbox"/>	11-20 years <input type="checkbox"/>	21-30 years <input type="checkbox"/>
31-40 years <input type="checkbox"/>	41years + <input type="checkbox"/>		

Sincere thanks for taking the time to complete this questionnaire.

All data will be used for the sole purpose of this study. Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns



Appendix 15: Questionnaire Version 2 (Pilot Test Version)

Creating a Customer-Focused Organisational Culture Research by:

Catherine Tiernan, Postgraduate Researcher, Institute of Technology Carlow, Wexford Campus

A strong customer-focused culture has been proven to lead to a positive organisational performance. This research aims to understand how organisations can go about creating such a culture.

This questionnaire does not seek any sensitive or confidential information about your company. All data collected will be used for the sole purpose of this study and all responses will be treated in the strictest of confidence; no person or company will be identified. Completion of this questionnaire will take just a few minutes of your time.

Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns.

Please read the following statements and circle the appropriate number that best indicates your level of agreement with each one. Please circle just *one number per statement*.

How we collect, communicate and act on information		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
1.	We meet with customers at least once a year to find out what products or services they will need in the future.	1	2	3	4	5	6	7
2.	We are not always quick to detect changes in our customers' product and/or service preferences.	1	2	3	4	5	6	7
3.	We survey customers at least once a year to assess the quality of our products and/or services.	1	2	3	4	5	6	7
4.	We are not always quick to detect crucial changes in our industry (e.g. competition, technology and/or regulation).	1	2	3	4	5	6	7
5.	We collect industry information by informal means (e.g. lunch and/or talks with our industry contacts).	1	2	3	4	5	6	7
6.	Market intelligence (e.g. regarding customers, competitors, technology) is generated by multiple departments.	1	2	3	4	5	6	7
7.	We have regular meetings involving co-workers from multiple departments to discuss market trends and developments.	1	2	3	4	5	6	7
8.	When something important happens to a major customer or market, the whole company knows about it within a short period.	1	2	3	4	5	6	7
9.	Market intelligence (e.g. regarding customers, competitors, technology) is communicated at all levels on a regular basis.	1	2	3	4	5	6	7
10.	A lot of informal communication (e.g. conversations during break times) is about our business environment (e.g. customers, competitors, technology).	1	2	3	4	5	6	7
11.	We regularly review our product and/or service development efforts to ensure that they are in line with what customers want.	1	2	3	4	5	6	7
12.	Co-workers from multiple departments get together regularly to plan a response to changes taking place in our business environment (e.g. regarding customers, competitors, technology).	1	2	3	4	5	6	7
13.	When implementing plans based on our market intelligence (e.g. regarding customers, competitors, technology), our departments carry out their activities in a coordinated manner.	1	2	3	4	5	6	7
14.	When we find that customers would like us to modify a product or service, the departments involved make a coordinated effort to do so.	1	2	3	4	5	6	7

Our company's aspirations and values		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
15.	We aim to place great value on performance-oriented employees.	1	2	3	4	5	6	7
16.	We are not always open towards innovations and creativity related to products and/or processes.	1	2	3	4	5	6	7
17.	We feel that the flexibility of our employees should be rated very highly.	1	2	3	4	5	6	7
18.	We aspire to open and proactive communication between our departments.	1	2	3	4	5	6	7
19.	High quality work is greatly valued.	1	2	3	4	5	6	7
20.	We aspire to achieve the highest level of qualification and competence in our field.	1	2	3	4	5	6	7
21.	We aim to carry out our work in a prompt manner.	1	2	3	4	5	6	7
22.	We believe that teamwork and cooperation amongst our departments should be valued very highly.	1	2	3	4	5	6	7
23.	The responsibility of each individual employee is not always emphasised.	1	2	3	4	5	6	7
24.	We strive to emphasise our appreciation of each individual employee.	1	2	3	4	5	6	7
25.	We endeavour to place great value on a feeling of belonging among our employees.	1	2	3	4	5	6	7
26.	Our main aspiration is to deliver the best possible service and/or solutions to our market (e.g. customers).	1	2	3	4	5	6	7
27.	Each individual employee strives to do his or her part.	1	2	3	4	5	6	7
28.	We feel that we can have positive expectations about our co-workers' intentions and/or behaviours.	1	2	3	4	5	6	7

Expectations about our routines and practices		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company We Expect That:								
29.	Market performance (e.g. market share, customer satisfaction) is measured regularly.	1	2	3	4	5	6	7
30.	New products and/or services which add value for our customers are frequently identified and developed.	1	2	3	4	5	6	7
31.	Standardised practices and procedures are reviewed regularly to improve efficiency in serving our customers.	1	2	3	4	5	6	7
32.	Regular meetings are held between co-workers from multiple departments to openly discuss and record market related trends and/or problems.	1	2	3	4	5	6	7
33.	Quality is assessed by customers or, at least, from the customers' point of view.	1	2	3	4	5	6	7
34.	Employees who have contact with customers have all of the necessary work and social skills to do so.	1	2	3	4	5	6	7
35.	We cannot always respond quickly to market changes (e.g. competitors' actions).	1	2	3	4	5	6	7
36.	Decisions based on our market intelligence (e.g. customer satisfaction) are made in a coordinated manner by multiple departments.	1	2	3	4	5	6	7
37.	Each individual employee feels responsible to our customers, particularly for the detection and solution of their potential and actual problems.	1	2	3	4	5	6	7
38.	Our employees are essential to us in fulfilling our customers' needs.	1	2	3	4	5	6	7
39.	We always consider how our decisions and actions will affect our market, particularly our customers.	1	2	3	4	5	6	7
40.	Each individual employee is responsible for following through on commitments.	1	2	3	4	5	6	7
41.	Our employees are honest and will follow through on commitments.	1	2	3	4	5	6	7

Our company's observable and visible aspects		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
42.	Our buildings and their exterior surroundings are laid out very clearly so that visitors/customers can easily find their way.	1	2	3	4	5	6	7
43.	Our reception area is well organised and clearly laid out.	1	2	3	4	5	6	7
44.	Our online presence (e.g. company website, social media) is designed to allow easy navigation and browsing for customers.	1	2	3	4	5	6	7
45.	Our meeting and discussion areas (e.g. canteens, offices, meeting rooms) are designed to support communication.	1	2	3	4	5	6	7
46.	Employees who are exceptionally customer-focused are rewarded regularly.	1	2	3	4	5	6	7
47.	We regularly organise events for our customers.	1	2	3	4	5	6	7
48.	We often hear about exceptional customer-focused behaviour of management (e.g. founder, chief executive, manager).	1	2	3	4	5	6	7
49.	We often hear about factors that prevent us from being customer-focused (e.g. communication barriers, unwritten rules).	1	2	3	4	5	6	7
50.	"From the customer's point of view . . ." is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
51.	"Can we offer our customers what they are expecting?" is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
52.	"I know exactly what our customers want" is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
53.	"I am not interested in what competitor XY plans! We need to . . ." is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7

Company information

The following questions aim to gain a broad overview of your company and do not seek any sensitive or confidential information. Please tick the most appropriate box for each of the following questions as applicable to you and your company. Please tick just **one box per question**.

54. Please indicate the sector that you operate in as accurately as possible based on the options below:

Agribusiness	<input type="checkbox"/>	Communications	<input type="checkbox"/>	Construction	<input type="checkbox"/>
Energy	<input type="checkbox"/>	Financial Services	<input type="checkbox"/>	Food and Beverage	<input type="checkbox"/>
Health	<input type="checkbox"/>	Manufacturing	<input type="checkbox"/>	Media and Marketing	<input type="checkbox"/>
Non-Profit	<input type="checkbox"/>	Pharmaceuticals	<input type="checkbox"/>	Professional Services	<input type="checkbox"/>
Property	<input type="checkbox"/>	Resources	<input type="checkbox"/>	Retailing	<input type="checkbox"/>
Technology	<input type="checkbox"/>	Tourism	<input type="checkbox"/>	Transport	<input type="checkbox"/>
Other (Please specify)	<input type="checkbox"/>				

55. What is your position within the company?

Owner Manager CEO Marketing Manager Sales Manager
 General Manager Other (Please specify) _____

56. How long has your company been in business?

Less than 1 year 1-10 years 11-20 years 21-30 years
 31-40 years 41years+

57. How many people are employed in your company?

Less than 10 10-49 50-249 250+

58. How long have you have been employed with your present company?

Less than 1 year 1-10 years 11-20 years 21-30 years
 31-40 years 41years+

Sincere thanks for taking the time to complete this questionnaire.

All data will be used for the sole purpose of this study. Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns



Appendix 16: Questionnaire Version 3 (Final Version)

Creating a Customer-Focused Organisational Culture Research by:

Catherine Tiernan, Postgraduate Researcher, Institute of Technology Carlow, Wexford Campus

A strong customer-focused culture has been proven to lead to a positive organisational performance. This research aims to understand how organisations can go about creating such a culture.

This questionnaire does not seek any sensitive or confidential information about your company. All data collected will be used for the sole purpose of this study and all responses will be treated in the strictest of confidence; no person or company will be identified. Completion of this questionnaire will take just a few minutes of your time.

If you wish to receive a copy of findings upon completion of this study, please provide an appropriate e-mail address in the allocated space at the end of the questionnaire.

Do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns.

Please read the following statements and circle the appropriate number that best indicates your level of agreement with each one. Please circle just *one number per statement*.

How we collect, communicate and act on information		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
1.	We meet with customers at least once a year to find out what products or services they will need in the future.	1	2	3	4	5	6	7
2.	We are not always quick to detect changes in our customers' product and/or service preferences.	1	2	3	4	5	6	7
3.	We survey customers at least once a year to assess the quality of our products and/or services.	1	2	3	4	5	6	7
4.	We are not always quick to detect crucial changes in our industry (e.g. competition, technology and/or regulation).	1	2	3	4	5	6	7
5.	We collect industry information by informal means (e.g. lunch and/or talks with our industry contacts).	1	2	3	4	5	6	7
6.	Market intelligence (e.g. regarding customers, competitors, technology) is generated by multiple departments.	1	2	3	4	5	6	7
7.	We have regular meetings involving co-workers from multiple departments to discuss market trends and developments.	1	2	3	4	5	6	7
8.	When something important happens to a major customer or market, the whole company knows about it within a short period.	1	2	3	4	5	6	7
9.	Market intelligence (e.g. regarding customers, competitors, technology) is communicated at all levels on a regular basis.	1	2	3	4	5	6	7
10.	A lot of informal communication (e.g. conversations during break times) is about our business environment (e.g. customers, competitors, technology).	1	2	3	4	5	6	7
11.	We regularly review our product and/or service development efforts to ensure that they are in line with what customers want.	1	2	3	4	5	6	7
12.	Co-workers from multiple departments get together regularly to plan a response to changes taking place in our business environment (e.g. regarding customers, competitors, technology).	1	2	3	4	5	6	7
13.	When implementing plans based on our market intelligence (e.g. regarding customers, competitors, technology), our departments carry out their activities in a coordinated manner.	1	2	3	4	5	6	7
14.	When we find that customers would like us to modify a product or service, the departments involved make a coordinated effort to do so.	1	2	3	4	5	6	7

Our company's aspirations and values

In Our Company:

		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
15.	We aim to place great value on performance-oriented employees.	1	2	3	4	5	6	7
16.	We are not always open towards innovations and creativity related to products and/or processes.	1	2	3	4	5	6	7
17.	We feel that the flexibility of our employees should be rated very highly.	1	2	3	4	5	6	7
18.	We aspire to open and proactive communication between our departments.	1	2	3	4	5	6	7
19.	High quality work is greatly valued.	1	2	3	4	5	6	7
20.	We aspire to achieve the highest level of qualification and competence in our field.	1	2	3	4	5	6	7
21.	We aim to carry out our work in a prompt manner.	1	2	3	4	5	6	7
22.	We believe that teamwork and cooperation amongst our departments should be valued very highly.	1	2	3	4	5	6	7
23.	The responsibility of each individual employee is not always emphasised.	1	2	3	4	5	6	7
24.	We strive to emphasise our appreciation of each individual employee.	1	2	3	4	5	6	7
25.	We endeavour to place great value on a feeling of belonging among our employees.	1	2	3	4	5	6	7
26.	Our main aspiration is to deliver the best possible service and/or solutions to our market (e.g. customers).	1	2	3	4	5	6	7
27.	Each individual employee strives to do his or her part.	1	2	3	4	5	6	7
28.	We feel that we can have positive expectations about our co-workers' intentions and/or behaviours.	1	2	3	4	5	6	7

Expectations about our routines and practices

In Our Company We Expect That:

29.	Market performance (e.g. market share, customer satisfaction) is measured regularly.	1	2	3	4	5	6	7
30.	New products and/or services which add value for our customers are frequently identified and developed.	1	2	3	4	5	6	7
31.	Standardised practices and procedures are reviewed regularly to improve efficiency in serving our customers.	1	2	3	4	5	6	7
32.	Regular meetings are held between co-workers from multiple departments to openly discuss and record market related trends and/or problems.	1	2	3	4	5	6	7
33.	Quality is assessed by customers or, at least, from the customers' point of view.	1	2	3	4	5	6	7
34.	Employees who have contact with customers have all of the necessary work and social skills to do so.	1	2	3	4	5	6	7
35.	We cannot always respond quickly to market changes (e.g. competitors' actions).	1	2	3	4	5	6	7
36.	Decisions based on our market intelligence (e.g. customer satisfaction) are made in a coordinated manner by multiple departments.	1	2	3	4	5	6	7
37.	Each individual employee feels responsible to our customers, particularly for the detection and solution of their potential and actual problems.	1	2	3	4	5	6	7
38.	Our employees are essential to us in fulfilling our customers' needs.	1	2	3	4	5	6	7
39.	We always consider how our decisions and actions will affect our market, particularly our customers.	1	2	3	4	5	6	7
40.	Each individual employee is responsible for following through on commitments.	1	2	3	4	5	6	7
41.	Our employees are honest and will follow through on commitments.	1	2	3	4	5	6	7

Our company's observable and visible aspects		Strongly Disagree	Disagree	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree	Strongly Agree
In Our Company:								
42.	Our buildings and their exterior surroundings are laid out very clearly so that visitors/customers can easily find their way.	1	2	3	4	5	6	7
43.	Our reception area is well organised and clearly laid out.	1	2	3	4	5	6	7
44.	Our online presence (e.g. company website, social media) is designed to allow easy navigation and browsing for customers.	1	2	3	4	5	6	7
45.	Our meeting and discussion areas (e.g. canteens, offices, meeting rooms) are designed to support communication.	1	2	3	4	5	6	7
46.	Employees who are exceptionally customer-focused are rewarded regularly.	1	2	3	4	5	6	7
47.	We regularly organise events for our customers.	1	2	3	4	5	6	7
48.	We often hear about exceptional customer-focused behaviour of management (e.g. founder, chief executive, manager).	1	2	3	4	5	6	7
49.	We often hear about factors that prevent us from being customer-focused (e.g. communication barriers, unwritten rules).	1	2	3	4	5	6	7
50.	"From the customer's point of view . . ." is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
51.	"Can we offer our customers what they are expecting?" is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
52.	"I know exactly what our customers want" is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7
53.	"I am not interested in what competitor XY plans! We need to . . ." is a statement, or similar to a statement, that we often hear.	1	2	3	4	5	6	7

Company information

The following questions aim to gain a broad overview of your company and do not seek any sensitive or confidential information.

54. Please indicate the sector(s) that you operate in as accurately as possible based on the options below (tick all that apply):

Agribusiness <input type="checkbox"/>	Communications <input type="checkbox"/>	Construction <input type="checkbox"/>
Energy <input type="checkbox"/>	Financial Services <input type="checkbox"/>	Food and Beverage <input type="checkbox"/>
Health <input type="checkbox"/>	Manufacturing <input type="checkbox"/>	Media and Marketing <input type="checkbox"/>
Non-Profit <input type="checkbox"/>	Pharmaceuticals <input type="checkbox"/>	Professional Services <input type="checkbox"/>
Property <input type="checkbox"/>	Resources <input type="checkbox"/>	Retailing <input type="checkbox"/>
Technology <input type="checkbox"/>	Tourism <input type="checkbox"/>	Transport <input type="checkbox"/>
Other (Please specify) <input type="checkbox"/>		

55. What is your position within the company? (Please tick just *one box*)

Managing Director <input type="checkbox"/>	CEO <input type="checkbox"/>	Marketing Manager <input type="checkbox"/>	PR / Communications Manager <input type="checkbox"/>
General Manager <input type="checkbox"/>	Sales Manager <input type="checkbox"/>	Other (Please specify) <input type="checkbox"/>	

56. How long has your company been in business? (Please tick just *one box*)

Less than 1 year <input type="checkbox"/>	1-10 years <input type="checkbox"/>	11-20 years <input type="checkbox"/>	21-30 years <input type="checkbox"/>
31-40 years <input type="checkbox"/>	41years+ <input type="checkbox"/>		

57. How many people are employed in your company? (Please tick just *one box*)

Less than 10 <input type="checkbox"/>	10-49 <input type="checkbox"/>	50-249 <input type="checkbox"/>	250+ <input type="checkbox"/>
---------------------------------------	--------------------------------	---------------------------------	-------------------------------

58. How long have you have been employed with your present company? (Please tick just *one box*)

Less than 1 year <input type="checkbox"/>	1-10 years <input type="checkbox"/>	11-20 years <input type="checkbox"/>	21-30 years <input type="checkbox"/>
31-40 years <input type="checkbox"/>	41years+ <input type="checkbox"/>		

Contact e-mail address to receive a copy of findings (optional):

Please Use Block Capitals

Sincere thanks for taking the time to complete this questionnaire. All data will be used for the sole purpose of this study. Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns



Appendix 17: Cover Letter (Pilot Test)

Institute of Technology Carlow
Institiúid Teicneolaíochta Cheatharlach
Kilkenny Road, Carlow, Ireland. Telephone: (059) 91 75000. Fax: (059) 91 75005
International Codes: Telephone: (353-59) 91 75000. Fac: (353-59) 91 75005
E-mail: info@itcarlow.ie Website: www.itcarlow.ie



Monday, 14th July, 2014

«Full_Name»,
«Position»,
«Address_1»,
«Address_2»,
«Address_3»,
«Address_4».

RE: Postgraduate Research at the Institute of Technology Carlow

Dear «First_Name»,

I am a Postgraduate Researcher at the Wexford Campus of the Institute of Technology Carlow, where I am currently in the process of conducting research for my Master's degree.

The purpose of my research is to understand how organisations can go about creating a strong customer-focused culture, which has been proven to lead to positive organisational performance.

As a well-established business in the South-East of Ireland, **I would be delighted if you would be willing to participate in this research by completing the enclosed questionnaire and returning it to me, at your earliest convenience, using the pre-paid envelope provided.** Alternatively, I ask that you forward this pack to a co-worker who is knowledgeable about your company's marketing activities and who is in a position to do so.

The questionnaire will take just a few minutes of your time. It does not seek any sensitive or confidential information about you or your company. All responses will be used for the sole purpose of this study and will be treated in the strictest of confidence; no person or company will be identified.

Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns.

Your participation would be a valuable contribution to the completion of my Master's degree and would be greatly appreciated.

Yours sincerely,

Catherine Tiernan
Postgraduate Researcher

President:
Patricia Muleahy, BSc, PhD, CBiol, FIFSTI

Secretary/Financial Controller:
Cormac O'Toole, B Comm, HDipEd,ACMA



Registrar:
David Denieffe, BE, MEng
Head of Development
Declan Doyle, BBS, MBS, MMII

Appendix 18: Cover Letter (Actual Study)

Institute of Technology Carlow
Institiúid Teicneolaíochta Cheatharlach
Kilkenny Road, Carlow, Ireland. Telephone: (059) 91 75000. Fax: (059) 91 75005
International Codes: Telephone: (353-59) 91 75000. Fac: (353-59) 91 75005
E-mail: info@itcarlow.ie Website: www.itcarlow.ie



September 2014

«Title» «First_Name» «Surname»
«Position»
«Company_Address_Line_1»
«Address_Line_2»
«Address_Line_3»
«Address_Line_4»
«Address_Line_5»
«Address_Line_6»

RE: Postgraduate Research at the Institute of Technology Carlow

Dear «First_Name»,

I am a Postgraduate Researcher at the Wexford Campus of the Institute of Technology Carlow, where I am currently in the process of conducting research for my Master's degree.

The purpose of my research is to understand how organisations can go about creating a strong customer-focused culture, which has been proven to lead to positive organisational performance.

As a member of the Top 1,000 Companies in Ireland, **I would be delighted if you would be willing to participate in this research by completing the enclosed questionnaire and returning it to me, at your earliest convenience, using the pre-paid envelope provided.** Alternatively, I ask that you forward this pack to a co-worker who is knowledgeable about your company's marketing activities and who is in a position to do so.

The questionnaire will take just a few minutes of your time. It does not seek any sensitive or confidential information about you or your company. All responses will be used for the sole purpose of this study and will be treated in the strictest of confidence; no person or company will be identified. A summary of findings which will provide recommendations as to how your company can become strongly customer-focused will be made available upon your request.

Please do not hesitate to contact me by phone 053 9185800 or by e-mail to catherine.tiernan@itcarlow.ie should you have any queries or concerns.

Your participation would be a valuable contribution to the completion of my Master's degree and would be greatly appreciated.

Yours sincerely,

Catherine Tiernan

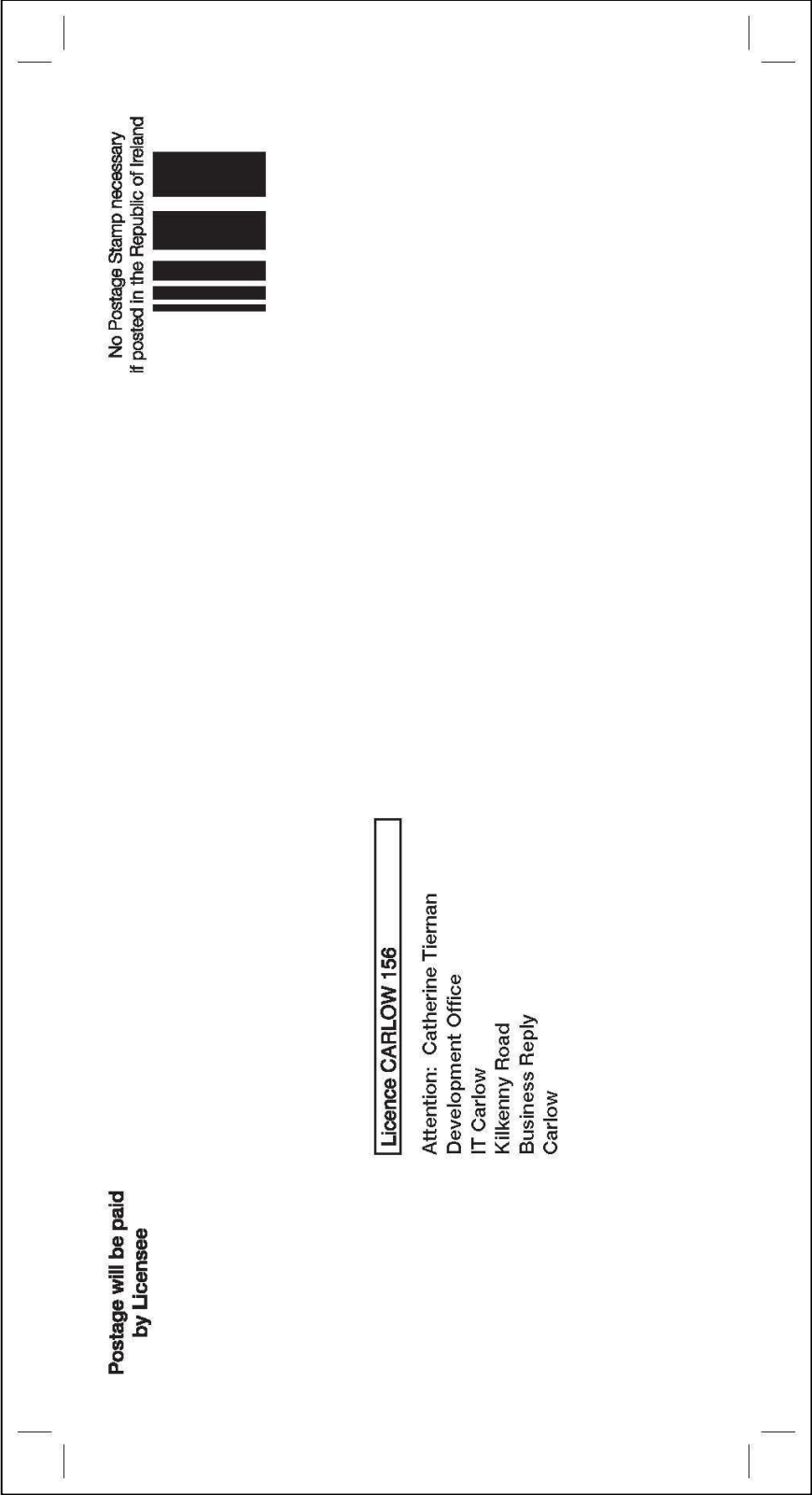
Postgraduate Researcher

President:
Patricia Muleahy, BSc, PhD, CBiol, FIFSTI
Secretary/Financial Controller:
Cormac O'Toole, B Comm, HDipEd, ACMA

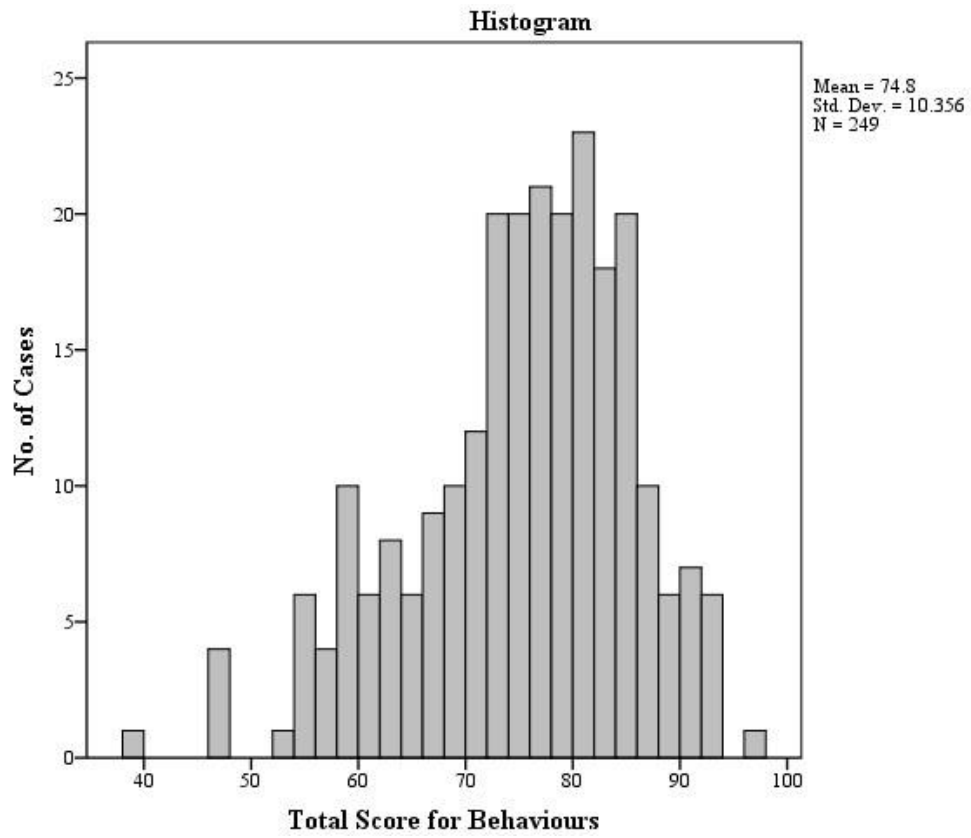


Registrar:
David Denieffe, BE, MEng
Head of Development
Declan Doyle, BBS, MBS, MMII

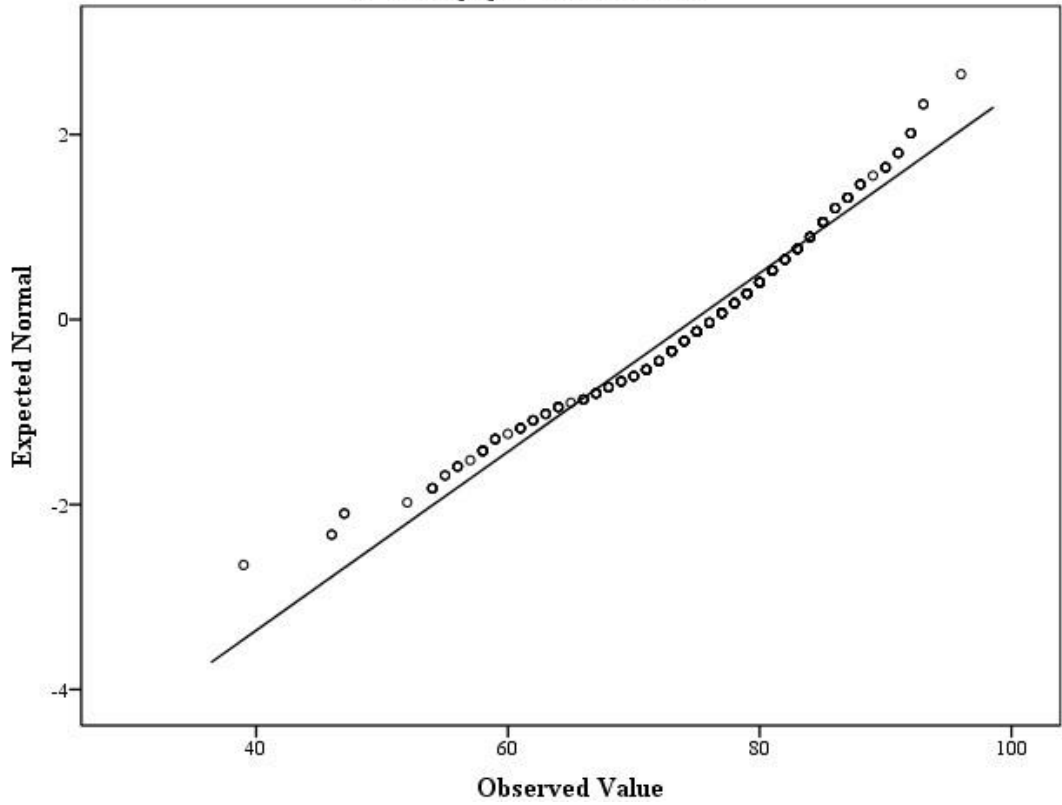
Appendix 19: Pre-Paid Return Address Envelope



Appendix 20: Testing for Normal Distribution – Visual Outputs Behaviours:

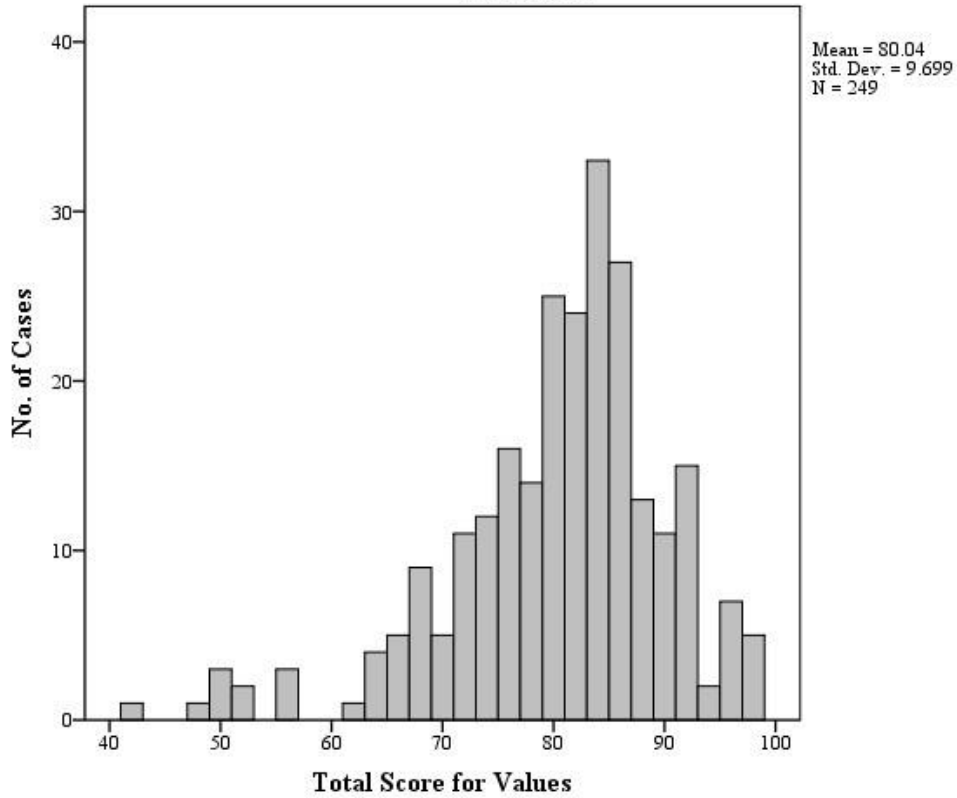


Normal Q-Q Plot - Behaviours

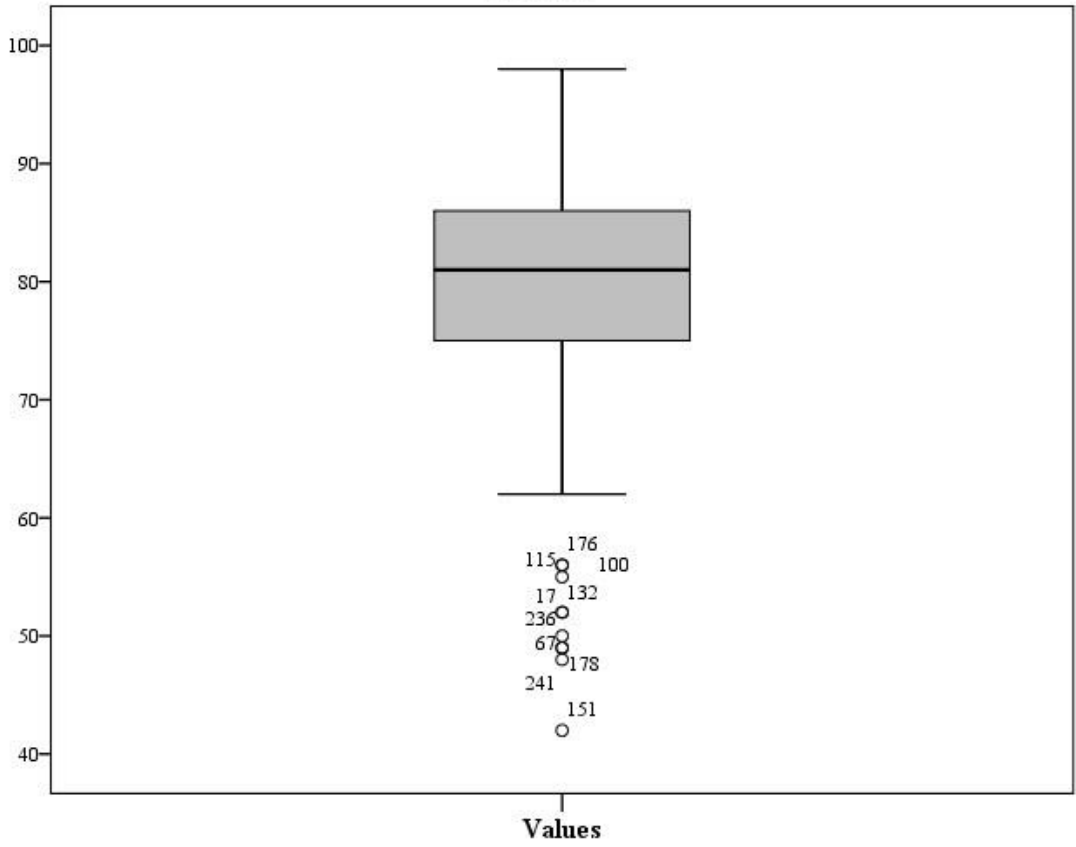


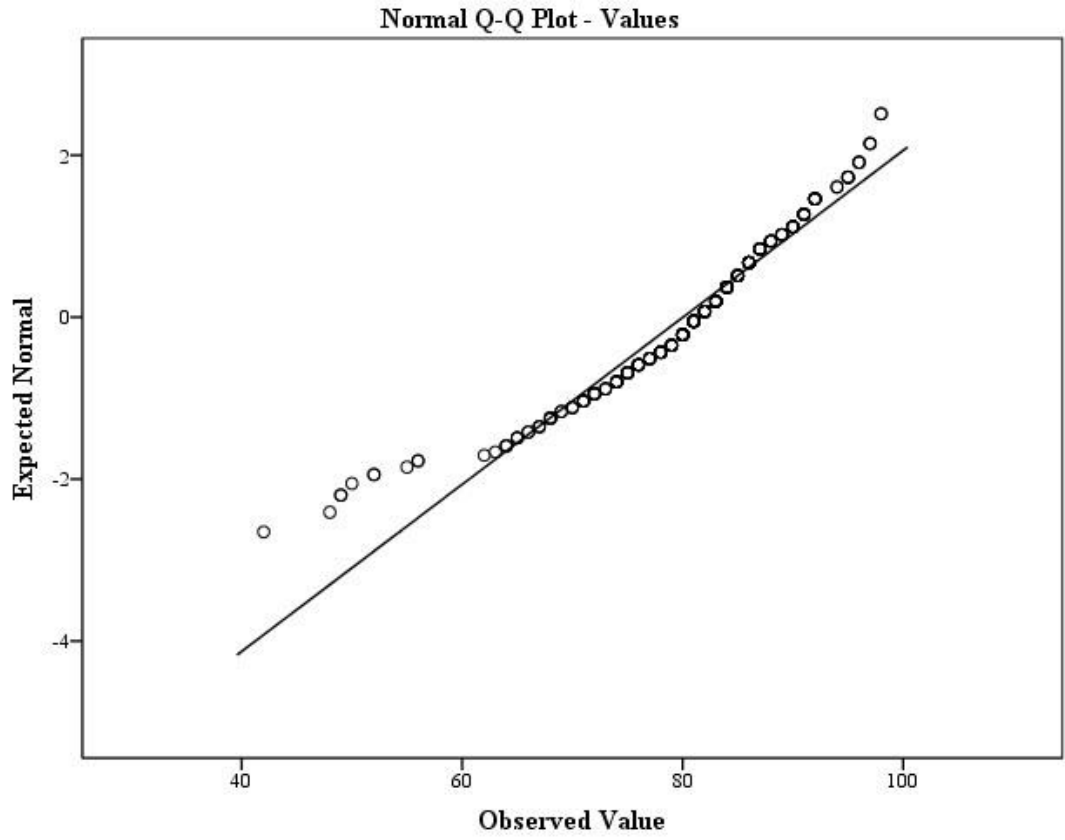
Values:

Histogram

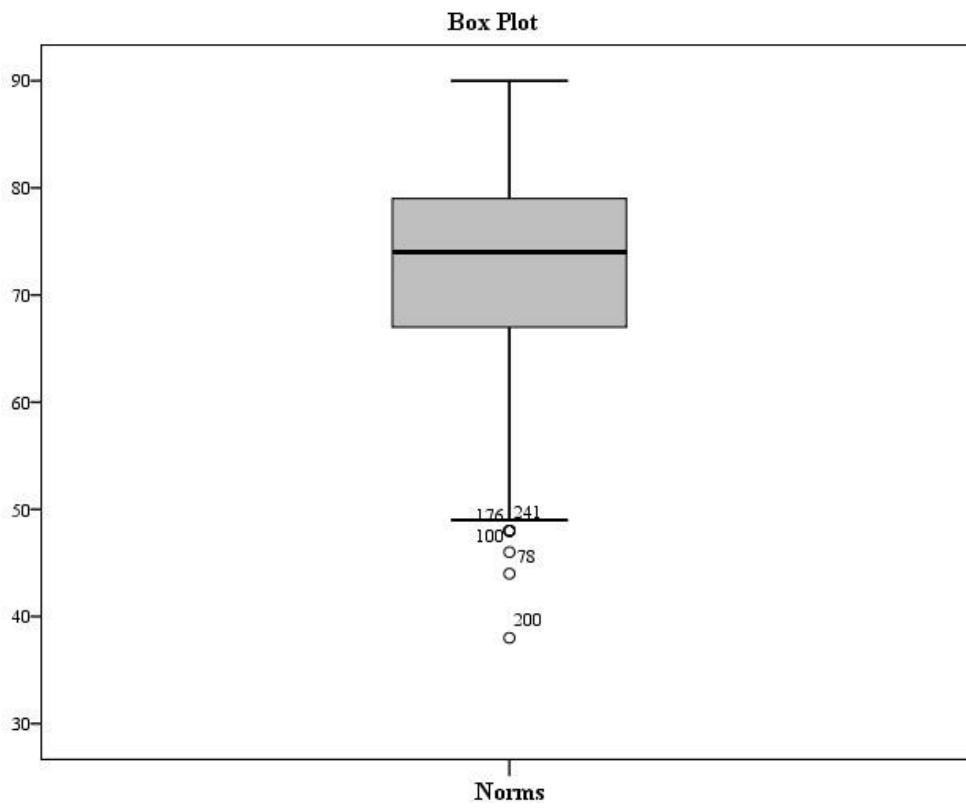
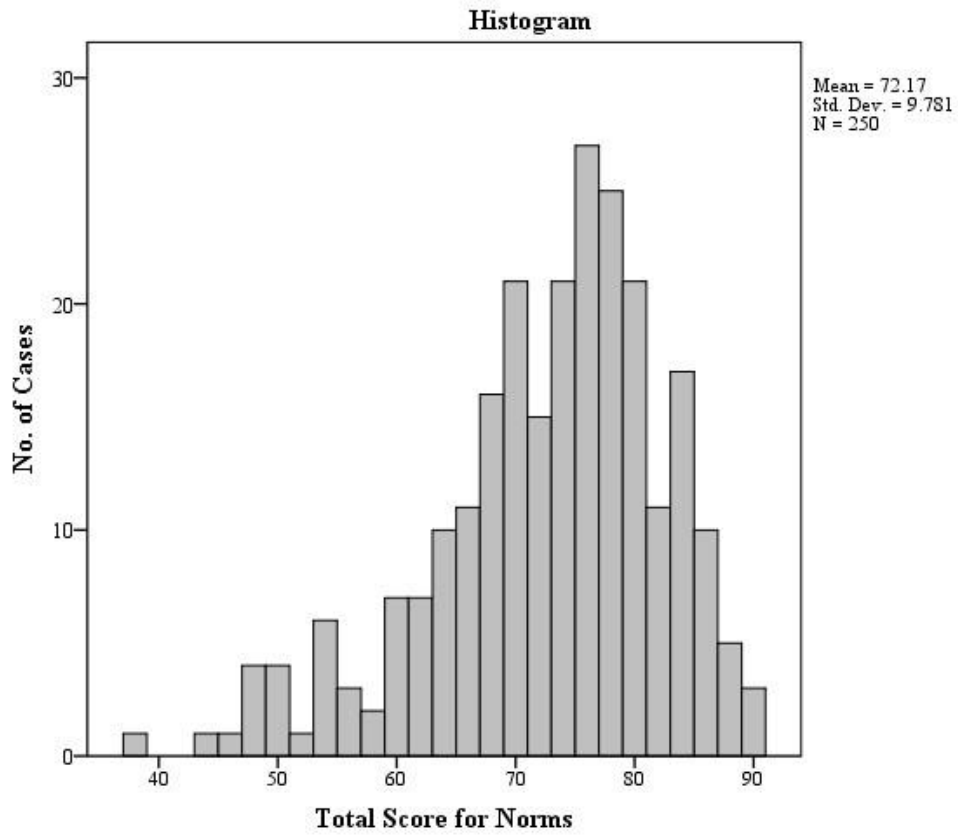


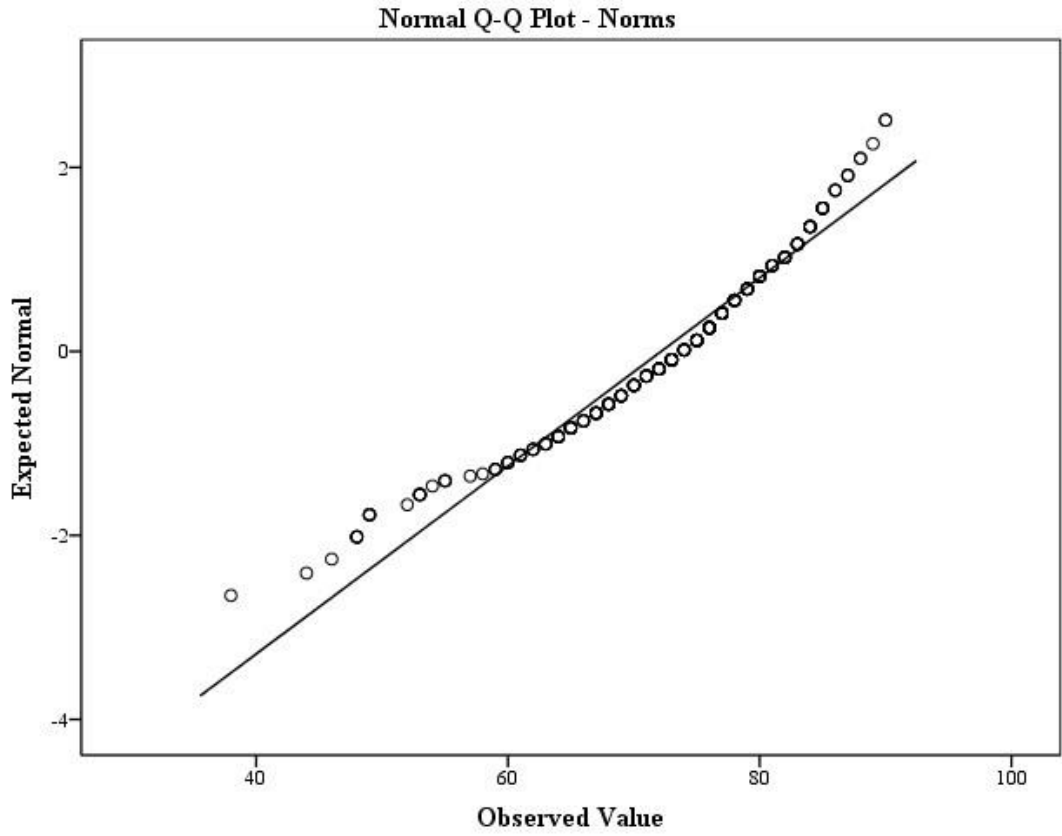
Box Plot



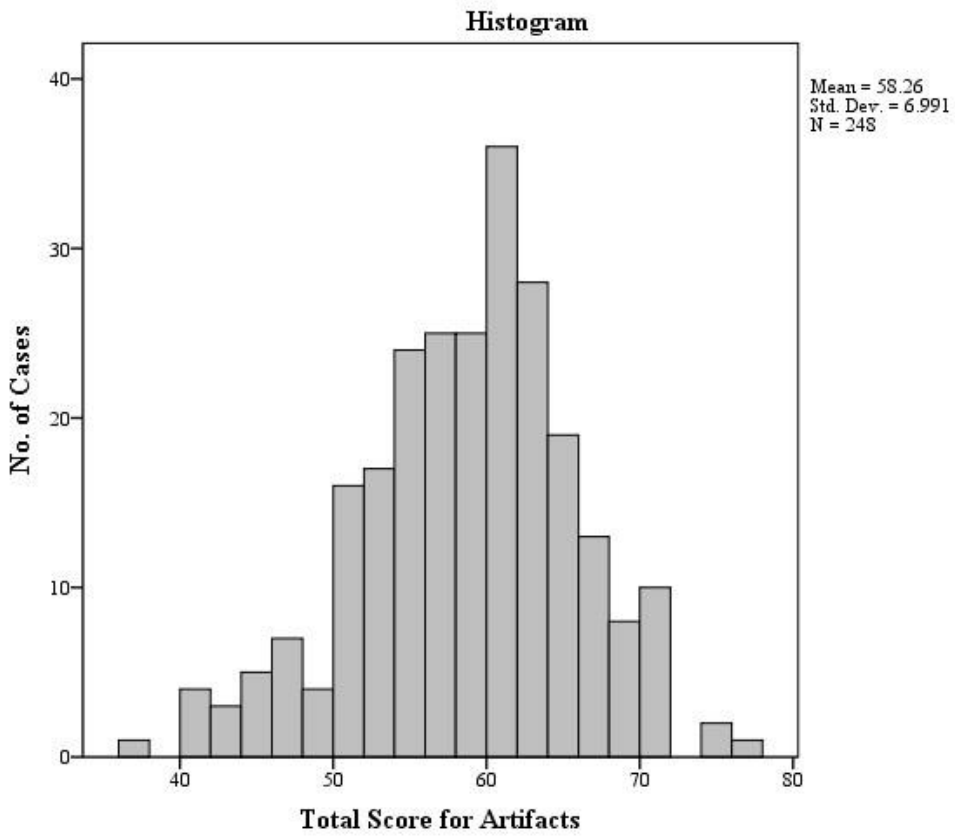


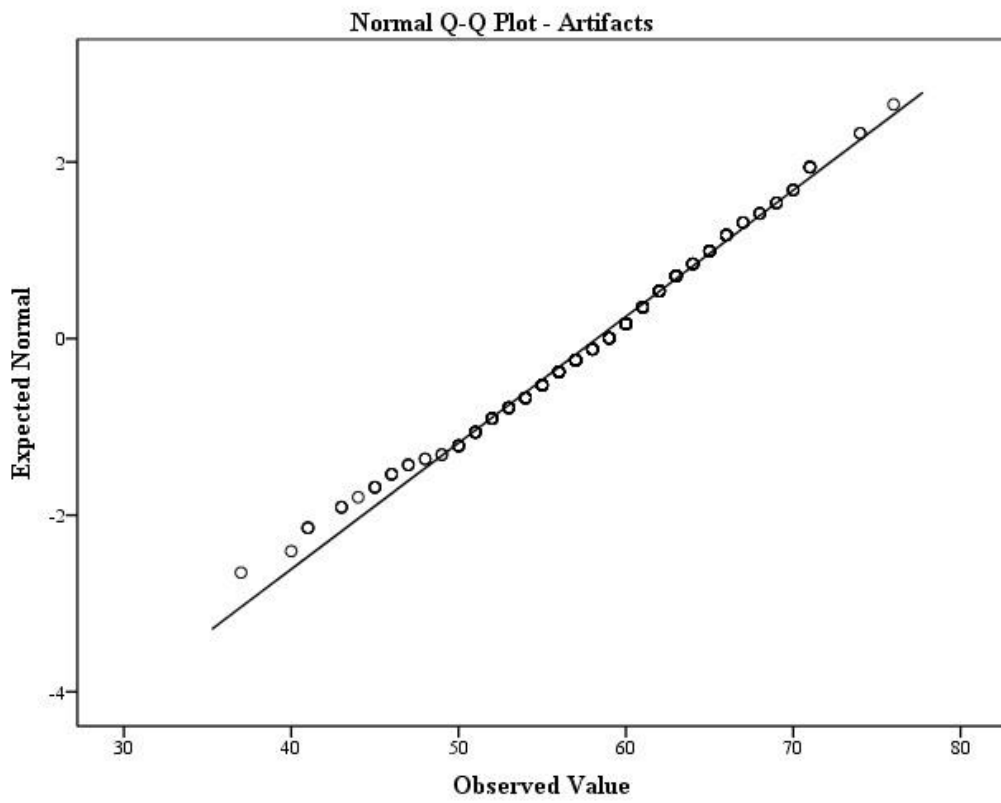
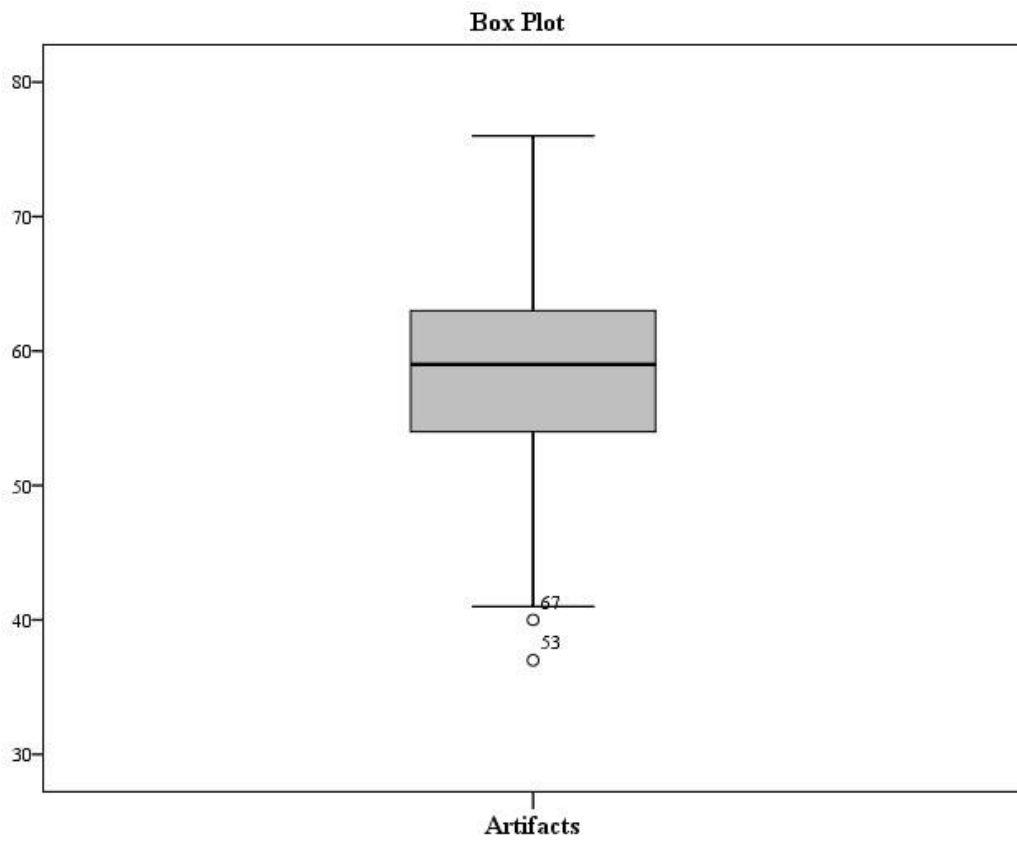
Norms:





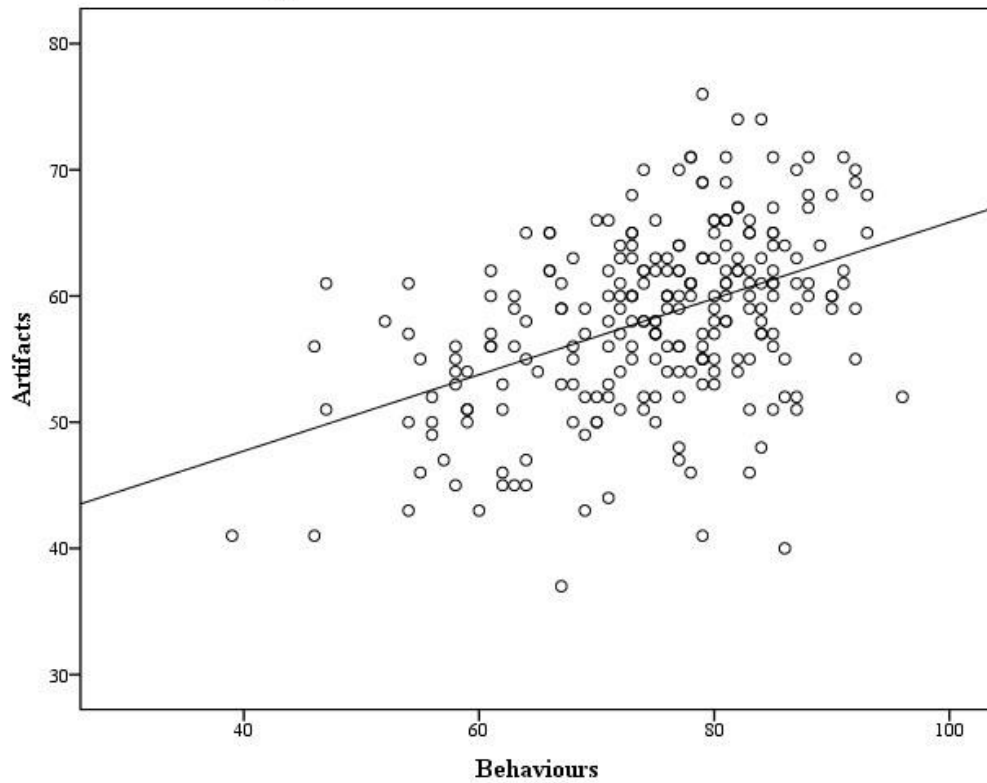
Artifacts:



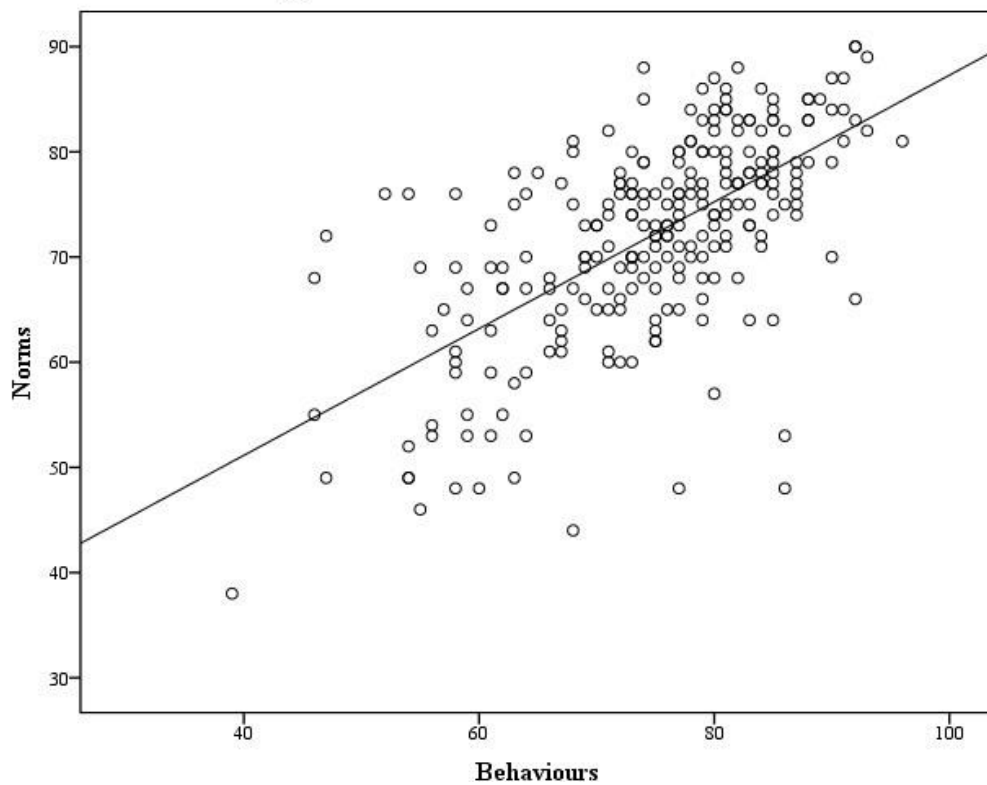


Appendix 21: Scatterplots for Each of the Three Hypotheses

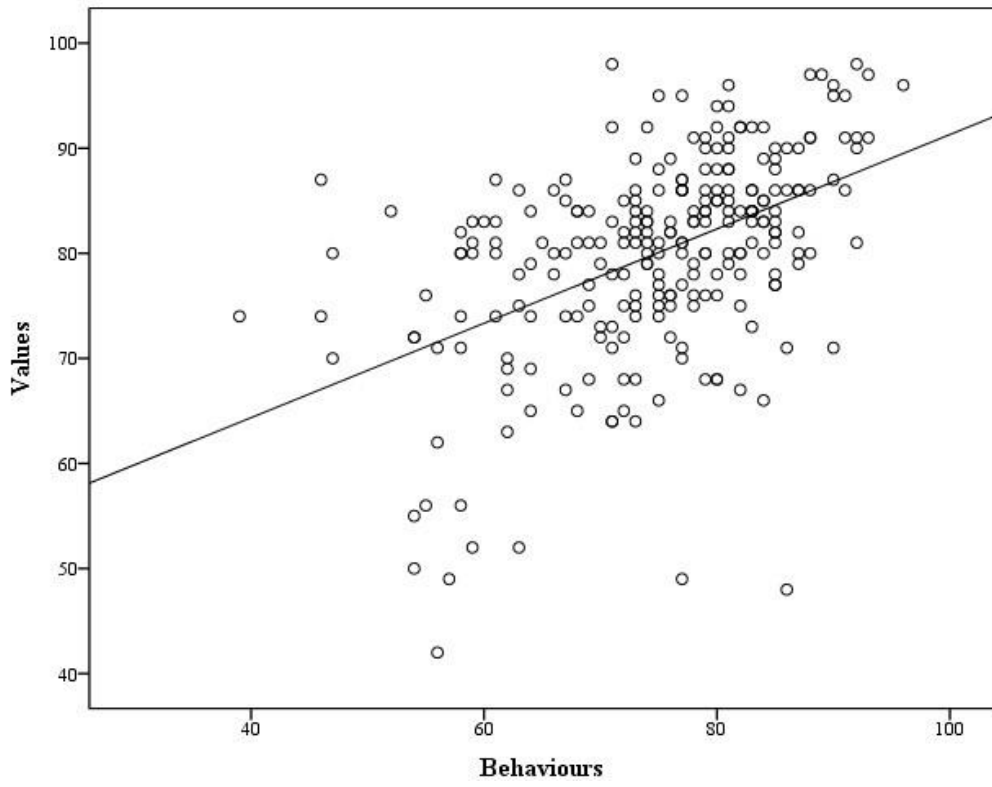
Hypothesis 1: Behaviours Influence Artifacts



Hypothesis 2: Behaviours Influence Norms



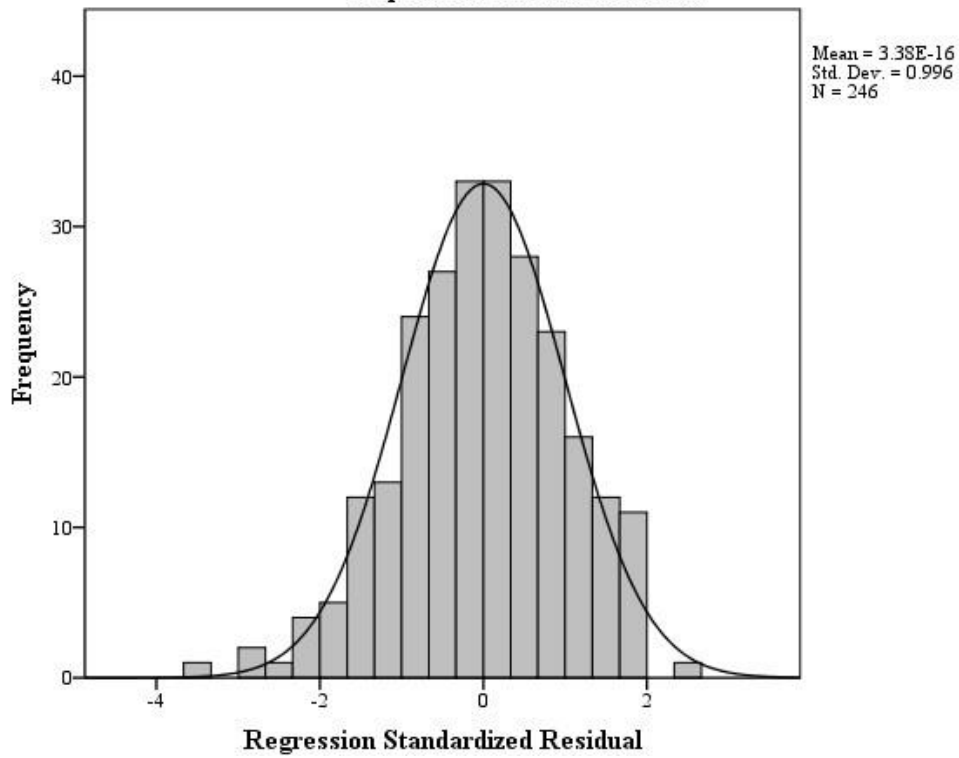
Hypothesis 3: Behaviours Influence Values



Appendix 22: Histograms Testing for Normally Distributed Residuals

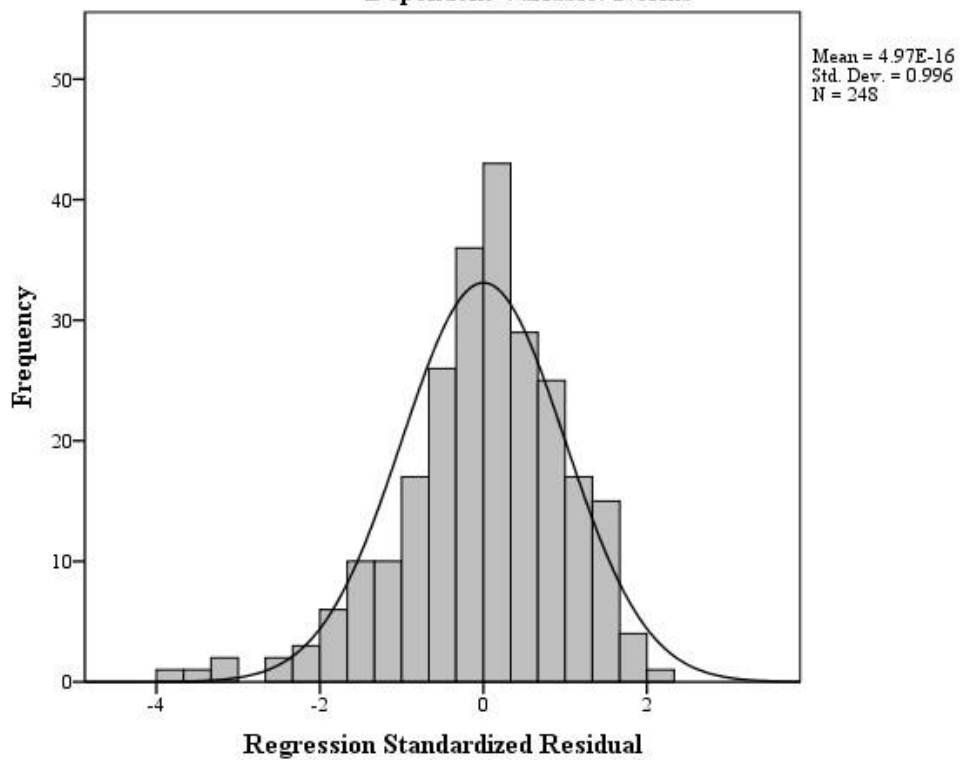
Histogram - Hypothesis 1

Dependent Variable: Artifacts

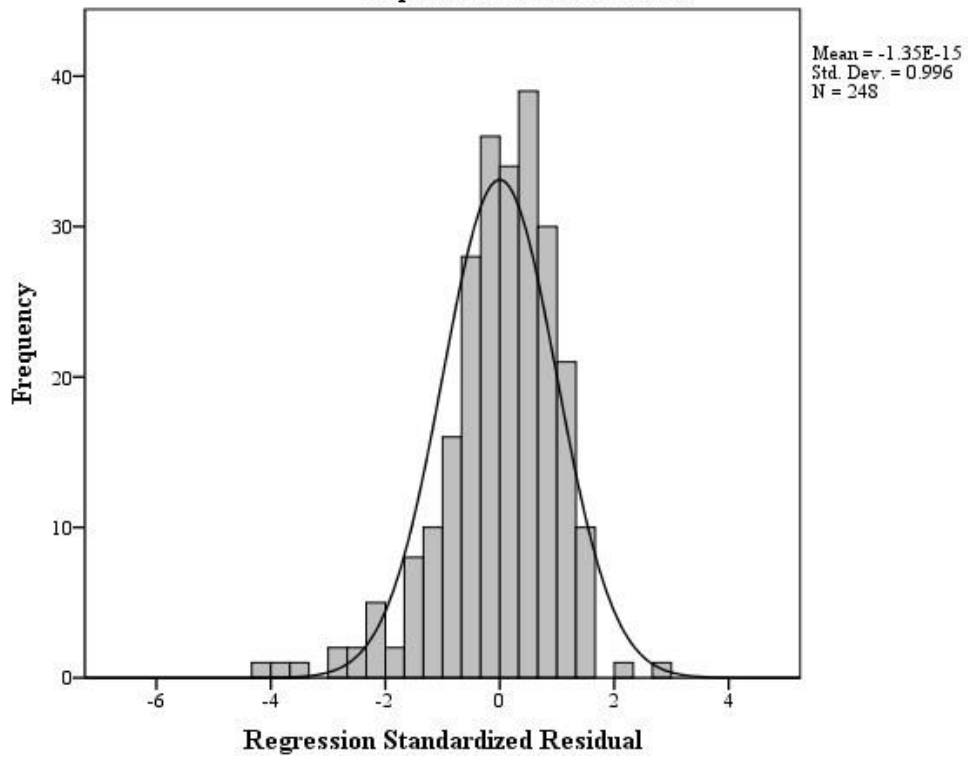


Histogram - Hypothesis 2

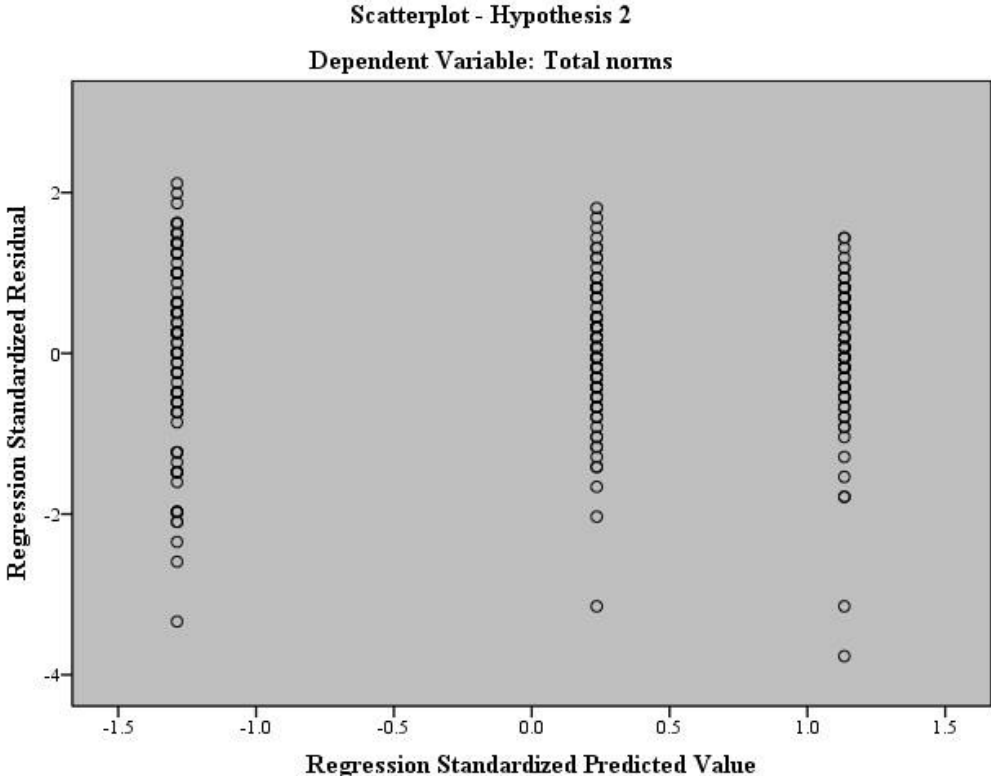
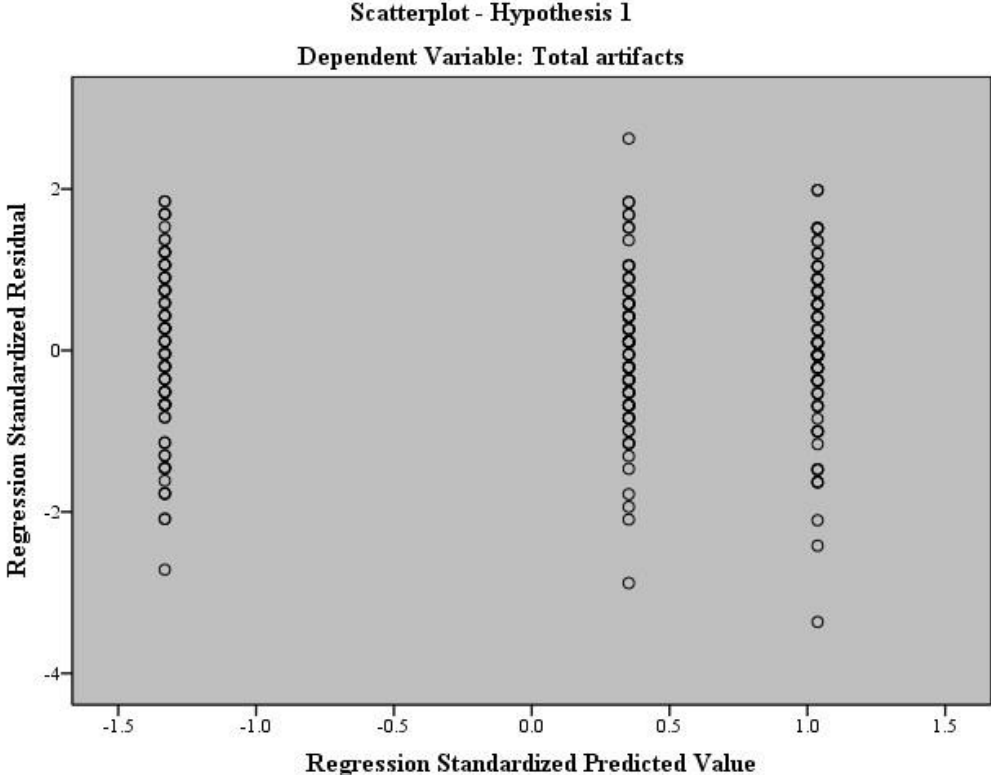
Dependent Variable: Norms



Histogram - Hypothesis 3
Dependent Variable: Values



Appendix 23: Residual Scatterplots for Each of the Three Hypotheses



Scatterplot - Hypothesis 3
Dependent Variable: Total values

