

Behavioural additionality of network membership for individual members

By

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Dedication

This thesis would not have been possible, if not for the following wonderful people, therefore, I would like to dedicate this work to them.

- My mother Nita and father, Jayaratne – you brought me into this wonderful world and taught me to never give up
- People who I have never met before, but were kind enough to rush me to the nearest hospital on that fateful night after my accident – your kind act saved my life
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Abstract

Businesses network with each other for a myriad of reasons and members of business networks accrue various benefits as a result of their network membership. There is a wealth of literature which explores the impact of business networks, however, the impact of networks has predominantly been studied at the firm or society level, and there is a distinct lack of evidence when it comes to the impact at the individual level. Individual employees are recognised as the smallest unit within an organisation and also identified as the initiators and couriers of change within firms, therefore, understanding the impact of business networks on individual members will assist in understanding the overall organisational behaviour. To address this, this thesis uses the concept of behavioural additionality to extend an existing logic model, which examines the impact of networks, to encompass the individual level. This is the primary contribution of this research.

In order to test the use of behavioural additionality in the logic model, two informal business networks were selected as case studies. A mixed method approach was used for data collection (sequential quan **7** QUAL) where quantitative data informed the design of the qualitative data collection stage. The quantitative data was collected using a survey, while semi-structured interviews were used to collect qualitative data which was then thematically analysed.

The results showed that members of both networks found that their network membership has impacted their behaviour positively and has enabled them to develop certain skills, capabilities, and habits such as communication, listening to others, and innovation and creativity, while highlighting the importance of 'trust' as the glue to keep the network together. It was also found that members often expect support for their mental well-being as well as support for their business growth. In addition to the development of individual skills, capabilities, and habits (i.e. a change in human capital), this thesis also found that network membership allows members to adopt pro-social behaviour, (i.e. a change in their social capital). In summary, the current study concluded that behavioural additionality of network membership can be seen as an influential factor on the change in members' human and social capital.

This thesis presented a novel logic model that can be used to examine the impact of business networks on individual members' behaviour, which is the primary contribution of this research. In addition, a definition of behavioural additionality that can be applied in a business network context is also presented. This thesis has successfully demonstrated that business network membership has a positive impact on individual members of the networks studied in this thesis,

therefore, policymakers could explore the possibility of directing public funds to promote business network membership.

Key words- Behavioural Additionality, Business Networks, Logic Model, Impact Evaluation

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1.0 Introduction

1.1 Introduction

Businesses collaborate with each other for various reasons however the research on the impact of business networks has predominantly focused on the impact on firm performance and the benefits to the wider society or economy, therefore, analysing the impact at either firm or societal level. There has, however, been a lack of research into the impact of business networks on individual members, and specifically the impact on individual behaviour. Hence the relevance of this research.

Prior research has used the behavioural additionality concept to examine the behavioural changes of organisations. However, this concept is largely associated with evaluating the impact of publicly funded projects/programmes (widely known as interventions) even though researchers identify the importance of applying behavioural additionality in different contexts to further the understanding of the concept. It is important to mention that it is almost impossible to discuss behavioural additionality without referring to R&D or interventions as the concept has rarely been applied in any other context. However, in recent years researchers have been encouraged to apply the concept in different contexts to fully realise the potential of this concept (Gök and Edler, 2012).

This thesis aims to advance the knowledge in both business network and behavioural additionality research by seeking to apply behavioural additionality to examine the impact of business network membership on individuals' behaviour. As the concept is traditionally used in policy evaluation, the terms 'intervention', 'public support', 'policy' and 'publicly funded project or programme' are used interchangeably throughout this research, however, they all refer to some form of actions that are external to organisations/businesses.

This chapter aims to introduce the current research, therefore begins with a brief introduction and rationale for the research (Section 1.2). After discussing the background and the rationale for the thesis, the chapter moves on to provide the aim and objectives of this research (Section 1.3) while in Section 1.4, the structure of the thesis is described. Finally, the chapter is concluded in Section 1.5.

1.2 Background and Rationale for the Current Research

Behavioural additionality is a subcategory of the 'additionality' concept which is largely associated with evaluating publicly funded programmes. The additionality concept is defined as the difference an intervention makes (Buisseret, Cameron and Georghiou, 1995). The

additionality concept is popular among policymakers due to its ability to quantify the impact of interventions, therefore allowing policymakers to implement the interventions that deliver the most benefit to society. For example, in the European Union (EU), additionality is one of the core principles used in evaluating a number of funding schemes and policies such as EU Cohesion Policies (Brandsma, Kancs and Ciaian, 2013; European Commission, 2020b).

Since an intervention can impact stakeholders both directly and indirectly, literature divides the additionality concept into three categories: input additionality, output additionality and behavioural additionality. As the concept is widely used in policy evaluation (especially in R&D subsidy projects) the definitions of these subcategories are inherently connected to R&D. For example, input additionality is defined as the amount of resources that firms would not have allocated to a project in the absence of an intervention (i.e. external funding); while output additionality is referred to as the difference in a firm's outputs as a result of the intervention (Georghiou, 2002; Gök, 2010; Radicic, Pugh and Douglas, 2018). Behavioural additionality, coined in 1995 by Buisseret et al., looks at the behavioural changes of the firm due to an intervention, which is traditionally analysed at the firm level (Gök and Edler, 2012; Chapman and Hewitt-Dundas, 2018). Continuing the context in which the additionality concept is applied, the authors who introduced the term 'behavioural additionality' still limited the focus of its application to firms' research activity: they see behavioural additionality as "the change in a company's way of undertaking R&D which can be attributed to policy actions" (Buisseret, Cameron and Georghiou, 1995, p.590).

Initially, when the additionality concept was applied to evaluate a programmes' effectiveness, policymakers were satisfied with the calculation of input and output additionality alone as this provided them with strong evidence to justify these programmes. However, the introduction of the behavioural additionality concept challenged the idea of treating the firm as a black-box in traditional policy evaluations that were predominantly calculating input and output additionality (Gök, 2010; Gök and Edler, 2012; Kubera, 2018). As the awareness of the behavioural additionality concept grew over the years, it has attracted the attention of policymakers as they realise examining input additionality and output additionality would not be sufficient in assessing the impact of an intervention, as these interventions leave a long lasting impact on a firm's behaviour (Davenport, Grimes and Davies, 1998; Falk, 2009; Amanatidou et al., 2014). This increased attention has led to the presentation of various definitions of the concept and most importantly various units of analysis, thus attempting to broaden the understanding of the concept further.

From the policymakers' perspective, the Organisation for Economic Cooperation and Development (OECD) engaged policymakers and researchers from 11 member countries to develop a common conceptual framework to evaluate governmental and semi-governmental R&D funding programmes in these countries, which was published as a book (OECD, 2006). As the contribution from the UK for this book, Malik, Georghiou and Cameron (2006) investigate the behavioural additionality of two UK government funding projects in which they suggest that public support programmes help firms to collaborate with each other and build new networks. Subsequent studies have explored this aspect of firm's behaviour (i.e. collaborative behaviour) hence examining collaborative behaviour of the firm has become the focus of many behavioural additionality research studies, which have also adopted the firm as the unit of analysis (Falk, 2007; Hyvärinen and Rautiainen, 2007; Busom and Fernández-ribas, 2008; Lucena-Piquero and Vicente, 2019). Continuing the view of collaborative behaviour of the firm as a proxy to measure behavioural additionality, researchers have used the number of new collaborations a firm may have as a result of an intervention as the unit of analysis to measure behavioural additionality of an intervention.

However, Gök (2010) argues that in this approach, the firm is still considered as a black-box which takes governmental support as input and creates more collaboration as outputs, thus neglecting the internal mechanism within the firm that may have contributed to the behavioural change of the firm. He emphasises the importance of looking into the organisation to better understand the firm's behaviour hence suggests that organisational routines are the building blocks of the firm's behaviour, therefore, they should be used as the unit of analysis in examining behavioural additionality. Organisational routines can be defined as recognisable, repetitive patterns of interdependent actions of many actors (Becker et al., 2005; Howard-Grenville et al., 2016). However, the use of organisational routines as a way to understand firm's behaviour is nothing new. Almost four decades ago, in their work on offering a different perspective to understand the firm's behaviour and economic change, Nelson and Winter (1982) argue that organisational routines provide an effective lens to understand firms' behaviour, which later gained attention from economics and organisational behaviour scholars. Following Gök's (2010) recommendation, a number of researchers have used organisational routines as the unit of analysis in the examination of behavioural additionality. A recent example is the work of Gregson (2018), who uses organisational routines as the unit of analysis to examine behavioural additionality of a UK government programme on the participating

organisations. However, this is another example of the behavioural additionality concept being used in evaluating the impact of interventions created by governments.

Despite its flexibility, which allows the behavioural additionality concept to be used in various areas, its application is very much restricted to evaluating public support in relation to R&D and innovation activities of the firm and is mostly analysed at firm level. Gök and Edler (2012) investigate the use of behavioural additionality evaluation in which they emphasise the importance of drawing on different disciplines to investigate behavioural additionality, while also adding that “more research is needed for a more practical guide to how behaviour can be operationalized and measured in different contexts” (Gök & Edler, 2012, p.11). Therefore, this research aims to advance the knowledge in the behavioural additionality field by using a different lens to explore the impact of business network membership. Even though the introduction of the new unit of analysis has broadened the understanding of the concept, behavioural additionality is still examined from the perspective of government support for R&D activities (Roper and Hewitt-Dundas, 2016; Sun, 2018).

In addition, it can also be argued that the practice of using organisational routines continues to measure behavioural additionality at a firm level even though some academics claim that organisational routines capture change at the micro level (Becker et al., 2005). Within organisations, different levels exist; organisational systems are considered to be at the macro level, groups within an organisation are at the meso level, while individuals are at the micro level (H. F. Chung *et al.*, 2016), therefore employing organisational routines as the unit of analysis fails to uncover behavioural additionality at an individual level. In addition, scholars have argued that organisational routines can be broken down further to individual skills, habits and capabilities (Salvato and Rerup, 2011; Felin et al., 2012; Gök and Edler, 2012; Turner and Cacciatori, 2016). It is, therefore, fair to argue that an organisational routine is a collective concept (Nelson and Winter, 1982; Hodgson, 2002; Becker, 2004: 2005; Greenhalgh, Voisey and Robb, 2007; Salvato and Rerup, 2011), hence is not suitable to examine behavioural additionality at an individual level.

This research, therefore, argues that behavioural additionality can also be examined at individual level by using individual skills, capabilities, and habits as units of analysis which further enhances the understanding of the behavioural additionality concept. The current research aims to extend the understanding of the behavioural additionality concept by seeking its applicability in a context of the impact of business network membership.

Businesses do not operate in isolation and their collaborative behaviour can be dated back to medieval times (Goddard, 2019). Over recent decades, there has been an increased volume of research on business networks as policymakers and scholars identify the relevance of business networks to economic success (Nohria and Eccles, 1992; Huggins, 2000; Provan, Fish and Sydow, 2007; Hakanen, Kossou and Takala, 2016; Rydehell, Löfsten and Isaksson, 2018). This has led to the existence of various definitions of business networks within literature, however, most definitions acknowledge that business networks consist of legally independent businesses that are connected or bound together through some form of sustained interaction (Huggins, 2000; Håkansson and Ford, 2002; O'Donnell, 2014; Li and Yayavaram, 2019). The literature also suggests that networks can take various forms such as formal versus informal (Birley, 1985; Lynch, Lenihan and Hart, 2009; Rydehell, Löfsten and Isaksson, 2018), open versus closed (Granovetter, 1973; Sherif, Munasinghe and Sharma, 2012; Ter Wal et al., 2016) and soft versus hard (Ffowcs-Williams, 2000; Rosenfeld, 2001; Malecki, 2002) networks. However, it is evident that many articles refer to the formal – informal categorisation when examining the types of networks: for example, in their work examining business networks in New Zealand, Collins et al. (2007) use the soft versus hard categorisation to describe informal and formal business networks respectively. Formal business networks are intentionally organised to achieve specific targets and often contractual agreements are present within formal business networks (Ibarra, 1992; Kingsley and Malecki, 2004; Lynch, 2010; Guercini and Tunisini, 2017) while informal networks comprise of loosely connected members who mainly interact with each other to share information and solve common problems (Cygler and Sroka, 2014; Spanikova, Birkman and Besseling, 2014).

As part of their network membership, businesses accrue various benefits: reduced transaction costs (Coase, 1937; Williamson, 1975; Radicic, Pugh and Douglas, 2018), access to resources (Penrose, 1959; Rosenfeld, 1997; Schoonjans, Van Cauwenberge and Vander Bauwhede, 2013), and a diversified risk portfolio (Kranton and Minehart, 2001; Rese and Baier, 2011; Radicic, Pugh and Douglas, 2018), amongst many others. Recognising these benefits of business network membership, researchers have focused predominantly on linking network membership to various factors that enhance firm performance, for example the impact of business networks on internationalisation (Dalmoro, 2013; Baraldi et al., 2018), a firm's dynamic capabilities to improve firm performance (Abbas et al., 2019; Jiang, Mavondo and Zhao, 2019) and developing competitive advantage (Meutia and Ismail, 2012; Liu, Chang and Fang, 2020). In addition, some researchers and policymakers have extended the focus to

examine the relationship between business networks and regional development (Besser, Miller and Perkins, 2006; InterTradeIreland, 2011; Rydehell, Löfsten and Isaksson, 2018; European Commission, 2020a). Therefore, it can be argued that the research on network membership focuses heavily on firm performance, its impact on the economy and is mostly analysed at either firm or society level (Lynch, Lenihan and Hart, 2009; Lenihan, 2011) thus ignoring the impact on individual members of business networks.

Organisational behaviour literature recognises the complex interactions within an organisation hence identifies three different levels within an organisation: namely, individuals in the organisation (micro level), groups in the organisation (meso level) and the organisational system (macro level) (Foster and Metcalfe, 2012; H. Chung et al., 2016). These layers do not exist in isolation and often influence the macro level outcomes of the organisation, for example, behaviour of an individual can affect the performance of their group which eventually may impact the firm's overall performance (O'Reilly and Chatman, 1986; Podsakoff, Ahearne and Mackenzie, 1997; Hitt *et al.*, 2007; Foster and Metcalfe, 2012). As the smallest unit within an organisation, it is claimed that individual employees initiate and carry out change in organisations hence the role of the individual employee is crucial to understanding the overall changes of the organisation (Katz, 1964; Wanous, Reichers and Austin, 2000; George and Jones, 2001). This is particularly important in understanding the impact of individual employees' behavioural changes on their organisation, especially in micro firms which have less than 10 employees. The owner-managers of micro businesses face many challenges as they are responsible for carrying out many tasks simultaneously and are often the only decision makers in their firms. Despite the existence of many micro businesses in many economies around the world and the contribution they make to their national economies, micro businesses and their owner-managers have received little attention from academia.

Therefore, this inter-disciplinary research will contribute to knowledge in behavioural additionality, organisational behaviour, and business network research by applying the behavioural additionality concept beyond its traditional context. This research applies this concept in order to examine the behavioural impact of business network membership at the individual level, which is an area that has been under-researched previously. In addition, this research extends the understanding of the behavioural additionality concept by introducing individual level units of analysis which can be applied to understand the impact of any intervention at the individual level. The findings of this research will help business network members to realise the impact of their network membership while network organisers may be

able to maximise their offering to members. Policymakers may consider assisting researchers to investigate further the impact of business network membership on micro businesses (less than 10 employees) in their pursuit of the creation of evidence based public support programmes.

1.3 Research Aim and Objectives

The aim of this research is to examine the behavioural additionality of informal business network membership at the individual level. In order to achieve this aim, the current research sets the following objectives.

- I. To explore how the behavioural additionality concept can be applied to investigate the impact of business networks on their members' behaviour
- II. Develop a theoretical framework to examine behavioural additionality of network membership at the individual level
- III. To contribute to research and practice, and policy discussion in the areas of informal business networking

1.4 Structure of the Thesis

This thesis comprises of nine chapters, which begins with an introduction to the thesis (Chapter 1) in which a brief background and rationale for the current research has been provided. In Chapter 2, the additionality concept and its subcategories including behavioural additionality are discussed in more detail while Chapter 3 is dedicated to discussing business networks, its definitions and the definition adopted for the purpose of this thesis. Prior research on impact of business networks is also discussed in Chapter 3 in order to identify the gap in knowledge in business network research. Chapter 4 proposes a theoretical framework to examine behavioural additionality at the individual level, after analysing models that are used to evaluate the impact of business networks and individual behavioural change theories that are widely used in psychology. Research philosophy and methodology are discussed in Chapter 5. Chapters 6 and 7 present quantitative and qualitative findings of this research respectively while Chapter 8 discusses these findings in relation to the literature. The thesis is concluded in Chapter 9 in which limitations of the current research and the recommendations for future research are also presented.

1.5 Summary

In general, the impact of business networks is examined using various methods and concepts, including the behavioural additionality concept. Behavioural additionality is defined as the

change in behaviour of a firm as a result of an intervention. In the early stages, the number of new business networks a firm may enter into was used to measure the behavioural additionality, however, later development in this field has suggested using organisational routines as an effective unit of analysis in examining the concept. Despite offering a lens to explore the impact of other external projects/programmes on the behaviour of the firm, the behavioural additionality concept is very much limited to policy evaluation and is analysed at firm level. However, there is scope to expand this concept to evaluate the impact of a wide range of interventions as well as to understand the impact of these interventions on individuals, which is the aim of this thesis.

The current research contributes to the creation of new knowledge in the business network and behavioural additionality fields in a number of ways. Firstly, this thesis expands the understanding of the strength of the behavioural additionality concept by demonstrating that the concept can be applied successfully to examine the impact of interventions in a novel context (i.e. in a non-publicly funded or R&D oriented context). Secondly, this thesis successfully adopts a multidisciplinary approach to suggest a new unit of analysis that can be used to examine the behavioural additionality at an individual level. In doing so, finally this thesis will develop a theoretical framework that can be used to examine the behavioural changes of individual members of a business network as a result of their network membership, thus advancing the knowledge in business network research.

2.0 Literature Review -Additionality

2.1 Introduction

Additionality is a concept which first appeared during the 1980s in British subsidy evaluation projects and has since been used extensively in the evaluation of projects funded mainly by governments and non-governmental organisations, especially projects that are aimed at R&D related activities of firms. These projects may affect participating firms in many ways, and researchers and practitioners apply sub-categories of the additionality concept (i.e. input, output and behavioural additionality) to examine the multifaceted nature of the impact of these projects. In the early days, input and output additionality alone satisfied policymakers' need for strong evidence to justify these projects, which are often supported by public money. However, as the application of the concept grew over the years, researchers involved in evaluating these projects observed that these projects influence the behaviour of participating firms too and suggested that examining behavioural additionality can provide further evidence of the impact of these interventions on participating firms.

First introduced in 1995, behavioural additionality soon gained the attention of many scholars who offered different views of the concept and units of analysis. Almost two and half decades later, the concept is still very much limited to evaluating the impact of publicly funded projects. Therefore, this thesis aims to broaden the understanding of the behavioural additionality concept by examining its applicability in a different context (i.e. non-publicly funded and non-R&D focused), so this chapter aims to achieve the first objective of this thesis. This chapter also aims to demonstrate that behavioural additionality can be examined at the individual level thus the concept can be applied by researchers who are interested in providing evidence to policymakers to support their publicly funded programmes that are aimed at supporting individuals. Much of the literature discussed in this section is inherently related to R&D due to the nature of the previous studies in this area, however, every effort has been made to discuss the application of the concept in other contexts as well.

The chapter is structured as follows: Section 2.2 begins to discuss the concept by first offering a historic background to the term followed by available definitions. Subsections 2.2.1 and 2.2.2 discuss input and output additionality respectively to provide an understanding of these two concepts. These two types of additionality are discussed, however, the main focus of the current research is to critically evaluate behavioural additionality which is discussed in subsection 2.2.3. In this section, the practice of using organisational routines as the unit of analysis will

also be critically evaluated in order to seek its suitability for the purpose of the current research. Organisational routines are associated with firm level analysis, therefore this research argues that skills, capabilities, and habits are the appropriate unit of analysis at an individual level. The chapter then moves to discuss the definition of behavioural additionality at an individual level, which it is proposed to adopt in this thesis (subsection 2.2.3.1). The chapter will be concluded in Section 2.3.

2.2 Additionality

The first appearance of the term additionality in academia (in a business context) can be dated back to 1959 where John Davis mentioned the term briefly in his paper which discussed the practice of the United States of America's use of agricultural products as an auxiliary to foreign aid.

“In fact, if barter transactions are to be of mutual benefit to the recipient country and to the U.S. and in addition not to injure other exporters, there is need for a policy of additionality to be applied on both ends of the exchange” (Davis, 1959, p. 238).

However, he used the term to suggest additional (surplus) products and did not use the term extensively. Luukkonen (2000) who examined the additionality of European Union (EU) framework programmes, suggests that the United Kingdom (UK) used the term ‘additionality’ in a more meaningful way during the early 1980's, when the UK developed a framework utilising additionality to examine the relevance and impact of R&D projects that were publicly funded. According to English Partnerships (2008), any programme, project or a policy which is supported by the public sector in order to achieve its objectives can be referred to as an intervention. It is worth noting that the term ‘additionality’ is used by academics in Europe (including the UK) while North American researchers prefer the term ‘incrementality’, however, both terms refer to the same concept (Georghiou, 2002; Riding, Madill and Haines, 2007).

Additionality can be defined as the difference an intervention makes, that is, the net difference an intervention would bring compared to what would have occurred anyway (i.e. deadweight) (Georghiou, 2002; Georgiou, 2004; English Partnerships, 2008). The additionality concept gives the ability for a researcher to include both positive and negative effects of an intervention, as it is very important to include all impacts when assessing additionality (English Partnerships,

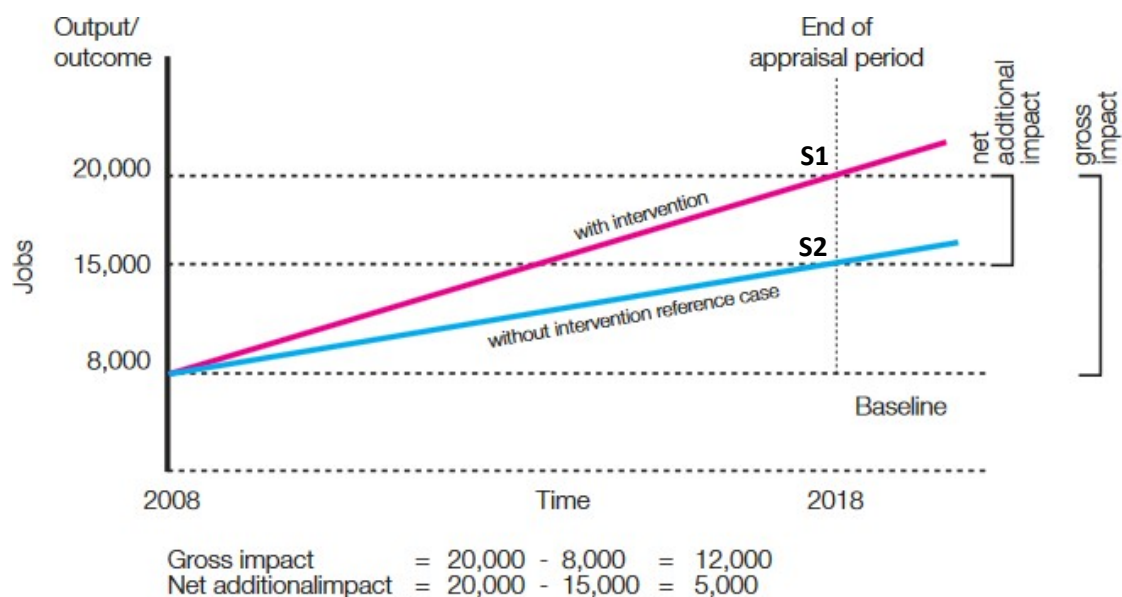
2008). The figure below (Figure) explains this definition using a simple graph. It compares two scenarios where an intervention had resulted in change in employment numbers. The number of jobs in an organisation is measured at two stages (in 2008 and 2018), and the graph considers the effects of an intervention on the number of jobs compared to a situation where no intervention has taken place.

Therefore, additional impact can be calculated by

$$A = S1 - S2$$

Where A is the net additionality, S1 is the end result with intervention and S2 denotes the end result without the intervention.

Figure 2.1: Additionality



Source: English Partnerships, 2008, p. 5

As shown in Figure , additionality is useful to evaluate the impacts of an intervention, and usually applied in R&D context where the companies have been supported by either governmental or non-governmental programmes.

The origin of the additionality concept lies within the market failure concept (Metcalf and Georghiou, 1997; Luukkonen, 2000; Aerts and Schmidt, 2008; Wanzenböck, Scherngell and Fischer, 2013). There are three reasons that can cause a market to fail, namely, inappropriability, uncertainty and indivisibility (Arrow, 1962; Izquierdo and Izquierdo, 2007;

Marciano and Medema, 2015). Out of these three reasons, inappropriability explains why for example firms underinvest in R&D, as the term refers to a firm's inability to appropriate the benefits derived from these activities. Firms may not invest to their optimal ability since firms are unable to avoid leakages and spillovers (Arrow, 1962). Governmental interventions that are targeted at addressing such situations aim to encourage firms to engage in more R&D activities (Vogel and Adams, 1997; Antonioli, Marzucchi and Montresor, 2014). However, to either continue or expand this support, officials in government departments (or funding bodies) need to convince their superiors that the programme has potential to make a difference, therefore assessing the impact of these policies is very important (Gertler et al., 2016). There are various methods of evaluating an intervention, however, in recent years, additionality has attracted the interest of academics and practitioners alike due to its multi-dimensional nature.

Apart from its application in evaluating governmental R&D projects, the additionality concept has recently attracted the attention of researchers in other areas whose interests lie in evaluating other projects. Examples include the Clean Development Mechanism (CDM) which is administered by the United Nations Framework Convention on Climate Change (Schneider, 2009; Zhang and Wang, 2011), farm conservation projects in the US (Mezzatesta, Newburn and Woodward, 2013) and environment conservation projects in Mexico (García-Amado et al., 2011). Even though these studies have applied the additionality concept in evaluating different kinds of projects, it can be noted that these studies have applied the concept broadly and failed to recognise the multi-dimensional nature of additionality as suggested in the mainstream additionality literature. For example, in their study on evaluating the Mexican government's efforts in environmental conservation projects, García-Amado et al. (2011, p.2362) refer to (a lack of) additionality as "payments are given for practices that would have been adopted anyway" while Mezzatesta, Newburn and Woodward (2013) suggest that additionality refers to whether services provided by an organisation that is publicly funded would continue to be available if the funding is ceased. It is evident that these studies referred to input additionality: a sub-category of additionality which will be discussed in the next section.

2.2.1 Input Additionality

Input additionality considers the amount and types of resources that firms would not have allocated to a project in the absence of external support (Georghiou, 1999). Georghiou (2002) explains the concept further and identifies three possible scenarios on the input additionality spectrum:

- (i) the company spends the same (or almost the same) amount of money as the external support,
- (ii) the firm does not match external funding and diverts the money received externally to increase firm's profits and
- (iii) the firm accepts funding for a project it would have carried out anyway and diverts their resources (which were originally allocated to this project) to another project.

It can also be argued that the availability of external funding might attract R&D projects with different objectives to that of the sponsors (changed objectives to satisfy the sponsors) (Clarysse, Wright and Mustar, 2009). Clarysse, Wright and Mustar (2009) investigate behavioural additionality (which will be discussed in more detail in Section 2.2.3) of R&D subsidies and argue there are two scenarios where funds are said to be misallocated: (a) funding a project which would have taken place anyway (with the company's resources) and (b) funding a project which has changed objectives to satisfy the sponsors. However, this is not ideal as government aid agencies do not want firms to divert these funds to their core activities (IDEA, 2009).

Madsen, Clausen and Ljunggren (2008) scrutinise the relationships among the three types of additionality and suggest that input additionality can be split into two sub-categories: direct input and indirect input additionality. The direct input additionality concept refers to a firm's decision to initiate a project (if the firm would not start a project without funding, then there is a direct input additionality) while indirect additionality refers to the knowledge/experience a firm would gain by including the subsidised project with other projects. However, it can be argued that their description of indirect input additionality is similar to the behavioural additionality concept, while the direct input additionality can be related to project additionality. Georghiou (2002) suggests that whether a project is additional or not is a separate question, hence cannot be used to assess its additionality using the additionality framework, thus rejecting the notion of project additionality.

David, Hall and Toole (2000) review published research in policy evaluations over 35 years to study the impact of subsidies and conclude that input additionality alone is not sufficient to evaluate the impact of projects. This view is echoed in Hyvärinen and Rautiainen's (2007) paper in which they measure the additionality of public support in Finland. This can be due to the assumptions made within the input additionality concept. Input additionality assumes a direct

link between the input and output which does not exist in the real world (Clarysse, Wright and Mustar, 2009). Clarysse, Wright and Mustar (2009) argue that there is little evidence on input additionality's ability to predict the impact of policy support on a private firm's R&D projects and suggest output additionality, the second type of additionality, offers more insight in this situation, which is echoed by many recent articles too (see works of Aristei, Sterlacchini and Venturini, 2017; Radicic, Pugh and Douglas, 2018).

2.2.2 Output Additionality

A firm's outputs that could not have been achieved without an intervention can be referred to as output additionality (Buisseret, Cameron and Georghiou, 1995; Georghiou, 2002; Radicic, Pugh and Douglas, 2018). Czarnitzki and Hussinger (2018) suggest that examining both input and output additionality of R&D subsidies is important as innovation activities of firms play a major role in economic growth especially in advanced economies. However, they argue that the majority of evaluation studies focus on examining input additionality. This can be due to various reasons such as finding the best time to examine the impact of an intervention. For example, Davenport et al.¹ (1998) examine the New Zealand government's support to firms in forming networks to find the impact of research collaboration among firms, in which they suggest that selecting the correct time to examine the benefits of an intervention is crucial. According to them, if the study is carried out too soon after the intervention is completed the benefits may not have been realised, while if it is left too long then isolating the impact of the project from other general economic (situations/factors/causes) can be difficult.

Georghiou (2002) adds that an investigator of output additionality would face another challenge, that is, accurate identification of outputs (such as patents, prototypes, new business partnerships) from outcomes (i.e. improved or new services or products which enhance the performance of the business). He further adds that externalities such as changing market conditions and the effects of 'sleeper technology' (sleeper technology may find its application years later – maybe due to complimentary technologies being developed or new applications of the technology being identified, therefore, the technology invented might not be useful immediately) may hinder the effective capture of output additionality. Hyvärinen and Rautiainen (2007) suggest firm size is another factor which may affect correct isolation of the impact of an intervention. According to them, "In smaller firms, a single R&D project might

¹ Not many studies discuss the time taken for the impact of an intervention to be realised, however, Davenport et al paid attention to this aspect of exploring additionality. As this is an important part of examining additionality effectively, this should be explored further in future.

be dominant in such a way that it can explain the improvements of performance as a whole” (Hyvärinen and Rautiainen, 2007, p. 207).

However, the traditional method of evaluating an intervention by assessing only input and output additionalities has been criticised for its inability to reflect all the impact of an intervention (Wanzenböck, Scherngell and Fischer, 2013). In 1995, Buisseret, Cameron and Georghiou, discuss additionality in the public support of R&D in large firms and suggest that additionality has another dimension, that is, how an intervention can affect a firm’s behaviour, which they termed as ‘behavioural additionality’. If input and output additionalities consider the firm to be a black box, behavioural additionality is an attempt to open the black box to reveal the forces within (Gök, 2010; Wanzenböck, Scherngell and Fischer, 2013; Radicic, Pugh and Douglas, 2018). Due to its ability to cover a wider range of changes occurring in a firm due to an intervention, this concept has garnered much attention from academics who investigate the effects of additionality as a whole.

2.2.3 Behavioural Additionality

First coined in their article in 1995, Buisseret et al. (1995) suggest that the behaviour of every firm participating in a programme is affected by the programme and they name this behavioural change as behavioural additionality. In their own words behavioural additionality is “the change in a company’s way which can be attributed to policy actions” (Buisseret, Cameron and Georghiou, 1995, p.590). In essence, behavioural additionality examines the possible changes in the way a firm operates due to an external intervention (e.g. changes in internal operations and in their external relationships with other firms, customers, and so on) (Georghiou, 2002; Roper and Hewitt-Dundas, 2016; Chapman and Hewitt-Dundas, 2018).

Taking this view further, Georghiou (2002) divides these behavioural changes into two levels, namely, a strategic level (changing the firm’s area of activity or changing the strategy of the firm) or an acquired competences level (the firm acquiring competences within that project), however he adds that these two categories are not wholly separable. Wanzenböck, Scherngell and Fischer (2013) whilst examining the nature of behavioural additionality suggest that these strategic behavioural changes are of a long-term nature, while acquired competencies may have a short-term effect (i.e. a firm’s behavioural change within or directly related to a specific intervention). Even though Buisseret et al. (1995) were not explicit in defining the nature of the type of behaviour that they were referring to when they examined behavioural additionality, it is evident that the subsequent research on behavioural additionality referred to R&D activities

such as innovation behaviour of the firm predominantly, as the primary focus lied within evaluating the impact of R&D and related policy impact (Cunningham and Gök, 2012; Gök, 2010; Falk, 2007), thus limiting the application of the concept.

A wider project carried out by the OECD in 2006 to evaluate the behavioural impact of a number of programmes run by numerous member states endorsed the importance of examining behavioural additionality of public support programmes. As the interest in behavioural additionality started to grow in preceding years, researchers offered different views of the concept and divided the concept into many sub-categories. The then UK Department of Trade and Industry² recognises three effects of the behavioural additionality resulting from an intervention, namely, scale, scope, and acceleration additionality. These three categories explain whether an intervention can benefit a firm to increase the number (or size) of outputs, widen the market coverage or enter new markets (with new products), or can save time on reaching targets.

- (i) Scale additionality – creating economies of scale
- (ii) Scope additionality – ability to reach new markets as a result of the intervention
- (iii) Acceleration additionality – ability to speed up the process

Gök (2010) synthesises the different understandings of the concept and provides an in-depth literature review around the concept and application of behavioural additionality. He suggests that there are four different views of the concept: as an extension of input additionality (Category A); as the change in the non-persistent behaviour related to an intervention (Category B); as the change in the persistent behaviour related to R&D and innovation activities (Category C); as the change in of the general conduct of the firm (Category D) which is described in the table below (Table 2.1).

²In July 2016, Department for International Trade replaced the UK Department of Trade and Industry.

Table 2.1: Behavioural Additionality - Comparison of Different Definitions

	Category A	Category B	Category C	Category D
Definition	An extension of input additionality which covers scope, scale, and acceleration additionalities	The change in firm's non-persistence behaviour that are related to innovation and R&D activities	The change in firm's persistence behaviour that are related to innovation and R&D activities	The change in the general behaviour of the firm Refers substantially to building blocks of behaviour
Coverage	Only R&D and innovation	Only R&D and innovation	Only R&D and innovation	Beyond R&D and innovation
Persistence	No persistence – one off	Either no persistence or short-term weak persistence	More persistence	Persistence
Authors	Luukkonen, (2000); Hsu and Hsueh (2009)	Davenport, Grimes and Davies (1998); Clarysse, Bilsen and Steurs (2006).	Lenihan, Hart and Roper (2007); Busom and Fernández-ribas (2008)	Bach and Matt (2005); Knockaert, Spithoven and Clarysse (2014)

Source: Gök, 2010, p. 62

However, many scholars see these subcategories as the ones that link behavioural additionality to input additionality (Luukkonen, 2000; Hsu and Hsueh, 2009; Hsu, Horng and Hsueh, 2009). Luukkonen (2000, p.713) leads this point of view and according to her, “input additionality and behavioural additionality are usually merged together in a question that lists different degrees of additionality”. Therefore, the research that sees behavioural additionality as an integral part of input additionality can be categorised together (Category A). As these definitions discuss behavioural additionality integrated with input additionality, none of these articles discuss the ‘durability’ of the resultant behavioural changes of the firm.

Some researchers define behavioural additionality as the change in the non-persistent behaviour related to R&D and innovation activities of the firm (Category B). In their first paper that introduced the term ‘behavioural additionality’ Buisseret et al. (1995, p.590) argue that “... changes in company competence and behaviour which enable them to increase their commercial choices and effectiveness, are an important result of policy initiatives”. A similar

view was held by several other researchers such as Davenport et al. (1998), and Clarysse, Bilsen and Steurs (2006). It is interesting to see that these articles mention the relationship between behavioural additionality and behaviour of agents, however, none of the studies analysed behavioural additionality at the individual level. Their focus was examining the impact of the intervention at the firm level. In addition, it can be noted that articles falling into this category have different views on the persistency of the impact of an intervention. For example, Davenport et al. (1998, p56) suggest that these behavioural changes are “the most durable” compared to the outcomes of other additionalities, however, there is no mention of ‘how durable’ these changes are in categories A and B, whereas it is explicitly mentioned in categories C and D.

Since the early 2000’s, many researchers define behavioural additionality as the change in the persistent behaviour related to R&D and innovation activities (Category C). For example Lenihan, Hart and Roper (2007, p.318) argue that as a result of policy support “...the behaviour of firms was radically changed in terms of their desire to introduce new ways of working and to undertake R&D”. Busom and Fernández-ribas (2008) are more cautious about making a claim for permanent behavioural changes. They suggest that “The change in behaviour may have permanent effects if it leads to repeated collaborations” (Busom and Fernández-ribas, 2008, p.263). However, in general, the definitions in this category hint at a longer persistency compared to the previous two.

According to Gök (2010), there are two points that set the literature that falls into this category apart from the rest: firstly, they define behavioural additionality as the general conduct of the firm and not necessarily limited to innovation activities, and secondly, these articles suggest that these behavioural changes last longer beyond the intervention. Therefore, analysing the definitions in this category will provide a good starting point to see whether the concept can be applied in different contexts.

The research in category D shows a significant difference to research in other categories, mainly due to the fact that they started looking into the building blocks of behaviour. For example, Bach and Matt (2005) see behavioural additionality as the impact that government policy has on the behaviour of agents, hence taking a micro level approach to firm’s behaviour. They challenge the generally held assumption that agents would act differently when there is no intervention as there is no empirical evidence to support that claim. However, Bach and

Matt (2005) suggest that investigating the behaviour of agents will not be an easy task as they identify that

“one problem is that investigating the behaviour of agents does not directly give information about whether the behaviour “with” State [sic] action is better or worse than the behaviour “without” State [sic] action, i.e. if there is additionality or not” (Bach and Matt, 2005, p.13).

As a remedy, Bach and Matt (2005) introduce a new type of additionality – cognitive capacity additionality, that is, the change in the total amount of information an agent can hold at any particular time as a result of an intervention. Their argument did not receive much attention as many scholars integrate cognitive capacity additionality into a broader concept of behavioural additionality rather than accepting the former as a separate type of additionality (Gök and Edler, 2012; Gök, 2010; Clarysse et al., 2009; Hyvärinen and Rautiainen, 2007; Georghiou and Keenan, 2006). For example, in their article, Knockaert, Spithoven and Clarysse (2014) examine the firm level behavioural additionality impact of technology intermediaries, and suggest that cognitive capacity additionality takes place when the competences of agents are changed as a result of the intervention, however, they admit that cognitive capacity additionality is part of behavioural additionality. Gök and Edler (2012) accept the learning element of the cognitive capacity additionality as an important factor, however, they did not articulate it effectively as they believe that the traditional definition of behavioural additionality is broad enough to cover cognitive capacity additionality and its elements. Another reason that may have contributed to this omission could be due to researchers trying to combine other factors into the cognitive capacity additionality. In their paper, Knockaert et al (2014) add that cognitive capacity additionality will result in enhanced collaborations of the firm too. However, increased collaborations as a result of an intervention is seen as a way of measuring behavioural additionality (Gök, 2010; Cunningham and Gök, 2012), which is being criticised for being an inappropriate way of examining behavioural additionality. This may have undermined the importance of exploring cognitive capacity additionality further, which eventually has led to a lack of consideration of the impact on individual actors and their contribution to wider behavioural additionality. In turn, this would have made a significant difference to the understanding of behavioural additionality. In addition, this strengthens the importance of a behavioural additionality definition that recognises the individual actors’ contributions to the wider impact of an intervention.

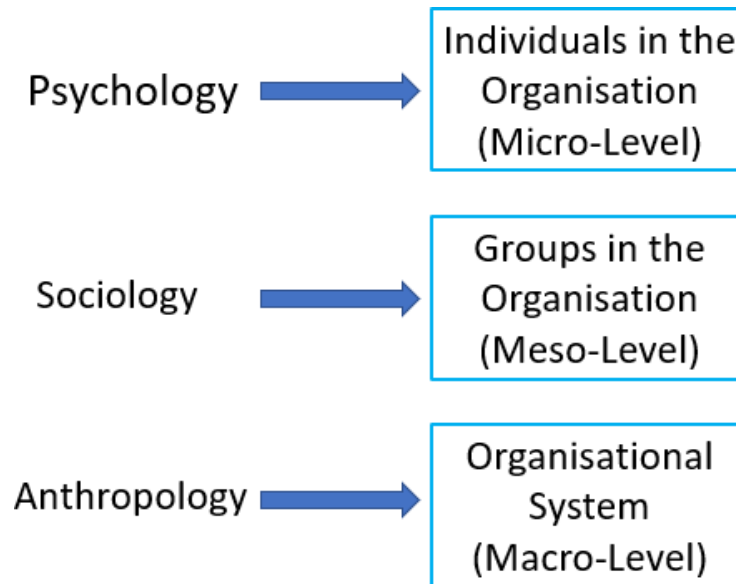
Based on the arguments generated in the preceding paragraphs, this research identifies several issues of using these definitions in the current research: firstly, many of these definitions are still from an R&D and policy evaluation context, secondly, they measure behavioural additionality as the change in collaborations or management strategies, and finally, behavioural additionality is primarily measured at the firm level. As discussed in Section 2.2.2, previous studies treat collaboration behaviour as a black box that takes inputs such as governmental support and then creates outputs. Increased collaboration, although the mechanism for doing this is not examined or understood.

Gök (2010) attempted to open the black box by going beyond collaborations to study behavioural additionality and suggested the use of organisational routines to examine the concept as one way forward. From an economics point of view, it can be argued that organisational routines are the main source of change within an organisation (Nelson and Winter, 1982; Pentland and Feldman, 2005; Pentland and Hærem, 2015), as they are considered to be the genes (Nelson and Winter, 1982) or in other words, building blocks of an organisation (Becker, 2004). Even though Stene introduced the concept of organisational routines in 1940 (Feldman and Pentland, 2003), the work of Nelson and Winter (1982) that discussed evolutionary theory provided a much-needed intellectual point of departure (Cohen et al., 1996). Many scholars have followed Nelson and Winter's call to put organisational routines at the centre of analysis of organisations in order to understand organisations and their change (Feldman, 2000; Becker, 2004; Becker et al., 2005; Pentland and Feldman, 2005), thereby providing a better understanding of the firm. Organisational routines can be defined as recognisable, repetitive patterns of interdependent actions of many actors (Feldman, 2003; Gök, 2010; Dionysiou and Tsoukas, 2013) and are critical for the existence of organisations (Cohen and Bacdayan, 1994) and can be treated as a unit of analysis in the attempt to understand how firms work (Nelson and Winter, 1982; Becker et al., 2005; Pentland and Hærem, 2015).

It is argued that capturing behavioural changes in an organisation as a whole is deemed difficult due to the fact that they occur as a result of various behavioural rules that are being applied by decision makers (Foster and Metcalfe, 2012). The structure shown in the Figure below breaks down these complex interactions within an organisation, hence providing a sound guide to study the behavioural changes at different levels. At the micro level, behaviour of individuals in an organisation is investigated, while the workplace networks or groups are investigated at the meso level. The wider effects of behavioural changes on the organisational system can be

examined at the macro level. In addition to that, Figure 2.2 also shows the different branches of social science that are used to explore these multi-layered changes of an organisation.

Figure 2. 2: Levels of Analysis



Source: Adapted from Chung et al., 2016.p. 434

Even though the behaviour within an organisation is layered at different levels, they are in constant interaction with each other and often influence macro level outcomes (i.e. individual behaviour can affect how a group would perform and that can impact the productivity of the organisation) (Chatman, 1989; Podsakoff, Ahearne and Mackenzie, 1997; Wanous, Reichers and Austin, 2000; Hitt et al., 2007). For example, Podsakoff et al. (1997) argue that in order to determine the profit-sharing component for each team, companies aggregate individual level data up to their team level. Hitt et al. (2007) identify different layers that exist in organisational settings hence agree that this creates implications for the research in this field. They further add that two main pitfalls researchers fall into in organisational research are: (i) not selecting the correct focal unit (e.g. individuals, groups, or organisations) and (ii) not distinguishing the boundaries of their chosen focal unit. The importance of selecting and defining the level of analysis prior to the research project has been mentioned elsewhere too (see the work of Davidsson and Wiklund, 2001). In their article, which aimed at supporting researchers in conducting multilevel research, Klein and Kozlowski (2000) do not reject single level analysis practice but object to any attempt to generalise findings of single level analysis to other levels.

For example, a micro level researcher commits an atomistic fallacy³ if they attempt to generalise findings from a micro level study to other levels. This research has selected the micro level (i.e. individual level) as the focal unit of the current research and does not aim to generalise findings to other levels, therefore avoiding committing an atomistic fallacy. Having identified the focal unit, it is also important to identify the unit of analysis which corresponds to this level, which is discussed in the section below.

In an article that discusses the application of organisational routines to understand organisational change, Becker et al. (2005) suggest that organisational routines capture changes on a micro level. However, it can be argued that organisational routines are not a micro level unit of analysis for various reasons. For example, it is evident that Becker et al. (2005) refer to the meso (group) level, as a few years later he argues that organisational routines capture “stable structures in collective action that emerge from the interrelating of individual action” (Becker, 2008, p.5). Furthermore, there is evidence in academia to suggest that organisational routines are being interpreted as team level entities (Gök, 2010; Salvato and Rerup, 2011). It is, therefore, fair to argue that organisational routine is a collective concept (Nelson and Winter, 1982; Hodgson, 2002; Becker, 2004: 2005; Greenhalgh, Voisey and Robb, 2007; Salvato and Rerup, 2011). In their article that analyses organisational routines in general, Greenhalgh et al (2007) summarise the key characteristics stipulated by Becker (2004) into a table (Table 2.2).

³The strength of relationships at one level of analysis may differ at different levels of analysis, or could even switch direction completely (Klein and Kozlowski, 2000, p.13).

Table 2.2: Key Characteristics of Organisational Routines

- Routines are recurrent, collective, interactive behaviour patterns
- Routines are specific (they have a history, a local context, and a particular set of relations) – hence, there is no such thing as universal best practice
- Routines co-ordinate (they work by enhancing interaction among participants)
- Routines have two main purposes – cognitive (knowledge of what to do) and governance (control)
- Routines, by allowing actors to make many decisions at a subconscious level, conserve cognitive power for non-routine activities
- Routines store and pass on knowledge (especially tacit knowledge)
- The knowledge for executing routines may be distributed (everyone has similar knowledge) or dispersed (everyone knows something different; overlaps are small)
- Routines reduce uncertainty, and hence reduce the complexity of individual decisions
- Routines confer stability while containing the seeds of change (through the individual's response to feedback from previous iterations)
- Routines change in a path-dependant manner (i.e. depending on what has gone before)
- Routines are triggered by actor related factors (e.g. aspiration levels) and by external cues

Source: Adapted from Greenhalgh, Voisey and Robb, 2007, p. 933

In every social organisation, people are considered to be the major input (Katz, 1964) and the role of the individual employee is crucial to understanding the overall changes of the organisation (Wanous, Reichers and Austin, 2000), as they are considered to be the smallest unit in an organisational setting (Felin and Foss, 2005; Hitt et al., 2007). In addition, it is suggested that change is initiated and carried out by individuals in organisations (Bartunek, 1984; Porras and Robertson, 1992; George and Jones, 2001). In a subsequent article, Gök, (Gök and Edler, 2012) accepts that his approach of using 'organisational routines' as the unit of analysis will still examine the change in firm behaviour, not the change in agents' behaviour. Behaviour is intangible, therefore, attempts to capture it through economic models may not necessarily provide insight into the concept (Falk, 2007) and behaviour itself should not be treated as a unit of analysis, that is, "behaviour per se is not a unit of analysis" (Gök and Edler, 2012, p.4).

As discussed, organisational routines are a macro level unit of analysis, therefore it cannot be used for the purpose of this research. It is therefore important to shift the focus to examine the corresponding unit of analysis at the micro level to help answer the research question of examining behavioural additionality of network membership at the individual level.

2.2.3.1 Measurement of Behavioural Additionality at the Individual Level

Gök and Edler (2012) argue that despite being widely used in research, the behavioural additionality concept lacks a proper unit of analysis and also is poorly defined. They further add that more research should be done in different contexts and different methodologies should be used to broaden the understanding of the concept. Therefore, this section aims to identify a suitable unit of analysis for this research, as well as, scrutinising the existing definitions to see their applicability in this thesis.

In his research paper that investigated the resource-based theory of competitive advantage of firms, Grant (1991) suggests that skills of individual employees are crucial for an organisation's operation. Furthermore, he adds that these two dimensions are at two different levels: "routines are to the organisation what skills are to the individual" (Grant, 1991, p.122). Richard Nelson and Nelson Winter who are best known for introducing evolutionary economics in which they suggest organisational routines as the genes of organisations, team up with Giovanni Dosi in 2000 to edit a series of articles themed on the nature and dynamics of organisational capabilities, and suggest that "individual skills, in turn, are among the building blocks of organisational routines" (Dosi, Nelson and Winter, 2000, p.19). Therefore, it can be deduced that the term 'routines' refers to the organisational level while the term 'skills' refers to the individual level (Grant, 1991; Dosi, Nelson and Winter, 2000; Dosi, Faillo and Marengo, 2008).

While emphasising the importance of including habits among the building blocks of routines, Turner and Cacciatori (2016) criticise capabilities-based scholars' ignorance of the role played by individual's capabilities in shaping organisational routines. For example, Grant (1991) suggests that capabilities involve coordination between a group of people, hence are not an individual level measure. Teece (2012) bears the same view and argues that even though individual skills are crucial in building capabilities, collaboration with others is as important in that process. However, it can be argued that Grant (1991) and Teece (2012) refer to organisational capabilities rather than individual capabilities as their focus lies in discussing capabilities at the organisational level. On the other hand, researchers such as Salvato and

Rerup (2011), Felin et al. (2012) and Winter (2013) challenge the traditional view of capabilities and argue that individual capabilities are part of the micro-foundations of routines.

Another term that appears to be connected to the individual level is 'habits' (Cohen and Bacdayan, 1994; Hodgson, 1998, 2008; Becker, 2004, 2005; Pentland and Hærem, 2015; Makowski, 2019). In an attempt to examine the concept of a routine in greater detail, Hodgson (2008) suggests that understanding the relationship between 'routines' and 'habits' is beneficial for two reasons. Firstly, routines rely on triggering habits of individuals and secondly, routines are the equivalent at an organisational level to habits at the individual level. While acknowledging routines and habits operate on different levels, Hodgson and Knudsen (2004) see the repetitive nature of both habits and routines as the common feature of these terms. Therefore, for an individual's behaviour to change, old habits should be broken and new habits are to be formed (Dahlstrand and Biel, 1997). Turner and Cacciatori (2016) suggest even though historically 'habit' has been widely studied under psychology, in recent years the term has attracted the interest of researchers in the organisational routines area, especially from scholars who are interested in understanding how individual level factors may affect organisations such as Felin et al. (2012), Winter (2013), and Cohen et al. (2014). "A habit is a form of automaticity in responding, which develops as a person repeats a particular behavior in stable circumstances" (Verplanken and Melkevik, 2008, p.16). This definition recognises three main characteristics of habits: automaticity, repetition, and stable circumstances. For an act to be called a habit, it has to be performed automatically (without deliberation), as a result of situational cues (stable circumstances), and should be performed repetitively, thus behavioural researchers see strong correlation between habits and behavioural change of individuals (Gardner, 2015; Wood and R nger, 2016; Makowski, 2019).

It can therefore be concluded that organisational routines are not an individual level unit of analysis and hence cannot be applied to examine behavioural additionality at the individual level. Therefore, this thesis proposes to use individual skills, capabilities, and habits as the individual level (i.e. micro level) units of analysis of behavioural additionality. This addresses the first issue identified by G k and Edler (2012): lack of clear understanding of the unit of analysis. Therefore, now the attention will be moved to finding a suitable definition to be used in this research, which in turn will address the second point: the concept of behavioural additionality is poorly defined.

As explained in Table 2. (Section 2.2.3), there are various definitions of this concept, however, almost every definition is aimed at looking at the behavioural change of the firm as a result of an intervention. Pérez (2016) briefly discusses behavioural additionality as changes at the organisation's micro level, however, he does not explore this aspect in depth. There is, therefore, a dearth of literature to support a specific definition for behavioural additionality at the individual level. For the purpose of this research, the proposed definition is derived from the definitions in Category D in Table 2.1.

This research thesis identifies that organisational routines can be further broken down to individual level units of analysis which are skills, capabilities, and habits. In addition, it is suggested that the concept should be broad enough to include all stakeholders, as the intervention may affect people's behaviour differently at different levels of engagement. Therefore, this thesis proposes the following definition which adds another dimension of behavioural additionality (i.e. the individual level), which can be used to examine behavioural additionality at an individual level and includes all types of interventions.

Individual level behavioural additionality due to participation in a project/programme can be defined as the change in skills, habits, and capabilities of individual stakeholders (or participants) as a result of their engagement in that project/programme.

2.3 Summary

In order to examine the applicability of the behavioural additionality concept in different contexts, this chapter carried out a detailed review of the behavioural additionality concept and its current application. As behavioural additionality is a subcategory of the additionality concept, the chapter began with a discussion of additionality. Additionality is a concept widely used in policy evaluation, which measures the impact of an intervention, and is defined as the difference an intervention makes. As an intervention may impact an organisation in many ways, academics have categorised the concept into three dimensions: input, output and behavioural.

Since its inception in 1995, behavioural additionality has garnered attention from policymakers and academics alike which has led to various definitions being presented in academia. Even though there have been calls to apply behavioural additionality in different contexts to broaden the understanding of the concept, all existing definitions are very much focused on R&D related interventions.

This research aims to advance the understanding of the concept by applying the concept in a novel context and by analysing it at a different level of analysis, which was promoted by Gök

and Edler (2012). The main challenges in researching behavioural additionality were identified as being a lack of understanding of the unit of analysis and the concept being poorly defined. Therefore, as a starting point, with the help of other disciplines such as organisation behaviour and sociology, this chapter identified a unit of analysis that corresponds to the individual level, that is, individual skills, capabilities, and habits. The chapter then moved to define behavioural additionality that enables researchers to examine behavioural changes at an individual level as a result of an intervention. The next chapter is aimed at reviewing business network literature in order to identify the avenues to apply behavioural additionality to examine the impact of business networks at the individual level, thus achieving the first objective of this thesis.

3.0 Literature Review - Business Networks

3.1 Introduction

The term ‘network’ is widely used in various contexts, such as computer networks, power networks and even transport (e.g. railway networks). However, this thesis focuses solely on networks in a business context, therefore, throughout this thesis the term ‘business network’ is used in this context. In academia and practice, the terms ‘inter-firm network’, ‘inter-firm collaboration’ and ‘networks’ are used interchangeably to refer to inter-organisational co-operation.

Business networks have witnessed a significant change to their role, whereby they are now seen as a tool to increase the “competitive strength and flexibility” of a firm (Johannisson, 2000, p.368), therefore most business network research has focused on the benefits to the firm (i.e. increased firm performance) such as firms’ attempts at internationalisation (Dalmoro, 2013; Baraldi et al., 2018), firm’s dynamic capabilities to improve firm performance (Abbas et al., 2019; Jiang, Mavondo and Zhao, 2019) and developing competitive advantage (Meutia and Ismail, 2012; Liu, Chang and Fang, 2020). On the other hand, some studies have focused on exploring the impact of business networks on society and the economy (InterTradeIreland, 2011; Lenihan, 2011; Goldman Sachs, 2013), however, the impact of business networks on individual members have largely been overlooked. This thesis aims to fill this gap in knowledge by exploring the impact of business network membership on individuals, particularly on their behaviour.

The aim of this chapter is to critically review relevant literature to provide an understanding of the nature of business networks to the reader. This will also assist to identify areas for future research and implications for members and organisers of business networks. The chapter begins with a discussion of reasons for businesses to network with others (Section 3.2). The chapter then moves on to a discussion of definitions of networks available in literature before suggesting the definition that is adopted in the current research (subsection 3.2.1). As discussed in Section 3.2, there are many reasons for businesses to network with others, thus many forms of business networks exist which is discussed in section 3.3. Then the chapter progresses further to discuss the most prominent categorisation of networks: formal versus informal business networks (Section 3.3.1) before justifying the choice of network that will be studied in this research. Section 3.4 discusses the research on the impact of business networks which

also helps to identify the gap in knowledge in this area before summarising and concluding the chapter in Section 3.5.

3.2 Why Do Firms Network?

Before beginning the discussion, it is worth explaining the difference between the terms ‘network’ and ‘networking’ to avoid confusion among readers. This research aims to investigate networks extensively, hence clarification of the term ‘networking’ would help to better understand the context in which it is being used in this research.

To begin with, the term ‘network’ is a noun while ‘networking’ and ‘to network’ are a participle form and a verb, respectively. According to Nohria and Eccles (1992) networks are a form of contemporary organisations (either large or small) while Cooke and Morgan (1993) suggest that ‘networking’ can be used as a method to connect firms with each other. They take the European Union (EU) strategies on actively encouraging firms to form networks with firms from other countries as an example of networking (getting the firms into the action of forming networks). Chell and Baines (2000) examine the role of networking in small firms’ performance and note that small enterprise support agencies actively encourage Small and Medium sized Enterprises (SMEs) to network. Therefore, it can be concluded that a ‘network’ refers to the structure of the network (Lynch, 2010) while ‘networking’ can be used to describe the deliberate activities of individuals which are aimed at initiating, maintaining, or developing further connections with other individuals (Keenan and Shiri, 2009).

Firms cannot be seen as isolated units. As Håkansson and Snehota (1989, p.187) once famously said “no business is an island”. Businesses collaborate with each other for various reasons, such as to reduce transaction costs (Coase, 1937; Williamson, 1985;1991) and to access each other’s resources (Penrose, 1959; Wernerfelt, 1984; Barney, 2001). Apart from these two reasons, which are highly cited for firm collaboration, firms can also benefit in many other ways through interacting with each other: the ability to grow (Tang, Mu and MacLachlan, 2008); a valuable opportunity to access other’s knowledge (Nahapiet and Ghoshal, 1998; Schoonjans, Van Cauwenberge and Vander Bauwhede, 2013; Massaro et al., 2019); a diversified risk portfolio (Kranton and Minehart, 2001; Sharafizad and Brown, 2020); the opportunity to learn about industry benchmarks and competitive trends (Mu, Peng and Love, 2008); amongst many others.

It can be argued that co-operation between individual firms can occur either with or without central authority (Richardson, 1972; Gattai and Natale, 2014; Jaekel, 2019). The cooperation with central authority usually refers to mergers and acquisitions (in the form of vertical and

horizontal integration, and diversification). The relationships among firms under this form of cooperation generally takes more of an intra-firm nature where one firm has been taken over by another. Cooperation among different business units of the same firm is also of an intra-firm nature, while the collaborative actions of individual firms that are independent of each other without central authority are known as inter-firm networks, which is the focus of the current research. The buyer-seller relationship has been a classic example in highlighting inter-firm collaboration. In this vein, Richardson (1972, p. 884) defines the simplest form of inter-firm collaboration as “that of a trading relationship between two or more parties which is stable enough to make demand expectations more reliable and thereby to facilitate production planning”.

Williamson (1975) continues to expand Coase’s (1937) transaction cost perspective and argues that the nature of the transaction decides the mode of economic governance in which a particular transaction will be carried out but does not explore this further. Granovetter (1985) suggests that economic activities are inseparable from social relationships as the former takes place within the latter. Håkansson and Snehota (1989) advance this view further by arguing that firms do not act like isolated islands as they develop relationships with others in a social and economic context. The global business world saw inter-firm collaborations increase in popularity during the late 20th century, especially since the 1980’s, in order to carry out transactions which were previously carried out in the market or hierarchical organisations (Gomes-Casseres, 1994; Ring and Van De Ven, 1994; Grandori, 1997; Gulati and Singh, 1998). Gomes-Casseres (1994) argues that these collaborations are not conventional two-company alliances and suggests these relationships may exist in a wide range of industries ranging from computer hardware to aviation which highlights the complexity of the nature of inter-firm collaborations.

Granovetter (1995) called this ‘new’ form of collaboration a ‘business group’ and observes that this behaviour of the firm is somewhat opposite to transaction cost theory which suggests that firms will internalise transactions that are repetitive and complex, however, in these business groups, firms may outsource some of these transactions to others in the group. This behaviour may still benefit members through sharing costs and sharing information (BarNir and Smith, 2002; Chen, Tan and Jean, 2016), and to gain some other benefits such as, to learn from each other (Nahapiet and Ghoshal, 1998; Mu, Peng and Love, 2008; Massaro et al., 2019), to generate higher returns (Conner, 1991; Madhok and Tallman, 1998; Williams, 2019), to reduce the risks (Hamel, Doz and Prahalad, 1989; Ring and Van De Ven, 1994; Sharafizad and Brown,

2020) and to expand their market (Ring and Van De Ven, 1994; Enright and Ffowcs-Williams, 2000; Spanikova, Birkman and Besseling, 2014; Chen, Tan and Jean, 2016).

However, some researchers argue that collaborating with other firms poses various risks for organisations. For example, risks associated with sharing information and resources (Lynch, Lenihan and Hart, 2009; Lenihan, 2011), wasting useful resources (Hitt, Ireland and Hoskisson, 2009; Kumar, 2019), being locked-in to their network hence not being able to form partnership with non-member firms (Lynch, Lenihan and Hart, 2009; Mattsson and Cassel, 2019), and their own reputation and efficiency being affected by mistakes of other member firms (McFarland, Bloodgood and Payan, 2008; Sharafizad and Brown, 2020). Despite these drawbacks, businesses continue to collaborate with each other as they perceive the benefits to outweigh costs, which can be evidenced by increased business network activity among businesses.

Economists' attempts to describe networks as a mode of governance have created a clear division on where networks stand; one party argued that networks are an 'intermediate' or 'hybrid' form of markets and hierarchies (Thorelli, 1986; Williamson, 1991) while others have argued that networks are a 'third-type' hence an alternative to markets and hierarchies (Johannisson, 1986; Powell, 1990). However, Grandori and Soda (1995) suggest that the debate on the position of networks as a mode of economic governance has gone too far in an unnecessary way; "both approaches stress, in an unnecessary way, some interesting properties of networks at the expenses of others" (Grandori and Soda, 1995, p.184). Therefore, this research will not focus on the economic position of a network hence reserves its focus to discussing types of networks as it is important to identify the existing types of networks before selecting a network to study in this research project.

In order to understand business networks, adopting a clear definition of a business network for this research is crucial, as O'Donnell et al. (2001) argue that adopting different definitions is one of the reasons (the other reasons are adopting different levels of analysis and employing different research methods) why research findings are contrasting sometimes, therefore, the following section discusses the available definitions for networks.

3.2.1. Definition of a Business Network

According to the Oxford English Dictionary a 'network' can be either 'an arrangement of intersecting horizontal and vertical lines' or 'a group or system of interconnected people or things'. Therefore, it is not uncommon to see the word 'network' being used extensively in a wide range of disciplines including for example, information technology (IT) and sociology to

describe inter-connected (or inter-dependent) activities (Ring and Van De Ven, 1994; Grandori and Soda, 1995; Sprenger, 2001; Bergenholtz and Waldstrøm, 2011; Marshall et al., 2018). This multi-faceted nature of the network concept has allowed many definitions to exist in academia, however this research focuses solely on business networks, hence only definitions in a business context are discussed.

The term ‘business networks’ is used extensively, however there are many definitions for the term ‘business network’ within the literature (some authors refer to business networks as inter-firm networks or inter-firm collaborations) due to its application in many different contexts and from multiple perspectives. Many definitions acknowledge that they consist of companies that are connected or bound together through some form of sustained interaction, within which there is necessarily a degree of commonality (Huggins, 2000; Hagedoorn, 2002; O’Donnell, 2014; Li and Yayavaram, 2019).

One notable difference between these definitions is that there are two different schools of thought: one is from an economics perspective and the other is from sociology. From an economic point of view, the participants are referred to as firms or organisations and their interactions are seen as transactions. For example, Huggins (2000:2018) and Hagedoorn (2002), both see networks as being at least two independent firms working together either to solve a common problem (Huggins, 2000) or to share some activities (Hagedoorn, 2002). On the other hand, some scholars (such as O’Donnell, and Li and Yayavaram⁴) take a more sociological perspective and pay more attention to the relationships (threads or links) among participants (actors or nodes) when describing a network. The latter school of thought and its popularity among sociologists has led to the idea of social networks, and the ways to analyse certain characteristics of networks such as the power distribution among members. This view of networks garnered the interest of researchers in business related disciplines (especially marketing), and the members of the International Marketing and Purchase group contribute to the advancement of knowledge in this area substantially. This shows how different researchers see business networks in order to link the definition to their research question. As the emphasis of the sociological perspective (i.e. the relationship between participants) lies beyond the scope

⁴ There are more prominent scholars in this area such as Granovetter and Burt and their research is cited in many other preceding studies. However, for the purpose of currency and to show that the original ideas put forward by Granovetter and Burt are still considered to be valid, the author decided to use this article in this thesis to present the definition of a network.

of this research, the following paragraph is reserved to discuss a number of definitions available in the economic school of thought, in order to see their applicability to this research.

Among the definitions that take an economics perspective, the one offered by Lynch, Lenihan and Hart (2009) is unique as they include the mode of governance into their definition. According to them, networks can be governed by either written formal contracts or an informal exchange of information, hence they define a business network as any collaboration ranging from joint ventures (with written contracts) to (informal) information exchange arrangements, between independent business organisations. However, it is evident that the process of networking considers non-formal aspects such as trust, partnership, and expectation of fair benefit to every participant to be more important than governing the network by formal methods entirely (Ring and Van De Ven, 1994; Sydow and Windeler, 1998; Sprenger, 2001; Jaekel, 2019). Another definition worth examining is the one offered by Spanikova, Birkman and Besseling (2014). They examine several business network programmes within the EU, in which they argue against the idea put forward by Lynch et al. that joint ventures are a form of business network. Spanikova et al., stress that despite being in an inter-firm cooperation agreement (which might be legally bound), member firms of a business network still retain their autonomy.

In addition, it is evident that while some business network definitions are silent on the geographical location of member firms, others highlight that business network membership does not depend on the geographical location of members. For example, Spanikova et al. (2014, p.7) specifically mention that members of business networks can be located in “different regions or countries”. Collaboration among member firms who are located in the same geographical location such as business parks are referred to as clusters (UNIDO, 2020), however, it can be argued that business networks can be formed between firms within clusters, but can also exist outside clusters (Foghani, Mahadi and Omar, 2017; UNIDO, 2020). Hence, it is evident that business network membership does not depend on geographical proximity so for the purpose of this research, a hybrid definition of Lynch et al. (2009)’s and Spanikova et al. (2014)’s is offered.

A business network is a cooperative arrangement between independent business organisations that are not geographically concentrated, and can vary from a contractual agreement based on common development objectives to informal exchanges of information between these individual legal entities.

The current research adopts this definition, and as the definition highlights, various structures of business networks exist, which is discussed in the following section.

3.3 Types of Business Networks

Socially influenced economic activities between firms have created many different obligational networks; as subcontracts or cooperative contracts among small firms, and among large and small firms as strategic alliances (Campbell, Hollingsworth and Lindberg, 1991; Håkansson and Ford, 2002; Romero, 2018). According to Todeva and Knoke (2005) organisations' thirst to improve their efficiency and competitive advantage while avoiding unfavourable aspects of markets (uncertainties) and hierarchy (structural rigidities), provide opportunities for different varieties of inter-firm formations to emerge. The choice of the type of network may depend on many things: one being the nature of existing interpersonal networks between firms (Larson, 1992; Granovetter, 1994; Grandori and Soda, 1995; Romero, 2018), transaction costs, social relations and institutional constraints (Zhou et al., 2003). Benkler (2006) argues that changes in the economic organisation, technology and social practices of production have opened new ways for firms to share information and knowledge, which then encourage loosely or tightly woven collaborations.

Due to the multi-faceted nature of networks, the literature suggests many sub-divisions of networks depending on their structure and expectations from membership, where formal versus informal is the most commonly used sub-division (Birley, 1985; Huggins, 2000; Contractor, Wasserman and Faust, 2006; Christopher and Ann-Frances, 2007; Lynch, 2010; Rydehell, Löfsten and Isaksson, 2018). Other sub-divisions include, open versus closed (Granovetter, 1973; Sherif, Munasinghe and Sharma, 2012) and soft versus hard networks (Bosworth, 1995; Rosenfeld, 1997; Chetty and Holm, 2000; Ffowcs-Williams, 2000; Rosenfeld, 2001; Sherer, 2003). It is important to highlight the type of network being studied, as it may not be appropriate to generalise findings across different types of networks. The aim of this research is to examine the behavioural additionality of network membership, hence the next question is which type of network? The next section discusses formal and informal business networks before justifying the choice of type of network that will be studied in this research.

3.3.1 Formal and Informal Business Networks

In the mid-1980s, Birley (1985) attempts to distinguish the difference between formal and informal business networks by examining the importance of support and connections for the survival of start-ups. She suggests two forms of networks an individual business can draw

upon: formal (local, state, or federal agencies such as banks, lawyers, accountants, and chamber of commerce) and informal (friends, family, previous work colleagues and employers).

Taking Birley's (1985) view on formal business networks, many researchers see networks created by governments or non-governmental organisations to support their businesses as formal business networks (Parker, 2008; Schoonjans, Van Cauwenberge and Vander Bauwhede, 2013; Munksgaard and Medlin, 2014), while others suggest formal business networks are created by independent businesses themselves, such as the creation of strategic alliances (Gomes-Casseres, 1994; Kingsley and Malecki, 2004; Fuller-Love, 2009; Lynch, 2010). The former can also be known as formal membership organisations while the latter's main feature is having a contractual agreement among members (Besser and Miller, 2011).

Maurizio et al. (2016) argue against including networks that are created due to a policy decision (i.e. governmental or non-governmental) in examining formal business networks, as they argue that it will make it difficult to isolate the effect of the network from other measures taken by policymakers (i.e. specialist training that is sponsored). However, they also agree that contractual agreements among independent businesses are a main feature of formal business networks. By combining the definitions of Rosenfeld (1997) and Huggins (2001), they see that members of a formal business network enter into the agreement "...with the explicit aim of co-producing, co-marketing, co-purchasing or cooperating in product or market development" (Maurizio et al., 2016, p.2)

Formal contracts aim to address the issues in a network such as opportunism and moral hazards (Williamson, 1975; Ibarra, 1992; Kingsley and Malecki, 2004; Guercini and Tunisini, 2017) 1975). However, as all conditions of unpredictable or unanticipated future behaviour cannot be included explicitly in formal contractual agreements, most successful formal networks expect basic trust, mutual understanding, and knowledge-sharing between member firms (Todeva and Knoke, 2005; Provan, Fish and Sydow, 2007; Massaro et al., 2019), thus indicating the importance of social factors, which predominantly exist in informal networks, to the success of formal networks as well.

In contrast to formal business networks, the use of 'informal business networks' is not as clear cut, as the term is closely associated with 'social networks' or even sometimes called 'personal networks' (Skokic, Lynch and Morrison, 2019). For example, according to Birley (1985), informal networks are said to consist of family, close friends, previous employers, and colleagues. Since then researchers have offered a number of perspectives of the term, however,

Birley's (1985) definition is commonly applied. Furthermore, it is not uncommon to see papers on informal business networks use terms such as 'social networks' and 'personal networks' interchangeably in their articles too. One example is the work of Rydehell, Löfsten and Isaksson (2018) who use Birley's (1985) definition of informal business networks to examine the impact of business networks on technology-based firms in Sweden. Another is a recent study carried out by Sharafizad and Brown (2020) on business networks in regional Australia in which they adopt Birley's (1985) definition of informal networks and acknowledge an informal network can also be known as a social network or personal network. However, as this research is focused on business networks, definitions of social networks or personal networks were not considered.

In informal business networks the membership is voluntary (Cygler and Sroka, 2014; Spanikova, Birkman and Besseling, 2014; Martin-Rios and Erhardt, 2017). Informal business networks provide a platform for (loosely connected) firms to exchange and share information, and to solve common problems (Huggins, 2000; Spanikova, Birkman and Besseling, 2014; Capone and Lazzeretti, 2018). These informal business networks may not have formal contracts to govern the actions of their members, however, they may enforce control indirectly either through the structure of the network, or norms of trust and reciprocity (Provan, Fish and Sydow, 2007). Therefore, it can be summarised that informal networks can be separated from formal business networks by the following features:

- (i) membership is voluntary,
- (ii) members have no specific common goal or objective (such as to co-produce, co-market, co-produce or cooperating in product or market development); and
- (iii) the behaviour of members is not governed by a formal contract.

For the purpose of this research, informal business networks will be selected over formal business networks. This is mainly due to the fact that members of formal business networks are driven by specific objectives or goals and governed by formal contracts (Maurizio et al., 2016; Capone and Lazzeretti, 2018; Huggins, 2018) therefore, behaviour may be influenced by the requirements of the contracts. In addition, members may be under pressure to report positive outcomes due to the expectations of their organisations. On the other hand, informal business network members are not obliged to perform certain acts (i.e. not working together to co-produce or co-market) and are motivated to share information in a social setting, therefore

the impact of network membership on behaviour may be more nuanced. In addition, the majority of studies that have examined ‘informal business networks’ have focused on examining inter-personal relationships within the network and have included the individuals’ social circle in their analysis, thus not focusing on a pure business context. Therefore, examining an informal business network where the members’ social circle is excluded and not depending heavily on personal relationships will advance the understanding of the impact of informal business networks on members.

Regardless of the type, business networks impact their members positively (Birley, 1985; Krackhardt and Hanson, 1993; Fuller-Love, 2009; Rydehell, Löfsten and Isaksson, 2018; Sharafizad and Brown, 2020) and the topic of business networks has gained attention from researchers and policymakers alike, aiming to understand the impact of business network membership, which is discussed in the next section.

3.4 Research on the Impact of Business Networks

The impact of business networks has been researched from a number of perspectives, however, a large number of researchers focus on investigating the impact on member firms. For example, Seppo (2007) examines the role business networks play in Estonian chemical enterprises’ internationalisation process in which she identifies the provision of market information and support as the main benefit that a business network can provide to a firm entering a new market overseas (Seppo, 2007). Subsequent researchers have explored the impact of business networks on firms’ internationalisation in different industries, such as the garment industry (Dicken and Hassler, 2000), wine-making (Dalmoro, 2013) and industrial manufacturing (Baraldi et al., 2018; Jeong, Jin and Jung, 2019), and have reported similar findings to Seppo (2007).

In their paper that explores the correlation between business network membership (both formal and informal) and international performance of South Korean SMEs, Jeong, Jin and Jung (2019) take a resource-based view of the firm in analysing the impact of business networks and suggest that networks may contribute to building capabilities of the firm. Jeong et al. (2019) also identify the other resources a firm possesses (i.e. brands, intellectual property, plants and machinery and human resources) and the importance of managers in building resources to build capabilities that would provide competitive advantage to the firm, however they did not explore the impact of business networks on these managers. Similar research has been carried out into the impact of business networks in developing firm’s dynamic capabilities (Abbas et al., 2019; Jiang, Mavondo and Zhao, 2019) and developing competitive advantage (Meutia and Ismail,

2012; Liu, Chang and Fang, 2020) which in turn helps to improve firm performance, however, similar to Jeong et al. (2019), none of this research has explored the impact of business networks on individuals within those businesses or the impact the networks had on those individuals and how in turn that impacted the business. In addition, these papers have predominantly focused on formal business networks, thus leaving a gap in knowledge in understanding the impact of informal business networks.

Studies have, however, focused on the impact of business networks on the economy and wider society. For example, the report prepared by Lengrand and Chatric (2000) for the European Commission on examining the impact of business networks on the economies of some member countries and Canada, identifies that business networks play an important role in moving a knowledge-driven economy forward. The report, however, falls short of identifying the impact of business networks on individuals, as the report's focus lies at the country level. A similar report produced by InterTradeIreland (2011) also identifies the importance of business networks not only to member firms, but also to the wider economy. The report further justifies the governmental interventions that promote business networks, which acts as a policy tool to facilitate economic development.

“Through collaboration firms can complement each other and specialise in different areas to overcome such barriers to achieve collective efficiency and compete in markets beyond their individual reach. This is the main rationale for government intervention to encourage the development of business networks as a policy tool to facilitate economic development” (InterTradeIreland, 2011, p.6).

This report also discusses the behavioural aspects of business network membership, however, the focus is limited to discussing behaviour of the firm rather than individual members even though they refer to the term ‘members of a network’. According to the report, member firms within a network are more likely to collaborate on developing new products, entering new markets, or improving competitiveness, share knowledge and learn from their peers compared to other firms. This also highlights the impact of business networks in terms of fostering new collaborations and developing new knowledge, however not at the individual level.

In their report on the progress of a programme designed to support UK small businesses, Goldman Sachs (2013) proposes that building strong business networks among small businesses will benefit those businesses, which will subsequently contribute to the economy positively. UK policymakers welcomed the proposal, however, they did not limit the focus

only to small businesses (HM Government, 2017). Instead, the UK government believed that regardless of the size of the firm, business networks benefit all member firms hence created programmes to encourage businesses to collaborate with each other, as well as other organisations such as universities and non-governmental agencies such as Local Enterprise Partnerships (LEPs) (HM Government, 2017). However, there is no evidence of extensive research on the impact of business networks on individual members conducted by or for the UK policymakers.

As depicted in Figure 2.2 (Section 2.2.3), the organisational behaviour (OB) literature suggests that individual employees are considered to be the smallest unit of an organisation, therefore, the impact of individual behaviour on others within that organisation is undeniable. In addition, by recognising the existence of different levels within an organisation and their constant interaction, OB as a discipline recognises the importance of individuals' impact on their organisations' success (Rollinson, 2008; Dailey, 2016), thus highlighting the need for understanding of individual behavioural changes as a result of an intervention. As this chapter argues, previous research on the impact of business networks has predominantly focused on the member firms and the society. This clearly identifies a gap in the existing research, that is, the impact of business network membership at the individual level, which is addressed in this research.

3.5 Summary

As illustrated in this chapter, firms collaborate for a wide range of reasons including (but not limited to) to reduce costs, to gain access to other's resources, and to learn from others. This has led to the perception of networks as an instrument to enhance competitive strengths and flexibility, and the number of firms exhibiting collaborative behaviour has surged. As a result, researchers from various disciplines were attracted to the field which has resulted in a myriad of definitions for business networks. However, for the purpose of this thesis, the following definition is adopted.

A business network is a cooperative arrangement between independent business organisations that are not geographically concentrated, and can vary from a contractual agreement based on common development objectives to informal exchanges of information between these individual legal entities.

Firms' need to enhance their efficiency while avoiding the uncertainty of markets and to have greater flexibility (hence avoiding structural rigidities), have paved the way for the emergence

of a wide range of network structures: formal versus informal, soft versus hard, and open versus closed, among many others, however, the most common terms to distinguish networks are formal versus informal. This thesis focuses on examining the impact of an informal business network as resultant behaviours of formal business networks can be influenced by the requirements of contracts among member firms.

Researchers and policymakers alike have examined the impact of business network membership however, these studies have been conducted either at the firm or at the country level thus ignoring the impact of business network membership at individual level. The current research aims to fill this gap in knowledge by exploring the impact of business network membership on individuals' behaviour by using the behavioural additionality concept which was discussed in the previous chapter. As both chapters identified this gap in knowledge in both fields, the first objective of the current research, which was to critically review the literature relating to behavioural additionality and business networks in order to determine how the behavioural additionality concept can be applied to investigate the impact of business networks on their members' behaviour, was achieved. The next chapter will review existing literature on the impact of business network membership and individual behaviour change before proposing a theoretical framework to examine the behavioural additionality of network membership at the individual level, hence achieving the second objective of this research: Develop a theoretical framework to examine behavioural additionality of network membership at the individual level.

4.0 Literature Review - Impact of Business Network at the Individual Level

4.1 Introduction

In the previous chapters (Chapter 2 and 3), it was established that behavioural additionality can be applied to examine the impact of business networks at the individual level, therefore achieving the first objective of this research which is to critically review the literature relating to behavioural additionality and business networks in order to determine how the behavioural additionality concept can be applied to investigate the impact of business networks on their members' behaviour. This chapter aims to develop an understanding of the impact of business networks at the individual level and subsequently to develop the theoretical framework to examine the behavioural additionality of network membership at an individual level, thus achieving the second objective of this research. This will predominantly be useful to business network members to evaluate the impact of their membership on themselves, and from a micro business perspective, on their business too. In addition, the theoretical framework developed in this chapter may be of benefit to business network organisers who would like to improve their offering to members while researchers may use the framework to further their research into micro businesses.

As discussed in Section 3.4, there is a vast amount of research on the impact of business networks, however, the majority of the research on the impact of business networks focuses on examining the impact of the network on certain characteristics of the firm such as growth, rather than providing a framework that can be used to investigate the impact of the network on members holistically. In 2009, however, Lynch, Lenihan and Hart successfully developed a logic model to create a detailed framework to examine the impact of a single business network in Ireland in which they focused on examining the firm level impact of business network membership. One of the co-authors (Lenihan, 2011) developed the model further to include the wider societal impact of business networks. Despite both models recognising the change in individuals' behaviour as a result of their network membership, they failed to explore these impacts of business networks on individuals' behaviour in more detail. Therefore, this research proposes a logic model that builds on the previous models (Section 4.2).

As the current research focuses on behavioural additionality at the individual level, the focus then moves to examine the factors that influence human behaviour (Section 4.3) in which attitude (Section 4.3.1) habits (section 4.3.2) and context (Section 4.3.3) are identified as pivotal in understanding human behaviour. Most theories that are available in social

psychology focus on internal factors, however, the A-B-C model that combines both attitude and contextual factors in examining behaviour is discussed in Section 4.3.5. Extending the A-B-C model to include other internal factors: namely, habits, skills and capabilities, this research develops a theoretical framework to examine behavioural additionality of network membership at the individual level, which covers the second objective of this research. The chapter is concluded in Section 4.4.

4.2 Theoretical Framework to Examine Behavioural Additionality of Network Membership at Different Levels of Analysis

As explained in the previous sections, the existing models that can be used to analyse the impact of business networks either take a broader firm level view or a wider societal perspective but do not allow deeper investigation into the firm.

Lynch et al. (2009) carry out a detailed examination on an industry-led network initiative in Ireland in which, they propose a logic model as a theoretical framework to evaluate the impact of business networks. They recognise the fact that the logic model is a widely used tool in evaluation in numerous fields such as education, management practices, health and community-based initiatives, but that it has not been applied in business network evaluation.

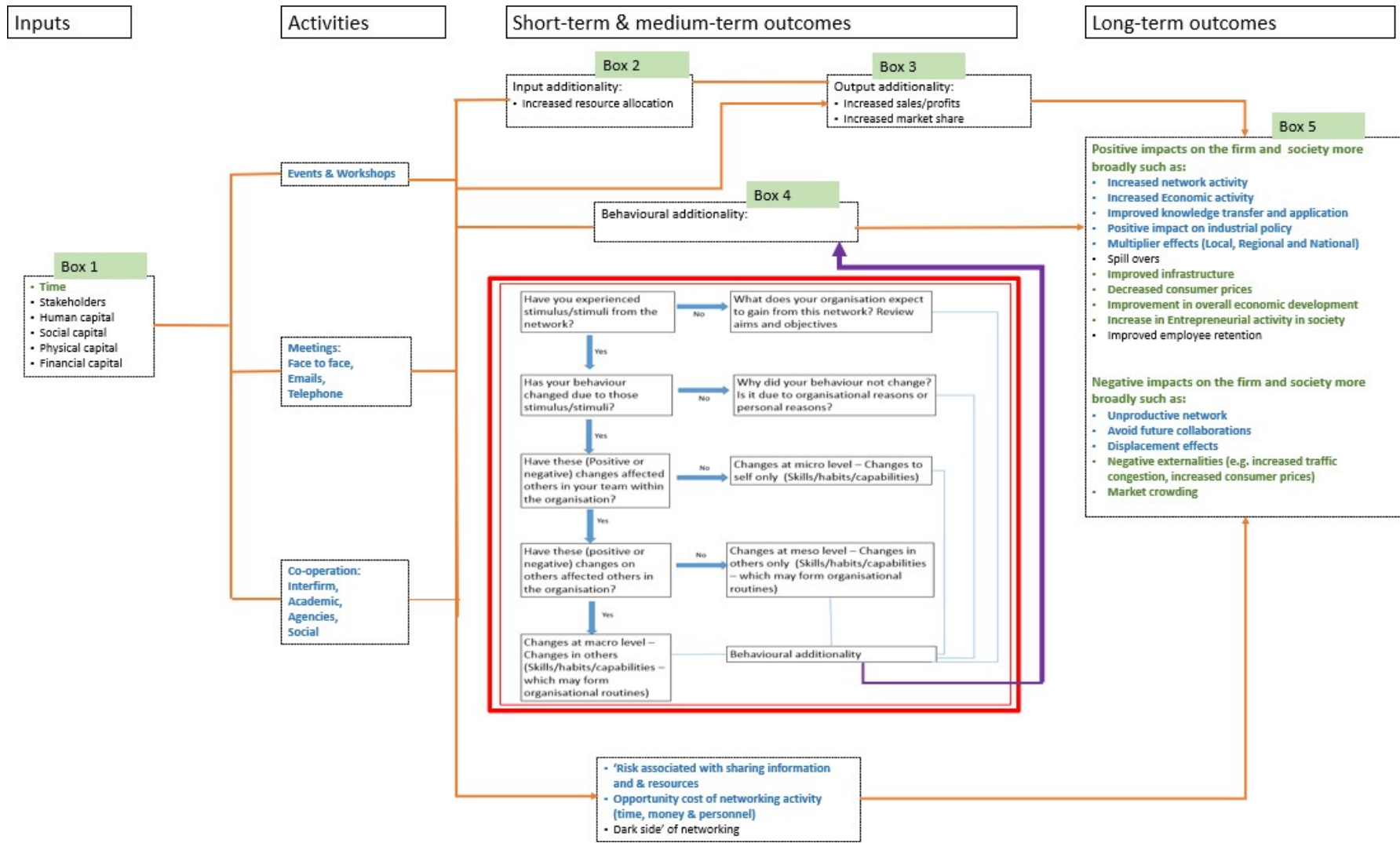
Lynch et al. (2009) identify seven inputs of a network intervention: technology, money, partners, personnel, time, resources, and experience. These inputs are used in several network activities such as events and workshops, face-to-face meetings, emails, and telephone calls. According to Lynch et al. (2009), these activities would have a short, medium and long-term impact on member firms. They recognised a change in mindset, attitude, motivation and even behaviour as potential impacts of a business network but did not examine this aspect thoroughly in their study. This can be justified as Lynch et al.'s (2009) focus was not to evaluate the impact of business networks on individual members, rather their focus was at the firm level. Even though Lenihan (2011) extends this model further to add the wider societal impact of business networks, the model still does not contemplate the impact on individuals.

Lenihan's (2011) article is published post-recession, hence is predominantly focused on advising policymakers on evaluating enterprise policy. Therefore, understandably, she adopts a wider societal perspective in her evaluation of the business network impact process. She claims that traditional enterprise evaluation policy frameworks are unsatisfactory in new enterprise policy intervention evaluations.

This research aims to provide a deeper examination of the impact of business networks for members, particularly behavioural changes of individuals within an organisational context, therefore, proposes the following logic model (Figure 4.1) which has been developed from the work of Lynch et al (2009) and Lenihan (2011) while drawing references to the original authors where relevant. The elements taken from the Lynch et al (2009) and Lenihan (2011) models are written in blue and green respectively, and the contribution from the author is written in black. A description of each box depicted in the figure is provided beneath the figure. Even though the logic model is extended up to the long-term outcomes level, this research focuses only on behavioural additionality outcomes that are captured at the short to medium-term outcome level.

To begin with, Lenihan has not added any change to the inputs, activities, and short and medium-term outcomes that are shown in Lynch et al.'s model. However, she suggests that the first four inputs suggested by Lynch et al. (2009) are resources of the firm itself which she labels as 'stakeholders', but, did not use the term in her model. For short and medium-term outcomes, Lenihan suggests that some of these outcomes should be evaluated to create a counterfactual. For example, measuring change in mindset of firms should be examined for not only the firms in the network (Lenihan calls them assisted firms) but also for the firms that are outside of the network thus integrating the additionality concept, which was again not explored in more detail.

Figure 4.1: Capturing Behavioural Additionality of Business Network Membership



Lenihan (2011) raised an important point when describing inputs. She labels technology, money, partners and personnel as ‘stakeholders’ in society, however, she does not add this to her model. This is useful terminology as it allows the model to capture the contribution of every person involved, hence this should be included in the model. In order to provide a broader perspective of inputs, it is suggested that including stakeholders, time, human capital, social capital, physical and financial capital will allow an investigator to have a broader view of the nature of inputs (Box 1).

Both prior models have identified the activities that may occur within a network context, therefore, these were unchanged in the proposed model. This research has identified a number of short-term and medium-term outcomes that can be considered as input additionality and output additionality such as increased resource allocation, increased profits/sales/market share, however this does not reject the possibility of other outcomes that can be categorised as input additionality and output additionality. Previous models have suggested that increased collaborations and increased network participation as two short and medium-term outcomes, however in order to increase the participation and create new collaborations, a firm should increase their resource allocation which can be considered as input additionality. In addition, both prior models have identified increased firm profitability, economies of scale and firm’s competitiveness as short and medium-term outcomes of a network membership which can be related to the concept of output additionality. This research, therefore, suggests including increased resource allocation, and increased profits/sales/market share, as input additionality and output additionality respectively, however this does not reject the possibility of other outcomes that can be categorised as input additionality and output additionality.

As explained in the previous chapter (Chapter 2), input and output additionalities can be measured using straightforward econometric methods, as they are quantifiable. These two types of additionality are included in the model to depict a complete picture of the outcomes (short and medium term) of business network membership, although more attention was given to capturing behavioural additionality effectively, which is the main focus of this research (Box 4). Both prior models have suggested that changes in individual traits such as attitudes, skills and behaviours is also a short and medium-term outcome. This research aims to explore this further, hence it is important to examine the content of Box 4 to fully understand the impact of business network membership on individuals in order to achieve the aim of this thesis: examine the behavioural additionality of informal business network membership at the individual level.

As explained in Chapter 2 (Section 2.2.3, figure 2.2) the individual level is the smallest level within an organisation. In the same chapter (Chapter 2, Section 2.2.3.1), this thesis successfully demonstrated that skills, capabilities, and habits can be used as the units of analysis in examining behavioural additionality at the individual level. In addition, Lynch et al. (2009) argued that business network membership may produce skilled employees which can be attributed to other individual traits such as the change in skills, attitudes, motivation, commitment, and behaviour among many others. Therefore, individual skills, capabilities, and habits are used to inform the preliminary questions that may help to examine behavioural additionality. In the pursuit of examining the behavioural additionality of network membership on the firm, the process can begin by examining the participants of the business network individually (micro level) and evaluating the change in their skills, capabilities, and habits as a result of their network membership. Should it be required, the examination can then move on to examine the impact on their co-workers within their immediate team (i.e. meso level) and wider organisation (i.e. macro level). In each stage, the responses can be either positive or negative due to various reasons that may be either personal, organisational or both.

Exploring the content of the red box underneath box 4, it can be suggested that at the individual level, for the members of a business network to change their behaviour as a result of their network membership, they should experience a stimulus (or should get a cue) from the network. This is in line with the behavioural additionality concept, in which the difference in behaviour should be attributable to the external mediation (in this case the business network, please see Chapter 2). If a member believes that they did not receive any stimuli from the network that affects their behaviour or cause them to act differently, it may be due to the misalignment of expectations between the member's organisation and that of the network. In this case, it is fair to assume that behavioural additionality does not occur due to the fact that the member does not engage with the network actively.

On the other hand, if a member has found stimuli, but their behaviours have not changed, then there is no behavioural additionality as the result of their network membership. There can be a myriad of reasons which can be simply categorised as either personal or organisational reasons. In this case too, the member needs to review their aims and objectives of joining that particular network, however the focus of this thesis is to examine behavioural additionality, hence the process moves to the next step, in which members identify that their behaviour has changed. This process can be repeated at other levels such as the meso and macro level, should a researcher be interested in examining the behavioural additionality at those levels too.

This multi-tier process has other benefits too. For example, if the behavioural change occurred at the micro level, and did not occur at the meso or macro level, examining the reasons for behavioural additionality stopping at the micro level may reveal some personal and organisational barriers for behavioural additionality not cascading to other levels. Therefore, this newly extended model is an important addition to the models presented by Lynch et al (2009) and Lenihan (2010), as it complements the previous models and expands them to provide a more complete picture of the impact of business networks at the micro, meso and macro levels.

Examining the various factors that network membership impact at micro, meso and macro levels can serve a multitude of purposes. For example, it will allow researchers to understand how business networks can improve to enhance their impact and inform policymakers, business network organisers and network members accordingly. In addition, this may allow organisations to identify barriers to the formation of organisational routines and transfer of skills, capabilities, and habits, which are beneficial to their organisations and which may benefit the efforts in managing change in organisations. Furthermore, this model (Figure 4.1) provides an opportunity for network members to assess the impact of their network membership on them, thus allowing them to identify the areas for development, however this thesis identifies two main limitations of the model presented in figure 4.1. Firstly, this model assumes that the network membership is the only factor that influences members' behaviour. Secondly, this model inherits the drawbacks of logic models.

Critics of logic models challenge the use of logic models in the examination of 'change', mainly for two reasons: these models show linear relationships between variables while change is often non-linear and messy; and also these models do not consider 'context', which can be significant in understanding change (Astbury and Leeuw, 2010; Floate, Durham and Marks, 2019). This is particularly concerning if the focus is 'behavioural change' as human behaviour is complex and can be influenced by a number of factors, therefore, it is important to examine and include other factors that may influence behaviour before completing Box 4 in the theoretical framework. Human behaviour is extensively studied in psychology and sociology disciplines, and research in these disciplines have examined the factors that may influence human behaviour, which are discussed in the section below.

4.3 Factors Influencing Human Behaviour

The UK government recognises the importance of including behaviour change as a key research area in their attempts to promote social research that can contribute to the design and execution of effective policies, thus summons the Government Social Research Unit to review socio-psychological behavioural change models and theories to provide researchers with a starting point (Darnton, 2008a). In completing this report, Darnton (2008a) identifies 60 models that are used to examine human behavioural changes, and different factors that are present in these models. Out of this vast number of theories and models available to examine behaviour change, Darnton (2008a) suggests that attitude and habit are two prominent internal factors that appear among many individual level behavioural change models.

4.3.1 Attitude

In social psychology, attitude is considered to be crucial in examining human behaviour thus offering a number of models that link attitude directly to behavioural changes (Ajzen and Fishbein, 1977; Ajzen, 1985; Jackson, 2005). Attitude is a hypothetical construct and can be defined as “an individual’s disposition to react with a certain degree of favourableness or unfavourableness to an object, behaviour, person, institution, or event – or to any other discriminable aspect of the individual’s world” (Ajzen, 1993, p.42).

Ajzen (1985, 1991) believes that behaviour can be changed by interventions that are directed at (or at least) one of its three determinants: attitudes, subjective norms and perceptions of behavioural control. Ajzen (1991) acknowledges that his concept of ‘perceived behavioural control’ is very similar to Bandura's (1982) concept of self-efficacy (i.e. an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments) and defines the concept as an individual’s perception of the level of difficulty of executing the particular behaviour (Ajzen, 1991). Over a decade later, Ajzen (2002) suggests that behavioural intentions are formed by a combination of attitude, subjective norms and perceived behavioural control. Subjective norm can be defined as “the perceived social pressure to perform or not to perform the behaviour” (Ajzen, 1991, p. 188). Due to constant interaction with each other, humans place a great deal of importance on others’ perception of their behaviour, which in turn affects their intentions to either perform certain behaviours, or not (Ajzen, 1985, 1991; Jackson, 2005; Si et al., 2019).

However, the relationship between social norms and intentions has been questioned. For example, in an attempt to investigate the intentions of entrepreneurs, Krueger, Reilly and

Carsrud (2000) find that business owners' intentions to be self-employed were least influenced by social pressure, hence they criticise the use of social norms as a predictor of behaviour. In addition, Ham, Jeger and Ivković (2015) examine the role played by subjective norms in developing consumers' intentions to buy specific products, in which they argue that attitude plays a greater role in influencing intentions than subjective norms. Researchers that are interested in examining human behaviour recognise the important role that attitudes play on influencing people's behaviour, hence to date, attitudes remain as a construct when examining any behavioural change, but of course it's not the only one (Ajzen and Fishbein, 1977; Triandis, 1977; Guagnano, Stern and Dietz, 1995; Armitage and Conner, 2001; Darnton, 2008a).

4.3.2 Habits

Another internal factor that is influential in human behaviour is habit (Triandis, 1977; Jackson, 2005; Marien, Custers and Aarts, 2019). In his theory which is closely associated with the Theory of Planned Behaviour (TPB), namely, the Theory of Interpersonal Behaviour (TIB), Triandis (1977) recognises the importance of adding 'habits' in understanding whether a person demonstrates a certain behaviour or not. "A habit is a form of automaticity in responding, which develops as a person repeats a particular behavior in stable circumstances" (Verplanken and Melkevik, 2008, p.16). This definition recognises three main characteristics of habits, specifically, automaticity, repetition, and stable circumstances. For an act to be called a habit, it has to be performed automatically (without deliberation) as a result of situational cues (stable circumstances) and should be performed repetitively, thus behavioural researchers see strong correlation between habits and behavioural change (Gardner, 2015; Wood and R nnger, 2016; Makowski, 2019). In their work on understanding human habits in a societal context Marien, Custers and Aarts (2019) observe that since the early 2000's, behavioural researchers have been working hard to understand the role of habits in changing behaviour, however, are faced with the challenge of measuring habits. They criticise the practice of using self-reporting methods in measuring habits by suggesting that self-reports can be inaccurate and unreliable. Even though Marien et al. (2019) suggest using objective measures such as observing participants as a remedy, they agree this might not be practical in studies involving humans. In conclusion, they suggest that in the future, habit researchers could therefore pay more attention to the complexity and variability of human behaviour in a societal context.

4.3.3 Context

Furthermore, when analysing individual behaviour, it is important to examine the individual's involvement in that system or setting (Katz, 1964; Chatman, 1989; Porter, 1996; Davis et al.,

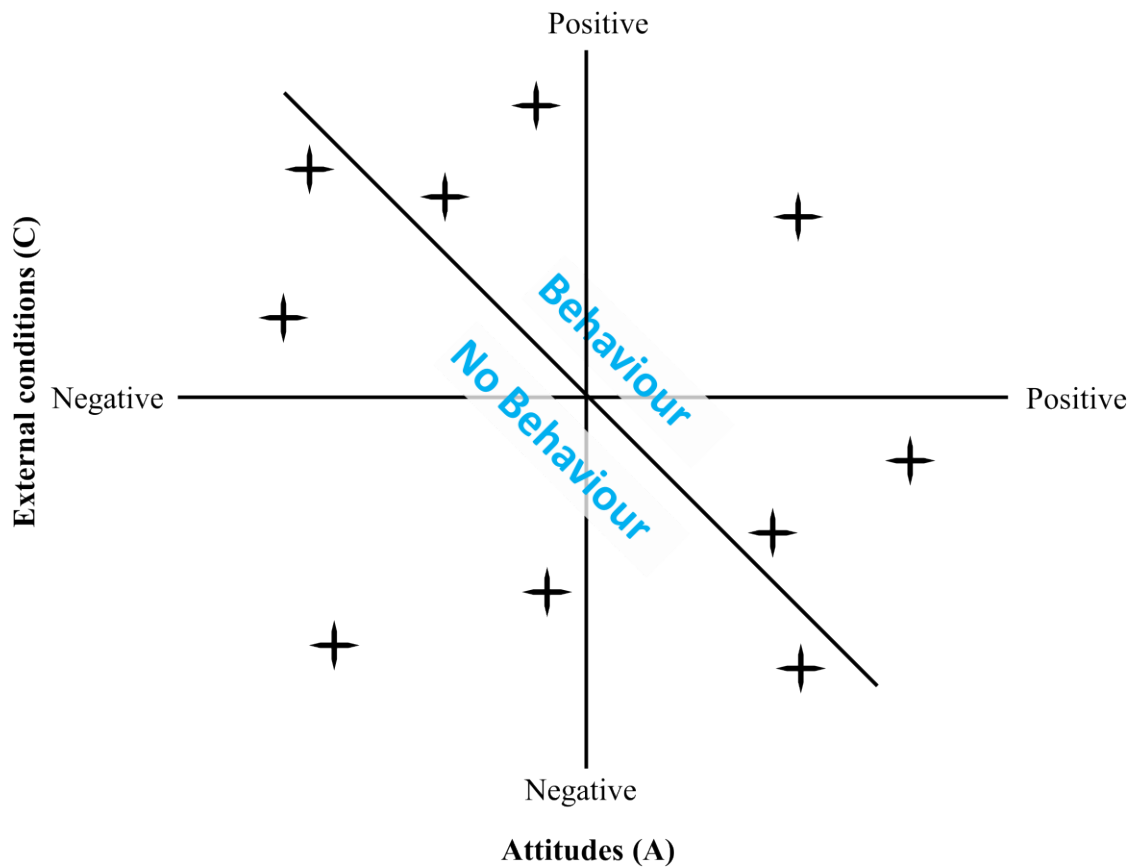
2014). Porter (1996) reflects on organisation studies literature since Argyris coined the term Organisational Behaviour (OB) in 1957. In the article, Porter (1996) focuses on micro OB issues (i.e. issues related to people within an organisation) and argues that micro OB scholars have widely emphasised the behaviour aspect while ignoring the context that they occur within. The advantage of taking context into consideration is that researchers are able to “[...] gain greater leverage on our understanding of some of the complexities involved” (Porter, 1996, p.265). Therefore, it is evident that there are variables other than ‘attitude’ that influence one’s behaviour, as highlighted in attitude-behaviour theories such as the TRA and the TPB, especially factors that are external to an individual.

Including ‘context’ in understanding individual behavioural change is particularly important as the aim of the current research is to examine the impact of business networks, which is external to individuals, therefore, the theoretical framework that will be used in this research will also need to capture external factors. In addition, studying the contextual factors is important as by definition, behavioural additionality examines the difference an intervention makes in order to attribute changes to the network membership. Guagnano, Stern and Dietz (1995) identify the role played by both external and internal factors in influencing an individual’s behaviour, hence argue that both factors should be included in theories used by policymakers and researchers to examine human behaviour. They extended the attitude-behaviour relationship further to include external factors, thus introducing the A-B-C model of behaviour.

4.3.4 Attitude-Behaviour-Contextual factors (ABC) model

Further explaining their model, Guagnano et al (1995) suggest that an individual’s behaviours are associated with his or her attitudes (A) and external conditions (C) (which Stern later named contextual factors). They provide a broad statement to define what constitutes an external condition. To use their words, “External conditions are conceived broadly to include all external sources of support or opposition to behaviour, whether physical, financial, legal or social” (Guagnano et al., 1995, p.702). One of the co-authors, Paul Stern takes this model further in subsequent research (Stern, 1999: 2000) to apply the model in different contexts such as consumer behaviour and recycling. In addition, Stern renames the external conditions variable in the ABC model as contextual factors.

Figure 4.2: ABC Model



Source: Guagnano et al, 1995, p. 703

Guagnano et al. (1995) further argue that, rather than ‘the value of either by itself’, the impact of A and C on someone’s behaviour depends on the relative values of A and C. Guagnano et al. (1995) present their argument in a graph (Figure 4.2) in which they label the diagonal line as depicted by $A+C=0$. Therefore, it can be suggested that behaviour is present only if $A+C>0$.

Even though the order of the components of the ABC model has not been pre-determined by any of its developers, the model is clear about the dynamics of the components. If contextual factors are weak, then the link between attitude and behaviour is said to be strongest, while the attitude-behaviour link can be weak when either strongly negative or strongly positive contextual factors are present (Jackson, 2005; Salonen and Åhlberg, 2012). Previous studies have explained the relationship among these variables using examples, mainly from a pro-environmental behaviour context, however, it is not difficult to examine these relationships in a business network context too.

According to rational choice theory, individuals carry out a cost-benefit analysis before deciding to engage in an activity (or making a purchase), in this case, engaging with a business network, and will go ahead only if the benefits outweigh the cost. However, as this model suggests, the decision to engage is much more complex than that. For example, if participating in a network is either very difficult (e.g. restriction on membership, fees too high, attending is inconvenient due to geography or time of meetings) or very easy, the attitude of prospective members is less important. In the first case, individuals would be very unlikely to engage with the network, irrespective of their attitude to networks in general, as they would perceive the costs of participation in the network to outweigh the benefits (both pecuniary and non-pecuniary). On the other hand, if joining and engaging with a network is very easy and benefits are obvious, then even those with a more negative attitude to networks in general would be much more likely to participate. Where taking part in a network is neither very easy nor very difficult, then the attitude of prospective members to networks in general, and attitude to the particular network, is much more powerful in the decision to participate in the network. Therefore, as this model suggests, it is important to examine these variables in tandem rather than examining them in isolation. However, this raises the question of what constitutes ‘contextual factors’?

In another article aimed at creating a coherent theory of environmentally significant behaviour, Stern (2000) extends the understanding of contextual factors to include interpersonal influences, financial benefits and costs, governmental regulations and the opportunities created by technology before concluding that contextual factors is a broad term that may include facets of wider economic, political and social contexts. In the same article, Stern (2000) suggests that there are two other factors that may influence an individual’s behaviour: namely, personal capabilities and habits or routine. According to him, capabilities comprise individual skills and knowledge, while change in habits (such as breaking old ones and creating new ones) would result in behavioural change. In her research titled ‘Understanding Behaviour Change’, Prager (2012) comments positively on Stern’s addition of capabilities and habits to the model, however she criticises Stern (2000) for not developing a model that includes all four factors.

The main criticism of the ABC model comes from Shove (2010) who suggests that the contextual factors listed in Stern’s paper are exhaustive and very much like a ‘catch-all’ approach. Shove (2010) agrees with the nature of contextual factors in their ability to either motivate or act as barriers to behavioural change and suggests it is important to identify barriers and motivators carefully rather than being implicit. Some researchers have followed Shove’s

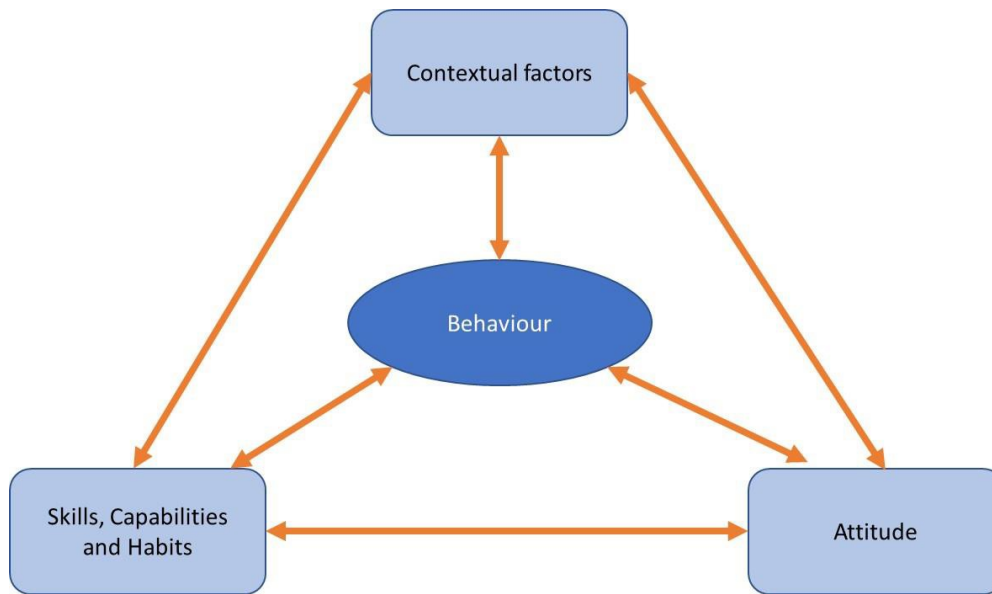
recommendation on being explicit on their choice of contextual factors and whether they are looking at barriers or motivators. For example, Salonen and Åhlberg (2012) study sustainable behaviour among Finnish university students, and apply the ABC model to examine attitudinal and contextual barriers. Ertz, Karakas and Sarigöllü (2016) do not see the concept being loosely defined as a disadvantage, as they argue this allows researchers to examine not only objective but also subjective contextual factors such as perceptions.

4.3.5 Modified Model to Examine Behavioural Additionality at the Individual Level

Developing from Prager's (2012) argument that Stern did not integrate capabilities and habits into his ABC model, it can be argued that this has left a void in research. Even though in the original model the dynamics of components were identified (in Section 4.5.4), dynamics between the existing factors and the new ones has not been explored. Turner and Cacciatori (2016) examine the multiplicity of habit, in which they recommend that more research be carried out to examine how context may affect the change in habits of participants. To address these issues the current research aims to adapt the ABC model to be able to fully uncover the behavioural changes that result from network membership.

Developing from Stern's argument that behaviour has four causal variables: namely, attitudinal factors, contextual factors, personal capabilities, and habits, this research suggests that personal capabilities and habits can be combined into one variable: capabilities and habits. Even though previous research did not include skills as part of capabilities and habits, there have been indirect hints that these are linked. For example, in Stern's personal capabilities variable, he suggests that an individual's skills are an important part in defining their capabilities (Stern, 2000). Therefore, this thesis argues that skills, capabilities, and habits can be considered as a single factor. As a result, this thesis proposes that behaviour can be influenced by attitudes, contextual factors, and skills, capabilities, and habits (Figure 4.3), therefore this should be added to the theoretical framework developed in Section 4.4 above.

Figure 4.3: CAS model

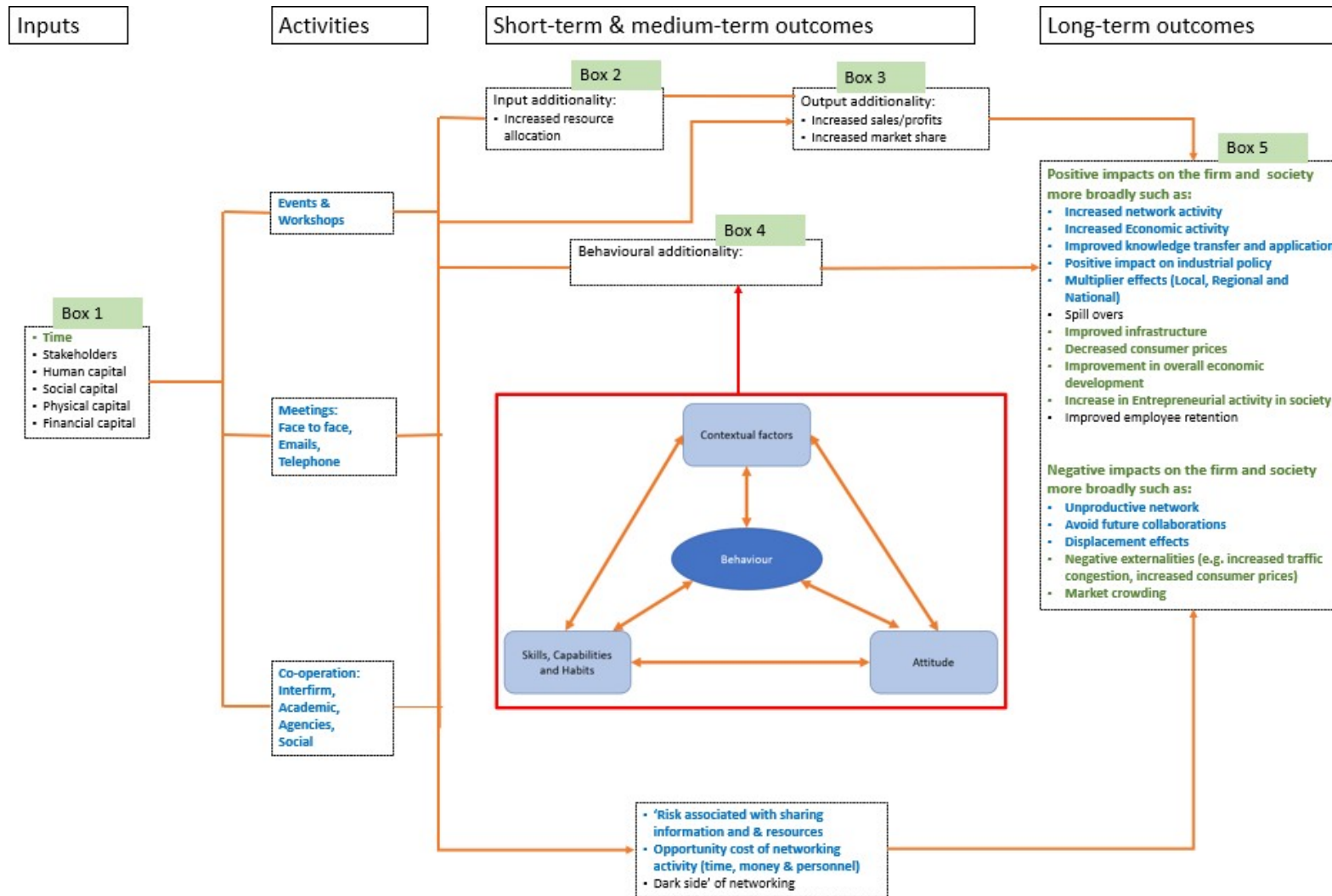


Source: Author's study

Individual behaviour consists of various factors which are both internal and external to the individual, hence making behaviour a complex phenomenon (Egmond and Bruel, 2007). However, the behavioural researchers constantly debate whether a model should be simple at the expense of completeness (Ajzen, 1991; Darnton, 2008b). Again, it should be noted that models are aids to understanding but not to account for all the complexities of behaviour. As the model presented in the above Figure (Figure 4.3) allows the examination of individual behavioural changes that may occur as a result of their network membership, this research proposes the following framework (Figure 4.4) to be used to examine behavioural additionality at the individual level. As in Figure 4.1, the elements taken from the Lynch et al (2009) and Lenihan (2011) models are written in blue and green respectively, and the contribution from the author is written in black.

In Figure 4.4, the focus is now limited to examining behavioural additionality at the individual level (red box underneath box 4), and recognises that behavioural change is a complex process, and it is important to include other influential factors such as contextual factors, attitude and individual skills, capabilities, and habits in attempting to understand behavioural change (i.e. behavioural additionality). This framework is novel in business network research and behavioural additionality research as this model provides a theoretical framework for researchers to understand the impact of business networks on individual members' behaviour in great detail.

Figure 4.4: Theoretical Framework to Examine Behavioural Additionality of Network Membership at the Individual Level



4.4 Summary

The impact of business networks has been previously examined through various studies, however, the logic models proposed by Lynch et al. (2009) and Lenihan (2011) identify that the impact of business networks can be multi-level (i.e. individual, firm, and societal level). These models have identified a change in mindset, attitude, motivation and even behaviour of the firm as impact of a business network but did not examine this aspect thoroughly as their focus lay at a firm and societal level. This research aims to examine the impact of business networks on members' behaviour, therefore, these models have been adapted and extended by using the behavioural additionality concept to propose a logic model that can be used to examine behavioural additionality of network membership.

A critical review of literature on human behavioural change models and theories was carried out to understand the factors that influence human behaviour. Attitude is seen as pivotal in understanding human behaviour. In addition, habits were also found to be influential in behavioural change, however, many researchers argue that human behaviour can be influenced by the 'context', that is, the environment being studied.

The ABC model recognises the importance of the interplay of internal and external factors on influencing human behaviour changes, and therefore provides a wider lens to researchers to examine behavioural change by considering the wider picture, rather than just looking at the relationship between attitude and behaviour. Further research has identified other variables that influence behaviour: skills, and capabilities, therefore, these variables were added to the theoretical framework developed for the purpose of this research.

The key contribution of this chapter is the extension of Lynch et al.'s (2009) and Lenihan's (2011) logic models that will assist researchers to capture behavioural additionality of network membership at the individual level, thus achieving the second objective of this research. The next step is to select a suitable methodology as a part of the research design, which is discussed in the next chapter to test this theoretical framework.

5.0 Research Methodology

5.1 Introduction

As outlined in Chapter 1, the aim of this thesis is to examine the behavioural additionality of informal business network membership at the individual level. In order to achieve this aim, this thesis sets out the following objectives.

- I. To explore how the behavioural additionality concept can be applied to investigate the impact of business networks on their members' behaviour
- II. Develop a theoretical framework to examine behavioural additionality of network membership at the individual level
- III. To contribute to research and practice, and policy discussion in the areas of informal business networking

This chapter begins with the discussion of the research philosophy of this thesis (Section 5.2). Employing a suitable philosophy is a key factor in executing effective research because failure to identify an appropriate philosophy for the research may compromise the quality of the research. In a broad sense, the research philosophy can be defined as the advancement of knowledge and its relationship to the research (Saunders, Lewis and Thornhill, 2016). The chapter then moves to discuss the methodology of this research project, which is a case study methodology (Section 5.3). A discussion of the steps taken to select case studies for this thesis is discussed in Section 5.4 and the case studies used in this thesis are introduced in Sections 5.4.1 and 5.4.2 respectively. This thesis adopts a two phase (sequential) mixed method data collection approach, therefore, Sections 5.5 discusses, and justifies, the selection of methods used in this thesis. The quantitative data collection process and the choice of methods used to analyse quantitative data (first phase) are discussed in Section 5.6 while Section 5.7 discusses the qualitative data collection and analysis process of this thesis (second phase). Finally, the chapter discusses the validity and reliability issues of this research (Section 5.8), before discussing the ethical considerations of this research (Section 5.9). The chapter is concluded in Section 5.10.

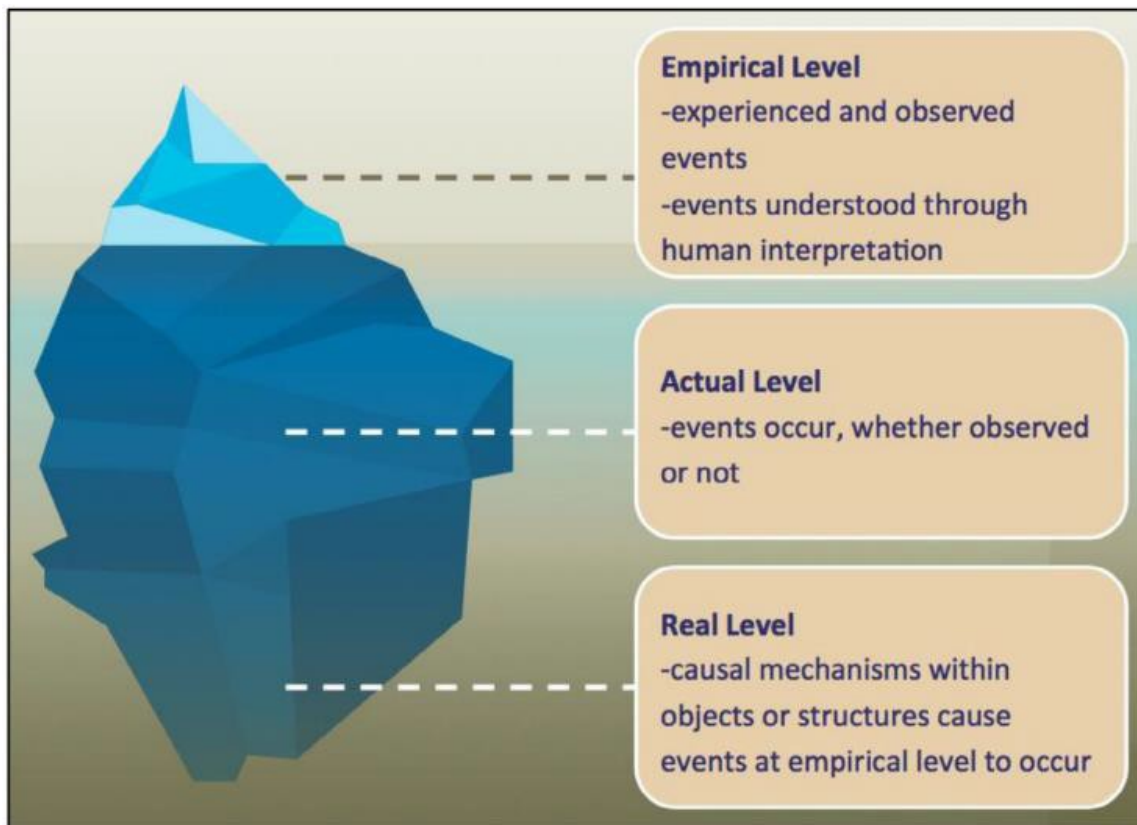
5.2 Research Philosophy - Critical Realism

Bhaskar (1986) is credited with the introduction of the critical realism philosophy, which has gained the attention of a wider academic audience, especially social science researchers (Sayer, 2000; Fletcher, 2017). However, in recent years it can be noted that the number of business

researchers who use critical realism in their research is also growing (Ryan et al., 2012; McAvoy and Butler, 2018; Saxena, 2019). Critical realism emerged as an alternative to both positivism and constructivism, and is often presented as a third option in business research (Saxena, 2019).

The main difference between realism and critical realism is that the former believes that reality can be captured completely while the latter suggests that due to bounded rationality, humans are not capable of capturing reality perfectly (Tsang and Kwan, 1999; Saxena, 2019). In his proposal of the concept, Bhasker (1986) argues that reality comprises of three strata, namely real, actual and empirical. Fletcher (2017) uses an iceberg metaphor to explain the difference between these three (Figure 5.1Figure).

Figure 5.1: Stratified Reality



Source: Fletcher, 2017, p.183

According to Fletcher (2017), the real and actual levels are underneath the surface, hence might not be observable. At the real level, reality is said to exist independently and includes structures or objects and causal mechanisms inherent to them. Reality at the actual level includes the events that occur as a result of interaction between structures and objects. Occurrence of events

at this level are said to be independent from human observation. At the empirical level, humans can interpret reality through experience or observation. Even though the graphical depiction of 'reality' through an iceberg metaphor is used to understand the nature of reality, it should not be mistaken that these three levels of reality exist independently nor interact with each other. Fletcher (2017, p.183) further argues that causal mechanisms are intrinsically linked to the activities they govern, hence causal mechanisms cannot be identified independently of these activities.

The three layers can be explained in relation to the current thesis through an example. Assume, for example, that a member of a business network receives a stimulus from the network that may cause them to change their behaviour (real level). This may initiate different reactions, which may or may not be observable. For example, a neurological reaction in their brain, which is not observable (actual level), may cause the member to demonstrate certain behaviour such as an increased level of interaction within the network, which is observable and can be understood through human interpretation (empirical level) by using the theoretical framework developed in this thesis. The framework created to capture the behavioural additionality of network membership (Figure 4.1) recognises the importance of stimuli from the network in influencing the member's behaviour (box 4 in Figure 4.1), however, the critical realist perspective suggests that the framework may not be able to uncover the events at the intermediate level (i.e. actual level) as these events may not be observable. Therefore, the theoretical framework has been developed with the aim of capturing events or experiences of members' that are either observable or interpretable.

5.2.1 Justification of Selected Philosophy

As Tajvidi and Karami (2015) identify, attempts to understand social phenomena and processes from a positivist perspective are less successful despite offering researchers control over their research projects. They also add that while acting as a powerful lens to examine peoples' experiences, subjectivism falls short of uncovering underlying causal mechanisms of human experiences.

Due to this stratified nature, critical realism recognises various interpretations of the world (Bhaskar, 1986; Sayer, 2000; Dobson, 2001; Saxena, 2019); whilst allowing researchers to uncover the independent and external reality that exists separately to human understanding and perceptions (Fleetwood, 2005; Bergin, Wells and Owen, 2008; Ryan et al., 2012; McAvoy and Butler, 2018). A notable application of critical realism in early business research was the work

of Tsang and Kwan (1999), who explored the prospective use of the concept in theory development and replication in business research⁵. Since then, the interest in critical realism among business researchers has grown steadily, however, for the purpose of this thesis, it is worth examining the work of Ryan et al. (2012) as their research was conducted in a business network context. Ryan et al. (2012) use critical realism to understand relationships within business networks and emphasise that the best philosophical approach to capture the complexity of business networks is critical realism, as it looks at the complex interactions within the network without untangling them. Wynn and Williams (2012) add that critical realism allows researchers to describe not only the causal mechanisms but also the impact of any structural factors and contextual factors that generated the outcome being studied. They further argue that researchers who are interested in investigating intricate organisational phenomena in a holistic approach find that critical realism-based methodologies offer new opportunities.

As this research aims to take a holistic approach to examining behavioural additionality at the individual level (box 4 in Figure 4.4), the author chooses critical realism as the philosophy of this research which will inform the selected methodology accordingly. This will be discussed further in the next section.

5.3 Research Methodology – Case Study

In their paper that aimed to provide insight into understanding business networks, Halinen and Törnroos (2005) identify not having enough methodological literature as one of the main problems that network researchers experience. They discuss the advantages of a case study approach in business network research by suggesting that this method allows researchers to capture the context specific and unique nature of each network. In a recent article that uses a business network perspective to examine the ways to capture benefits of the internet for businesses, Schroeder et al. (2019) argue that due to its ability to examine iterative interactions among members of business networks, a case study approach provides an excellent opportunity to business network researchers to get a deeper insight to their research topics.

In addition, the case study approach is used extensively in behavioural additionality research too. For example, Georgiou (2004) discusses the evaluation of behavioural additionality in

⁵They criticise the organisational studies researchers' tendency to ignore the role of replicability in the theory building process and suggest that critical realism would allocate a suitable part to replication in the process of theory development.

which he suggests that the importance placed on econometric methods to calculate additionality has ignored the behavioural additionality component. He further adds that the case study approach is the best approach to explore complex issues related to behavioural additionality, which has been confirmed by other behavioural additionality researchers (Gök, 2010; Radas and Anić, 2013; Lucena-Piquero and Vicente, 2019).

The case study approach is best suited if a researcher aims to understand phenomena in more detail (Eisenhardt, 1989; Yin, 1994; Rillo, 2008; Guetterman and Fetters, 2018). Eisenhardt (1989) suggests that a case study approach is useful to investigate the dynamics present in a single setting. This single setting can be either one organisation or geographical location, although examining multiple organisations as multiple cases within a single case study is also a possibility (Yin, 1984; Rowley, 2002; Easterby-Smith, Thorpe and Jackson, 2008; Bryman and Bell, 2011). For example, the work of Lucena-Piquero and Vicente (2019) which analyses the impact of cluster policies on firms' behavioural additionality, have focused on a single case study which was based on a dataset of over 200 projects. Baxter and Jack (2008) write an article to guide novice case study researchers, where they suggest that a case study approach allows researchers to investigate a research phenomenon within a context, hence making the research more focused.

However, not everyone approves of the case study approach. The approach has been criticised for being too situation specific (Weick, 1969), lacking an ability to generalise findings (Yin, 1994), and lacking rigour (Amaratunga and Baldry, 2001; Patton and Appelbaum, 2003). However, the first criticism has lost some of its merit over the years as the situation specific nature of the case study approach can be regarded as a strength rather than a weakness (Dubois and Gadde, 2002). Dubois and Gadde (2002) further add that being 'situation specific' provides an ample opportunity to learn from that case as this allows researchers to understand the interaction between the phenomenon being studied and its context. Flyvbjerg (2006) also rejects these criticisms as misunderstandings of case study research. He argues that generalisation is not compulsory in knowledge creation and suggests that the value of 'force of example' is underestimated while formal generalisation is overvalued in the process of scientific knowledge development. Patton and Appelbaum (2003) and Flyvbjerg (2006) reject the claim that case studies lack rigour by arguing that the execution of an effective case study needs proper planning and effort which is a valid point. Therefore, the next sections will explain

the planning and efforts taken in order to execute an effective case study and answer the research question of this thesis.

5.3.1 Selected Methodology and its Justification

Apart from the observation that a case study approach is common practice in business networks and behavioural additionality research, from a philosophical point of view, it also can be argued that the case study approach is the best for this research. Even though Bhaskar (1986) did not advise a particular methodology to be employed in critical realism research, it can be suggested that most researchers who chose critical realism as their philosophy prefer the case study approach. This is because the case study approach allows researchers to investigate the intervening factors and observe features of a particular causal mechanism or to identify the contextual conditions that activate the causal mechanism (Ryan et al., 2012; Wynn and Williams, 2012; Fletcher, 2017; Saxena, 2019). It can therefore be argued that in order to achieve the objectives of this thesis, a case study approach is the best fit.

5.4 Selecting Case Studies

This thesis aims to examine the impact of informal business networks. Therefore, the focus was limited to identifying an informal business network within the East Midlands region in the UK as the researcher is based in the region. This was identified as an important factor for data collection due to the resource limitations of this research.

Halinen and Törnroos (2005) suggest that identification of potential cases to study is an important step especially in business network research as they believe that “business networks always involve more than two actors, which increases the potential access problems and the workload in data gathering” (Halinen and Törnroos, 2005, p.1286). In order to mitigate the potential issue of access to respondents, the researcher contacted a number of individuals who could provide access to networks, which resulted in two networks showing interest in taking part in this research. Both networks met the criteria set out in Section 3.3.1. The researcher did not know any of the members prior to this research, hence limiting the possibility of bias that could have affected the quality of data.

This thesis selected two informal networks to examine, for two main reasons: firstly, selecting two networks allows an in-depth analysis on both networks to be conducted, while mitigating the challenges posed by resource limitations (Halinen and Törnroos, 2005), and secondly, this will allow an understanding of how network characteristics can influence their members’

behaviour as the two networks selected are different in their structure. In order to preserve the anonymity of these networks, they will be identified as Network X and Network Y hereafter. The following sections will provide brief background information on these two networks which were gathered from organisers of each network, before moving on to discuss the research strategy in Section 5.5.

5.4.1 Case Study 1 – Network X

This network is based in Leicestershire in the East Midlands region of England. They have 37 members (at the time of this thesis) and the administrative work is done by a committee comprising of existing members who volunteer to be part of the organising committee on a rotating basis. The network is not intended as a profit-making venture, however all members pay a monthly fee which covers the administrative costs of the network, such as venue hire and catering for events. Meetings are held once a week as a breakfast meeting and all members are expected to present their business to the rest of the group in 60 seconds at each meeting. Membership is largely micro businesses and member firms are located within a 20-mile radius from a fixed meeting venue. They operate a one member per sector policy and have put a vetting process in place for prospective members. A recommendation from an existing member is preferred for new membership applications, however, it is not mandatory. The attendance is monitored carefully and members who have more than 80 percent attendance in each year are rewarded with a 100 pounds sterling voucher to spend within the network, which is funded from the network's budget, however, there is no explicit information on actions taken against members who do not attend regularly.

5.4.2 Case Study 2 – Network Y

Network Y is based in Nottinghamshire and has approximately 100 members (at the time of this thesis). The network is run by a company which is a micro business itself and primarily works on identifying and introducing prospective businesses to each other in events organised at various locations (mainly within the East Midlands with occasional events in other parts of the UK) but not to a strict schedule (i.e. weekly or bi-monthly). Meetings are organised as social events rather than being more formally structured. The organiser pre-arranges meetings among members who they think would be able to benefit from the meeting, hence attendance to all meetings is not strictly administered. In addition, the organiser shares a weekly email that contains pertinent information about members (i.e. members expanding their business to other

areas, or the details of new members who have recently joined the network) and the details of upcoming events.

The organiser emphasises building relationships among members by providing a good foundation to enable business transactions to start rather than a speed networking approach where members expect to have instant results. For the services provided by the organiser and their team, they charge a fee to all members which is higher than the fee that members of Network X pay. Membership varies from micro businesses to senior business partners in multi-national enterprises and represents a wide range of sectors. Membership is not restricted, and prospective members can contact the organiser to know about the membership process, or the organiser may identify and approach potential members in order to increase the membership. The network has a number of social media accounts (run by the organiser) hence has an active presence on various social media platforms such as LinkedIn, Facebook and Twitter which are also being used to promote membership.

5.5 Research Methods – Mixed Methods

Brannen (2005) points out that researchers that study the social world often see qualitative or quantitative research methods as different and incompatible with each other. However, an increased number of researchers combine these methods to exploit strengths that compensate the weaknesses of both methods (Kelle, 2006; Bryman and Bell, 2011; Saunders et al., 2016; Creswell and Plano Clark, 2018). In their book which is dedicated to discussing mixed methods research extensively, Creswell and Plano Clark (2018) suggest mixed methods research possesses several advantages over mono-method research, such as the ability to use a wide range of data collection tools, providing a platform for inter-disciplinary research and an opportunity for novice researchers to develop broader skillsets. Cameron and Molina-Azorin (2011) investigate the acceptance of mixed methods in academia by analysing the papers published in a number of academic journals covering business and management fields, such as international business, organisational behaviour, and human resource management. They conclude that researchers across many disciplines, especially in behavioural and social sciences, are using mixed methods increasingly in their research hence suggest that the mixed method approach is becoming established as a legitimate methodological choice for many scholars.

Despite these advantages and the recent popularity, mixed methods research has its own drawbacks such as being time and resource consuming (Creswell and Plano Clark, 2018) and

being a relatively new approach to research, hence publishing mixed methods research can be challenging (Cameron and Molina-Azorin, 2011; Malina, Nørreklit and Selto, 2011). In addition, mixed methods research needs careful planning on how and when to combine qualitative and quantitative data (Kelle, 2006; Onwuegbuzie and Collins, 2007; Saunders et al., 2016; Schoonenboom and Johnson, 2017).

There are two main strategies that can be used in mixed methods research to help in this regard: sequential and parallel designs (Onwuegbuzie and Collins, 2007; Creswell and Plano Clark, 2018). In sequential design, one type of data is collected first which will then contribute to the collection of the other type of data at a later stage, while in parallel design, both types of data are gathered simultaneously (Creswell and Plano Clark, 2018). Even though the sequential design is complex and iterative compared to the parallel design, it enables researchers to use findings from one methodological approach to inform the collection of data from a different approach. For example, a researcher can use the findings from a questionnaire (quantitative) to inform subsequent interview questions (qualitative) in which respondents can be asked to either provide clarification of their answers to the questionnaire or to elaborate on their answers to get a deeper insight into their responses to the questionnaire (Creswell and Plano Clark, 2018).

In their article that examines the applicability of mixed methods research in organisational research, Molina-Azorín and Cameron (2010) observe that sequential design is common among organisational behaviour researchers, however, the decision to pursue a sequential or parallel design also depends on the purpose of the research (Onwuegbuzie and Collins, 2007; Molina-Azorín and Cameron, 2010; Palinkas, 2014) For example, if a researcher intends to explore an issue in more detail first and then seeks to generalise the findings to a larger population, he or she would start with qualitative data and findings from the qualitative phase will then be used in a quantitative phase. In contrast, starting with quantitative methods by testing variables with a bigger sample which is followed by in-depth examination of a fewer cases in the qualitative phase allows researchers to narrow down the areas to explore more deeply, especially if the area of study is under-explored (Molina-Azorín and Cameron, 2010; Creswell and Plano Clark, 2018). In addition, this approach allows researchers to identify the suitable cases for the qualitative inquiry by conducting the quantitative data collection phase first (Kelle, 2006; Schoonenboom, 2017).

Another factor that mixed methods researchers take into consideration during the planning of research strategy is which type of data has priority, that is, whether they want to emphasise one

type of data or treat them equally (Johnson and Turner, 2003; Cameron and Molina-Azorin, 2011; Creswell and Plano Clark, 2018). Zachariadis, Scott and Barrett (2013) examine the application of mixed methods research by critical realists and suggests the decision on ‘priority’ may lie within the research philosophy. They build on the latest developments in mixed methods research and discuss the methodological implications on mixed method research of taking a critical realist approach, in which they observe the difference in role each type of data plays in mixed-methods research. According to them, the role of each type of method from a critical realism perspective is different: quantitative methods tend to be more descriptive as it is difficult to establish causal mechanisms that create real events observed while qualitative methods play a dominant role due to their ability to identify structured interactions between intricate mechanisms.

5.5.1 Justification of Selected Methods

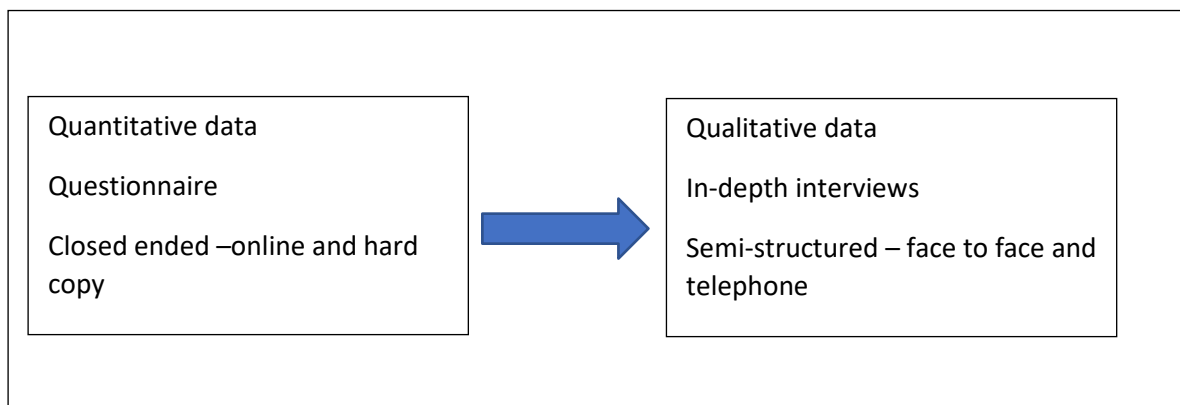
This inter-disciplinary research aims to examine behavioural additionality at the individual level and adopts critical realism as the research philosophy. This research adopts a case study approach in order to understand the causal mechanisms that generate behavioural additionality due to individuals’ business network membership. As explained in Section 5.2, the theoretical framework developed in this thesis requires both observable events and human experience to be captured, in order to understand the impact of network membership on individual members, therefore it is important collect both quantitative and qualitative data.

Teddlie and Tashakkori (2009) argue that the choice of data collection methods not only depends on the research question but also on the researcher’s chosen philosophy. The chosen research philosophy in this research is critical realism which advocates the use of mixed methods research in which quantitative data will be of a descriptive nature while qualitative data will play a vital role in identifying interactions between complex causal mechanisms. In addition, a mixed methods approach is regarded as an excellent approach to answer most research questions in social and behavioural sciences that are complex in nature, as a mixed methods approach provides an opportunity to understand complex research questions from more perspectives than using a mono-method (Teddlie and Tashakkori, 2009; Cameron and Molina-Azorin, 2011; Creswell and Plano Clark, 2018).

The theoretical framework developed in this thesis (Figure 4.4) is of an inter-disciplinary nature and the research question is under-researched, so this research will follow a sequential mixed methods design, hence collecting quantitative data first which can then be used to inform the

second, qualitative, stage of data collection. In addition, this decision can be justified by the fact that the theoretical framework developed for the purpose of this research suggests that individual behaviour can be influenced by their individual skills, capabilities and habits, contextual factors, and their attitude. As these variables are broad, testing them with a bigger sample will allow the researcher to identify the areas that may need to be explored further through qualitative data collection methods. Therefore, due to the alignment of research philosophy with the purpose of this project, this research uses sequential quantitative – qualitative design (quan → QUAL) (Figure 5.2).

Figure 5.2: Research Design



Source: Author’s study

For the quantitative phase, administering a survey was selected while for qualitative data collection, semi-structured interviews were deemed to be the most appropriate method. The next sections are dedicated to discussing both phases of data collection and analysis processes in more detail.

5.6 First Phase - Quantitative Data

As explained in the previous section (Section 5.5) the purpose of the quantitative phase is to inform the second phase (i.e. qualitative phase). In Section 5.6.1 the method used to collect quantitative data is discussed and justified while the sampling process is discussed in Section 5.6.2. It is aimed to collect data on the variables (i.e. attitude, contextual factors, skills, capabilities, and habits) depicted in the theoretical framework (box 4 in Figure 4.4) developed in this thesis, thus Section 5.6.3 is dedicated to discussing the questionnaire design, and data collection and analysis are discussed in Section 5.6.4.

5.6.1 Quantitative Data Collection - Surveys

In social sciences, the use of surveys is one of the most common approaches to collecting quantitative data (Mathers, Fox and Hunn, 2007; Saunders et al., 2016). Surveys are cost effective, have ethical advantages as the respondents can remain anonymous, can reach a large number of participants, and surveys can be combined with other data collection methods to generate useful rich data (Mathers et al., 2007; Eide et al., 2018). However, as with other methods employed in research, surveys have some disadvantages too. In their examination of good practice in conducting survey research, Kelley et al. (2003) highlighted two drawbacks in that data generated by this approach may lack depth on the topic being examined and it may be difficult to achieve the response rate expected by researchers. Surveys can be used for two purposes: descriptive research studies where the aim is to gather cross-sectional data on a specific situation by portraying important aspects connected with that situation such as attitudes, behaviours and demographics, while analytical studies can often be longitudinal, with the intention of understanding a particular problem through intensive data analysis (Kelley et al., 2003; Mathers et al., 2007).

This thesis aims to collect descriptive data in this phase to produce emerging themes that would be examined in more detail during the next phase of data collection, hence for the purpose of the quantitative data collection, a survey approach was adopted. The most common methods that fall under a survey research approach are questionnaires, and interviews that are conducted either face-to-face or via telephone, however, the appropriate method depends on various factors such as resource availability to the researcher, access to prospective participants and their motivation (Mathers et al., 2007).

Administering a questionnaire (online) was selected as the most suitable option for this research due to a number of reasons. The key reason was because access to the participants was provided by two people who could not provide prospective participants' contact details due to data confidentiality reasons. In addition, participation in this research was voluntary, and the participants were not provided with any incentives which could affect the response rate (Groves et al., 2011; O'Leary, 2017). It was decided not to provide any incentives, due to ethical considerations and resource limitations; whilst resources available to the researcher were also limited.

5.6.2 Quantitative Data - Sampling

In their article that examines the taxonomy of sampling strategies in the social and behavioural sciences, Teddlie and Yu (2007) suggest that quantitative focused research tends to use probability sampling (i.e. the umbrella term that include random sampling, stratified sampling, cluster sampling and sampling using multiple probability techniques) predominantly. They describe probability sampling as a technique that randomly selects a large number of units from a population and aims to achieve representation of the entire population in the sample selected. As the population of this research is relatively small (at the time of the research, Network X had 37 members while the number of members in Network Y was 100) and difficult to stratify due to some information not being publicly available (such as how often they participate in meetings or how long they have been members of each group), this research aimed to employ the entire population as the sample for this research. Therefore, all members of both networks were invited to take part in the quantitative stage.

5.6.3 Questionnaire Design

The questionnaire developed (Appendix 1) was informed by the literature review carried out in Chapters, 2, 3 and 4 of this thesis and was aimed at collecting data on the variables depicted in the theoretical framework presented in Chapter 4 (Figure 4.4). The findings are then used to inform the second phase of data collection in the mixed methods approach adopted in this thesis (Section, 5.5.1). Therefore, questions were formed around the elements of the framework such as contextual factors, attitude and their skills, capabilities, and habits. The first part of the questionnaire (from question one to question nine) aims to collect generic demographic data such as the sector the business operates in, number of employees, respondents' role within the organisation, and their age.

The respondents were asked to provide their organisation's name in order to avoid receiving a number of responses from the same organisation to avoid bias. The postcode (not the complete address) was also asked in the questionnaire to allow the researcher to understand the geographical distribution of membership. However, these questions were not mandatory hence the respondents had the opportunity should they wish to keep their responses anonymous, thus not breaching ethical considerations. Further ethical considerations of this research are discussed in Section 5.9.

The second part of the questionnaire (question 10 to question 13) aims to gather information around their network membership, such as how long they have been a member and how often

they attend meetings. Question 12 is aimed at collecting contextual factors that may have influenced their engagement with the network. As discussed in Section 4.3.4, a researcher should not adopt a ‘catch-all’ approach and should use an approach to capture barriers and motivators instead. For the purpose of this research, 14 statements were created to examine contextual factors such as business expectations, inter-personal influence, governmental legislations, and other incentives that may have influenced members to join the network. Respondents were asked to rank these statements from 1 (most important) to 14 (least important). As the contextual factors included in this section could be left incomplete, the respondents were provided with an option to inform the researcher of other factors that the researcher did not include on the list. The intent was to increase the possibility of uncovering other contextual factors that are relevant, which can be investigated further in the qualitative phase.

In part three of the questionnaire, data on attitude was collected. In order to understand the change in members’ behaviour in general as a result of their network membership rather than the change in specific behaviour, the attitude to change (question 14), attitude towards networks in general (question 15) and towards their network (question 16) were examined in the third part of the questionnaire. For question 14, 12 statements (six positive and six negative) were selected from a validated questionnaire on measuring resistance to change at the individual level. This questionnaire examines the individual’s tendency to avoid making changes and includes affective, cognitive, and behavioural aspects of resistance to change, therefore is deemed suitable to be used in this research. In order to examine respondents’ attitude to networks in general, and towards their network, 12 statements were created from the literature review carried out on business networks in Chapter 3. For all these three questions, the participants were asked to rate their level of agreement on a five-point Likert scale (ranging from strongly agree to strongly disagree).

The final part of the questionnaire is dedicated to assessing the respondents’ behavioural change which was measured using skills, capabilities, and habits as proxies. It was impossible to define and include all potential individual habits, skills and capabilities in a questionnaire as it is important to also keep the survey to a reasonable length to improve the completion rate (Moskowitz and Martin, 2008). After a thorough search on skills (especially transferrable), the researcher selected 25 skills and capabilities that were included in the questionnaire. This will not compromise the quality of this research as the semi-structured interviews (5.5.3) will be

used to capture further insights from individuals on their skills, capabilities and habits that are relevant to this research. Respondents were presented with these skills as statements and were asked to assess whether they believed that they have developed these skills as a result of their network membership or not. They were also given the opportunity to answer ‘I don’t know’ should they deem that this described their situation best. Finally, the questionnaire included space for participants to show their interest in taking part in interviews by providing their contact details.

Once the questionnaire was built, it was piloted among colleagues at the university as well as individuals who were not from an academic background to establish the order of questions was appropriate as well as testing that the questions were clear to respondents. Once data was collected for one network (Network X) the questionnaire was validated using SPSS software. The validation process and results are discussed under validity and reliability in quantitative data (Section 5.8.1). The validity and reliability of qualitative data is discussed in Section 5.8.2. After the pilot study of the questionnaire was complete, the quantitative data collection process began which is explained in the section below.

5.6.4 Quantitative Data Collection and Analysis

Primary contacts in both networks were contacted to seek help in distributing the questionnaire to their members, which was done via email. Ethical approval from the university of Derby’s ethics committee was received before embarking on data collection, and information introducing the study, requesting consent, and informing participants of how their data would be used and how to withdraw from the study was provided to participants. The quantitative data collection period ran from mid-February 2018 to mid-June 2018. The respondents were sent several reminders during this period to increase the response rate. The researcher attended a network meeting (one for each network) to understand the context and the nature of the network meeting as well as to provide paper copies of the survey for potential respondents who preferred to complete a paper copy for various reasons.

In total, 52 responses were received for the survey thus achieving a response rate of 51 percent (19 responses) for Network X, and 33 percent (33 responses) for Network Y, hence achieving a response rate of approximately 38 percent overall.

All responses to the online and hard copy survey were collated in Microsoft Excel and checked for completeness. In addition, each response was checked for consistency. For example, in the

contextual factors section, the participants were asked to rank answers from 1 to 14, so it was checked that nobody included numbers that fall outside of this range. This check identified no inconsistencies in the responses. Statements in attitude to change, attitude to networks in general and the attitude to their network sections, were assigned points using a Likert scale. All answers for positive statements where respondents selected strongly agree were assigned 5 points while strongly disagree was given 1 point, and this was reversed for negative statements. In the skills section, all positive answers were assigned 1 point, negative ones were assigned -1 point and all answers that suggested they were not sure were assigned zero points. The main aim of this task was to identify the most common skills that respondents believe that they have learnt or developed so that the researcher can explore these in more detail during the interview phase. Once the data was cleaned and confirmed as valid, the data was analysed using Excel and as explained in Section 5.5.1, the findings were then used to inform the qualitative phase, which is discussed in the next section.

5.7 Second Phase – Qualitative Data

The aim of this section is to gain a rich insight into members' experiences within their business network and to understand what impact their network membership has on members' behaviour through semi-structured interviews with members (Section 5.7.1). In qualitative research, three main sampling methods are used which are discussed in Section 5.7.2 before presenting the choice of the sampling method for this research. Subsequent sections are dedicated to discussing the eligibility criteria (Section 5.7.3), interview questions building (Section 5.7.4) and qualitative data collection (Section 5.7.5) and analysis (Section 5.7.6).

5.7.1 Qualitative Data Collection: Semi-Structured Interviews

Qualitative data can be collected through a wide range of methods including interviews, observations and focus groups (Wilson and Kim, 2019). Conducting focus groups is a useful method if a researcher aims to gather collective views on a research topic (Gill et al., 2008). Members can, however, influence each other's views in a focus group setting. Observation on the other hand is used to study participants in their natural settings (Wilson and Kim, 2019). This thesis aims to examine individual behavioural additionality, hence the focus group and observation approaches were deemed unsuitable to answer the research question.

Therefore, the approach of interviewing respondents individually was selected in order to allow the researcher to examine behavioural additionality at the individual level. In their article that compares and contrasts qualitative data collection methods, Gill et al. (2008) describe three

types of interviews: unstructured, semi-structured and structured interviews. According to them, the unstructured approach is best used when examining a topic that has been under researched, as this method allows researchers to gather information that prior researchers may have been unaware of. Structured interviews, in contrast, might not provide respondents the opportunity to provide new information, as in this approach, questions are close ended, hence do not allow participants to elaborate on their answers. Therefore, a structured interview approach is not suitable if the aim of the research is to gain ‘in-depth’ knowledge about a topic. Gill et al. (2008) suggest that semi-structured interviews are the most flexible approach as it allows researchers to prepare some questions from existing knowledge and to follow up on leads provided by participants during an interview.

A semi-structured interview approach was selected for the purpose of this research because, as discussed above, this method is useful to collect data and gain a deeper understanding of topics that are already known to the researcher (in this case, business network membership, skills, capabilities, habits, contextual factors, and attitudes) while allowing the researcher to explore areas that have not been explored before (individual behavioural additionality of network membership). As suitable data collection methods for this research have been selected, the next sections (5.7 and 5.8) will discuss the sampling procedures for the quantitative and qualitative phases, respectively.

5.7.2 Qualitative Data – Sampling

The current research used purposeful sampling (both criterion and snowballing sampling), as it is important to select the most productive sample to answer the research questions. Purposeful sampling which is also known as judgement sampling requires more effort in selecting a productive sample in order to produce better quality data. Due to its emphasis on selecting the most suitable respondents, Marshall (1996) suggests that this is the most common approach for qualitative sampling. In addition, a researcher is said to be using purposeful sampling if they select participants based on a broad range of variation in backgrounds (maximum variation sampling), the selection of participants is based on an already established set of requirements (criterion sampling), or subsequent participants are selected through referrals from other participants who are already being selected (snowballing sampling) (Marshall, 1996; Palinkas et al., 2015; Saunders, Lewis and Thornhill, 2016). In order to achieve the aim of this thesis, it is necessary to collect data from respondents who can provide rich insight on their network membership, therefore, it was decided to apply eligibility criteria

(Section 5.7.3) and recruit respondents accordingly. In addition, respondents recommending other members (who also meet the eligibility criteria) was accepted as a sampling method in this research thus both criterion and snowballing sampling methods were applied in this research.

Apart from purposeful sampling, the other sampling methods used in qualitative research are convenience sampling and theoretical sampling (Marshall, 1996). As the name suggests, the convenience sampling approach is convenient to the researcher because the sample is selected from participants who are the most accessible, hence requires less effort from the researcher. However, data that is collected from samples using this approach can be of poor quality and lack credibility. This is due to the fact that the sample may not adequately represent the population and thus may lack credibility. Researchers that take a grounded theoretical approach select theoretical sampling as this method allow researchers to collate emerging data to elaborate on their theories.

Table 5.1: Sampling Approaches Used in Qualitative Studies

Sampling approach	Description
Convenience sampling	Selects participants who are easily accessible. Least costly to the researcher May result in poor quality data and lack of intellectual credibility.
Theoretical sampling	Selection of sample is usually driven by theory Expects to build theory hence subsequent samples are selected to establish theory.
Purposeful sampling	The researcher is keen to select the best sample who will provide rich data to answer the research question. The researcher would normally develop a framework of the variables that will be examined further during the investigation. Various subcategories exist

Source: adapted from Marshall, 1996, p. 523

5.7.3 Eligibility Criteria for Interviews

All members of both networks who completed the questionnaire were invited to show their interest in taking part in interviews. When a member completed the survey, they were given the opportunity to express their consent by providing their details. Any members who did not

complete the survey but were still interested in taking part in interviews were provided with the researcher's contact details. Details of all members who volunteered to take part were tabulated to identify the most suitable respondents for the interviews by applying the following selection criteria, for which the justification is provided in the paragraph below the criteria:

- (i) They have provided contact details as a proxy of their consent to be interviewed
- (ii) They have been with the network for at least three years
- (iii) They attend at least half of the meetings
- (iv) They are either located within a commutable distance for the researcher or available to be interviewed via telephone or skype.

Respondents providing consent to be interviewed was part of the ethical procedure (Section 5.9). This was important in order to avoid contacting participants who did not consent to be contacted, as well as ensuring that the contact details of participants were not accessible to the researcher. Therefore, as the first criteria, it was checked whether participants had given their consent to take part in this research.

In both business network and additionality research literature, not many studies explicitly refer to the optimum time period for an intervention (or membership of a project or programme) to show its effects. However, in their article that examined additionality of Irish subsidies on firms, Roper and Hewitt-Dundas (2016) considered a three-year reference period to examine additionality. Therefore, this research includes only participants that had been members of the network for at least three years.

In addition, the participants were expected to be attending meetings or events regularly (at least half of the events or meetings) as otherwise it could be difficult to attribute the changes to the networks that are being studied. It is important to note the organisational characteristics (such as the size, the sector they operate in or their location) were not included in these criteria as this research is open to exploring behavioural changes of members that represent different types of organisations regardless of their physical location of operation.

As the data for each member was not available to the researcher, the population that met the eligibility criteria could be assessed based on the participants who completed the questionnaire only. From the questionnaire, it was found that 29 members (12 and 17 members from Network X and Y respectively) showed interest in taking part in interviews, however, once the above-mentioned eligibility criteria were applied the number of eligible members dropped to ten and

eight from Network X and Y respectively, thus bringing the sample population to 18. All 18 members were contacted again to arrange interviews at a mutually convenient time and location. They were also informed that interviews could be conducted via telephone or skype should they prefer that method over meeting face-to-face, or to avoid difficulty in arranging the meeting at a mutually convenient time/date or due to the geographical distance. Three members did not respond to meeting requests (which were sent on two occasions via email after contacting them via telephone) hence the number of prospective respondents was reduced to 15. All 15 respondents were informed that the interviews will be conducted on a first come first served basis and should the process stop for any reason, respondents who were not interviewed would be informed at the earliest opportunity to save their time.

The interview process ran for four months starting from the end of June 2018 to the end of October 2018. During the interviews with two members from Network Y, the interviews were identified as being unusable because for one interviewee, there was a conflict of interest (the participant was closely connected to the network organiser), and for the other, the interviewee did not want to answer many questions as they could not allocate enough time to go through the entire interview. Both interviews were conducted via telephone and the researcher thanked them for their time and the participants were informed about the reasons why their input would not be included in the analysis, thus taking the number of respondents to 13 out of 18 (72 percent response rate) who were eligible to take part.

5.7.4 Interview Questions Building

The interview questions are informed by the extensive literature review carried out as a part of this thesis, as well as findings from the quantitative research. Once the quantitative data was analysed, the findings were used to inform the design of the interview questions, with questions designed to discuss topics such as attitude, contextual factors, and individual skills, capabilities and habits which were part of the theoretical framework developed in this thesis (Figure 4.4). As explained in Section 5.5, this phase is also used to gain a rich understanding of members' experiences, therefore, interviewees' answers to the survey were used during the interview to probe further to expand on the survey answers. The order and the nature of the questions was flexible and at some point during the interview all interviewees were asked 'whether they believe that their network has allowed them to develop any skills'. Interviewees were asked to provide examples where they suggested that they had developed any skills or capabilities, or

have changed their habits as a result of their network membership, or reasons why they think their network membership has not enabled them to develop skills.

In order to identify the areas that needed to be improved the interview was then piloted with a person (hereafter known as Ash) who is a regular networker but not a member of either of the networks being studied. Prior to the interview, Ash was asked to complete a copy of the questionnaire as the interview would be used to elaborate and gain clarity on answers from their questionnaire responses (Section 5.6.3). Once the survey was completed and analysed, Ash was invited to take part in an interview, to which they agreed. The interview took about 40 minutes and was held at the university. The conversation was recorded with Ash's permission and transcribed on the same day.

The transcript revealed some areas that needed to be improved to collect quality data. For example, only one third of the total time was spent on discussing behavioural changes, which is key for this thesis, and specific skills were not discussed in detail. Ash summed up everything and kept referring to 'networking skills' when asked about skills. In addition, the day after the interview, Ash was contacted again to provide feedback on the interview process. Ash suggested that the time allowed for interviews should be longer, however, in general, Ash was satisfied with the structure of the interview and did not identify any questions which made them uncomfortable. The interview structure was changed to reflect this feedback and findings from the transcript by allowing more time for interviewees to talk about their behaviour/engagement within the network and by increasing the time available for each interview in order to have ample time to cover all of the interview questions and follow up on prompts during the interview. The final interview questions can be found in Appendix 2.

5.7.5 Qualitative Data Collection

Even though 13 members were willing to take part out of 18 who were eligible, after ten interviews (five from each network) the interview process was stopped as new themes were no longer emerging in the samples collected, therefore data saturation was deemed to be reached (Eisenhardt, 1989; Marshall, 1996; Creswell and Plano Clark, 2018). The remaining three members were informed were thanked for offering to be interviewed.

The interviewees comprised of two females and eight males, while in terms of ownership, eight respondents were owner-managers while the other two were employees. The European

definition⁶ of categorisation of firms based on their staff headcount was used to determine the size of participants' firm which revealed that eight participants represented Small and Medium-sized Enterprises (SMEs), which can be further broken down as seven micro businesses (less than 10 employees), one from a small business (between 10 and 49), and none from medium sized businesses (between 50 and 249 employees). The remaining two respondents were employees in large organisations (over 250 employees).

SMEs are an important driver for economic growth (Fernet et al., 2016; Torrès and Thurik, 2018). In Europe, SMEs are even called the backbone of the region's economy as 99 percent of all businesses in Europe are considered to be SMEs (European Commission, 2019), In recent years, however, a growing number of academics call for further segregation of SMEs, suggesting that these businesses possess different characteristics ((Tonge, 2001; Paik, 2011; Pratt and Virani, 2015; Gherhes et al., 2016; Storey, 2016; Hettihewa and Wright, 2018). For example, in his attempt to examine the role of SME size in supply chain management, Paik (2011) argues that despite being categorised together with medium sized enterprises, small businesses should be treated differently as they show a significant difference to their counterparts while Gherhes et al. (2016) take this conversation further by attempting to distinguish micro-businesses from SMEs. Gherhes et al. (2016) suggest that even though significant numbers of small and medium sized enterprises (SMEs) are micro businesses, they are often overlooked and under-researched.

As the definition suggests, micro businesses have less than 10 employees and the person who starts the business (i.e. founder or owner) often plays a crucial role in running and managing the business hence are often referred to as owner-managers (Gherhes et al., 2016; Simba and Thai, 2019). Unlike the employees in large organisations, owner-managers of micro businesses perform several tasks simultaneously and their capabilities (Gherhes et al., 2016; Simba and Thai, 2019) and personality (Ntalianis and Dyer, 2021) are influential factors for the survival and/or growth of their business, thus a change in a single person's behaviour in a micro firm is much more impactful compared to that of individual employees' of a large organisation. They further identify that owner-managers of micro businesses are responsible for all of the tasks involved in running and managing their business, hence highlight the relationship between owner-manager and the success of the business. Despite the importance of micro businesses to

⁶The other criteria is either turnover or balance sheet total. For more information, please visit https://ec.europa.eu/growth/smes/sme-definition_en

the economy and their high dependency on their owner-managers, micro businesses lack research scrutiny thus findings of this research will contribute to the development of knowledge in this under-researched area.

All respondents' identities have been anonymised and every effort has been made to abide by the relevant data protection regulations. Some further details of each participant can be found in the following table (Table 5.2). If an interviewee had not completed the survey, they were given a hard copy of the survey to complete before the interview began, as some of the questions in the interview were based on the individual's responses in the survey (individual behavioural change). This did not cause any ethical issue as the respondents provided their details in the survey as a proxy to confirm their consent for being interviewed.

Table 5.2: Interview Participants' Demographics

	ID	Age	Gender	Business size	Sector	Ownership	Mode of interview
Network X	P01B	41-65	Male	(Small) 10-49	Property	Owner-manager	Face-to-Face
	P02B	41-65	Male	(Micro) 1-9	Finance	Owner-manager	Face-to-Face
	P03B	41-65	Female	(Micro) 1-9	Professional services	Owner-manager	Telephone
	P04B	41-65	Male	(Micro) 1-9	Information and Communication	Owner-manager	Face-to-Face
	P05B	41-65	Male	(Micro) 1-9	Professional services	Owner-manager	Face-to-Face
Network Y	P01C	41-65	Male	(Large) over 250	Business admin and support services - Accountancy and advisory	Partner	Face-to-Face
	P02C	41-65	Male	(Micro) 1-9	Business admin and support services	Owner-manager	Face-to-Face
	P03C	41-65	Male	(Micro) 1-9	Education	Owner-manager	Face-to-Face
	P06C	41-65	Female	(Large) over 250	Education	Manager	Face-to-Face
	P07C	Over 65	Male	(Micro) 1-9	Executive Recruitment and Business performance improvement	Owner-manager	Face-to-Face

Source: Author's study

The interviews were transcribed within 72 hours from the time that the interview was conducted for two purposes; firstly, to ensure that the interviewer could go through the transcripts to aid improving subsequent interviews (Corbin and Strauss, 2015); and secondly, to ensure that the transcribing process was carried out correctly and that the researcher was not being distracted by other activities. All transcribed scripts were stored on a password protected computer which only the researcher had access to. Audio recordings were retained for a period of time to allow the interviews to be transcribed, before being deleted. Once finished, each transcript was collated to NVivo 12, which was used to analyse the qualitative data. The next section explains the qualitative data analysis process with reference to the method of analysis and its justification.

5.7.6 Qualitative Data Analysis

The aim of this thesis is to examine behavioural additionality of individuals, and does not aim to create a theory, observe participants for a very long time, nor want to immerse in people's feelings, hence grounded theory, ethnography, or phenomenology methods cannot be applied to answer the research question of this thesis. In addition, thematic analysis fits with the aim of this thesis as the opportunity to uncover unexpected insights from participants allows the development of knowledge in this under-researched area, hence the qualitative data for this research was analysed using thematic analysis.

According to Braun and Clarke (2006) themes are patterns that can be found within qualitative data. Thematic analysis is an approach used to identify, organise, describe and report themes that are found in qualitative data (Nowell et al., 2017). Even though this method is widely used, it has received little attention in literature (Braun and Clarke, 2006; Nowell et al., 2017). Braun and Clarke (2006) suggest that flexibility is one of the key benefits of thematic analysis, while the other benefits include (but are not limited to) being able to produce unexpected insights, as a starting step for researchers who are new to qualitative research and as a useful method for policy-oriented research.

Braun and Clarke (2006), provides a step-by-step guide for thematic analysis which was followed in this research. According to them, the first step of conducting a thematic analysis is to get familiarised with the data. For this they suggest researchers transcribe the interview recordings by themselves and produce a verbatim account of the interview, which is the approach taken in this research. Despite being relatively time consuming, transcribing allows researchers to read data closely and facilitates interpretative skills that are needed to analyse

qualitative data (Lapadat and Lindsey, 1999), and informs the initial stages of analysis (Braun and Clarke, 2006). The next step is to produce initial codes from the data (Braun and Clarke, 2006). Miles, Huberman and Saldaña (2014) suggest that codes are researcher generated labels that are attached to data chunks that can vary in size and take various forms ranging from a straightforward descriptive label to complex or even metaphors. This allows the researcher to quickly identify similar data chunks and cluster those related to particular themes (Miles, Huberman and Saldaña, 2014, p.72). In the thematic analysis process, the approach to coding depends on whether the themes are either data-driven (i.e. inductive approach) or theory driven (*a priori*) (i.e. deductive approach) (Boyatzis, 1998; Fereday and Muir-Cochrane, 2006; Braun and Clarke, 2006). Both approaches have advantages and disadvantages therefore, as with mixed methods research, some suggest that combining the inductive and deductive approach will yield better results in qualitative research, which was applied in this research.

According to Braun and Clarke (2006), once coding is complete, thematic analysts begin to explore how overarching themes can be derived from different codes. They also suggest that visual representation tools such as mind-maps assist researchers to sort the different codes into themes as mind-maps allow researchers to see the relationship between codes, sub-themes, and overarching themes. The researcher created a mind-map of the initial themes developed through the analysis. Braun and Clarke (2006) argue that as the analysis process progresses, the relationship between themes could be changed during the next phase of thematic analysis (i.e. review of themes). During the review of themes phase, themes can be merged or broken down further to separate themes (Braun and Clarke, 2006). Once the relationship between sub-themes and overarching themes is established and the themes were refined to capture the essence of the theme, the final mind-map of themes was produced which is presented in Chapter 7.0: qualitative analysis chapter. The development of themes from the initial codes can be found in Appendix 3, however it is worth noting that Appendix 3 shows only the development of sub-themes as overarching themes were derived from the sub-themes. Prior to that, it is important to discuss the steps taken to maintain the rigour of this research, which is discussed in the section below.

5.8 Maintaining the Rigour of Research

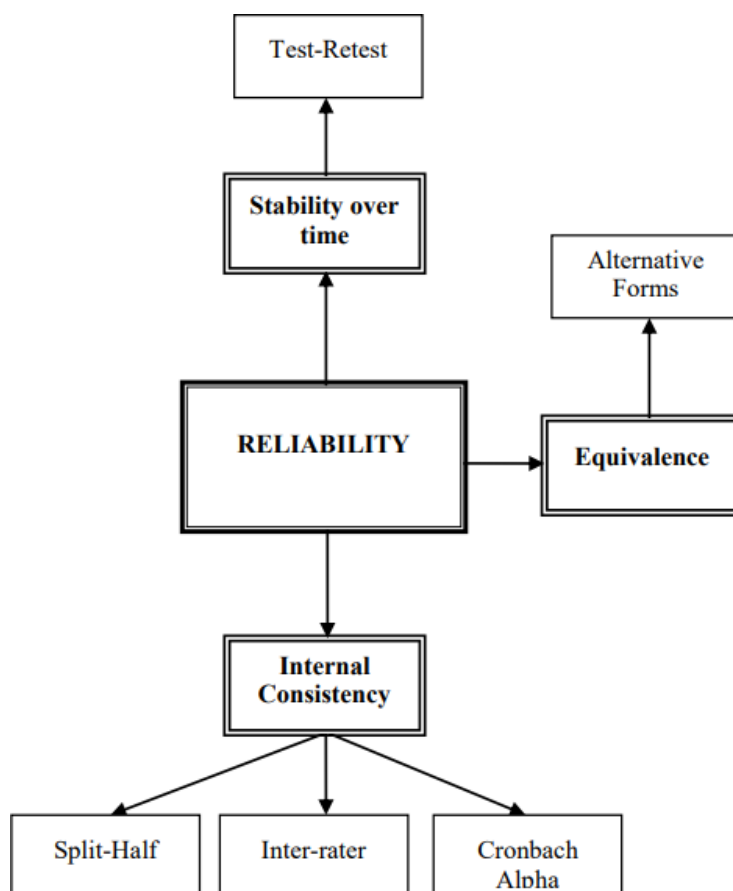
Validity and reliability can be considered as two key characteristics of research as they help to maintain the rigour of research (Cypress, 2017; Marquart, 2017). Reliability can be defined as the consistency of measurement (Drost, 2011), whereas validity tests whether the means of

measurement capture what they are intended to measure (Winter, 2000). For example, if a survey that is aimed at investigating depression actually explores anxiety, this would not be considered as valid (Heale and Twycross, 2015). In her article which discusses validity and reliability in social science research, Drost (2011) suggests that these two concepts are related to behavioural studies. However, it is evident that Drost (2011) takes a positivist approach in the article, hence focuses on measuring and quantifying human behaviour. In addition, it is widely acknowledged that validity and reliability are predominantly applied in quantitative research (Winter, 2000; Heale and Twycross, 2015; Marquart, 2017). The following section discusses the validity and reliability of the quantitative part of this research.

5.8.1 Validity and Reliability in Quantitative Data

According to Drost (2011), in behavioural research, reliability can be mainly assessed through stability (test-retest), equivalence (alternative forms) and internal consistency (split-halves, inter-rater and Cronbach alpha) (Figure 5.3).

Figure 5.3: Measurement Tests' Reliability



Source: Drost, 2011, p.109

In the test-retest reliability approach, the same survey will be administered to the same group of respondents on two different occasions to test the reliability of answers, while in the alternative forms approach, the same respondents are given two different surveys at different times. Participation of this research is voluntary, and the respondents were not provided with any incentives. In addition, the participants were expected to take part in interviews which contribute heavily to answering the research question, therefore, it was decided not to employ these methods, to avoid participants being overwhelmed by receiving too many surveys to complete, and potentially deter participants who were voluntarily giving up their time to engage with the research.

Reliability can also be tested by checking internal consistency. Drost (2011) suggests that Cronbach alpha is the most popular among behavioural science researchers to test internal consistency. The value of Cronbach alpha can vary from 0 to 1, and the following table (Table 5.3Table) shows how these values can be interpreted.

Table 5.3: Interpreting Cronbach Alpha

Internal consistency	Cronbach's alpha (α)
Excellent	$\alpha \geq 0.9$
Good	$0.9 > \alpha \geq 0.8$
Acceptable	$0.8 > \alpha \geq 0.7$
Questionable	$0.7 > \alpha \geq 0.6$
Poor	$0.6 > \alpha \geq 0.5$
Unacceptable	$0.5 > \alpha$

Source: George and Mallery, 2003, p.231

Even though a value below 0.5 is considered to be unacceptable, this can be due to a number of reasons, such as not having enough questions (Gliem and Gliem, 2003), items in the survey being weakly related and concepts being divergent (Streiner, 2003). On the other hand, a large number of items may produce a high alpha value, however, it may also suggest the existence of similar questions within the survey (Gliem and Gliem, 2003; Streiner, 2003). Various studies have indicated different values as reasonable, for example Gliem and Gliem (2003) suggest that 0.8 is a good target to achieve while Streiner (2003) sees 0.9 as the maximum plausible

alpha value. As there is no universal agreement on the alpha value, this research follows George and Mallery's table and accepts any value between 0.7 and 0.9 as reasonable.

In order to establish the internal consistency of the questionnaire, a reliability test was carried out using the sample of 18 respondents. The results indicated that the survey showed good internal consistency (Cronbach's Alpha) of 0.73, ranging from 0.666 to 0.74 demonstrating that this questionnaire consistently measures attitude, contextual factors, and behaviour (Appendix).

5.8.2 Validity and Reliability in Qualitative Data

Many scholars argue that reliability and validity are inherent concepts of qualitative research when it comes to affirming the rigour of research, however for qualitative research, maintaining methodological rigour is paramount to establishing the credibility of the research (Winter, 2000; Sinkovics, Penz and Ghauri, 2008; Noble and Smith, 2015). For example, Sinkovics, Penz and Ghauri (2008), who examined the avenues to enhance the trustworthiness of qualitative research conducted in international business, argue that qualitative researchers should make the methods and approaches taken during the analysis process public to improve the trustworthiness of their research. Noble and Smith (2015) examine the issues around concepts such as validity and reliability in qualitative research and bear a similar view to that of Sinkovics et al. (2008). They add that by including methodological strategies such as maintaining consistency between the aim of the research, design, and methods, making the research process transparent from the beginning, and discussing emerging themes with other members of the research team, qualitative researchers are able to improve the credibility of their research.

One strategy that is used to improve the rigour of qualitative research is member checking: asking the participants to check the transcripts again to correctly identify themes that emerge from these transcripts (Barbour, 2001; Hamilton, 2019). However, this approach poses a number of challenges: participants may not have the ability or interest in processing data, the review process may force researchers to accept the respondents' interpretations (taking the responses at face value) while disregarding their own interpretations, hence affecting the quality of the data analysis (Barbour, 2001; Hamilton, 2019)

Another popular option to increase the reliability and validity of qualitative data analysis is to get other researchers to code the same transcript (multiple coding). In her work that discusses

the avenues to improve rigour in qualitative research, Barbour (2001) suggests that multiple coding results in substantial agreement among the researchers that have coded the same transcript, however, it is not unusual to disagree on some codes or themes regardless of the experience of the researchers. She attributes this to the complexity of qualitative data, personal interests, and the academic background of the researchers. Furthermore, Barbour (2001) recommends employing a multiple coding approach to improve the rigour of the qualitative data analysis process, however, she advises against multiple coding of the entire dataset due to the time and effort required.

This research adopted a multi-coding approach. Another researcher who is reading for a PhD in Psychology and Behavioural Change, and has expertise in qualitative data analysis methods, was given an anonymous transcript to code, together with a table of *a priori* themes. He was also provided with some background information on this research to enable him to identify emerging themes. The author coded the same transcript. Once both transcripts were coded, both researchers met to discuss the themes that they both had generated. The other researcher successfully identified the quotes related to the *a priori* themes, however, he was unable to identify some of the emerging themes. As Barbour (2001) argues, this disagreement can be attributed to a lack of knowledge on the research topic and relevant subject expertise. In order to maintain the rigour of this research, the researcher then sent some of the themes (both *a priori* and those emerging from the data) to two academics who were familiar with the research area, together with the quotes that supported these themes (Appendix). They were asked to match the themes to quotes, and a face-to-face meeting was held to discuss the outcomes which were largely in line with the researcher's coding, thus confirming the validity and reliability of the qualitative data analysis of this thesis.

5.9 Ethical Considerations

Patton (2002) examines the developments in qualitative research since the 1980s and highlights that qualitative researchers have improved their awareness of the ethical issues that may arise as a result of their research, such as the impact on interviewees, confidentiality, and the balance between compensation for participants and the quality of data generated.

The current research was carried out in accordance with the Good Scientific Practice of the University of Derby, General Data Protection Regulation (GDPR) (Information Commissioner's Office, 2018) and the Data Protection Act 2018 (HM Government, 2018a). All participants were provided a brief description of the research, the probable risks that may arise

as a result of participation, right to withdraw and the way data is collected, stored, and used. Templates of all the documents mentioned above were submitted as part of the ethical approval request to the University. A full approval from the University of Derby's College of Business, Law and Social Sciences Ethics Committee was obtained prior to contacting any respondents (see Appendix 6).

Prior to taking part, informed consent from each participant was obtained either physically (for interviews and hard copies of the questionnaire) or electronically (for the online questionnaire). All physical evidence of completed informed consent forms was stored in a location that only the researcher had access to. During the questionnaire, respondents were allowed to include their organisations' details (name and the postcode) however, this information was not mandatory hence they had the option not to provide that information should they wish not to. No commercially sensitive data was collected during this process. Once the data was gathered, it was anonymised and saved in a password protected computer to prevent unauthorised use of data by third parties. All paper copies of completed questionnaires were saved in the same computer and then the physical copies were destroyed safely.

5.10 Summary

Critical realism was selected as the philosophy for this research as it allows the researcher to examine social phenomena in depth while also allowing them to uncover causal mechanisms of people's experiences. Traditionally, the case study approach has been widely used in both behavioural additionality and business network research due to the nature of the approach that allows researchers to examine phenomena in greater detail, therefore, a case study approach was taken in this research and two networks that met the criteria set for informal business networks (Sections 5.4.1 and 5.4.2) were selected as case studies.

To analyse the two networks selected as the case studies, a mixed methods approach has been adopted with a sequential quantitative – qualitative design, in line with the philosophy of the current research and the theoretical framework. Quantitative data was collected using a questionnaire while semi-structured interviews were conducted in order to collect qualitative data. The purpose of quantitative data was to inform the qualitative phase; hence the former was of a descriptive nature. On the other hand, qualitative data played a major role in answering the research question of this research as the primary aim of this thesis is to examine behavioural additionality of network membership which has not been explored before. Therefore, gaining insight from the interviewees' perspective was important to advance the knowledge in this

field. The choice to put more weight onto the qualitative data was also justified by the philosophical assumptions of the research.

Quantitative data was analysed using Excel while qualitative data was analysed thematically using NVivo software. All ethical issues that may have had an impact on respondents were carefully evaluated and proposals to prevent any ethics breach were included as part of the ethical approval form submitted to the University of Derby's ethics committee, which was approved. Data protection and confidentiality laws of the UK were respected and were adhered to throughout the research.

The aim of this chapter was to build a research design to collect and analyse primary data to test the theoretical framework developed in Chapter 4 (Figure 4.4). In order to do that, this chapter suggested an appropriate philosophy, methodology, data collection and analysis methods while providing the justification for each choice. Therefore, this chapter has successfully developed a research design to collect data on the variables depicted in the theoretical framework (Figure 4.4) and also to analyse them to test the theoretical framework. Subsequent chapters are dedicated to discussing the findings and analysis of both quantitative and qualitative data collected and analysed using the strategy developed in this chapter. This will allow the final objective of this thesis to be achieved.

6.0 Quantitative Findings and Analysis

6.1 Introduction

The final objective of this thesis is to contribute to research and practice, and policy discussion in the areas of informal business networking.. In order to achieve that, both quantitative and qualitative data will be analysed, and findings are presented in this chapter and the next, respectively. Once both quantitative and qualitative data are analysed, a detailed discussion of the analysis will be carried out with reference to the existing literature (Chapter 8) in order to generate recommendations. In this chapter, quantitative findings of this research are discussed and as mentioned in the previous chapter (Section 5.5.1) the purpose of the quantitative phase is to inform the data collection of the qualitative phase, therefore, rigorous statistical analysis is not carried on the quantitative data.

This chapter is structured as follows. In Section 6.2, respondents' demographics are discussed while the subsequent subsections are reserved to discuss their engagement with the network (Section 6.2.1) and their engagement with other networks (Section 6.2.2) in order to assess the ability to attribute the behavioural changes to the networks that are studied in the current research. Then the chapter moves on to analyse the survey data and report the findings. As explained in Chapter 2, behavioural additionality at the individual level refers to the behavioural changes of members as a result of an external intervention, therefore, the behavioural changes cannot be discussed without discussing the nature and the influence of this intervention. Therefore, this chapter is structured to discuss the contextual factors (Section 6.3) that may have influenced members' behaviour first. The theoretical framework developed in this thesis also identifies that individuals' attitude also play an important role in influencing their behaviour, therefore, Section 6.4 explores the data related to members' attitude before discussing the data related to behaviour in Section 6.5. The chapter is then concluded in Section 6.6. This structure will also be followed in subsequent chapters (Chapters 7 and 8) in order to present and discuss the findings consistently.

6.2 Respondents' Demographics

In total 52 responses were received for the survey from both networks (19 for Network X and 33 for Network Y), which have a combined membership of approximately 137 members, thus achieving a 37.9 percent of response rate.

The majority of respondents were males (over 65 percent) and were representing SMEs (90.4 percent). In terms of the age groups, over 80 percent of respondents were between 41 and 65,

while a similar percentage of respondents (84.6 percent) identified themselves as either a director, partner, or an owner.

The respondents were also asked to indicate the highest educational qualification they hold (Table 6.1). If someone has indicated that they have multiple qualifications, the highest-level qualification has been considered for this analysis. Just over 50 percent of respondents possess either an undergraduate degree or a postgraduate degree, while 17.3 percent of respondents possess professional qualifications.

Table 6.1: Education of Respondents

	Number	%
Up to undergraduate	16	30.8
Undergraduate	17	32.7
Postgraduate	10	19.2
Professional	9	17.3
Total	52	100.0

Source: Author's study

6.2.1 Engagement with the Network

In the survey, the respondents were asked to specify how often they attend meetings of their respective network (Table 6.2). The aim was to identify their engagement with the network. This shows a mixed result as just slightly above 50 percent of respondents attended either almost half, more than half or almost every meeting, therefore providing a good balance of respondents between those who are actively engaged with the network, and those who are not.

Table 6.2: Regularity of Attendance

Frequency	Number	%
Rarely	10	19.2
Less than half	14	27.0
Almost half	2	3.9
More than half	6	11.5
Almost every meeting	20	38.4
Total	52	100.0

Source: Author's study

However, it is worth noting that this data varies as attendance figures for both networks varied significantly. More members of Network X were attending most events and meetings of their network (Section 5.4.1) while for Network Y, attendance was lower.

In addition, members of Network Y are not geographically concentrated, and meetings are held in various locations across the East Midlands region, rather than a fixed venue. Hence attending meetings regularly in locations that are away from their workplace/residence can be difficult too.

On the other hand, members of Network X either live or operate in close proximity (within a 20 mile radius) of their meeting venue (which is fixed). Meetings are open to all members and are arranged as breakfast meetings so as not to interfere with the members' working days. The agenda of each meeting is structured and designed to provide equal opportunity for all members to network and present, while attendance is closely monitored, and regular members who achieve an annual attendance of over 80 percent are rewarded with 100 pounds sterling to spend within the network, which was not the case for Network Y.

6.2.2 External Networks

Respondents were asked to indicate the number of other networks that they attend regularly. The purpose of this question was to find out how selective respondents are in terms of their network membership and whether the researcher would be able to identify the impact of this particular network effectively. On average, members of both groups attend almost two networks (excluding the one they are responding about) (Table 6.3).

Table 6.3: Membership of Other Networks

	Network X	Network Y
Mean	1.58	1.78
Standard Deviation	1.61	1.86
Minimum	0	0
Maximum	4	8
Median	1	1.5

Source: Author's study

6.3 Contextual Factors

As explained in Section 5.6.1, in this section, the areas that the questionnaire focused on were, organisational expectations, interpersonal influences and governmental regulations and

incentives. Altogether, participants were asked to rank 14 statements which covered these areas, and they were given an opportunity to include any other contextual factor that they considered relevant to their engagement with the network. The statements were randomised to avoid people picking up a pattern and hence providing socially desirable answers.

Many participants did not provide numbers for every statement while some put the same number for many statements. None of the statements received a ranking by all respondents, while half of the statements received less than 50 percent responses. Extrapolation was deemed unsuitable to apply in this analysis as assigning numbers to the incomplete responses by the researcher may not reveal the actual value respondents may have put voluntarily. Therefore, during the analysis of each statement, only the responses where the respondent had assigned a number for that statement were considered (i.e. any statements where the respondent did not allocate a number were not counted). A median for each statement was calculated and the results were ranked, which is presented in the table below (Table 6.4Table). The range for the responses is 1 which is the most important reason to 14 which is the least important. Therefore, a lower median number represents a more important reason.

Table 6.4: Contextual Factors

Rank	Median	Statement
1	1.5	To get new leads for my business
2	2	To identify opportunities for collaboration
2	2	I have heard good things about this network, so I decided to give it a try
2	2	This network was recommended to me
5	3.5	To build my contacts in the industry
6	4	To access non-financial support for my business
7	5	The network is convenient for me to attend
8	6	I want to provide a voice for my industry
9	7	The network allows me to access technologies relevant to the industry
10	9	My competitors have joined a similar network
11	10	My company wanted me to participate
12	11	To access funding or other financial support for my business
13	13	My competitors have joined this network
14	14	It is a regulatory requirement to be a member of a network

Source: Author's study

Unsurprisingly, getting new business leads was the top expectation of members of both networks (out of all 14 statements) followed by identifying opportunities for collaboration and interpersonal influence, such as, word of mouth and personal recommendations, all jointly

occupying the second rank. Respondents ranked building their contacts in the industry higher than the network's convenience, however, the opportunity to provide a voice for their industry was less of an influencing factor. This can be attributed to the nature of the networks that were studied in this research as neither network was industry specific. Interestingly, the respondents ranked accessing non-financial support for their businesses, such as support from specialists in the network, (the sixth most important factor) higher than accessing financial support (the 12th most important factor). This was further explored during the interview phase and will be discussed in Chapter 7 (Section 7.2). Out of all statements, respondents suggested that regulatory requirements were the least influential factor in their decision to join a network. Therefore, it can be concluded that the main contextual factors that were important to participants in their decision to engage with the network were organisational expectations, interpersonal influence, and network structure while governmental legislation and incentives were less important.

Another factor that may influence an individual's behaviour is attitude (Section 4.3.1) and the data related to this factor is presented in the next section.

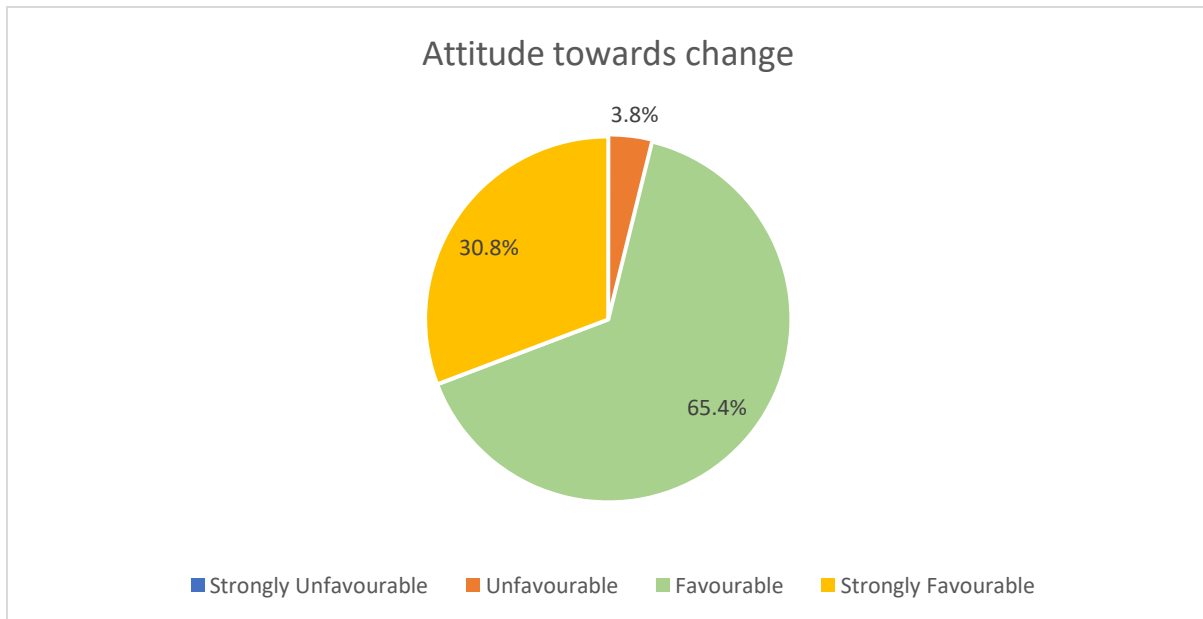
6.4 Attitude

This section discusses the analysis of the participants' attitude to change, their attitude towards networks in general and to the network that is being studied, all of which are discussed in the subsequent subsections.

6.4.1 Attitude Towards Change

The aim of this section was to assess the respondents' attitude to change. Respondents were provided with 12 statements (six positive and six negative) and were asked to state their level of agreement on a five-point Likert scale. Points were allocated for each statement based on the nature of the statement (5 points for strongly agree and 1 point for strongly disagree for positive statements and the reverse for negative statements). Their answers were analysed, and the findings can be found in Figure 6.1 below.

Figure 6.1: Attitude Towards Change



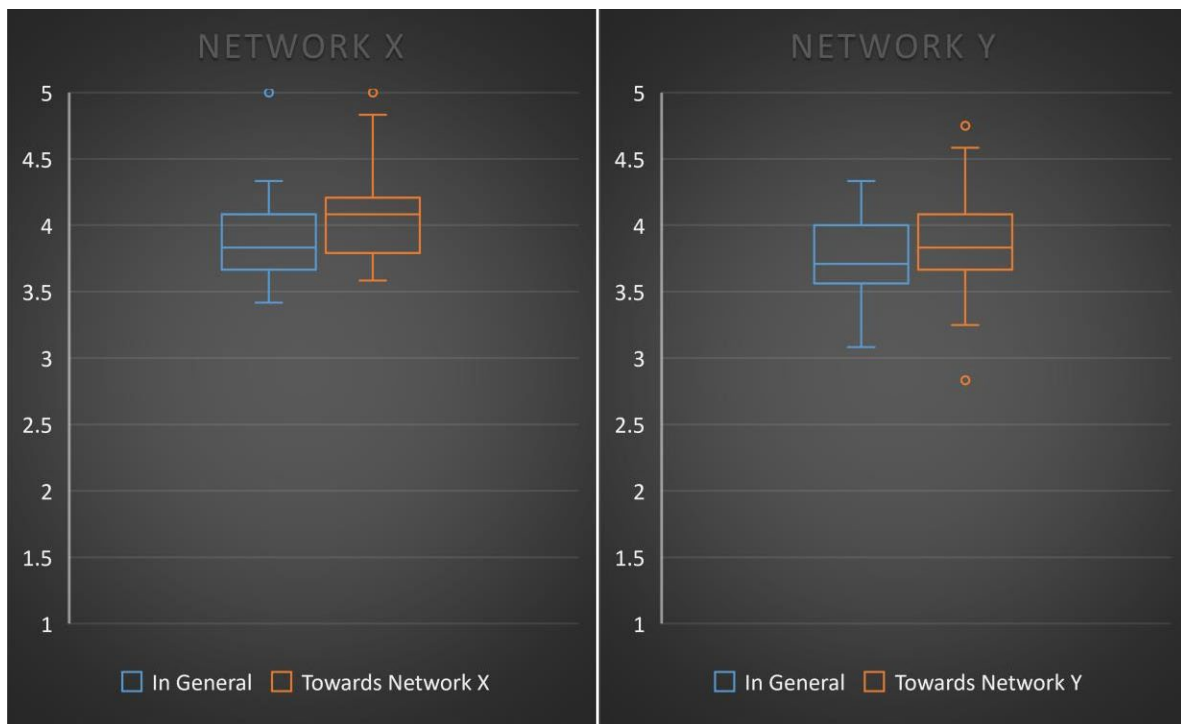
Source: Author's study

This research found that the majority of respondents have a positive attitude to change (96 percent). This may suggest that respondents are more likely to change their behaviour, however, this was identified as a factor that needs to be examined further in the qualitative phase of the study for which analysis can be found in Section 7.3.

6.4.2 Attitude Towards Networks in General and for their Network

This section of the survey was split into two parts. In the first part, the respondents were asked to rate 12 statements (six positive and six negative) that aimed to assess their attitude to networks in general. The main reason behind this is to understand whether respondents have a positive or negative attitude to networks in general. In the second part of this section, respondents were asked to rate the same statements as in the previous part, however, this time, the statements were referring to their specific network. This is to enable a comparison of the respondents' attitude to networks in general to their attitude to the specific network being studied. Responses were coded on the Likert scale from 1 to 5 as in the previous section (6.4.1). The responses were analysed, and the findings are shown in the following Figure (Figure 6.2).

Figure 6.2: Attitude to Networks



Source: Author's study

For the responses for each network, the above figure shows the median response and the second and third quartiles (middle 50% of responses) as a box. The top and bottom 25% of responses are shown by the lines extending from each box, with statistical outliers shown as circles.

On average the respondents from Network X have a more positive attitude towards networks in general (median 3.83) than their counterparts in Network Y (median 3.67). In addition, members of both networks have a positive attitude towards their own networks, however, Network X have a more positive attitude towards their own network (median 4.08) whereas Network Y members feel only slightly more positive about their own network (median 3.83) than they do for networks in general. Network X's members engage (on average) with fewer other networks therefore, it can be argued that they rely more on the networks that they attend.

6.5 Behaviour

Respondents were given 25 skills as statements and were asked to assess whether they believe that they have developed these skills as a result of their network membership or not. They were also given the opportunity to answer "I don't know" should they deem that statement describes their situation best. All respondents of Network X agreed that they have developed at least one

skill listed in the questionnaire as a result of their network membership while 79 percent of respondents from Network Y agreed.

The main aim of this part of the questionnaire was to identify the most common skills that respondents believe they have learned or developed since being a member of the network. Not only does this provide valuable insight into the members' perceptions of how the network has impacted them but it also informs the areas to explore in more detail during the interview phase. The following table (Table 6.5) shows the percentage of respondents who answered 'Yes' to developing each skill through their network membership.

Table 6.5: Skills and Capabilities Developed from Network Membership

Rank	Percentage	Skill, Capabilities and Habits
1	76.9%	Listening to others
2	75.0%	Communication skills
3	63.5%	Public speaking skills
3	63.5%	Innovation/creativity
5	59.6%	Can-do attitude
6	40.4%	Flexibility
7	38.5%	Team working skills
7	38.5%	Learning skills
9	36.5%	Problem solving skills
9	36.5%	People management skills
11	34.6%	Planning skills
12	32.7%	Reasoning skills
12	32.7%	Critical thinking
14	30.8%	Writing and speaking - English (business communication)
14	30.8%	Organisational skills
14	30.8%	Decision making
17	25.0%	Leadership skills
18	23.1%	Negotiation skills
18	23.1%	Working under pressure
20	19.2%	Task specific skills such as accounting/bookkeeping
21	17.3%	Business specific skills (ability to operate a machine/software)
21	17.3%	Time management skills
23	15.4%	Multi-tasking skills
24	13.5%	Computer skills
25	1.9%	Writing and speaking - another language

Respondents in both networks selected listening to others, and their communication and public speaking skills, as the top three skills and capabilities that their network membership assisted them to either develop or learn. Network X offers 60 seconds to every member in every meeting to present their business, so it is easy to see the link between this activity and the answers given by respondents from Network X. In contrast to Network X, there is no 60 second pitch for every member in every meeting for Network Y members, however, the network offers a 10- to 15-minute presentation slot to their members on a rotating basis. This helps to explain why respondents picked communication-based skills (listening to others and speaking in public) as their top three skills developed as a result of their network membership.

Furthermore, respondents also agreed that their network membership has allowed them to develop their innovation and creativity capabilities too. This was not expected as both networks

are informal and do not routinely arrange activities intended to improve their members' innovation and creativity skills and capabilities. Therefore, this was recognised as an area that needs to be explored further during the qualitative phase.

On the other end of the spectrum, writing and speaking of another language (other than English) was the least developed/learnt skill for both networks. The other common skills that the members of both groups did not think that their networks have helped them to develop are computer skills, multi-tasking skills, time management skills and business specific skills, such as the ability to operate a machine or using particular software. Except time management and multi-tasking skills, the other types of skills mentioned are specific to performing an activity and hence are not necessarily learnt or developed without carefully planned programmes or activities.

6.6 Summary

The main aim of this chapter was to inform the next phase of data collection, during which a detailed investigation of behavioural additionality of network membership is carried out.

For the questionnaire, 52 responses were received from both networks, achieving a 37.9 percent response rate. Data was analysed together and data from two networks was compared and contrasted where deemed necessary. The questionnaire also collected data to understand contextual factors that have influenced members' engagement within their network. The analysis revealed that for members of both networks, the most important factors were their organisational expectations, network structure and interpersonal influence while governmental regulations and incentives were considered to be the least important, therefore, the former three factors were included in the interview questions.

Data related to respondents' attitude towards change, attitude towards their network and towards networks in general was analysed, and responses were largely positive in all of these areas. As each network showed slightly different figures in terms of the result for their attitude towards their network, this is selected to probe further during the interview phase, together with their (individual) attitude towards change to see whether these are due to the characteristics of each network, as characteristics of the network was influential in their engagement within the network.

Finally, according to respondents, their network membership has allowed them to develop interpersonal skills such as listening to others, public speaking and communication skills while writing and speaking of another language (other than English) was the area where the network

contributed least to development of skills and capabilities. In addition, computer skills, time management skills, multi-tasking skills and business specific skills were among the skills and capabilities that the members of both groups did not think that their networks have helped them to develop. As the list of skills, capabilities and habits in the questionnaire is not exhaustive, and several areas emerged to investigate further in the interviews, the decision was taken not to limit the interview questions to specific skills, capabilities, and habits. During each interview, the interviewees will be asked to elaborate on their answers to the questionnaire, as well as to provide examples, in order to identify the underlying skills, capabilities or habits that respondents have developed, and how it has influenced their behaviour.

This chapter has identified a number of areas that needed to be explored further through qualitative methods to understand the behavioural additionality of network membership in order to achieve the final objective of this thesis. Findings and analysis of the qualitative phase are discussed in the next chapter.

7.0 Qualitative Findings and Analysis

7.1 Introduction

The aim of this chapter is to present the findings and the analysis of the qualitative data, in order to test the theoretical framework developed in this thesis (Section 4.3.5). This research used critical realism as the research philosophy to uncover the causal mechanisms of the behavioural changes of individuals as a result of their network membership, therefore, as explained in Section 5.5, this research aims to capture human experience through interpretation therefore analysis of qualitative data is pivotal to understand the behavioural changes. The structure of this chapter follows the same structure as the previous chapter, therefore, contextual factors will be discussed in Section 7.2 which is followed by attitude (Section 7.3). In Section 7.4 behavioural additionality of network membership is discussed which is key to answering the research question of this thesis before concluding the chapter in Section 7.5.

As in the quantitative chapter (Chapter 6), the analysis of qualitative data presented in this chapter is not discussed extensively with reference to the literature, as the next chapter (Chapter 8) aims to discuss the findings in greater detail and will be linked to the relevant literature where appropriate. As human behaviour is complex, several themes are intertwined and hence, some quotes may be used to evidence more than one theme which is common in qualitative research. All personal information such as names of people and places have been changed to protect the anonymity of the participants.

7.2 Contextual Factors

As found in the previous chapter, (chapter 6), monetary incentives or governmental regulations were the least important contextual factors for members in their decision to engage with the network, while organisational expectations, interpersonal influence and network structure were found to be of greater importance. Therefore, during the interviews, the latter three contextual factors were prioritised to explore in more detail, in order to make the most of the time available in the interview. Even though interviewees were given the opportunity to re-visit their answers during the interviews, all interviewees confirmed that monetary incentives and governmental regulations did not influence their decision to engage with the network. This is due to the nature of the network, as the network is not funded by either the government or a non-governmental organisation. The analysis and presentation of these contextual factors begins with the members' expectation from their networks (Section 7.2.1).

7.2.1 Network Membership Expectations

In this section, themes related to the interviewees' expectations of their network membership are discussed. Interviewees revealed that their expectations for their network membership can be twofold: (i) personal impact expectations (i.e. expectations of their network membership for themselves) and (ii) organisational impact expectations (i.e. expectations of their network membership for their organisation) which are discussed in the following subsections, respectively.

7.2.1.1 Personal Impact Expectations

Interviewees provided different perspectives of their personal expectations of their network membership, however their expectations could be summarised into one theme, namely 'support for self'. Networks create a communal space for their members in which interaction among members is encouraged and facilitated. This frequent interaction among members allows them to build trust, which is identified as crucial for any network to operate successfully (Todeva and Knoke, 2005; Jaekel, 2019; Massaro et al., 2019), which was echoed in the findings of this research.

Members from both networks highlighted the importance of building trust among members and its impact on their ability to forge strong relationships through their network. For example, one interviewee (Interviewee P01B) suggested that by building trust, members can build strong relationships, and in turn, they believe that all individuals in the group will benefit:

“But it's all about building trust, so that's what we want.... We want to build long term relationships, benefit the group” (Interviewee P01B).

A member from the other network (Network Y) suggested that developing trust among members allows them to share their problems, be it personal or business.

“People may come... as you get to know people, then they will share things with you, and they may share their problems... that might be a personal problem, it might not be a business problem” (Interviewee P07C).

During discussions, many interviewees explained the struggle they face as micro business owners. Being sole traders, or firms with family members as employees, they explained the pressure they face themselves, due to having to perform a wide range of tasks for the business and having their livelihood depend on its success. They used various metaphors to describe this, such as 'wearing lots of hats' (Interviewee P04B) or 'spinning a number of plates at the

same time' (Interviewee P05B). The necessity to perform many different tasks means many interviewees work long hours, which increases stress and puts pressure on their work-life balance. For example, Interviewee P05B emphasised the pressure that they are under due to this constant battle;

“Umm... family, interacts with your business and family needs to understand and be... be aware of the pressure business has on personal life” (Interviewee P05B).

In addition, being a micro business owner can be lonely hence being part of a network provides an opportunity to be social; *“it's very lonely so it's great to go into a networking group” (Interviewee P01B)*. Interviewee P05B suggested that the environment provided by networks helps them to be able to avoid failing; *“It's a lonely thing running a business on your own and you need that... umm... that help, otherwise you know you are planning to fail” (Interviewee P05B)*. For Interviewee P07C, their network provided them with an opportunity to feel like they have got more people in their organisation; *“Particularly when you work on your own, I haven't got a team of people there, my team of people are the people I meet through the network, and those are my... that's my... my employ... you know, same as my employees if you like” (Interviewee P07C)*.

This support can extend beyond business related matters, with interviewees also stating that networks can provide a support network for personal matters. As Interviewee P05B put it, *“Whether it's business or... or in personal life you know, people talk about both in the group, which is you know quite unusual, I think for most networking groups” (Interviewee P05B)*. They believed that this phenomenon is network specific, however an interviewee from the other network echoed the same; *“People may come... as you get to know people, then they will share things with you, and they may share their problems... that might be a personal problem, it might not be a business problem” (Interviewee P07C)*. This suggests that members can develop strong personal relationships and friendships through their network membership, which rely on building trust in each other.

In addition, interviewees also believed that there are additional important factors, other than trust, when it comes to the interaction with others. Interviewee P03C suggested that it is the personality of others and their level of relationship with other members that matters when collaborating; *“nobody is going to work with you, unless... until that relationship is... has been built, and quite rightly because I won't just work with somebody just because they're attend a networking event”*. A fellow networker of Network Y, Interviewee P01C, offered a similar view; *“I think that's where a lot of people get it wrong at networking events... they think they*

go there to sell, but you don't, you go in there to build relationships, and I think if you go there to sell, it's totally the wrong thing to do". They further added that, there are some other psychological traits such as empathy and trust; *"I think first you have to meet someone and empathise with them, and gain their trust and then you might get some business"* (Interviewee P01C). During their interview, Interviewee P05B highlighted the importance of seeing network membership as a more strategic and longer-term activity, and highlighted the importance of relationship building;

"You should see networking as a long-term strategy for your business. You wouldn't expect to join a group and get business on day one. In much the same way as you wouldn't expect to meet somebody at the church or in...in... in a bar and say you know, I want to marry you, you just don't get that... you know, it's... it's the wrong way of doing it. There's a right way to do it, and that's to build the relationships" (Interviewee P05B).

The ability to form relationships and gain trust from other members has an impact on an individual's confidence too. This was a particularly important factor for Interviewee P03B who works on their own and works from home which limits their opportunities to meet other people; *"going every week and building that trust and relationship gives you confidence"*. They further explained how this has helped them in other aspects of their work; *"And it has definitely helped me be able to do presentations outside of the group, to other networks or other events... umm... definitely, definitely helped to build confidence so that's a huge one"*.

Therefore it can be concluded that members' personal expectations of network membership can be summarised as 'support for self', in particular for their mental wellbeing. In addition to their personal expectations of network membership, interviewees emphasised that the impact they expect from their network membership on their organisations, which is discussed in the section below.

7.2.1.2 Organisational Impact Expectations

Without a doubt, all members of business networks expect to grow their business, which was echoed by members of both networks that were studied; *"It creates opportunities to meet the right sort of connectors, be they potential new clients or err... intermediaries who might lead to potential new clients, or people who might provide a useful insight in other areas of business"* (Interviewee P01C). Interviewee P02C suggested that the main reason for their membership is purely to further their business; *"Networking is purely for getting the work in"*

(Interviewee P02C), while Interviewee P07C recognised getting business leads as a priority of their network membership; *“Obviously to get new leads, that’s obviously critical because that’s why you do it”* (Interviewee P07C). Interviewee P02B provided a summary of their expectations and the approach that they would take in achieving their expectations. In addition, they suggested that every member should keep that in their mind when they attend their network meetings.

“I mean ultimately anyone who networks, does it because they want to build their contacts up which ultimately leads to more business. If that’s not the reason you are networking and then frankly you need to make that the reason” (Interviewee P02B).

Interviewee P03B described the importance of forging relationships in generating business leads; *“You may come across potential clients in networking. You’re more likely to find people you can forge future relationships with”* (Interviewee P03B). Interviewee P01C suggested that their network facilitates the opportunity to meet people from other businesses, who may either be a direct client, someone who may refer their business to others or just someone who would provide advice on their business.

“It creates opportunities to meet the right sort of connectors, be they potential new clients or err... intermediaries who might lead to potential new clients, or people who might provide a useful insight in other areas of business” (Interviewee P01C).

However, some members warned of having a pure economic interest in their network membership. Interviewee P01B described members with a pure economic interest as ‘mercenaries’ and suggested that in general, members value building long-term relationships over quick business gains;

“Because you don’t want mercenaries and because they can come and get as much business as they can, then disappear, but it’s all about building trust, so that’s what we want.... We want to build long term relationships” (Interviewee P01B).

Interviewee P03C, who is a small business owner, agreed that having pure economic expectations from their network membership would not be the best approach; *“I do not go to a networking event hoping to sell any of my goods and services, because I just find it doesn’t work like that”* (Interviewee P03C). In contrast, according to Interviewee P05B, members know that they will get something out of their participation in the network, even though it is not always direct; *“A lot of us look forward to going, because we know.... You know, we know we’re going to get something from it. It’s not just going there to... to get leads off people, you*

know” (Interviewee P05B). Interviewee P04B shared the same view that their network membership would result in support for business growth; *“You’re there to ultimately try and boost your own business, but it’s not always directly”* (Interviewee P04B).

Some interviewees described that forming long-term relationships and gaining trust among members are also important steps in their ultimate expectation of getting more business leads. According to Interviewee P03B, *“The main thing I expect from this network is to be able to build trust so that it will support my business”* (Interviewee P03B). From a business point of view, this support extends to referring business to each other. This can be either working directly with another member or introducing other members to prospective clients, however, trust is key for them in both instances. Interviewee P01B added that they are working with another member of their network, who is an owner of an accountancy firm;

“I’ve got an accountant that I can trust and to go in there and make sure that they’re not going to drop me in it or anything like that and if there’s an issue he can highlight it and say we’ve got this issue so what can we do and all that sort of thing” (Interviewee P01B).

Interviewee P03C, who is a member of Network Y stated that mutual trust is important in referring business to each other, as their reputation can be at stake otherwise; *“If there’s somebody that I know, that’s got a good reputation, that I trust, umm... because I won’t put two people together if I don’t trust them, there’s no way I’ll do that, because that’s my reputation on the line* (Interviewee P03C). A couple of other members of Network Y echoed this view; *“so they’ll trust me more with their clients, and you know, it’s all that sort of stuff”* (Interviewee P02C); *“In networking... is that we pass work on to people that we trust and they trust us to protect their reputation”* (Interviewee P07C). Interviewees who are members of Network X had similar views. As explained by Interviewee P01B, *“You don’t want to let them down... so... if someone referred business to me, it’s your You are doing it on behalf of that person, you don’t want to ruin that... You got to do a good job because you don’t want to ruin your reputation and their reputation for referring you”* (Interviewee P01B).

Two interviewees (both from Network X) provided examples of when they have referred business to other members. Interviewee P01B, who is an estate agent, gave an example where they had a client who also had a business requirement for an IT related issue; *“I don’t have anything to do with websites, I can’t really help with him [client], but after talking to him I said you need to speak to this chap, because this chap can help you, and I put him onto the*

chap from the networking group” (Interviewee P01B). Interviewee P04B had a similar view on referring business to others in the network; “I’m not a personnel person, but if one of my customers has a requirement for someone with personnel skills, I’ll say have you seen... have you spoken to... this person might be able to help you” (Interviewee P04B).

This also emphasises another expectation of network membership which is accessing each other’s resources. Networks comprise of members from different backgrounds hence members of business networks possess different skillsets and have access to different resources. Small businesses have limited resources and their access to additional resources is restricted, compared to their larger counterparts. This was raised during interviews by the interviewees, who emphasised the ability to access other members’ resources and expertise as another organisational impact expectation of their network membership. However, some interviewees found that it is important to have a range of members representing different sectors to have a successful network; *“We have lots of different industries in the room ... that makes it a successful network in itself” (Interviewee P03B).* Having a wide range of membership also allows businesses to access a wide range of skills, and benefit from the experience of others. Interviewee P01C, who is a partner in a multinational organisation, explained the array of expertise that their members can access through the network.

“Because you have everything from a small start-up through to an international bank, an international accounting firm, legal firms etc... so there's a good range of skills and experiences within the network, so if somebody needs something they ought to be able to access that fairly readily, via the group members” (Interviewee P01C).

Interviewee P01C did not specify what members can access via other members when they said ‘if somebody needs something’, and when probed further, they simply referred to it as “you know, help or contacts, that sort of things”, however, other interviewees provided other explanations to suggest that members can get this support in a number of ways. As one interviewee put it, other members help them by promoting their business to a wider audience; *“that's probably the best thing that it has done for me is every week I've got 30 to 40 people promoting my business” (Interviewee P05B).* The other interviewees suggested that they get guidance from experienced members; *“There’s lots of guidance there, from the experienced members” (Interviewee P01B),* or more specifically advising on situations; *“Where I pick up the phone and go, what would you do in this situation, and they say well, I do this... this... and this. Oh, okay I can do that, that perhaps wouldn’t work, but that might” (Interviewee P06C),* or just sharing information; *“when those courses are available, often people in the network*

will flag those up, so it's almost... it also helps people find... find training and development information sharing, yeah" (Interviewee P03B). Another interviewee believed that their network membership allows them to remain up to date on current affairs in other sectors, "you know everybody in their own sector is keeping you up to date with what's going on. This is one of the best ways of actually staying ahead of the curve" (Interviewee P05B).

Some interviewees highlighted that in their network, they are able to meet other individuals who possess contacts in many different organisations. The interviewees believed that this results in others promoting their business outside of the business network;

"[The network] has got lots of people that depend on networking, for their business. So, they do networking for you. Meghan is a great example, Meghan is a member of an infinite amount of groups, but she will recommend me to all them groups, even though one of them will probably having an estate agent in, so she won't do that in that group, but then that is the point. So, I don't need to be a member of loads of different groups. Because they are there networking for me" (Interviewee P01B).

Furthermore, as explained by Interviewee P01B, members can access each other's contacts. The interviewee had been trying to build a working relationship with a local publisher who is not a member of Network X, but had not been successful. However, with another member of Network X introducing Interviewee P01B to the same contact, the result was more successful.

"I met a PR consultant through this network, and he helped me get into the newspaper with articles and things like that where, umm... where he had the... I've written articles with Quality Times for instance and sent them off but they have never been published but then he got involved and they were put in straight away so he had the contacts, and he could open the door for me" (Interviewee P01B).

Being a part of a network provides an opportunity for members to access each other's specific areas of expertise and skills, which may bring their businesses more benefit.

"My business only does this small amount, but all of a sudden, I can actually go along to a networking group, and I can offer people all these skill sets that are in this room, and that makes me more valuable in my clients' eyes, more helpful, so they are happy with me and that should lead to client retention etc. etc. you have that big snowball effect which is what we are actually aiming for within this network" (Interviewee P04B).

Interviewee P03B found that having access to others' expertise in more specialised areas such as recruitment is beneficial to them; *"We've also got a recruitment agency, the recruitment agency will flag up things like traits or behavioural patterns, and things that we should look for"* (Interviewee P03B). This access to others' expertise can also help members to test their approach to supporting customer requirements in areas outside of their own expertise. Interviewee P04B, who owns an IT consultancy business, explained their experience of having access to other members' expertise easily; *"that customer had had problems and I just rang up the web guy who I've met through this network, because I bounced it off of him ... this is what has happened, and I said this is what I what I'm going to do and he said yeah, that... that's the right set of actions, he said you also need to do... and we... We bounced other ideas off each other"*.

For some interviewees, it was an opportunity to simply share their perspective on others' ideas; *"Maybe... I may have an idea I'm stuck on, and there might be somebody there that I know that can help me with it. So, I'll have a chat with them"* (Interviewee P03C). Interviewee P03C summarised the importance of being able to share ideas and expertise with other members, particularly for a sole trader; *"The network is good because it allows me to talk to people umm... about my ideas, listen to their point of view, and then just take it forward from there. You find that when you are working on your own, you can't do that, umm... you're sort of like you're talking to yourself"* (Interviewee P03C).

Even though members attend business networks primarily to grow their business, they achieve this through various means such as using each other as a sounding board for ideas, sharing information and accessing others' resources. Other contextual factors such as network structure can also influence members' behaviour within the network, which is discussed in the next section.

7.2.2 Network Structure

In the quantitative phase, respondents identified that some attributes of the network structure also influenced their engagement within the network (Section 6.3). During the interviews, interviewees elaborated on their answers to suggest that features of the network such as size, types of members and the nature of events influenced their decision in engaging with the

network, therefore, network structure emerged as a theme that was influential in members' behaviour.

Interviewee P03B believed that the size and stability of their network influenced their decision to join and engage with Network X. *"It's a large network group... umm and it's stable in numbers, so that's quite important,"* (Interviewee P03B). For Network Y's members, the number of member firms seemed less important as they focused more on the structure of their network. *"As it's currently structured, it provides a great chance for people to meet businesses with whom they may well strike up an ongoing relationship and a relationship which either delivers direct benefit or facilitates direct benefit"* (Interviewee P01C). When probed on the 'as it's currently structured' point, it was revealed that one of the benefits that members of Network Y get is that the network organiser proactively arranges meetings between members to facilitate potential business opportunities, which means members can target their networking effort efficiently. For Interviewee P01C, the organiser's role in selecting suitable partners has a direct impact on their behaviour within the network as this facilitation allows them to forge useful relationships. They further commended the organiser's efforts in making events a positive experience for members *"And a lot of thought behind it to make it a useful and pleasant experience for network members"*. The other interviewees had a similar view of the organiser's role in pre-arranging meetings with other members. Interviewee P02C praised the actions of the organiser too; *"I have met a lot of people I might not have met otherwise, and particularly the way the organiser runs it"*. They further added that the organiser actively seeks to help members to drive their businesses forward, even calling the organiser their business development manager *"they will target people for me, obviously, because they work as my business development manager, so they are... they've always got an eye to... what... when they meet people, to whether they would be of any assistance to me... in driving my business forward"* (Interviewee P02C). Interviewee P03C explained this even further by adding the impact of actions of the organiser on them; *"you are put together with people when you go to an event, so you know there's going to be people there that want to talk to you, and you can also choose who you want to talk to as well. And that saves a lot of time, because you're not working the room looking for people, because it can be hit and miss whether you will end up talking to the right person or not"* (Interviewee P03C).

The nature of events seemed an important factor too, as several interviewees from Network Y described the events of their network as social events; *"it turns into more of a social event than it does a networking event* (Interviewee P03C), and stated that events were entertaining and

fun *“I think the events are entertaining and fun (Interviewee P01C). They further added that this is important “because if they're not, people don't go. And the network falls flat on its face” (Interviewee P01C). The network also makes members feel relaxed; “So, it is a very relaxing group and some networking groups can put you on an edge I think” (Interviewee P02C), and allows members to interact freely leading them to benefit even more; “that's when the relationships are built more strongly, is when you're actually... just... you can just relax and you know the people and it is more of a social event than it is a networking event and I find that works a lot better” (Interviewee P03C).*

It is important to notice that all the comments above came from Network Y's members. This may be due to how the networks are run and the expectations of the network organisers: Network X is run by members on a not-for-profit basis and their aim is to facilitate members' interactions in a standard structured format. Events are organised by a committee which is comprised of members who volunteer, hence the group cannot be expected to put in significant extra work to make events more fun and entertaining. In contrast, Network Y is co-ordinated by an organisation who seeks profit from increased membership and has dedicated resources to manage the network. This allows the network to operate more flexibly, and members expect the network organiser to be more proactive in organising events and generating business leads for them.

Networks provide this opportunity for businesses to find out more about other businesses in a friendly atmosphere and build strong relationships, however, it depends on the structure of the network. Once joined, members of both networks are in touch with the other members. Network X operates on a one member per sector basis which limits competition among member firms. As Network X does not facilitate partnering of complementary businesses directly, members of Network X have to be vigilant and make their own decisions on the likelihood of ongoing business relationships with other members. As members identify potential business partners within the networking group, sub-groups of the network may form, which Interviewee P03B referred to as 'a power group'.

“a power group is where you have a subgroup within the network, of people that work very well together, so for me it would be, if I was in a group with a web designer, a printer, and a graphic designer, we would be a power group, because we could almost become a virtual team, umm... and there are other people in the room that do” (Interviewee P03B).

This kind of behaviour is observed by other members and that encourages them to be proactive in finding suitable partners. Sometimes, they work with other businesses that they never thought would be able to refer them business. One example was provided by Interviewee P01B, who has been an estate agent for more than two decades and developed an unexpected business relationship with a will writer through the network.

“so people like will writers, I never even considered a will writer to be very helpful for me for selling houses but of course they get to see the people when they die, don’t they? so they have to recommend an estate agent and I’ve been getting properties through him, so it’s just things like that I wasn’t expecting and is actually working out quite well” (Interviewee P01B).

They continued on to suggest that these groups can also provide other support such as guidance and mentorship, although they also suggested that access to these subgroups can be restricted too; *“you’ll be building your business probably at the same time as they are, and you can help each other. There’s lots of guidance there, from the experienced members, some closed groups, some are open” (Interviewee P01B)*, while another interviewee suggested that apart from the trade similarity, there can be other things that these groups’ membership can be based on, such as individuals’ personalities; *“there’s always somebody who has got a good opinion and sometimes you are more comfy with some people than others, so you stick to the ones that you are happy with” (Interviewee P05B).*

In addition, Interviewee P02B suggested that members may adapt their behaviour based on the personalities of other members of the power group when dealing with mutual clients;

“I mean there is 2 or 3 people in Network X who introduce me on a regular basis, but actually the way they treat their clients is very different to each other and when I see a client with one of those, I will treat the client in a way which reflects the way the introducer does, so some may be very jovial, some may even swear or joke, while others will be very straight laced and everything straight down the line” (Interviewee P02B).

The scenario is different for Network Y’s members as the organiser plays a significant role in deciding which businesses to introduce to each other. Even though the organiser does not prevent members talking to each other, the involvement of the organiser in arranging meetings means that Network Y’s members are less active in finding prospective partners within the network, which can be evidenced as none of the interviewees from Network Y mentioned the concept of a power group. Therefore, it can be assumed that the members’ interactions within

the group can be affected by various factors such as interpersonal influence and how the network is organised (e.g. whether selecting a prospective business partner is done by members themselves or someone else such as the organiser), thus affecting the behaviour of members. As discussed in Chapter 4, an individual's behaviour can also be influenced by their attitude, which is discussed in the next section.

7.3 Attitude

As found in the previous chapter (Chapter 6, Section 6.4), respondents of the questionnaire showed a positive attitude towards networks in general and to their respective networks. As membership is voluntary, and both networks charge a membership fee and expect regular attendance (especially Network X) (Chapter 5, Sections 5.4.1 and 5.4.2), it is fair to conclude that interviewees have a positive attitude to their network and to networking in general, as they are continuing to invest their time and money into the network over a period of time. In addition, this thesis focuses on examining individual behavioural additionality, therefore during the interview phase, the focus was focused on exploring the relationship between the interviewees' attitude to change and their behavioural additionality. This approach also enabled the time available for each interview to be used effectively to gain the maximum insight from each interviewee.

During interviews, interviewees were asked questions on their attitude to change. In line with the questionnaire's findings, most interviewees demonstrated a positive attitude towards change, although some participants held more mixed views on change. Even the more positive responses did not come without an element of caution. 'Change' can be positive but may depend on what is being changed; *"Depends what we're changing. But generally, it is positive"* (Interviewee P04B), context; *"It depends... it depends... sometimes change... yeah it depends, it depends really.... Generally, err... it depends in what context..."* (Interviewee P03B) or state of mind at the time; *"Well it depends on how you are feeling at the time"* (Interviewee P05B).

A number of interviewees were very positive about change. Interviewee P03C saw it as *"Definitely a good thing"*, Interviewee P01C was *"Largely positive"* while Interviewee P02B was a firm believer in embracing change; *"without change nothing would happen, so I'm a firm believer in embracing change"*. They added that change is necessary for businesses and believed that the end result should deliver a positive outcome *"change has to have an end product, and the benefits"* (Interviewee P02B). Interviewee P01C added an economic perspective to describe what would happen in the absence of change, *"If people and businesses*

don't change at all, and consistently do what they've always done, then the law of diminishing returns attaches, and you'll get slightly less and less and less from the activities” (Interviewee P01C).

Not everyone showed such a positive attitude towards change. Two members of Network X agreed that there is a degree of positivity around change, however, they believed change results in more negativity, in which they criticised policymakers’ decisions on implementing certain changes. Interviewee P01B, who is an estate agent, also identified that not all change is a choice, as some change is imposed upon a business *“Some change is, not all change is positive. In this game there’s... in housing, the government is always changing things” (Interviewee P01B).* According to Interviewee P05B, change that brings benefit to businesses are rare, and especially in the field they operate, change that has been imposed has had a negative impact.

“On occasions which is probably a rarity... you find that the changes to benefit but certainly over the last... I would say of the last five plus years changes that have come along on a tax and legislative basis have not been to anybody's advantage really” (Interviewee P05B).

Many interviewees felt that they do not have control over ‘change’. Interviewee P07C recognised that change is ever present; *“I recognise that the only constant in life is change, nothing ever stands still, so things are always changing”*, while Interviewee P03C added that they do not have control over all change; *“change will always happen. There’s nothing you can do about that, whether you like it or not, the world changes, business changes, everything changes, politics changes”*. Interviewee P01B shared a similar view and showed their frustration about change; *“But it’s change, it can'tand it's out of my hands, I can't do anything about it”*.

Despite acknowledging that change is beyond their control, the same three interviewees suggested that they must accept change and move on. Interviewee P03C took a more laid-back approach; *“You’re just better off having the attitude, and just going with the flow, I think”*, while the other two interviewees suggested that despite the fact that they do not have any control over ‘change’, it influences their behaviour as they can use enforced changes to benefit them. According to Interviewee P07C; *“It actually does make you sit down and think about what you’re doing and how you do it”*. Interviewee P01B explained how change has affected them and their business operation, and also the importance of accepting change.

“So that’s made me look at the business in a different way, I have to adapt all the time. So, I’ve looked at various aspects of the business with regards to suppliers, staffing levels, loans and you have to just adjust and react, and.... so there’s no point getting your head down and being depressed about it as it's happening regardless, so you just have to do it” (Interviewee P01B).

Despite having a positive attitude towards their networks and towards networks in general, some interviewees did not hold positive attitude towards networks when discussing networks as a medium to develop or learn skills and capabilities as they perceive the workplace to be more influential in their skills development. For example, interviewees who have spent the majority of their working life as an employee of another organisation believed that the workplace is more influential in developing their skills; *“the networkers are business owners, so they've been employed for a long time” (Interviewee P01B)*, *“a lot of these are developed in the workplace rather than the network” (Interviewee P02C)*. As a result, they believed that they possess these skills already; *“I mean I had a lot of those skills before I started my business” (Interviewee P05B)*, however, the same interviewee (Interviewee P05B) suggested for others, it might be different; *“I can’t see that the networks... but then again I know for other people that will be different. There will be other people who will have gained some greater skills” (Interviewee P05B).*

In addition, there were some interviewees not willing to learn certain skills regardless of whether the network may facilitate that opportunity. For example, Interviewee P03C, emphasised that they work for themselves because they like to approach tasks in their own way; *“I like to do things the way I want to do them, and I'm very happy with that, very happy with that, and that's why I do work for myself” (Interviewee P03C)*. For example, when probed on the development of their team working skills through the network, the interviewee stated that they have no desire to develop them, *“I am happy the way I am. (The researcher – so you don’t want to develop that?) No, not really. No”*. Another interviewee (Interviewee P01C) presented a similar view by saying there was no need to learn certain skills *“I haven't needed to multitask for instance, there hasn't needed to be a negotiation angle to things”*, or some traits cannot be learned; for example, a ‘can do’ attitude – *“I think people either have a can do attitude or they don't”*.

These arguments confirm that individual behaviour can be influenced by their attitude as some interviewees were adamant that they already possess the skills or they had a negative attitude towards certain skills, thus not using the opportunities that might be available as a result of

their network membership, while the majority of interviewees believed that they have developed different skills, capabilities, and habits through their network membership. This is in line with the findings from the questionnaire as the majority of respondents believed that their network membership has allowed them to learn or develop at least one skill, capability, or a habit (Section 6.5). The analysis of qualitative data has revealed how the networks that have been studied in this thesis have influenced their members' behaviour, that is, behavioural additionality, thus providing the answer to the research question, which is discussed in the section below.

7.4 Behavioural Additionality of Network Membership

In the questionnaire most respondents picked listening to others, communication skills, public speaking skills and innovation and creativity as the skills, capabilities, and habits they have developed through their network membership (Section 6.5). Interviewees from both networks provided examples of skills and capabilities that they believe they have developed or habits that have changed as a result of their network membership. They were also asked to provide examples of how they have learned or developed each skill or to provide examples of how they have used their newly developed skill in relation to their work. In the case of habits, they were asked to provide details of the stimuli for their habit change. The answers provided by participants gave an opportunity to gain an insight into their experience in the network and the extent to which the network influenced changes in their behaviour, as shown in the statements below. These behaviours do not occur in isolation and show the influence of other factors such as contextual factors and attitude.

1. Network membership allows members to develop their innovation and creativity capability
2. Network membership allows members to develop/enhance their interpersonal skills
3. Network membership promotes pro-social behaviour among members

7.4.1 Networks Facilitate Developing Innovation and Creativity Capability

Interviewees believed that they have developed their innovation and creativity capability due to their network membership. According to OECD (2020) innovation can take four forms:

- i. Product innovation (i.e. a good or service is newly created or significantly improved)
- ii. Process innovation (i.e. a new or improved way of producing or delivering products or services),

- iii. Marketing innovation (i.e. new or improved methods of marketing a product are introduced); and
- iv. Organisational innovation (i.e. businesses adopting new organisational methods).

However, many researchers categorise innovation into two types: technological innovation (product innovation and process innovation) and non-technological innovation (marketing innovation and organisational innovation) while recognising the importance of both types of innovation on the firm's success (Schmidt and Rammer, 2007; Hollen, Van Den Bosch and Volberda, 2013; Geldes, Felzensztein and Palacios-Fenech, 2016; Heredia Pérez et al., 2019). In their paper on examining the relationship between innovation and inter-firm collaborations, Geldes et al. (2017) observe that in business network literature, little attention has been paid to examining the relationship between non-technological innovation and network membership compared to technological innovation, while highlighting that business network membership facilitates the non-technological innovation too. As both networks were informal networks that did not aim to co-produce, it is understandable that interviewees did not refer to product innovation when they were discussing innovation and capability. For example, an interviewee saw innovation and creativity as a way to improve their business by analysing their business model; *"Innovation and creativity... well it makes you think about different aspect of your business. Marketing, for instance, it's a big part of this business"* (Interviewee P01B).

Some interviewees linked innovation and creativity to learning from each other; *"where people have worked on an innovative project, that might not be in your field, but there's something about the way they delivered the project which kind of helps to innovate you in your own working practice"* (Interviewee P03B). An interviewee from Network Y believed that talking with and listening to other members may help them to develop their innovation and creativity capability; *"Because it gives me a chance to talk to people, then I can get more creative and more innovative, by listening to people's ideas"* (Interviewee P03C). This aspect does not seem to be network specific as another interviewee from Network X expressed a similar opinion; *"Obviously she got things from her franchisor, that's bringing in new ideas to her that I wouldn't necessarily have any access to. So that sort of things helps there with innovation and creativity"* (Interviewee P01B).

Some interviewees believed that the nature of the events in their network facilitates the development of their innovation and creativity capability. Interviewee P02B provided an

example of how they think that their network membership has allowed them to develop their creativity;

“Anyone who has been to the meeting will know you have to be creative sometimes with your minute long pitch, you have to think on your feet a bit and find new things every week to talk about to keep people interested. ...because if you get up and say the same thing every single week, people quickly switch off. So, you need to be creative about what you say and creative about your pitch and those skills are very much honed through Network X” (Interviewee P02B).

Having access to resources is highly influential in facilitating the development of innovation and creativity capability among members, therefore, it can be seen that members need to develop good interpersonal skills to allow efficient transfer of these kind of capabilities. This thesis found that both networks also facilitate the development of interpersonal skills among their members, which is discussed in the section below.

7.4.2 Networks Facilitate Developing Interpersonal Skills

Inarguably, networks provide an opportunity for people to interact with each other which allows members either to develop new interpersonal skills or to enhance their existing ones. As found in the previous chapter (Chapter 6, Section 6.5) the top three skills that members have developed are, listening to others, communication skills and public speaking skills (in that order). Development of these skills can result from interacting with experienced members; *“It’s a case of...dealing with experienced people in the industry”* (Interviewee P02B), and to learn from them through observation; *“really just seeing the way that people interact with each other”* (Interviewee P03B). Learning through observation, listening to other members and learning from their problems seems to be the most common way that members develop or enhance their skills through their network membership, which interviewee P04B echoed; *“From watching other members of the group, observing how they work, listening to what they say”* (Interviewee P04B), while Interviewee P01C offered a more inquisitive perspective; *“As you find out what they’re doing, how they’re doing it, how they operate”*. Interviewee P03B also suggested that their network membership provides them an opportunity to listen to other members’ experiences, thus developing their listening skills and learning from peers’ past experiences, mainly *“by listening to people’s examples of things they’re going through”* (Interviewee P03B). Additionally, Interviewee P07C believed that interaction with others provides them with an opportunity to develop not only their communication skills but also

some business knowledge; *“you pick up stuff at meetings, you pick up, you pick up business intelligence”*.

Interaction with each other and sharing their problems allows others to develop not only obvious listening skills but also other skills such as critical thinking; *“when I see how all of these different businesses approach different problems, and obviously I have to write a lot about customer problems, it’s actually helped me to develop more critical thinking”* (Interviewee P03B). A member from Network Y, echoed this; *“I think critical thinking can be quite important and it’s something that I have developed through this network without a doubt”* (Interviewee P07C). In addition, the ability to receive (or handle) feedback was another capability that the interviewees have developed through their network membership; *“you say something ridiculous in a networking event, people will tell you, and the feedback is almost instant”* (Interviewee P06C); *“in this network you get feedback from people on what was good, bad”* (Interviewee P07C). Members may also develop, a ‘can do attitude’ through their network membership; *“public sector has had a reputation for not being a “can do”, it has a reputation for being a “no we can’t”, so by attending networks like this, I get to mix with the real world, who are a little more “well we could do that”*(Interviewee P06C); *“they put you different positions where you think, I’ve never done that before, yeah, let’s do that and then see what happens”* (Interviewee P01B). Two other interviewees added some of the other skills that they have developed through their networks. For Interviewee P02B, it is the ability to deliver their messages succinctly; *“I think what this network does... it allows you to have the ability to capture people’s attention quickly and, easily which is what’s needed if you are going to be successful”* (Interviewee P02B), while Interviewee P07C believed that it is their persuasive skills; *“What the events in this network allow me to do is deal with people one to one. And it allows me to build my skills to being more persuasive”* (Interviewee P07C). Interviewee P01B gave an example of how being in the network has helped them to improve their public speaking skills.

“Because when you start a business, you’ve got the knowledge, you’ve got a little bit of experience, and you’ve got your own personal skills of talking to people and meeting people. But when you go networking, you’re standing up and talking to a group of people and that’s terrifying for some people, when I first started that was terrifying and it is same for a lot of people, and it’s a friendly atmosphere, so over period of time, you get used to it” (Interviewee P01B).

Interviewee P01C, a representative of a multinational organisation with years of management experience, suggested that sometimes people can be more focused on the technical side of the business rather than the interpersonal side and further suggested that it is important to build both technical and interpersonal skills to develop their businesses; *“Only by marrying the two together can you harness the technical to develop business and.. and... win new contacts and new friends and new business”*.

For Network X, it is the structure of networking events that helps them to build their confidence in public speaking as every interviewee mentioned that doing a ten-minute presentation has gradually built their confidence. Interviewee P01B said that they *“Used to be terrified when I first stood up”*, Interviewee P03B was *“still quite nervous”* when they first started and according to them it is because they had to *“stand up and effectively be the centre of attention for that period of time”*. Interviewee P03B further suggested that being able to speak publicly is *“Quite a unique ability, and something you generally don't see outside networks”*. Interviewee P05B summarised the impact of networking on them; *“The business networking group, that I've been involved in, have all helped to make you more... a more rounded person, and feel more confident and comfortable”*.

Interviewee P01C provided a broader perspective on how they believe network membership can influence the confidence of smaller businesses by suggesting that the mix of member firms can have an impact; *“I can see how smaller businesses would gain confidence by having exposure to a wider number of people and by having the chance to discuss things with err... people from different organisations, different backgrounds, different seniority, and levels of experience”*. They further added that they can observe the difference in some of their peers' confidence as part of their network membership; *“Some of the people that I've introduced to this network, have been far less confident in their own ability to, err... To discuss business face to face on an ad hoc basis, so I can see how their confidence levels have been enhanced”* (Interviewee P01C).

Some interviewees provided examples to support their views on how networks impact their behaviour by suggesting that they can identify people who do not network. For Interviewee P02B, people get the opportunity to practice their ability to speak clearly; *“You will tend to find people who don't network, or the people who have tried and quitted, have not acquired the ability to get their message across succinctly, clearly and in a way that's actually attractive to*

others”, while for Interviewee P01B, people who do not network lack self-confidence; “Normally when I go to a regional business meeting with my franchiser, it could be 150 people in the room, and they all say, “who wants to ask a question?” Well you can tell the ones that don't go to networks, because they're not confident enough to put their hand up and stand up and ask the question or have a go, you know. I do that now” (Interviewee P01B).

Interacting within a large group can have a negative impact too. As Interviewee P02B put it “If I say something inappropriate to 30 business people, it can harm my business and myself, now beyond... beyond repair potentially”. Interviewee P02B continued to discuss the impact of this on their behaviour “It also forces you to really think about what you say, and really think about how you act”. Another Interviewee (Interviewee P01B) summarised the impact of someone’s behaviour on their reputation “If you get a rogue member, everyone knows about it within all the networks, so it's very good for that, and the same. If you're really good, everyone knows about it”. Therefore, it can be argued that network members are mindful of their behaviour and want to present a good image of themselves to the fellow members. Analysis of the interview transcripts also identifies habits that members have developed due to their network membership, which was not captured during the quantitative phase. These habits show elements of pro-social behaviour, which is discussed in the next section.

7.4.3 Networks Promote Pro-Social Behaviour

Behaviours of individuals that benefit others can be defined as pro-social behaviour (Barry and Wilkinson, 2016; Ding et al., 2018). Pro-social behaviour is a concept that is widely researched in disciplines such as social psychology and organisational behaviour as the term refers to behaviours of individuals within a social context. As explained in the previous section, members are careful how they portray themselves within the network as their behaviour can affect their business. This encourages members to consider their behaviour in order to reflect their personality (or character) positively, which in turn make others perceive them as ‘good’ and ‘helpful’ members. Interviewee P03B suggested that network membership is “not about being selfish” while Interviewee P01C discussed the opportunities that networks provide for members to help others “it [the network] also provides an opportunity to...to help others within that network”. Interviewees also discussed the expectations of them to act in the best interest of the network. Interviewee P07C, suggested that experienced members help less experienced members to get used to the experience; “You meet people at this network who've never attended a networking event before, so part of it is helping them to help themselves as well” (Interviewee

P07C), with several interviewees echoing this view; *“If I know somebody that can help this person, then I’ll put them together”* (Interviewee P03C), *“A lot of us look forward to going, [...] It’s not just going there to... to get leads off people, you know, you there to help as well”* (Interviewee P05B), hence helping each other can be seen as *“probably the most important part of [this] network”* (Interviewee P07C).

It should be noted that members of both networks included in this study did not see helping each other as business transactions and were adamant that they were not expecting anything in return. For example, Interviewee P05B said that they do not expect anything in return when they help someone; *“I mean I don’t expect anything from... from that”* and Interviewee P04B stated that *“you don’t expect anything back”*. Interviewee P07C worded it as, *“I give to you, you may not give something to me”*.

Even though the interviewees believe that their behaviour within the network is altruistic by suggesting that they are there to help others and do not expect anything back, there are some underlying expectations such as reciprocal support from others; *“I pass business to X, X may not be able to replicate but he perhaps can pass business to Y and Y will pass business to me”* (Interviewee P04B); *“If you help people, inevitably, people help you”* (Interviewee P07C); *“I give to you, you may not give something to me, but somebody else will give something to me”* (Interviewee P07C); *“If you end up helping somebody, the chances are you going to have something back... [...] I know things will come back, you know”* (Interviewee P05B).

However, they believed that this kind of behaviour is aimed at benefitting other members in the network; *“If I can pass business one way, someone else will... will do... will do the same, so everyone in the room benefits”* (Interviewee P04B); *“We want to build long term relationships, benefit the group”* (Interviewee P01B); *“Be able to provide back to the group even if there’s nothing in it for you”* (Interviewee P02B). They further believed that this kind of behaviour helps them to build rapport with one another; *“If you can give without wanting something in return, then it’s much easier to establish a rapport with somebody”* (Interviewee P07C). Interviewee P01B, explained a situation where they have been asked for a favour by another member; *“You just say yes I can do that for you, and we’ll do this. Even if you think I’m not get anything out of that, but you got to make them look good to their customer”*. Interviewee P04B suggested that they extend this support to their clients too which will eventually benefit everybody, hence it is the essence of networking; *“I’m not a personnel person, but if one of my customers has a requirement for someone with personnel skills, I’ll*

say have you seen... have you spoken to... this person might be able to help you” (Interviewee P04B).

In analysing their statements, it can be suggested that networks allow members to behave in ways that help each other which eventually provides a benefit to all members. This relates back to the ‘trust’ theme, as within each network, barriers are created for newcomers who would take benefit from the network, but not give back. Members who are selfish or just looking for business leads are not welcomed within networks. Interviewee P01B described members who show selfish and opportunistic behaviour as ‘mercenaries’ and suggested that building trust among peers is more important; *“Because you don't want mercenaries and because they can come and get as much business as they can, then disappear, but it's all about building trust, so that's what we want”*. Their fellow member, Interviewee P05B believed members of their group are honest; *“So, we're all very honest”* and suggested that trust is key when selecting members to work with; *“you are putting your trust in them that they can do the job for you, and you're only going to do that if you feel comfortable”*. Interviewee P07C offered a similar view and added that their reputation is at stake as well; *“we pass work on to people that we trust and they trust us to protect their reputation”*. This regular interaction among members and desire to build long term relationships means that members are less likely to exhibit selfish and opportunistic behaviour, but to aim to build the trust of other members. Some interviewees highlighted the importance of adopting courteous behaviours towards other members; *“There's an old saying “people you meet... the people you meet on the way up are the same people you meet on the way down” (Interviewee P07C)*, for example, respecting other members; *“So the ability to listen and... and to understand and to give respect to people, when they get up and pitch to you is incredibly important and [this] network forces you to do that” (Interviewee P02B)*, while some commented on the act of saying thank you; *“One of the important parts of this network is that as part of the... towards the end of the meeting people are actually encouraged to get up and say thank you.” (Interviewee P04B)*. Another interviewee who represented a large organisation suggested that their actions are more ‘diplomatic’ due to their network membership:

“The biggest one I think that I've developed through this network particularly... is diplomacy”, because umm... a lot of that network are... umm... are almost there to get business, and when they see [my organisation's] name, they think they'll get [more business from my organisation]. I think what I've had to do is very diplomatically say to some of them... it is unlikely... [...] so, I've had to be diplomatic about how I said...

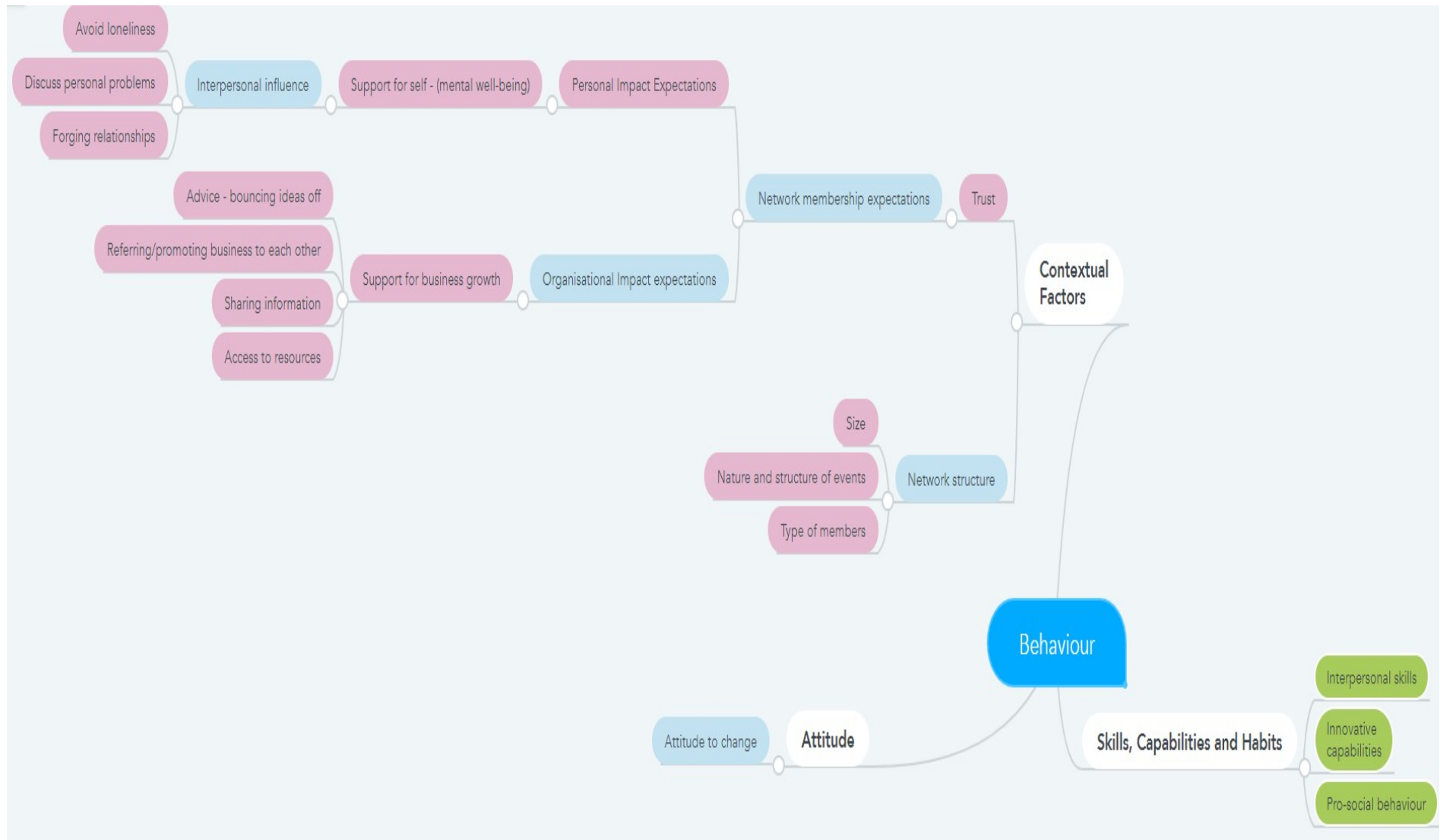
you may not get the business, however I'd still like you to come into [my organisation] which I have developed through this Network” (Interviewee P06C).

In addition, members tend to be more optimistic: as two interviewees from Network Y suggested, *“can do attitude I think is very much reinforced by being part of this networking group” (Interviewee P07C); “By attending networks like this, I get to mix with the real world, who are a little more “well we could do that” (Interviewee P06C).* The effect of being conscious about their behaviour and the motivation to behave in a positive manner is summarised well by one interviewee, *“If you get a rogue member, everyone knows about it within all the networks, so it's very good for that, and the same, if you're really good, everyone knows about it” (Interviewee P01B).*

Therefore, summing all these themes it can be concluded that due to contextual factors such as network structure, and members' expectations, and their positive attitude towards change, participants of this study had developed their interpersonal skills, innovative capabilities and habits that assist them to demonstrate pro-social behaviour as explained in Section 7.4 (Figure 7.1).

Figure 7.1 successfully demonstrates that individual behaviour can be influenced by contextual factors, attitude, and skills, capabilities, and habits (shown on a white background as these are the main variables depicted in the theoretical framework (Figure 4.4)). Findings from the quantitative phase were used to gain rich insight into members' experiences within their networks, which were perceived to be influential in changing members' behaviour, such as network structure, attitude to change and organisational impact expectations (shown on a light blue background). Qualitative data analysis revealed other underlying themes such as avoiding loneliness, forging relationships, sharing information and access to resources (shown on a pink background). During the analysis it also became apparent to cluster some of these themes to create overarching themes, for example, the themes of 'support for self' and 'support for business growth' which were then labelled as 'personal impact expectations' and 'organisational impact expectations' respectively to demonstrate the two sides of network impact expectations. Figure 7.1 also suggests that as the result of their network membership, members develop certain skills, capabilities, and habits such as interpersonal skills, innovative capabilities, and pro-social behaviour (shown on a green background). This graphical presentation of findings confirms that the theoretical framework presented in Chapter 4 (Figure 4.4) can successfully capture the behavioural additionality of business network membership at the individual level.

Figure 7.1: Breakdown of the Themes



7.5 Summary

This chapter presented the findings and analysis of the qualitative data that was collected in this thesis. During the discussions, interviewees provided contradicting perspectives on their network membership expectations; for some, membership is purely to generate business while the majority suggested that they expect to build long term relationships with other members rather than just to gain business leads. All interviewees agreed that their network provided them an opportunity to access other members' resources and also created a space to interact with each other, which helped them to overcome loneliness and receive peer support. Members' behaviour is also influenced by the structure of each network.

The interviewees' attitude towards change was also explored and most responses from members of both networks expressed a largely positive attitude to change. However, every interviewee had some reservations. Some suggested 'change' is positive depending on what is being changed, in what context or even their mental status at the time. Interviewees also suggested that 'change' is constantly occurring, and it is in the interest of their business to accept change and move on.

In terms of their behavioural additionality, interviewees from both networks believed that their network membership has had a positive impact on their behaviours. Analysis revealed that behavioural additionality can be categorised into three themes. Firstly, networks facilitate developing innovation and creativity capability, secondly, networks facilitate developing and enhancing interpersonal skills and lastly, networks also promote pro-social behaviour.

Members use the interactive nature of their network membership to improve both innovation and creativity capabilities and interpersonal skills. They observe others' actions, listen to others' problems and solutions, and seek ways to adapt these to themselves. Networks also develop members' interpersonal skills by allowing them to speak publicly and by building and gaining trust from other members.

Both networks also provide a platform to promote pro-social behaviour such as altruism and courteousness. Interviewees from both networks suggested that on many occasions they have helped their fellow members without expecting anything in return. This help can vary from offering advice on a business matter, referring businesses to others, to offering to discuss personal problems, hence networks acting as a medium to nurture the emergence of public goods. However, this behaviour has some (unconscious or implicit) expectations such as expecting reciprocal support from others, improving their image within the network (others

will see me as a helpful person) or benefitting the group (people will see this as a good network as many businesses getting more out of this network). In addition to helping others, interviewees also found that networks encourage them to respect other members and act courteously (such as thanking someone who has gone the extra mile to help them). Overall, these actions lead members to portray positive behaviours as they believe that bad or opportunistic behaviour will bring negative consequences (if you are good, everybody will know that, and vice versa).

This chapter concludes that members' behaviours are influenced by a number of contextual factors and their attitude to change, to networks and to certain skills, capabilities, and habits. As a result of their active engagement within the network, participants of this research believed that they have developed certain skills, capabilities, and habits. Qualitative data provided a rich insight into how members' behaviour has changed as a result of their network membership which not only allow them to develop their skills but also to demonstrate pro-social behaviour. The next step is to discuss the analysis of both quantitative and qualitative data in the context of current literature to compare the findings of this thesis to the existing literature which is the purpose of the next chapter. This will also help to identify the areas that need further investigation which is part of the final objective. The final objective of this thesis is to generate recommendations for future practice and as this chapter and the previous chapter presented the analysis of this thesis data, the next chapter is aimed at discussing the findings of this thesis in the context of current literature.

8.0 Discussion

8.1 Introduction

This chapter aims to discuss the findings and analysis of data using relevant references drawn from the existing literature. An extensive discussion will highlight the contribution of this thesis as well as draw conclusions and make recommendations for future research where appropriate. In order to avoid repetition, quotes from the qualitative analysis are only provided where it is deemed necessary to support the discussion. The majority of research in the business network area focuses on either formal business networks or social networks (such as researchers belonging to the IMP group) or is not explicit on the type of network being studied. Hence, there is a distinct lack of literature that focuses specifically on informal business networks. Even though this acts as a challenge in discussing the findings of this thesis, it also showcases the contribution of this thesis to literature.

The structure of this chapter is similar to that of the previous chapters (Chapter 6 and 7). The chapter begins with contextual factors (Section 8.2) while in Section 8.3, findings related to attitude are discussed. Then the chapter moves to discuss skills, capabilities, and habits in Section 8.4 before moving onto Section 8.5 to discuss the behavioural additionality of network membership in more detail, thus answering the research question of this thesis. The chapter is then concluded in Section 8.6.

8.2 Contextual Factors

The previous chapters (Chapter 6 and 7) revealed that network membership expectations and network structure are influential in members' behaviour. Further analysis of qualitative data highlighted that members' expectations from their network membership are twofold: personal impact expectations (Section 7.2.1.1) and organisational impact expectations (Section 7.2.1.2) which are discussed in light of existing literature in the Sections 8.2.1 and 8.2.2 respectively.

8.2.1 Personal Impact Expectations

This thesis found that members of business networks expect their network membership to support their mental wellbeing. One reason for this finding can be attributed to the fact that the majority of participants in this research were from SMEs (80 percent). SMEs play a major role in many economies around the world (Torrès and Thurik, 2018; Commission, 2020). However, in their paper that investigates the psychological costs of owning and managing an SME, Fernet et al. (2016) argue that SME owner-managers' health issues, especially around mental health have been neglected for a long time. They criticise this negligence as many psychology

researchers have suggested that SME owners are at a high risk of being subjected to stress at work. This issue has been picked up in some studies in which it is suggested that a major contributing factor is that SME owner-managers are expected to focus on many diverse business tasks compared to counterparts in larger organisations (Spence, 1999; Jenkins, 2006; Paik, 2011; Leung, Mukerjee and Thurik, 2020). Fernet et al. (2016) further add that psychological strain can adversely affect an individual's health (such as increasing the risk of suffering from cardiovascular diseases) and their abilities (such as innovation and creativity, and performance). From a UK perspective, the Federation of Small Businesses also recognises the adverse impact of mental wellbeing of small business owner managers (Federation of Small Businesses, 2019).

The findings of this thesis suggest that members of business networks may see their network membership as a way to reduce this psychological strain by interacting with like-minded people. This thesis finds that members may receive this support in different ways: through the ability to form strong relationships with peers which also allows them to discuss their personal problems, and also by avoiding loneliness. In a recent study carried out on Australian small business owners and their formal and informal network membership, Sharafizad and Brown (2020) find a similar theme emerging from their data. One of their respondents highlighted the importance of their network membership to avoid loneliness and for their mental well-being:

“I’m quite isolated here. It helps to have someone, even though she is my competitor, to bounce ideas and thoughts, gives me mental and emotional support (Participant 14)”
(Sharafizad and Brown, 2020, p.6).

Sharafizad and Brown (2020), however, see that this ‘loneliness’ was due to the geographical location of the business rather than the size of the business. This can be justified as their research was focused on regional business networks (i.e. business networks that operate outside capital cities) in Australia. In contrast, the participants of this research were in close proximity (less than 20 miles radius) to a major city in the UK (i.e. Leicester, Nottingham and Derby) and none of them referred to the geographical location of their business when discussing ‘loneliness’. Nonetheless, Sharafizad and Brown’s (2020) research provides a good insight into small business networks and members’ behaviour within the network. Members interact with like-minded people within the network in order to avoid loneliness, making them more active within the network, and thus their behaviour is changed as a result of their network membership.

The difference between the responses from small business owner-managers and the employees of large organisations were noticeable as none of the interviewees from large organisations mentioned being lonely or having to cover too many tasks at work. This psychological cost of owning and managing an SME can result in higher burnout compared to their peers who work in large organisations (Fernet et al., 2016). In their seminal work that examines the development of burnout as an interdisciplinary concept, Maslach, Schaufeli and Leiter (2001) identify three interrelated dimensions of burnout, namely exhaustion, cynicism and inefficiency⁷. Fernet et al. (2016) contribute to the development of understanding of occupational health issues in the workplace from an SME owner-manager's perspective, in which they highlight having to work long hours, covering too many roles and loneliness as the main causes of increased levels of burnout among SME owner-managers.

Larger organisations often have more resources to support their employees in managing their workload and addressing wellbeing concerns. In contrast, due to the restrictions on resources, small business owner-managers may not be able to execute these measures without having a negative impact on their business. Therefore, it is important that SME owner-managers seek social and emotional support, thus having a sense of connectedness for their psychological well-being (Fernet et al., 2016; Leung, Mukerjee and Thurik, 2020). On the other hand, in contrast to the working environment of small businesses, employees in large organisations are surrounded by their colleagues with whom they may have developed strong relationships and friendships, which acts as their support structure. Many small businesses, however, either have a minimal number of employees or no employees at all, which makes them feel isolated due to the lack of interaction with colleagues and peer support. This explains why a large number of interviewees who represent small firms suggest that their network as a place where they can forge strong relationships with like-minded businesses, hence the network acts as a forum to seek support, including for their mental well-being. This finding provides much needed insights into the experiences of micro business owner-managers as the majority of existing literature has focused on SMEs. As shown in section 5.7.5, micro businesses are under-researched hence this finding is invaluable to further knowledge in this area.

⁷ They add that exhaustion results in individuals distancing from work (i.e. depersonalisation) which is called cynicism, while cynicism results in inefficacy (affecting personal achievement adversely). Maslach et al.'s (2001) article provides a detailed insight into the concept.

This finding aligns with the findings of Lake and Erwee (2005) who examined the benefits of different inter-organisational arrangements such as business networks, clusters and alliances in Australia. In their article, they suggest that “communication with likeminded people and, a sense of community and legitimacy, are categorised as applicable to only a network because either one may be the primary benefit one initially receives from a network” (Lake and Erwee, 2005, p.2). In addition, in her work on small businesses network membership, O’Donnell (2004; 2014) highlights that it is not unusual to observe that small business owners support and encourage each other. As found in this thesis, network membership provided a ‘sense of connectedness’ to other members. They were able to meet like-minded people with whom they can build strong relationships, and which also helps them in their mental well-being.

In addition, vast literature on small business research highlights the importance of business network membership (both formal and informal) for the survival and growth of small businesses (Curran and Storey, 1993; Tonge, 2004; Street and Cameron, 2007; Huggins, 2018). This has led many policymakers around the world to actively promote network membership to their businesses, especially formal business networks (Huggins, 2018). From a UK perspective, the small businesses’ share of employment in the UK is over 40 percent (FSB, 2020). According to the Federation of Small Businesses (FSB), at the beginning of 2019⁸, there were 5.82 million small businesses in the UK which accounted for 99.3 percent of the business population in the country. The majority of participants (90.4 percent and 80 percent in quantitative phase and qualitative phase respectively) were from a SME background, therefore, the findings from this thesis mirror these efforts of policymakers, in identifying that forging strong relationships is prioritised over the quick gain of business leads (O’Donnell, 2004; 2014; Lake and Erwee, 2005). However, this does not suggest that members go to business networks just to feel part of a community. As one respondent said, “*if getting business leads is not the reason why you network, you better make it the reason*”, which reveals the members’ expectations from their organisational point of view. The next section discusses the other type of expectations from their network membership: Organisational Impact Expectations.

8.2.2 Organisational Impact Expectations

The main expectation of their network membership for the majority of participants was ‘support for their business growth’ which is identified in the literature as one of the main

⁸ At the time of writing of this thesis, data for 2020 was not available.

expectations of being a member of a formal business network (Besser and Miller, 2011; Huggins, 2018). Other benefits members of formal business networks get such as accessing each other's resources, information sharing, accessing other knowledge and core competencies, increased synergies and reducing risk and uncertainty are well established in business network literature (Fuller-Love, 2009; Lampadariou, Kyriakidou and Smith, 2017; Huggins, 2018). Despite being members of informal business networks, respondents of this research showed similar expectations from their network membership. For example, in the quantitative phase, they ranked 'identifying opportunities for collaboration' (second most important factor), 'building their contacts in the industry' (fifth most important factor) and 'accessing non-financial support for their business' (seventh most important factor) above 'accessing funding or other financial support for their business' (12th most important factor) (Section 6.3). The analysis of the qualitative data supported the findings of the quantitative phase thus confirming the existing literature on organisations' expectations of their network membership.

Interviewees believe that the network provides them with a great opportunity to interact with other members, whom they could sometimes bounce ideas off, and get advice on issues they face in their business lives. In their article on co-operation among local micro businesses in the North of England, Phillipson, Gorton and Laschewski (2006) suggest that some members of the two networks they have studied, turned to their peers to seek advice or support for their businesses. Exploring this further, in a different country context, Bourlakis et al.'s (2014) study of Greek SMEs to understand the correlation between firm size and performance, in which they also noted that a large number of micro businesses use business networks for peer support for their business-related issues. Mole and Capelleras (2018) attempted to advance the knowledge in this area by expanding their research to examine the supply of advice for start-up businesses in two different countries, namely England and Spain. They suggest that firms may receive advice formally through the network as well as informally from their peers in networks and argue the advice that firms receive on a personal level is less challenging and supportive especially if their business is not performing well. All interviewees who represented small businesses referred to the ability to bounce ideas off each other as an expectation from their network membership in order to help their businesses. This can also be attributed to the fact that they lack the opportunity to discuss their business performance at an organisational level due to the low number of staff in their companies.

In their paper that examined the liabilities of age and size for organisations, Aldrich and Auster (1986) argue that compared to large organisations, smaller organisations face various obstacles which they termed as ‘liability of smallness’. They continue to explain the term and suggest that liability of smallness mainly emerges from a lack of financial resources. In addition, small firms are restricted in terms of access to necessary information, access to key resources and economies of scale (Kale and Ardit, 1998; Raju, Lonial and Crum, 2011; Lampadarios, Kyriakidou and Smith, 2017). In SME business survival research, lack of, or restricted access to these resources is often cited as a reason for the failure of many firms (Raju, Lonial and Crum, 2011; Lampadarios, Kyriakidou and Smith, 2017). This is in line with the resource-based view offered by Penrose (1959) which defines firms as a bundle of resources, and hence firms seek to collaborate with each other to access other’s resources. Findings from this thesis predominantly support these claims by highlighting that the main expectation of network membership of the respondents is to grow their business, in a similar way to members of a formal business network. This expectation to grow their business can take many forms such as sharing information, bouncing ideas off each other, accessing resources, and promoting members’ businesses wherever possible.

Apart from the expectations from their network membership, participants of this research also believe that the structure of their respective network was also influential in their engagement within the network which is discussed in the following section.

8.2.3 Network Structure

The network structure plays an important role in how members perceive the value of the network as well as affecting their behaviour within the network (Holm, Eriksson and Johanson, 1999; Besser et al., 2006; InterTradeIreland, 2011). Even though previous research on network structure and network membership has largely focused on examining formal business networks, the findings of this thesis mirror the existing literature. As found in the qualitative chapter (Section 7.2.2), interviewees highlighted that the network structure played a major role in their decision to join the particular network and added that the features of the network structure such as size, type of members and nature of events have a big impact on their behaviour. This is despite both networks differing from each other in many ways.

Network X expects members to be more active in their relationship building while Network Y’s members are being supported by their organiser in this regard. Therefore, it can be argued that Network X’s members gain more by engaging actively (or giving), while Network Y

members gain more by asking. In addition, the difference in activities organised by both networks has an impact on their members' behaviour. For example, Network X monitors the attendance of members, requires members to pitch their business in 60 seconds every week and members are actively engaged in running day to day errands on behalf of the network. This encourages members to engage with their network actively which has indirectly resulted in them developing various skills and capabilities, including the ability to speak in public, for almost every member as a result of their network membership. In contrast, Network Y's members are not expected to attend every meeting and many events are organised as social events rather than adhering to a strict structure as in Network X, which has provided members with more opportunities to interact with each other. Apart from the nature of events and activities within the network, this thesis finds that, in general, members of Network X were more concerned about the size of their network than Network Y's members. This can be interpreted as a structural concern, since Network X has more constraints such as time⁹ compared to Network Y.

According to Burt (2000), the size of a network is one of the three main dimensions of a network, with the others being density and hierarchy. He describes the network size as the number of contacts that exist within a network, while density is the average strength of connection among contacts and hierarchy is referred to as the power distribution within a network¹⁰.

Large networks can be beneficial to members by allowing them the opportunity to build a greater number of relationships and greater synergies (Patel and Conklin, 2009) and providing them an opportunity to benefit from collective learning, hence influencing members' success in a positive way (Powell, Koput and Smith-doerr, 1996; Demirkan, Deeds and Demirkan, 2013; Rubino and Vitolla, 2018). In their work that scrutinises the role that network characteristics, such as size, play on the evolution of networks, Demirkan et al. (2013) cite several articles to emphasise the positive correlation between the size of a network and member firms' performance. However, they equate large networks to large organisations and suggest that it can be costly to manage a large network. In addition, large networks may affect efficient information flow (Burt, 1992; 2000; Cazzuffi and Moradi, 2012), thus may result in

⁹ As members are given one minute at each meeting to speak about their business and the meeting is restricted to 2 hours, membership numbers for Network X are limited by time constraints.

¹⁰ Examining hierarchy and density is beyond the scope of this thesis therefore, not discussed here.

diminishing returns to members and eventually may cause networks to collapse¹¹ (Parker, 2008). This is important especially for not-for-profit networks such as Network X, as with increased membership, monitoring members' commitments will increase and together with coordination difficulties and inefficient use of resources may impact the sustainability of the network (Cazzuffi and Moradi, 2012). This explains why members of Network X were more conscious about the size of the network than their counterparts in Network Y.

It is, however, worth noticing that both networks have quite a different structure to each other. Network X is run by members and the membership fee is set at a minimal level to cover the food, venue, and administrative costs, while Network Y is run by a profit-seeking company and the membership fee is considerably higher than that of Network X. Despite the lower membership fee, Network X does not want to attract large numbers of members and they control membership by having a comprehensive vetting process for new applications as well as having a one member per sector policy. On the other hand, as a profit seeking organisation, Network Y's organising firm prefers a large number of members, however, the network organiser works behind the scenes (Section 7.2.2) to ensure that meetings are not overcrowded and that attendees have the opportunity to speak to different members in their meetings. By taking this approach, Network Y's organiser ensures that the network size and diversity are maintained at a level that satisfies members, which was confirmed by the respondents. As Demirkan et al. (2013) suggest, this approach can be costly for the network organiser, which justifies the comparatively higher membership fee charged by Network Y.

This thesis also finds that the type of members within the network may influence members' behaviour as the analysis revealed that participants identified the importance of having members from a range of complementary sectors within the network. The type of members within a network is referred to as the diversity of a network (Parida et al., 2016; Jonathan, 2018; Rubino and Vitolla, 2018). Parida et al. (2016) examine the relationship between diversity among network partners who are small businesses and their performance in terms of sales growth. They identify network diversity as an emerging theme in network research and suggest that due to their lack of resources, small businesses tend to benefit more from being in networks where members represent diverse industries, compared to their larger counterparts. Despite this, they conclude that small businesses' lack of resources can work against them if the network is highly diverse, as a lack of managerial capacity and high coordination costs may

¹¹ Parker (2008) adds the lack of reciprocity as the other reason why networks can fail. The importance of reciprocity was also highlighted in this thesis, and will be discussed in Section 8.5.2.

lead to the creation of a U-shaped relationship between partner diversity and performance for small businesses. Rubino and Vitolla (2018) conduct similar research in Italy. They study over 3000 small firms in Italy that joined a network during 2011-2015 and confirm Parida et al.'s (2016) findings.

In analysing the members' behaviour, this thesis also found that Network X facilitates the creation of 'power groups'; that is, the formation of small groups within the network (Section 7.2.2). This phenomenon is considered to be common among social networks due to the existence of homophily which can be referred to as the tendency of similar individuals who may share similar socioeconomic characteristics to link together (McPherson, Smith-Lovin and Cook, 2001; Currarini, Jackson and Pin, 2009; Currarini, Matheson and Vega-Redondo, 2016; Boucher, 2020). In their work that explores homophily in social networks, Currarini, Matheson and Vega-Redondo (2016), suggest that all networks provide a platform to individuals who share similar characteristics and similar goals to be in contact with each other regularly, however, some members may decide to form a clique within that network, which they call 'inbreeding'. Currarini et al (2016) further add that members receive positive utility from the number of distinct links they develop within a network, therefore, they conduct a cost-benefit analysis before selecting which clique to join. This also depends on the size of the network. If the network is too big, the tendency to inbreed is high while in smaller groups, members will keep their links open to all members - which is known as outbreeding (McPherson, Smith-Lovin and Cook, 2001; Currarini, Jackson and Pin, 2009; Currarini, Matheson and Vega-Redondo, 2016).

Some researchers have examined the homophily concept outside a social network context. For example, Barone and Coscia (2018) apply the homophily concept to create a framework to understand tax fraud among members of business networks in Italy. They argue that the honesty of members can be a basis for forming a clique within a network as they find that businesses look for similar levels of trustworthiness when linking with others (Barone and Coscia, 2018). This thesis found some other reasons for the creation of so called 'power groups'. Interviewees who belonged to a power group believed that the main reason for the creation of their group is due to trade similarities, that is, members work in similar allied businesses where cooperation brings mutual benefit. This has allowed members of the power group to refer more business to each other than they do with other members of the network, therefore, achieving economic benefit by reducing transaction costs. In addition, this allows members of the power group to work together more often hence increasing trust and rapport.

Some studies have examined the existence of sub-groups within business networks, especially in the context of power centrality or control, and often see these subgroups as a threat to the network. For example, in their work aimed at advising policymakers on starting successful business networks, Besser et al. (2006) strongly recommend discouraging the formation of these subgroups as these ‘cliques’ may gain the overall control of the network, but they do not refer to the impact of these subgroups on members. Other researchers argue against this claim as they believe the existence of such groups is beneficial to the network as it facilitates faster information exchange and provides a better service for mutual customers (Provan and Sebastian, 1998; Ngamassi, Maitland and Tapia, 2014; Hani and Dagnino, 2020). Provan and Sebastian (1998) examine the businesses and agencies that form part of the mental health system in three US cities and provide a good example of how the formation of a clique among certain members of the health system can benefit the customer. According to them, addressing the mental health issues of homeless citizens would be efficient if the agencies that provide core services such as shelter, food, physical and mental healthcare, as well as drug abuse rehabilitation work together. Even though this example is not specifically from a business network context, it highlights the advantages of these subgroups – faster information exchange and efficient outcomes delivering customer satisfaction, which were confirmed by the findings of this thesis (Section 7.2.2).

8.3 Attitude

Attitude is a construct that is widely studied in psychology and can be simply referred to as an individual’s psychological evaluation of an object (Ajzen and Fishbein, 1977; Bohner and Dickel, 2011). Due to its relevance in understanding human behaviour, the concept has found many applications in business related subjects such as consumer behaviour, behavioural economics, and marketing to answer a wide range of research questions in these disciplines.

In this study’s survey, respondents’ attitude to change, attitude towards their network and networks in general were examined (Sections 6.4.1 and 6.4.2 respectively). As explained in Section 7.3, during interviews, the focus was limited to discussing respondents’ attitude towards change, as it was concluded that they have a positive attitude towards networks in general and to their network, as they continue to invest their time and money into the network over a lengthy period. This was discussed in more detail in Section 7.3. Both networks charge a membership fee and one of the inclusion criteria for interviews was that respondents should have been with the network for at least three years. In addition, during the survey, all

respondents showed positive attitudes towards their perspective networks and networks in general (Section 6.4.2), which further strengthened the decision to limit the discussion to attitude to change only.

8.3.1 Attitude to Change

Attitude is explored in organisational behaviour literature, however, there is limited research on the attitude towards change among business owners explicitly, as the main focus of previous research lies within employees' attitude towards organisational change rather than their own behavioural change (Svensen, Neset and Eriksen, 2007; Van den Huvel et al., 2016). From a small business perspective, various research has been conducted on attitude, which covers many different aspects. For example, the owners' attitude towards adoption of IT in small businesses (Thong and Yap, 1995; Jones et al., 2014; Nguyen, Newby and Macaulay, 2015), attitude towards business ethics (Quinn, 1997), and corporate social responsibility (Murillo and Lozano, 2006; Dias et al., 2019). However, Van den Huvel et al. (2016) criticise the use of labels to examine attitude to change. They notice that prior research has employed different labels such as 'resistance to change', 'openness to change', and 'acceptance of change' to examine employees' attitude to change, which may have helped specific research questions, however, they argue that the use of such unidimensional terms may restrict examination of both positive and negative responses. This thesis addresses this issue by collating both questionnaire and interview data, where respondents were provided with both positive and negative statements in the questionnaire, and the questions were of a neutral nature during the interviews.

In the questionnaire, over 90 percent of respondents were either favourable or strongly favourable to change (Section 6.4.1), while during the interviews, where participants had more opportunity to explain their attitude in more detail, almost every respondent showed a sceptical attitude towards change (Section 7.3). The majority of interviewees suggested that they adopt a positive attitude towards change, as often change is beyond their control, and respondents also perceived change as necessary for their organisations' growth. Slabbert (2018) examines the role of communication in organisational change, in which she suggests that due to demanding and volatile external environmental conditions, businesses need to change to support their survival. Therefore, members of organisations must accept change as the norm (Holbeche, 2015; Slabbert, 2018). The European Bank for Reconstruction and Development (EBRD) argues that despite being more agile than their large counterparts, small businesses are

more vulnerable to external shocks mainly due to their resource limitations (EBRD, 2020), therefore the adoption of a cautious but positive attitude towards change by small business owners is understandable.

However, as explained earlier, research on change and attitude to change is heavily focused on organisational change, and is mostly examined from the perspective of employees within large organisations. Therefore, there is a clear gap in knowledge in this area, especially in the context of small business owners, which should be explored further in future research. The next section is aimed at discussing the findings in the context of skills, capabilities, and habits.

8.4 Skills, Capabilities and Habits¹²

In the questionnaire, respondents suggested that they have developed certain skills and capabilities (Section 6.5). The analysis of quantitative data revealed that the main skills and capabilities members have developed were listening to others, communication skills, public speaking skills and innovation/creativity, hence these changes in skills have contributed to the change in members' behaviour as a result of their network membership. Findings from the quantitative phase were explored further during the qualitative phase which not only confirmed the quantitative findings but also provided better insight to respondents' behavioural additionality which was presented in Section 7.4. In addition to the quantitative findings, qualitative findings revealed that members developed good citizenship behaviour as a result of their network membership. Therefore, the next section is dedicated to discussing the behavioural additionality of network membership at the individual level which is the aim of this thesis.

8.5 Behavioural Additionality of Network Membership

The aim of this thesis is to examine the behavioural changes of individual members of business network membership, which was achieved by applying the behavioural additionality concept at the individual level. As explained in Chapter 4, individual behaviour is a result of the interactions of cognitive and contextual factors, therefore, this thesis collected and analysed data on these factors. The analysis of both qualitative and quantitative data revealed that participants' network membership has influenced their behaviour in a number of ways. This behavioural additionality can be broadly categorised as the result of the change in their human

¹² In this section, the term 'skills' is used to represent capabilities and habits for the sake of simplicity, however, it is explicitly mentioned where highlighting the difference between these terms is necessary.

and social capital, which are discussed in the sections below.

8.5.1 Behavioural Additionality as the Change in Human Capital

The findings of this thesis reveal that members perceived that they developed their interpersonal skills such as public speaking and communication skills as a result of their network membership. The talent to communicate with others is an important skill for businesses, as good communication skills allow firms to capture business opportunities (Tsai, Chen and Chin, 2010; Kokkonen and Almonkari, 2015; Adiguzel and Cakir, 2019). In their paper that examines interorganisational relationships, Agostini and Nosella (2017) attribute the development of interpersonal skills among a network's members to the inherent nature of business networks, in that they provide regular contact among members which allows them to develop stronger relationships. Casidy and Nyadzayo (2017) suggest that business relationships are positively influenced by active interaction and highlight that business networks are excellent facilitators for businesses to improve their skills in interpersonal communication, as it provides a platform for businesses to interact with each other.

Members also identified that they have developed their innovation and creativity capabilities through their network membership. This was unexpected as none of the networks explicitly mentioned developing innovation and creativity capabilities as one of the benefits members may get. However, according to literature, developing innovation capabilities as a result of network membership is not a new phenomenon. The ability to develop innovation capability through networks is important, especially for SMEs who have limited access to resources (Colombo et al., 2012). Pittaway et al. (2004) conduct a review of evidence to establish the relationship between formal business networking and innovation to help the then UK's Department of Trade and Industry¹³ (DTI) to decide the extent of the effectiveness of British business networks in supporting innovation. They recognise that networks facilitate the development of not only product innovation capability but also other forms of innovation, such as organisational and process innovation. DTI defines innovation as "the successful exploitation of ideas" (DTI, 2003, p.18) and suggests that these ideas can result in the introduction of new products or services to the market, as well as helping businesses to adopt new processes or business practices which will help them to successfully compete in a globalised market. Pittaway et al. (2004) conclude their literature review by suggesting that previous studies have focused heavily on product innovation hence process and organisational

¹³ This was replaced by Department for Innovation, Universities and Skills, and Department for Business, Enterprise and Regulatory Reform in 2007.

innovation have been ignored. According to them, this can be due to the difficulty of studying these types of innovation. Interestingly, Pittaway et al. (2004) recognise the importance of informal networks in developing process or organisational innovation therefore urge that further research is necessary to advance the knowledge in this area. Rehman (2017) conducts quantitative research to examine the relationship between organisational innovation and networks in which he concludes that market-related networks¹⁴ are beneficial for SMEs to develop their organisational innovation skills.

As the quantitative phase of this thesis revealed that respondents have developed innovation and creativity capability as a result of their network membership, this was further explored during the interviews and respondents were asked to provide an example of a situation where they believe that they have developed their innovation and creativity capability. The examples all interviewees gave were very similar and can be attributed to the types of activities of the network. For Network X, it was the 60 seconds pitch that members do every week to present their business. Members of Network X found that this activity challenges them to be creative and innovative every week as they did not want to present the same pitch twice which may be perceived as boring and predictable by other members. They also confirmed that they learn from other presenters, which was also the same for the members of Network Y. Even though the members of Network Y were not asked to present their business to every attendee in every meeting, they were given 15 minutes to present their business to the audience on a rotational basis or upon request. According to Network Y's members, this allowed them to not only be creative in presenting their business to others but also to learn from others. In their article, Pittaway et al. (2004) emphasise that the transfer of tacit knowledge (i.e. non-written or codified knowledge) is a key feature in informal business networks therefore, informal business networks contribute to the development of innovation among members significantly, which supports the findings of this thesis.

This skill development of members can also be discussed in the context of human capital theory, as it provides an understanding of the types of skills that humans possess. Schultz (1961) argues that economists have understood the importance of people to the wealth of nations, however, they have ignored the fact that people invest in themselves to acquire skills and knowledge to benefit them which he calls 'human capital'. In a broader sense, human

¹⁴ In his article, Rehman divides networks into two: market-related networks (e.g. customers, suppliers, trade associations) and technology-related networks (e.g. universities, R&D organisations). Based on this categorisation, it can be suggested that Rehman refers to informal networks rather than formal networks.

capital refers to an individual's skills, knowledge, expertise and competencies that are related to economic activity (Schuller, 2001; Keeley, 2007; Tasheva and Hillman, 2019), however, it is worth mentioning the definition presented by OECD (2001) in which the concept is defined as “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being” (OECD, 2001, p.18). This definition recognises the importance of the inclusion of an individual's own well-being in the concept while acknowledging the multi-faceted nature of human capital (United Nations Economic Commission for Europe, 2016) and is adopted by the UK government in calculating the human capital of their citizens (HM Government, 2018b). Since Schultz's paper, the concept has received increased attention among economics researchers due to the identification of the significance of human capital to the economic success of countries in a knowledge-based and globalised world economy (United Nations Economic Commission for Europe, 2016).

In addition, the concept is also attractive to researchers in other fields, such as education, as one of the main ways to achieve growth in human capital is through education (Lanzi, 2007; Burgess, 2016). In an article titled ‘Capabilities, human capital and education’, Lanzi (2007) expands the impact of human capital at the individual level by suggesting that the accumulation of human capital benefits individuals in two different ways,

“On the one hand, it directly increases human qualities and skills for economic production (and reproduction) and market exchange. On the other hand, it indirectly enlarges individual opportunity sets by giving people new possibilities to enrich their lives” (Lanzi, 2007, p.426).

Due to the difference in skills and competencies possessed by individuals, human capital cannot present a homogenous bundle of skills or competencies, however, there have been attempts to categorise these skills into different groups (Becker, 1964; OECD, 2001; Lanzi, 2007; United Nations Economic Commission for Europe, 2016). For example, Becker (1964) broadly grouped these skills into two: general and specific. Skills that are acquired through education or working fall into the former group, while the latter group comprises skills that are either firm or task specific, hence could be gained through training specific to a firm or training to perform certain tasks. OECD (2001) goes a step beyond Becker's categorisation to suggest that key skills relevant to human capital can be categorised into five groups: communication, numeracy, intra-personal skills, inter-personal skills, and other skills (Table).

Table 8.1: Types of Human Capital Components

Category	Example of skills
Communication	Listening, reading, writing, speaking
Numeracy	Calculation, budgeting
Intra-personal skills	Motivation, learning to learn, self-discipline
Inter-personal skills	Teamwork, leadership
Other skills	Problem solving, dexterity, ability to use information and communication technology equipment.

Source: Adopted from OECD, 2001, p.19

It is, however, evident that some of these categories overlap. For example, some researchers argue that communication skills are a subset of interpersonal skills (Jiang et al., 2003; Manevska et al., 2018). In addition, the practice of segregating skills as firm specific has also been criticised as most skills are transferrable rather than being specific (Lazear, 2003; Lanzi, 2007; Leping, 2009). As a remedy, Lanzi (2007) offers to group these skills into three categories, namely basic skills, professional competencies, and complex functions. According to him, primary skills such as reading and writing fall into the basic skills category, technical skills that are relevant to a person's job and due to other training (such as on-the job training) are classed as professional competencies while the third category, complex functions includes self-learning, knowledge management, teamwork and interpersonal skills. Lise and Postelvinay (2018) examine the multidimensionality of skills and human capital accumulation, and suggest that types of skills can be threefold: cognitive, manual, and interpersonal. They provide examples for these types of skills. Mathematical reasoning, fluency of ideas, written and oral comprehension are cognitive skills; manual dexterity, and the ability to maintain mechanical equipment are examples of manual skills while influencing others, negotiation and speaking are examples of interpersonal skills.

From these various categorisations, it can be deduced that human capital is an agglomeration of various skills that a person possesses that would allow them to be employable and contribute to the economy actively. As for this thesis, it was found that members have developed their interpersonal skills and innovation and creativity capabilities as a result of their network membership, hence it can be suggested that their network membership has allowed them to develop their human capital. However, the effectiveness of the development of human capital is lost if it is segregated from the development of social capital as these two types of capital are intrinsically connected to each other (Schuller, 2001; Luthans, Luthans and Luthans, 2004;

Burgess, 2016). The next section discusses the behavioural additionality of network membership as the change in social capital.

8.5.2 Behavioural Additionality as the Change in Social Capital

Participants of this research also believed that their network membership has influenced their behaviour in a positive and socially desirable manner. For example, one of the themes that emerged was developing diplomacy skills as a result of their network membership. In their paper that provides an introduction to business diplomacy, Kesteley, Riordan and Ruël (2014) separate business diplomacy, from the more widely recognised concept of commercial diplomacy by arguing that in the latter, the actor who would act diplomatically is the government or its representatives while in the former, it is either the firm or its employees. They simplify the concept of diplomacy and suggest that business diplomacy “occurs when firms do diplomat-like things” (Kesteley, Riordan and Ruël, 2014, p.304). In 2015, Bruce Bucknell, the British Deputy High Commissioner in Kolkata, delivered a presentation to a group of businesses in Belarus, in which he suggests that there are a number of lessons that businesses can learn from diplomats (Bucknell, 2015). He adds that being polite, patient, inquisitive, the ability to find common ground and the ability to negotiate are some of the characteristics which diplomats develop over the years, and suggests that developing these skills and capabilities will allow businessmen and businesswomen to succeed in their businesses.

As discussed in Section 7.4.3 the term ‘diplomacy’ was extensively used by an interviewee who represented a large organisation. Further analysis of their response has revealed that their use of the term can be linked to managing expectations to protect the reputation of their organisation, which was a large well-known international organisation. This explains why their terminology was different to that of small businesses, as the other participants who were from small business backgrounds mentioned the same aspects of behaviour even though they did not refer to it specifically as diplomacy. Other interviewees mentioned being polite, managing peer expectations and listening to others as some capabilities that they have developed through their network membership, which are some of the skills identified in Bucknell’s (2015) presentation.

Another theme that emerged from the data was ‘helping each other’. Elaborating on their answers on the theme of helping each other, interviewees added that they would not hesitate to help another member without expecting anything in return. The analysis, however, suggests that even though the supporter (member who would help) did not expect benefit from their act

directly from the recipient (member who gets the support), the supporter believed that their act would be rewarded in the long run, thus showcasing altruistic behaviour as well as expecting indirect reciprocity. Altruistic behaviour refers to situations when the behaviour of individuals benefits others, even though they receive no direct benefit themselves (Trivers, 1971; Smith, Organ and Near, 1983; Organ, 1997; Podsakoff et al., 2000; Fehr and Schmidt, 2006; Klimecki et al., 2016). The study of altruistic behaviour can be dated back as far as the late 19th century to Darwin's writings (Trivers, 1971), and the relationship between altruism and other variables has been studied by academics in various disciplines such as biology, psychology and economics. In their attempt at examining the nature of human altruism, Fehr and Fischbacher (2003) suggest that altruism and selfishness is fundamental to answering many questions concerning the social relations of humans, among many others, and define altruistic behaviour as "...costly acts that confer economic benefits on other individuals" (Fehr and Fischbacher, 2003, p.786). In 2006, with another colleague, Fehr (Fehr and Schmidt, 2006) explores the economics of fairness, reciprocity and altruism in which they argue that despite most prominent economists¹⁵ suggesting that humans are not always selfish and do care about the well-being of other people, most economists assume otherwise. They further argue that a growing body of research by experimental economists and psychologists provides substantial evidence to contradict the view that humans are motivated by their own self-interest. Therefore, Fehr and Schmidt (2006) suggest that it is unacceptable to ignore the significant proportion of people who are concerned about others' well-being and reciprocity, especially in a social interaction setting. In their paper that examines altruistic behaviour in economic interactions, Klimecki et al. (2016) agree that despite being considered costly, humans exhibit altruistic behaviour. Prior research has examined the impact of altruistic behaviour within social groups and suggests pro-social behaviour such as altruism and reciprocity play a significant role in developing the social capital of the members of those groups (Mattis et al., 2009; Helliwell et al., 2018).

Networks facilitate and encourage interaction among members which then leads to the development of trust and inclination to help each other, which can be known as the norms of reciprocity (European Commission, 2005). In this study, the interviewees indicated that they did not expect the person they were helping to reward their kind act, however, they believed their acts would be rewarded by a third party. This type of reciprocity is called indirect reciprocity: "a cooperative action is rewarded by a third actor, not involved in the original

¹⁵ Fehr and Schmidt include Adam Smith, Gary Baker, Kenneth Arrow, Paul Samuelson, and Amartya Sen in their list of most influential economists.

exchange” (Seinen and Schram, 2006, p.581). Even though it may seem like ‘just a kind act’ or ‘being a good citizen’, there are underlying motivations behind this reciprocity such as gaining efficiency through cooperation, hence this may encourage individuals to act cooperatively who would otherwise act on their own self-interest (Seinen and Schram, 2006; Kurzban, Burton-Chellew and West, 2015; Thompson, 2018).

Despite being around for centuries, the popularity of the concept of social capital¹⁶ can be attributed to the book published by Putnam (2000) in which he discusses the disengagement of Americans from their social activities and its impact in the form of declining social capital. Since then, the concept has been applied in a wide range of disciplines such as education (Castellano, Garcia-Quero and Garcia-Carmona, 2018), policy research (Savioli and Patuelli, 2016), and behavioural economics (Thompson, 2018). Trust and positive relationships among a group of interconnected individuals that would encourage them to behave preferably to share knowledge can be referred as social capital (Putnam, 2000; Anklam, 2002; Felício, Couto and Caiado, 2014). Spence, Schmidpeter and Habisch (2003) assess the social capital of SMEs in the UK and Germany, in which they observe that from an economics perspective, together with physical capital and human capital, social capital can be considered to be a part of the source of performance enhancement for firms, therefore, especially for small businesses, improving social capital plays a vital role in their success. Active membership business networks can be considered to be an effective facilitator for gaining social capital for businesses (Coleman, 1988; European Commission, 2005; Subedi and Farazmand, 2019) as the structure and action of members within that structure are key elements of social capital (Coleman, 1988). As discussed in Section 3.4 (Chapter 3), however, impact of business network membership on individual members has largely being ignored.

Advancing the knowledge in the link between social capital and individual skills, Apergis and Apergis (2020) recognise the importance of the social environment in which the individuals interact, in preserving and enhancing their individual skills. However, just being a member does not yield any return as previous research has emphasised the importance of active engagement of members within business networks, especially for small business owner-managers, as in order to realise the full potential of their membership, highlighting their mere presence within a network would not be beneficial (O’Donnell, 2004; 2014). Therefore, it is evident that active network membership plays a major role in encouraging members to

¹⁶ Some scholars also credit Coleman (1988) for popularising the concept.

cooperate and adopt pro-social behaviours (Thompson, 2018; Hua et al., 2019), thus as a result, members develop their social capital. Therefore, this research concludes that the impact of business network membership influences the development of human capital and social capital of their members.

8.6 Summary

This thesis found that business network members' behaviour can be influenced by contextual factors such as members' expectations of their network membership, network structure, and their own attitude to change. As explained in the previous chapter (Chapter 7, Section 7.2), this thesis found that network membership expectations can be twofold: personal impact expectations, and organisational impact expectations, which were both discussed in more detail with reference to existing literature where relevant. In addition, the network structure such as size, type of members and the nature of events also influence members' behaviour. Even though this research found that individual attitude to change can influence members' behaviour, previous research in attitude of individuals within an organisational context have focused heavily on organisational change. Therefore, this chapter has identified that further research in attitude to change among small business owner-managers may help to advance the knowledge in small business research.

As explained in the previous chapter (Chapter 7, Section 7.2), this thesis found that network membership expectations can be twofold: personal impact expectations, and organisational impact expectations, which were both discussed in more detail with reference to existing literature where relevant. According to the Resource-Based View, firms are bundles of resources (Penrose, 1959; Wernerfelt, 1984) and firms collaborate with each other to access each other's resources (Rosenfeld, 2001; Huggins, 2018), which was echoed during this research as well as the impact of business network membership on members' mental well-being (Jenkins, 2006; Fernet et al., 2016), thus having an impact on members' behaviour. In addition, the network structure such as size, type of members and the nature of events also influence members' behaviour. According to Demirkan et al. (2013) network size is positively correlated with the costs of managing networks, therefore networks are conscious about their size which was in line with the findings of this thesis. Literature also suggests that the type of members in a network is important, especially for small businesses as this allows them to access different types of resources (Parida et al., 2016; Jonathan, 2018; Rubino and Vitolla, 2018).

This chapter found that members' behaviour has been influenced positively by allowing members to learn and develop certain skills, capabilities, and habits such as interpersonal skills, innovation and creativity capability, and pro-social behaviour thus demonstrating the impact of business network membership on individual members' behaviour. This behavioural additionality was discussed using the human capital and social capital concepts.

Participants in this research have developed their human capital by developing their interpersonal skills and innovation capability. They also believed that they behave altruistically and demonstrate pro-social behaviour within their respective network which demonstrates development of their social capital, however, this chapter also found that they expect a return from their interactions (direct or indirect reciprocity). It can be argued that unconsciously members invest in themselves by investing in their human and social capital, and therefore yield returns on those investments. Social capital theory also suggests that the resources embedded in networks may stimulate cooperation and citizenship behaviours among members (Thompson, 2018; Hua et al., 2019). Accessing these resources, specifically the human capital of other members is crucial for smaller business owner-managers, which also confirms the findings of the current research, as interviewees repeatedly mentioned that receiving peer support not only for their businesses but also for their personal problems was important.

Therefore, it can be concluded that behavioural additionality of network membership at the individual level can be influenced by various factors such as members' attitude to change, network structure and members' expectations. Their network membership has allowed members to develop certain skills, capabilities, and habits, thus changing their behaviour as a result of their network membership. Therefore, this chapter concludes the overall behavioural additionality at an individual level can be categorised as the change in their human capital and social capital. The next chapter concludes the thesis, highlighting the contribution to knowledge and presenting recommendations for future researchers and practitioners, thus achieving the final objective of the thesis.

9.0 Conclusion and Recommendations

9.1 Introduction

This thesis aimed to examine the behavioural additionality of business network membership on individual members' behaviour. In order to achieve that, this thesis set three objectives:

- I. To explore how the behavioural additionality concept can be applied to investigate the impact of business networks on their members' behaviour
- II. Develop a theoretical framework to examine behavioural additionality of network membership at the individual level
- III. To contribute to research and practice, and policy discussion in the areas of informal business networking

Chapters 2 and 3 critically reviewed the literature on business network research and behavioural additionality in order to gain an understanding of how the behavioural additionality concept can be applied to examine the impact of business networks on their members' behaviour, thus achieving the first objective. In Chapter 4, previous attempts to examine the impact of business networks were discussed followed, by a discussion on factors that are influential in individual behaviour. These discussions led this thesis to create a theoretical framework (Figure 4.4) that could be used to examine the behavioural additionality of business network membership at an individual level, hence achieving the second objective of the thesis. The aim of this chapter is to conclude the thesis (Section 9.2), highlight the contributions of the thesis (Section 9.3), generate recommendations for policymakers and network organisers (Section 9.4), discuss the limitations of this thesis (Section 9.5) and finally to generate recommendations for future research (Section 9.6), which is the final objective of this thesis. As the focus of this study was to examine the impact of informal business network membership, the recommendations that are made in this chapter apply to informal business networks only.

9.2 Summary

The application of the behavioural additionality concept is predominantly used to examine the impact of publicly funded interventions that are focused on enhancing the R&D activities of member firms. In addition, despite being examined heavily, research on the impact of business networks is still focused on either member firms or to the wider society, thus neglecting the impact on participating members. Therefore, this thesis argues that applying the behavioural additionality concept to examine the impact of business network membership on their members' behaviour will advance the knowledge in both business network research and

behavioural additionality research, which was the principal aim of this thesis. In order to achieve this aim, this thesis also set three objectives which were outlined in Chapter 1.

The first objective was to understand the applicability of the behavioural additionality concept outside its traditional application (i.e. publicly funded R&D projects), therefore, in Chapter 2, an extensive literature review was carried out on the behavioural additionality concept. Behavioural additionality is defined as possible changes in the way a firm operates due to an external intervention, thus analysing the concept at the firm level. This chapter demonstrated that behavioural additionality is a flexible concept and can be applied in different contexts. In addition, the chapter argued that the concept can be analysed at the individual level by using individual skills, capabilities, and habits as the units of analysis, therefore, this thesis presented a new definition of the concept.

Individual level behavioural additionality due to participation in a project/programme can be defined as the change in skills, habits, and capabilities of individual stakeholders (or participants) as a result of their engagement in that project/programme.

After demonstrating that the behavioural additionality concept can be applied in different contexts successfully, this thesis moved on to examine literature on business networks (Chapter 3). Business networks provide many opportunities to member firms, such as the opportunity to grow, the ability to access each other's resources and knowledge, the ability to diversify the risk portfolio of the firm and the opportunity to learn about industry trends and standards, among many others (Penrose, 1959; Barney, 1991; Tang, Mu and MacLachlan, 2008; Massaro et al., 2019; Sharafizad and Brown, 2020). Based on their format and structure, business networks can also be divided into sub-categories such as formal versus informal, open and closed and soft versus hard, to name a few network structures. These sub-categories carry similar definitions, however the most common terms used to differentiate the types of business networks are formal and informal. Members of formal business networks are driven by specific objectives and their behaviours can be influenced by the requirements of formal contracts (Maurizio et al., 2016; Huggins, 2018), which is not the case for members of informal networks. In addition, there is a lacuna of research on informal business networks that focus outside members' social networks or inter-personal relationships, therefore, this thesis examines the impact of informal business networks on their members' behaviour. The chapter also critically reviewed prior research on the impact of business networks, which are predominantly aimed at exploring the impact on participating firms or the impact on the wider

society, which highlighted the lack of focus on individuals. Organisational behaviour research identifies the individual employees as the smallest unit within an organisation and highlights the importance of individuals within organisations to the success of those organisations (Rollinson, 2008; Dailey, 2016). Therefore, researching the impact of business networks on their individual members' behaviour contributes to the advancement of knowledge in business networks research, which is a key contribution of this thesis.

Lynch et al. (2009) successfully developed a logic model to examine the impact of business networks, which was later extended by Lenihan (2011). Both models identified the impact of business networks on individual members by including the change in attitudes, skills and behaviours in their models but did not focus on this aspect in greater detail, as they continue to evaluate the impact at the firm level (Lynch et al., 2009) and the wider society (Lenihan, 2011). Both models provided a broad picture of the impact of business networks on individuals by suggesting that network membership results in individuals' behavioural change, and changes in their skills, attitude, and motivation, however, both models failed to explore the nature of these changes in more detail. In order to address this gap in the knowledge, this thesis went beyond the Lynch et al (2009) and Lenihan (2011) works to extend their models to develop a theoretical framework to examine the behavioural additionality of network membership (box 4 in Figure 4.1). The content of box 4 in Figure 4.1 suggests that the investigation of the behavioural additionality process can begin at the individual level (i.e. micro level) by examining the change in skills, capabilities, and habits of individuals which can then be extended to other levels such as work groups within the organisation (i.e. meso level) and the firm level (i.e. macro level).

In the pursuit of examining the behavioural additionality of network membership at the individual level, this thesis continued to examine the behavioural change models available in sociopsychology to understand the factors that influence individual behaviour other than network membership. Attitude is regarded by researchers as a crucial factor that influences human behaviour, especially sociopsychologists who study human behaviour within a social context. This thesis also identified that other factors such as an individual's skills, capabilities, and habits, and contextual factors can be influential in changing individual's behaviour. Therefore, the thesis presented a theoretical framework to examine the impact of business network membership at the individual level, which was presented in Figure 4.4. This is the novelty of this thesis as no theoretical framework to examine the impact of business network membership on individual members' behaviour exists in the literature, therefore, the theoretical

framework (Figure 4.4) that was created to achieve the second objective of this thesis is a significant contribution to knowledge.

Chapter 5 discussed the reasons behind the selection of critical realism as the research philosophy for this thesis. Critical realism allows researchers to examine social phenomena in depth while also allowing researchers to uncover causal mechanisms of peoples' experiences, therefore providing the best lens to explore the research question of this thesis. The case study approach was adopted to facilitate an in-depth inquiry of the research question and two informal business networks that are located in the East Midlands region of the UK were selected as the case studies. Overall, a mixed-methods approach was used in which quantitative data was collected and analysed first. The findings of the quantitative phase were then used to inform the qualitative phase. This sequential quantitative to qualitative approach was deemed necessary to narrow down the areas that needed to be explored in more detail as the qualitative data played a pivotal role in the examination of this inter-disciplinary and under-explored subject.

Quantitative data was collected through a questionnaire and all members of both networks were invited to take part in the survey. In total, 52 responses were received for the questionnaire (38% response rate) and as the purpose of the quantitative data phase is to inform the qualitative phase, and therefore the quantitative data analysis is descriptive in nature. Ten semi-structured interviews were carried out with members of both networks who met certain criteria, as stipulated in Section 5.7.1. Qualitative data was thematically analysed using both inductive and deductive approaches to validate the a priori themes that are already known to the researcher and to identify the emerging themes that were previously unknown to the researcher. Both survey questions and interview questions were aimed at gathering data on contextual factors, attitude and individual skills, capabilities, and habits which all formed part of the theoretical framework developed in this thesis.

This thesis found that contextual factors such as organisational expectations, interpersonal influence and network structure were deemed the most important factors by the respondents, while governmental regulations and incentives were least important (Chapter 6). Members of both networks showed a positive attitude towards change to their networks and networking in general. From a skills, habits and capabilities perspective, the respondents believed that network membership has allowed them to develop their public speaking skills, communication skills, and innovation and creativity capability. These findings were explored further during the interview stage.

The qualitative data confirmed the findings of the quantitative phase while providing a deeper insight into examining the behavioural additionality of network membership (Chapter 7). The analysis of the qualitative data revealed that the expectations of an individual's network membership can be twofold: personal impact expectations and organisational impact expectations. The main personal impact expectation was 'support for self' while 'support for business growth' was identified as the main expectation from an organisational context. In terms of the network structure, it was found that size, the nature of events and type of members can influence members' behaviour. In addition, the qualitative data analysis revealed that despite showing a positive attitude to change in the questionnaire, members of both networks had a cautious approach to change. They believed that one of the reasons for their positive attitude towards change is that change is often beyond their control and therefore it is better to accept change and move on. In terms of skills, capabilities and habits, interviewees confirmed the quantitative findings while adding that they demonstrate altruistic behaviour by helping others within the network, without expecting anything in return. In addition, interviewees believed that they have improved their good habits such as listening to others, being courteous and managing expectations of others effectively, which suggests that the network membership has allowed members to demonstrate pro-social behaviour.

The findings of this thesis confirm the existing literature on members' expectations of network membership, regardless of the type of network, which includes such aspects as access to support to grow their business (Tang, Mu and MacLachlan, 2008), to access others' resources (Penrose, 1959; Massaro et al., 2019) and to avoid loneliness, especially for SME owner-managers (Sharafizad and Brown, 2020). In addition, the participants of this research confirmed that trust within business networks is a significant element of business networks, as found in business network literature (Todeva and Knoke, 2005; Darabi and Clark, 2012; Jaekel, 2019; Massaro et al., 2019) and also confirmed the challenges that the size of a network poses, that is, smaller networks limiting members' opportunities (Demirkan, Deeds and Demirkan, 2013; Rubino and Vitolla, 2018) and diseconomies of scale associated with large networks (Burt, 1992; Parker, 2008; Cazzuffi and Moradi, 2012).

The thesis then moved on to address the aim of this thesis, which was to examine the behavioural additionality of network membership at an individual level. After analysing both qualitative and quantitative data, this thesis found that members' behaviour was influenced by network structure, their own expectations of their membership, as well as the expectations for their organisations, and members' own attitude towards change. As a result of these influences,

members of both networks believed that their behaviour has been impacted due to their network membership as they have developed certain skills, capabilities, and habits. As these behavioural changes have resulted in a change in their skillset as well as in their behaviour towards others, this resultant behavioural additionality can be categorised as the change in their human capital and social capital. As explained in Chapter 8, the primary expectation of members from their network membership is to gain support for their business growth, however, as a result of their active engagement within their networks, members benefit from development in their human capital and social capital that demonstrates behavioural additionality. Therefore, as the contribution to knowledge in business network research, this thesis concludes that behavioural additionality of network membership at the individual level can be characterised as the increase in members' human capital and social capital. This completes the content in Box 4 in the theoretical framework developed in Chapter 4 (Figure 4.1). The next section is dedicated to discussing the contribution of this thesis in more detail.

9.3 Contributions of the Thesis

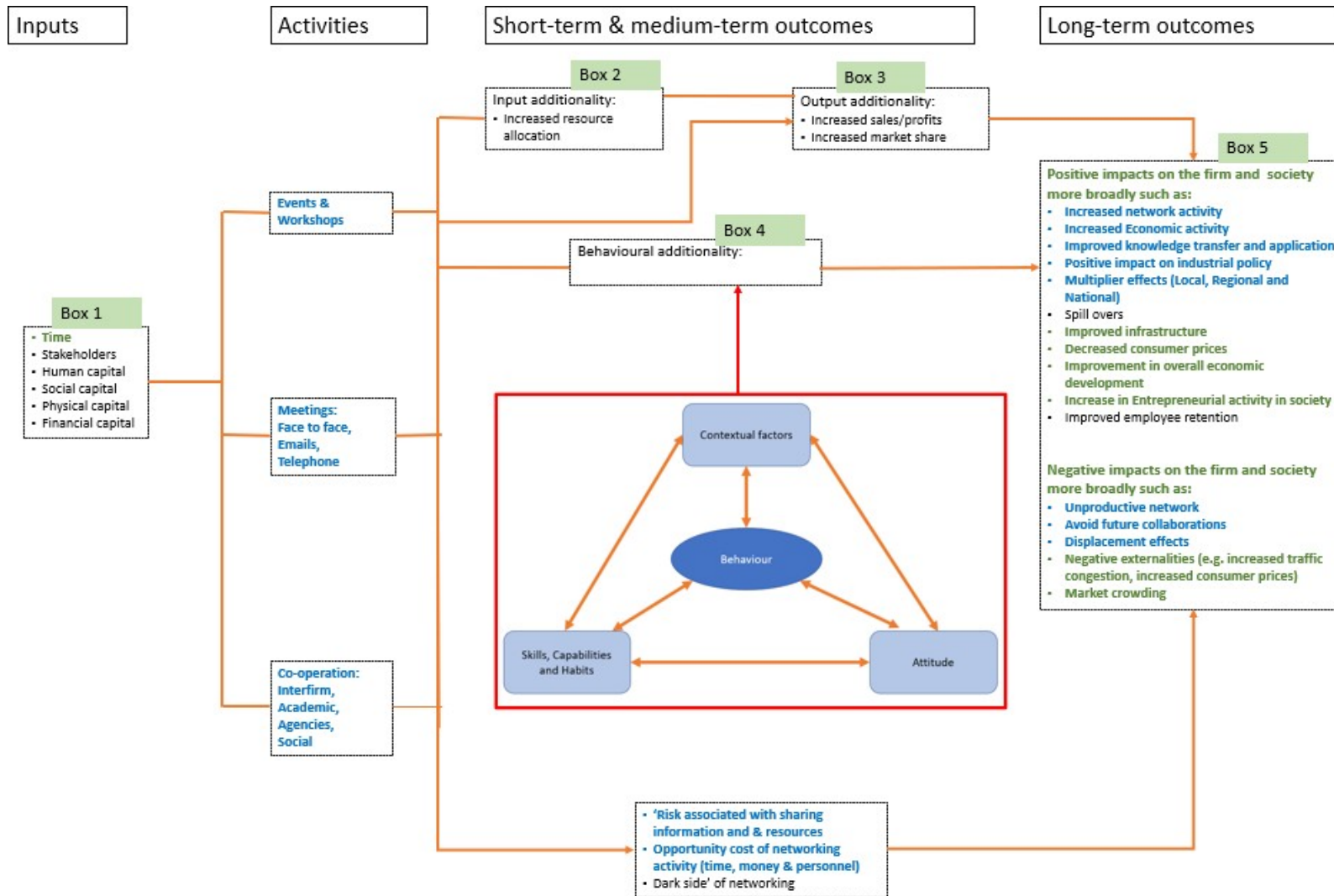
Behavioural additionality and its parent concept – additionality, are very much limited to examining the impact of R&D related activities of the organisation. However, in recent years behavioural additionality researchers have highlighted the importance of applying the concept in different contexts to enhance the understanding of behavioural additionality (Gök and Edler, 2012). Gök and Edler (2012) identify having the concept defined loosely, and not identifying the correct unit of analysis as two of the main barriers for the application of the concept in different contexts. To address this, this thesis successfully demonstrated that skills, capabilities, and habits are individual level units of analysis of behavioural additionality, and has therefore presented an extended definition of behavioural additionality, focussing on the impact of network membership at the individual level.

This thesis also successfully showed that the impact of business network membership on their members' behaviour at the individual level is an under-researched area, thus contributing to the development of knowledge in business network research and behavioural additionality research. In addition, this inter-disciplinary thesis drew elements from business networks, sociopsychology, and evaluation concepts to extend a theoretical framework to examine the behavioural additionality of network membership at the individual level, which is the main contribution of this thesis (Figure 9.1 which is shown below as Figure 9.1). This logic model provides a steppingstone for future research to expand the understanding of the impact of business networks on their members. As many policymakers focus heavily on promoting

business networks to their organisations this is an important development to assist policymakers in creating policies that enhance the impact of business networks. In addition, this thesis successfully justified why examining the impact of business network membership at the individual level is needed, and by focussing on micro business owner-managers contributed to the development of knowledge in the under-researched micro business area.

From a methodological contribution perspective, this thesis also built a research design to examine the impact of business network membership at the individual level. This thesis adopted a case study approach in which both quantitative and qualitative data were collected (sequential quan **7** QUAL) and analysed to test the theoretical framework developed in ~~the~~ this thesis. The analysis of both data sets confirmed that the theoretical framework created is an effective tool to examine the behavioural additionality of network membership at the individual level (Figure 7.1), thus confirming the methodological contribution of this thesis.

Figure 9.1: Main Contribution of this Thesis (Repetition of Figure 4.4)



9.4 Recommendations for Policymakers and Network Organisers

- (i) Policymakers may increase public funds directed at promoting and developing business networks within their business communities, while organisations should encourage their employees to become members of business networks.
- (ii) As indicated by the findings of this thesis, networks act as a platform for providing mental well-being support for members especially for SME Owner-Managers, therefore, network organisers can enhance this support by creating mentorship activities within their networks while policymakers can integrate this feature into their future networks.
- (iii) Diversity and the size of networks are important in maximising the impact of business networks, which policymakers and network organisers may take into consideration in their planning / operating of business networks and avoid creating large networks.
- (iv) Policymakers and network organisers may encourage the creation of power groups within business networks to increase the benefits to members.
- (v) There is no ‘one size fits all’ when it comes to networks – so network organisers may have a clear aim on what the network is about and act accordingly. They may not try to emulate everything other networks do.

9.5 Limitations of this Thesis

Respondents of this research are homogenous in nature, which may have reduced the opportunity to uncover cultural differences in network membership expectations. In addition, the majority of respondents were from small businesses which may have limited the scope of the study. If the respondents were from a range of small, medium, and large enterprises, this would have provided more insight into the differences in expectations for different sizes of business.

Furthermore, as this thesis was conducted on two networks in the UK and was of a qualitative nature, this thesis inherits the limitations of qualitative research such as not being able to generalise the findings. Even though this thesis did not aim to generalise findings, these findings can be used as a steppingstone into more research on examining the impact of business networks on their members’ behaviour. Future research will be able to address these issues.

9.6 Recommendations for Future Research

Concluding the current thesis, several areas for prospective future research are identified which are discussed below.

- (i) As this thesis conducted a cross-sectional study in examining the impact of business network membership, carrying out a longitudinal study on one business network will allow a thorough examination of the impact of a particular business network on their members' behaviour.
- (ii) This thesis examined behavioural additionality of network membership and used two case studies from the UK. Conducting similar research in different countries, such as developing countries, to examine the impact of culture on behavioural additionality would expand the knowledge in this area.
- (iii) This thesis found that power groups form within networks based on their trade similarities and can be beneficial to their members, however, there is a lacuna of research on such groups within business networks. Therefore, it may be beneficial to study the formation, development, and rules of conduct, of these groups as well as their relationship with non-power group members, as this may advance the knowledge of network evolution in their search for effectiveness.
- (iv) Even though it was not the aim of this thesis to explore behavioural additionality of small business owners specifically, this study provided useful information on network membership expectations from a micro business owners' perspective. A recent study carried out by Leung, Mukerjee and Thurik (2020) on exploring the well-being of SME owners identifies a lack of research on SME owners' well-being. However, this is one example of where many researchers still include micro and small firms in their research on SMEs, despite these businesses possessing different characteristics to medium sized enterprises. According to ONS (2019) data, many UK start-up businesses fail within the first four years, with only 42.4 percent of businesses making it to the fifth year. This warrants the need to study the micro business sector specifically to understand their needs better and determine the most cost-effective ways to support them. Therefore, research on micro business owners' mental well-being will help to understand how these businesses can be supported better to increase their contribution to the economy.

This thesis successfully demonstrated that business networks positively impact their individual members' behaviour. This research is novel in that it successfully showed that the behavioural additionality concept can be applied beyond its traditional context and as a result, presented an

adapted definition for examining behavioural additionality of network membership at the individual level. In the process, this thesis also extended a theoretical framework (Figure 4.4 which is repeated in Figure 9.1) that can be used to examine behavioural additionality of network membership thus contributing to knowledge in both business network and behavioural additionality research. In addition, this thesis provided evidence from micro businesses which is an under-researched area hence contributing to the knowledge in micro businesses. This thesis also contributes to the development of knowledge from a methodological perspective as the research design built into this thesis to collect and analyse data to test the theoretical framework proved to be effective in capturing the behavioural additionality of network membership at the individual level.

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11.0 Appendices

Appendix 1

Questionnaire

Section A: Background information

Q1: Name of the company:

Q2: Postcode of your company:

Q3: Which sector does the company operate in?

Agriculture, forestry & fishing		<input checked="" type="checkbox"/>	Production	
Information & communication		<input checked="" type="checkbox"/>	Construction	
Finance & insurance		<input checked="" type="checkbox"/>	Property	
Transport & storage		<input checked="" type="checkbox"/>	Motor trades	
Accommodation & food services		<input checked="" type="checkbox"/>	Wholesale	
Professional, scientific & technical		<input checked="" type="checkbox"/>	Retail	
Business administration & support services		<input checked="" type="checkbox"/>	Education	
Public administration & defence		<input checked="" type="checkbox"/>	Health	
Arts, entertainment, recreation & other services		<input checked="" type="checkbox"/>		
Other – please specify below		<input checked="" type="checkbox"/>		

Q4: Number of employees

1-9	
10-49	
40-249	
250-499	
Over 500	

Q5: What is your position within your organisation?

Team leader/Supervisor	
Manager	
Senior Manager	
Director/Partner/Owner	
Other – please specify below	

Q6: How long have you worked for the organisation?Years..... months

Q7: Your age

24 or under		<input checked="" type="checkbox"/>	Between 41 and 65	
Between 25 and 40		<input checked="" type="checkbox"/>	Over 65	

Q8: Your education level – what is the highest level of education that you have achieved to date?

No formal qualification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Post A Level certificate/Diploma	<input type="checkbox"/>
GSCE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Undergraduate degree	<input type="checkbox"/>
A Levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Master's degree	<input type="checkbox"/>
Post A Levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Doctoral degree	<input type="checkbox"/>
Professional/Other form of qualification -please specify below				<input checked="" type="checkbox"/>

Q9: Your gender

Male	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Female	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Prefer not to say	<input type="checkbox"/>
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Section B: Your participation in this network

Q10: How long have you been a member of this network? yearsmonths

Q11: How often do you attend this network?

Rarely	<input type="checkbox"/>	<input checked="" type="checkbox"/>	More than half of the meetings	<input type="checkbox"/>
Less than half of the meetings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Almost every meeting	<input type="checkbox"/>
Half of the meetings	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

Q12: Why did you join this network? Please select all the reasons that are important to you and rank them accordingly (type the relevant numbers in the boxes). The most important reason is 1, second most important reason is 2 and least important reason is 4. If you consider some reasons to be equally important, please type the same number for all of them.

My company wanted me to participate	
This network was recommended to me	
My competitors have joined this network	
To get new leads for my business	
It is a regulatory requirement to be a member of a network	
To access funding or other financial support for my business	
The network allows me to access technologies relevant to the industry	
To build my contacts in the industry	
I have heard good things about this network, so I decided to give it a try	
The network is convenient for me to attend	
I want to provide a voice for my industry	
To identify opportunities for collaboration	
My competitors have joined a similar network	
To access non-financial support for my business	
Other - please specify below	

Q13: Aside from this network, how many OTHER networks are you a member of?

Section C: Attitude towards change – this section contains that aim to find out your attitude to change (as a person).

Q14: to what extent do you agree/disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I usually support new ideas.					
Changes tend to stimulate me.					
I usually resist new ideas.					
Change frustrates me					
Change often helps me to perform better in my job.					
I usually benefit from change.					
Change usually creates more problems than it solves.					
Change often creates problems for me.					
I often suggest new approaches to things.					
Other people think that I support change.					
Trying new things is risky.					
Change is associated with a lot of uncertainty.					

Section D: Attitude towards networks

Q15: To what extent do you agree/disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Investing time and money in a network is a valuable investment for a business.					
Business networks provide a platform to learn from each other.					
Members of business networks run a risk of their ideas being stolen.					
Attending business network events consumes a lot of time.					
Business networks are a great platform to find valuable business contacts.					
Business network membership is a cost-effective way to improve business performance.					
Business networks expect members to contribute a lot towards the success of the network.					
Some members have more power than others within business networks.					

Business networks provide a great opportunity to improve skills.					
Business network activities allow the member firms to form relationships with others that provide them with access to resources and new markets.					
Network members will be less aware of the other opportunities available to them outside the network.					
Members of business networks run a risk of losing their business information.					

Q16: This section explored your opinion of the (Name of the network). Therefore, when answering, please relate these questions to this network only.

To what extent do you agree/disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Investing time and money in this network is a valuable investment for my business.					
This network provides a platform for me to learn from other members.					
Membership of this network means that I run the risk of my ideas being stolen.					
Attending events organised by this network consumes a lot of my time.					
This network is a great platform for me to find valuable business contacts.					
Membership of this network is a cost-effective way to improve the performance of my business.					
This network expects me to contribute a lot to the success of the network.					
Some members have more power than others within this network.					
This network provides a great opportunity to improve my skills.					
Activities organised by this network allow me to form relationships with other members which enables me to access additional resources or enter new markets.					
I feel less aware of opportunities available to me outside this network.					
I run a risk of losing valuable information about my business by being a member of this network.					

Q17: How could this network be improved? Please write your suggestions in the box below.

Section E: Change in your behaviour

Questions in this section are aimed at exploring the changes in your behaviour as a result of your membership of this network. These changes may be visible in your skills/capabilities and habits.

Q18: What sort of skills and capabilities do you believe that you have developed as a result of network membership?

	Yes	No	I don't know
Time management skills			
Problem solving skills			
Reasoning skills			
Innovation/creativity			
Planning skills			
People management skills			
Leadership skills			
Team working skills			
Communication skills			
Computer skills			
Negotiation skills			
Multi-tasking skills			
Writing and speaking - English (business communication)			
Public speaking skills			
Writing and speaking -another language			
Can-do attitude			
Organisational skills			
Working under pressure			
Learning skills			
Listening to others			
Critical thinking			
Decision making			
Flexibility			
Business specific skills (ability to operate a machine/software)			
Task specific skills such as accounting/bookkeeping			

Q19: Do you believe that you now possess or have developed any other skill that has not been mentioned in the previous table? Please write them below.

Q20: Thank you very much for taking your time to complete this survey. The information that you have provided is truly valuable for this study. In the next phase of data collection, I will conduct more in-depth interviews lasting not more than an hour. If you are willing to take part in an interview, please provide your contact details below.

Email address:

Telephone number:

Thank you very much for your time. If you have provided your contact details to take part in an interview, I will be in touch with you in due course.

Appendix 2

Interview questions

- Could you please start with a brief description of what your business does and your role within the business (ask for number of people employed and how many do they directly manage?)
- How long have you been working for this business/When did you start your business?
- What type of tasks do you carry out regularly and what skills do you use to carry out those tasks?
- In your line of business, what skills are most important for you to be able to perform better?
- Are there any sources/channels that you use to acquire these skills?
- Can you tell me, what is your attitude towards change? Do you see change as a good thing or bad thing, or neutral? Please feel free to add examples.
- In general, what do you think of business networks? What are the main benefits for you? Are there any down sides? Can you please explain your answer?
- In relation to this network, what is your experience – is it positive, negative, or in between? Can you please explain your answer and please feel free to add examples if necessary?
- Why did you join this network?
- Can we talk about your experience with this network? please include the benefits/advantages, costs/negative aspects.
- Now I would like to know how this network has impacted your behaviour. You mentioned few skills and capabilities that you use to carry out your daily routines - Have any of these developed further (or you do effectively or easily) since you joined this network? And or have you learnt or developed new skills or capabilities? Please feel free to add examples or situations that you have used these skills/capabilities.
- If yes, what skills / capabilities have you developed through your membership of this network? (Here pick the skills the participant has mentioned in the survey as well as the top 10 skills that the survey participants have mentioned in the survey and refer to those skills if they are not mentioned). Prompt these skills
- If they answered “no”- why do you think you have not developed any skill through this network?

- What element of this network do you think have contributed to these changes in you? (if the answer was positive) –
- If they answered “no”- why do you think you have not developed any skill through this network?
- Aside from this network, how many other networks are you a member of?
- Is there anything that this network can learn from those networks?
- Is there anything that this network doing better than those networks?
- How could this network be improved?
- If you were to recommend this network to others, what is (or are) the value(s) of this network that you find significant.
- Is there anything else that you would like to add?

Appendix 3

Theme development

Code	Initial theme	Final theme
Helping other members	Altruism	Pro-social behaviour
Helping customers beyond their remit	Altruism	Pro-social behaviour
Being respectful to other members	good manners	Pro-social behaviour
Positive about one member per sector policy	Number of members	Size of the network
having many members is good	Number of members	Size of the network
Events are structured	Network events	Nature and structure of events
Network events are social events	Network events	Nature and structure of events
Membership is limited	Type of members	Type of members
Networking allows to meet likeminded people	As a way to avoid loneliness	Avoid loneliness
Trust	Trust	Trust
Information sharing	Sharing information	Sharing information
Networking introduces members to technology that other members use	Access to resources	Access to resources
Telling problems to others	Space to discuss personal problems	Discuss personal problems
Making strong relationships	Strong relationships	Forging relationships
Access to resources	Access to resources	Access to resources
Attitude to change	Attitude to change	Attitude to change
Innovation and creativity	Innovation and creativity	Innovative capabilities

Communication skills/public speaking skills	People skills	Inter-personal skills
Members referring each other	Business referrals	Referring/promoting business to each other
Members providing business advice	Mentoring others	Advice- bouncing ideas off

Appendix 4

Validity and reliability of the questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
.727	75

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
This network was recommended to me	268.2778	1013.389	.072	.739
My competitors have joined this network	276.1111	988.810	.163	.730
To get new leads for my business	267.1111	887.634	.606	.693
It is a regulatory requirement to be a member of a network	276.5000	1006.147	.169	.726
To access funding or other financial support for my business	265.7778	1013.242	.620	.716
The network allows me to access technologies relevant to the industry	267.4444	947.085	.559	.703
To build my contacts in the industry	267.1667	936.971	.708	.698
I have heard good things about this network, so I decided to give it a try	271.3333	823.529	.563	.692
The network is convenient for me to attend	275.3889	892.605	.497	.701
I want to provide a voice for my industry	272.6111	863.193	.524	.697
To identify opportunities for collaboration	270.3333	770.353	.869	.658
My competitors have joined a similar network	274.5556	830.732	.634	.685
To access non-financial support for my business	268.5000	890.971	.506	.700
I usually support new ideas.	275.7778	1060.183	.003	.728
Changes tend to stimulate me.	276.2222	1057.242	.059	.727
I usually resist new ideas.	278.0000	1078.353	-.405	.733
Change frustrates me	277.7222	1080.801	-.357	.734
Change often helps me to perform better in my job.	276.2222	1055.359	.114	.727
I usually benefit from change.	276.4444	1058.026	.038	.727
Change usually creates more problems than it solves.	277.3333	1019.412	.449	.718
Change often creates problems for me.	277.5556	1067.673	-.125	.730

I often suggest new approaches to things.	275.8333	1048.618	.289	.725
Other people think that I support change.	276.2222	1063.595	-.092	.729
Trying new things is risky.	277.0000	1047.529	.227	.725
Change is associated with a lot of uncertainty.	276.7778	1062.771	-.052	.729
Investing time and money in a network is a valuable investment for a business.	275.3333	1074.353	-.440	.731
Business networks provide a platform to learn from each other.	275.2222	1071.124	-.383	.731
Members of business networks run a risk of their ideas being stolen.	277.5000	1060.029	-.006	.728
Attending business network events consumes a lot of time.	277.1111	1063.752	-.061	.730
Business networks are a great platform to find valuable business contacts.	275.3333	1064.000	-.115	.729
Business network membership is a cost effective way to improve business performance.	275.5000	1060.029	.004	.728
Business networks expect members to contribute a lot towards the success of the network.	276.6667	1054.588	.074	.727
Some members have more power than others within business networks.	276.7222	1051.977	.115	.726
Business networks provide a great opportunity to improve skills.	275.5556	1070.732	-.261	.731
Business network activities allow the member firms to form relationships with others that provide them with access to resources and new markets.	275.5000	1077.676	-.514	.732
Network members will be less aware of the other opportunities available to them outside the network.	277.6111	1072.369	-.225	.731
Members of business networks run a risk of losing their business information.	278.0000	1061.882	-.048	.728

Investing time and money in this network is a valuable investment for my business.	275.3333	1060.471	-.006	.728
This network provides a platform for me to learn from other members.	275.4444	1070.497	-.304	.730
Membership of this network means that I run the risk of my ideas being stolen.	278.1111	1054.693	.147	.726
Attending events organised by this network consumes a lot of my time.	277.8889	1044.575	.416	.723
This network is a great platform for me to find valuable business contacts.	275.5000	1061.441	-.033	.728
Membership of this network is a cost effective way to improve the performance of my business.	275.3889	1066.252	-.152	.729
This network expects me to contribute a lot to the success of the network.	277.1667	1052.971	.071	.727
Some members have more power than others within this network.	277.3333	1042.235	.221	.724
This network provides a great opportunity to improve my skills.	275.8333	1064.735	-.112	.729
Activities organised by this network allow me to form relationships with other members which enables me to access additional resources or enter new markets.	275.6667	1074.000	-.429	.731
I feel less aware of opportunities available to me outside this network.	277.9444	1044.056	.306	.724
I run a risk of losing valuable information about my business by being a member of this network.	278.2778	1055.859	.151	.726

Time management skills	278.2222	1068.771	-.237	.730
Problem solving skills	278.5556	1060.850	-.016	.728
Reasoning skills	278.5556	1063.556	-.097	.729
Innovation/creativity	278.8889	1066.105	-.266	.729
Planning skills	278.7222	1054.801	.146	.726
People management skills	278.7222	1072.330	-.396	.731
Leadership skills	278.4444	1065.908	-.167	.729
Team working skills	278.6111	1075.546	-.462	.732
Communication skills	278.9444	1059.232	.085	.727
Computer skills	278.3333	1066.706	-.201	.729
Negotiation skills	278.3889	1062.958	-.080	.728
Multi-tasking skills	278.0556	1070.056	-.277	.730
Writing and speaking - English (business communication)	278.5556	1065.438	-.130	.729
Public speaking skills	279.0000	1060.588	.000	.728
Writing and speaking - another language	278.0000	1060.588	.000	.728
Can-do attitude	278.5556	1066.497	-.156	.729
Problem solving	278.6111	1063.193	-.087	.728
Organisational skills	278.5556	1064.144	-.114	.729
Working under pressure	278.3333	1065.176	-.152	.729
Learning skills	278.5556	1074.144	-.412	.731
Listening to others	278.8889	1057.987	.078	.727
Critical thinking	278.5556	1074.850	-.433	.732
Decision making	278.3889	1074.016	-.346	.731
Flexibility	278.6111	1056.252	.125	.727
Business specific skills (ability to operate a machine/software)	278.2778	1061.271	-.027	.728
Task specific skills such as accounting/book keeping	278.5000	1052.853	.224	.726

Appendix 5

Themes and quotes sent to other academics

Themes				
Organiser's influence	Supporting each other by referring business	helps you to learn from each other	Builds confidence/ability to form strong relationships	Supporting each other
Information/knowledge sharing	Expectations of network membership	Network's characteristics	Access to resources	Good citizenship

Theme	Quote
	it also provides an opportunity to...to help others within that network, connect to other businesses and people they need to know, and want to know, and to support them in what they're doing
	You know, we know we're going to get something from it. It's not just going there to... to get leads off people, you know, you there to help as well. If... if you... if you end up helping somebody, the chances are you going to have something back
	The networks are good because it allows me to talk to people umm... about my ideas, listen to their point of view, and then just take it forward from there. You find that when you are working on your own, you can't do that, umm... you're sort of like you're talking to yourself
	You're there to ultimately try and boost your own business, but it's not always directly, so if you are there and you... your network as well, we are... we are in the same... in the same group
	I think really just seeing the way that people interact with each other, umm... when they are referring work to each other in the room, how they... how... their attitude... umm... definitely rubs off on you umm... because you learn
	I don't have anything to do with websites, I can't really help with him, but after talking to him I said you need to speak to this chap, because this chap can help you, and I put him onto the chap from the networking group
	one of the things about being a part of a group like Network Y is, that as you get to know people, when you do something like a presentation, you can ask people to critique it for you. And I think... so you get feedback from people on what was good, bad, or not so... whatever, in your presentation, so you can learn
	The ten-minute business presentations are really useful. So they are... depending on who is doing them, you can learn a lot of different things, umm... whether it's working practice, best practice for how you deliver your own job or just potentially how you could work with other people, and other businesses, or more specific information, so for instance things about finance or accounting
	The business networking group, things that I've been involved in, have all helped to make you more... a more rounded person, and feel more confident and comfortable
	I think looking back at the cascading angle, some of the people that I've introduced as part of the use of the network, have been far less confident in their own ability to, err.. To discuss business face to face on an ad hoc basis, so I can see how their confidence levels have been enhanced

	you do learn very quick, you get instant feedback on your comms skills there, because you say something ridiculous in a networking event, people will tell you, and the feedback is almost instant
	Certainly from a relationship point of view... I met lots of really interesting people who I wouldn't have had the chance to meet otherwise. I've met lots of people who've been a position to pass me business, and I passed business to, which should be really interesting. Ummm I've also really honed my ability to talk in public. Part of this particular group, the requirement is that you do a presentation, a 10 - 15 minute presentation to the group, every.... every 6 months or whatever it is. That's something which I hadn't done before being in this group. So that's important, the fear of being able to do that for the first time, and then continuing to improve. I now do those sorts of presentations on quite a regular basis
	when those courses are available, often people in the network will flag those up, so it's almost... it also helps people find... find training and development
	So there's a lot of structure.. Back to structure again! And a lot of thought behind it to make it a useful and pleasant experience for network members
	I'm not a marketer, so I don't have the marketing flair and I'll never attempt to go down that route. You know, stick to your comfort zone... where there are things you don't like doing, or can't do very well, get other people in to do it for you
	Some... something else will... will happen... you don't expect anything back
	I met a PR consultant and he helped me get into the newspaper with articles and things like that where, umm... where he had the... I've written articles with Happy Times for instance and sent them off but they have never been published but then he got involved and they were put in straight away so he had the contacts, and he could open the door for me"
	Well I got to meet the organiser through... I know we shouldn't use names... but yes, it's run by the organiser and I met them through another networking event, and they told me about it, and that's how I got involved with it... I went along quite in the early days and that's how I got involved with Network Y... and I don't go to it all the time, but its... yeah, it's... I got through the organiser because I liked the way they were doing things, it's as simple as that
	Networking is purely for getting the work in"
	Towards the end of the meeting people are actually encouraged to get up and say thank you. So, thank you for helping me with my problem, I just spoke to you, it was only a 2-minute conversation and it was brilliant, or, thank you for helping me with my problem, you went the extra mile, gave me a whole day, it was wonderful, and you were a pleasure to work with. That act of saying thank you
	[The network] has got lots of people that depend on networking, for their business. So they do networking for you. Meghan is a great example, I know you will be talking to Meghan, Meghan is a member of (I don't know - in a very low voice) an infinite amount of groups, but she will recommend me to all them groups, even though one of them will probably having a state agent in, so she won't do that in that group, but then that is the point. So I don't need to be a member of loads of different groups. Because they are there networking for me
	I'm not a personnel person, but if one of my customers has a requirement for someone with (a) personnel skills, I'll say have you seen... have you spoken to... this person might be able to help you. Now, that is the essence of a networking
	I like the individual who owns it, I think their ethics are good. In a lot of the networking organisations the ethics aren't
	Stability, it's a stable, it's a large, stable group which has been... stood the test of time for many, many years. Umm... that in itself, offers a lot of opportunity for new people, because we've got such a broad range of businesses and different business sizes in the room, umm... which is quite unusual to have that level of stability, umm... and also the welcoming... very welcoming and friendly.

Appendix 6

Ethical approval letter

College of Business, Law & Social Sciences
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Derbyshire
SK17 6RY

T: +44 (0)1332 590500

Mr S N Rambukwella
Doctoral Student
University of Derby
Derby

8 March 2017

Dear Sumedha

**Re: The multi-dimensional additionality of business networks on firm performance:
case study of the D2N2 region**

This letter is to confirm that your research has received ethical approval for the primary research by Chairs Action on behalf of the College of Business, Research Ethics Committee.

Yours sincerely

Tim Heap
University Principal Tutor
Chair of College of Business, Research Ethics Committee
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