LEGITIMACY AND THE RECOGNITION OF CREATIVITY IN ORGANISATIONS

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THESIS ABSTRACT

This thesis explores how legitimacy is enacted in an organisational setting during the recognition of creative ideas. Exploring how legitimacy is afforded to creative ideas in organisations is relevant and timely due to the increasing focus on creativity and innovation as a mechanism for competitive advantage, growth and profitability in the contemporary context of uncertainty, disruption and rapid change. Legitimacy integrates individual, group and institutional interests aligning desired outcomes within the organisation through effective decision making and consensus, without the explicit exertion of power. Although widely studied in the entrepreneurship and institutional literature as a mechanism to afford recognition and credibility, legitimacy has not been widely explored within the context of creativity and innovation. Consequently, it requires deeper examination within this context as the ability to identify and implement novel, appropriate and valuable ideas is of critical importance to organisations.

The financial, operational and reputational cost of investing in a product or service which proves not to be viable is significant. To overlook or dismiss a potentially viable idea can incur an even heavier price if a competitor or new market entrant develops this idea gaining positive returns. Within the creativity literature, evidence regarding how ideas are recognised is growing. While the act of recognition is acknowledged as important, relatively little is known about the processes surrounding consensus upon what is, and what is not, creative thus, greater attention to examining legitimacy as an important factor in the recognition and selection of ideas is necessary. In addition, there are few empirical studies focused upon the recognition of creativity within an organisational setting which reflects the dominance of psychological perspectives, quantitative research and experimental studies at the expense of interpretive work.

This thesis employs a social psychology approach to exploring legitimacy theory as part of the creative process. This allows a multi-level analysis of behaviour surrounding how creative ideas gather momentum, support and resource, drawing on Amabile's Componential Theory of Creativity (1983) and research into sources and objects of legitimacy (Dornbusch and Scott, 1975) and Acknowledged Legitimising Elements (ALEs) and Regime Legitimising Formulas (RLFs) (Zelditch and Walker, 1993, 2003). The research explores how employees at different levels within a large, technology multi-national corporate legitimise and privilege certain ideas, and individuals, rather than others. The exploration of creativity within a complex operational and commercial environment provides an opportunity to observe how socio-psychological factors influence what is recognised as legitimate and how legitimacy is enacted by management, together with employee responses to such processes.

The central research question considered is: *How does legitimacy theory account for creativity is recognised within an organisational setting?* To address this question, the thesis adopts a qualitative case study approach to provide a bounded exploration of the topic centred on the use of an online Innovation Portal to seek ideas for complex, ill-defined challenges and opportunities across the entire organisation. The case enables the investigation of multiple examples of the phenomenon situated within one organisational context. Data were gathered over a period of six months drawing from 26 semi-structured interviews with senior managers and a range of employees from diverse positions, tenure and departments within the organisation. In addition, participant observation, grey media sources and informal interchanges were utilised.

A thematic analysis identified prominent recurring themes and meanings surrounding the recognition of creativity. The findings point to three levels at which legitimacy operates on creativity: organisational; individual and social. Organisational level factors include aspects such as structure, regulation, culture, and hierarchy, convey validity (collective legitimacy) on the status quo. These factors *reproduce* existing conditions surrounding creativity. Individual level factors such as

motivation and conformity, influence the degree of propriety (individual legitimacy) afforded to social norms. These factors *enable or constrain* creative response. Social level factors such as social capital and social networks are the mechanism by which people seek to have their ideas legitimated (through authorisation of superiors and endorsement by peers). These factors *ameliorate* organisational factors through individual agency.

The research findings suggest organisational emphasis on operational and financial objectives conveys legitimacy on those ideas which are considered apposite to achieve these goals. Individuals with management and commercial responsibility within the organisation reflect and enact this through the tendency to privilege *appropriateness* for that context over novelty. Individuals with product, service or process responsibility are more likely to promote *novelty* over appropriateness in response to calls for creative ideas, thus conflicting with the organisational and managerial view. Employees who pursue novel creative ideas in an attempt to attain legitimacy do so against organisational norms, therefore considerable individual action and social interaction is necessary to overcome organisational inertia. This creates a paradox where the organisation articulates the need for radical and disruptive creativity and innovation while simultaneously rejecting those creative ideas which are highly novel.

The main contribution of the thesis is to our understanding of the recognition of creativity as a *'re-cognition';* where managers who judge creativity already have their perception of who and what is creative framed by the validity and propriety of organisational norms. This provides a more nuanced perspective on how individual and collective understanding of what is considered legitimate in the organisation influences the recognition of who and what is considered creative. Three further theoretical contributions are evident; first, it questions current assumptions about the self-evident nature of judgements surrounding the recognition of creativity; second, it highlights the role individual non-conformity plays in both the managerial and product/service populations in pursuing creative ideas outside of the legitimated norm. Third, it yields insight into the mediating effects which social strategies have on the enactment and legitimisation of creative ideas by individuals in an organisational setting. This thesis illuminates management and employee practices surrounding the recognition of creative ideas and provides a further explanatory mechanism for how and why organisations desire creativity in principle but may be biased against it in practice. Consequently, the thesis aims to contribute to discussions surrounding how the recognition of creativity can be better understood to benefit organisations and the wider communities they serve.

DEDICATION

In memory of Karen Thomas (1966-2013) and Rose Millington (1975-2015).

My two dear brave friends; you are both so sadly missed.

You reminded me that '*if not now, then when?'*

This is for you.

ACKNOWLEDGEMENTS

"For I can do everything through Christ, who gives me strength."

Philippians 4:13 (NLT)

First and foremost, thank you Jesus. You gave me the courage to begin, the persistence to continue and the strength to finish. I give you the glory for all that is good in this thesis.

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LIST OF PUBLICATIONS

The following publication relates to, and was based on, research carried out for this Ph.D.

Lamb, R. C., Marlow, S., 2016. Exploring Legitimacy in the Recognition of Creative Ideas. British Academy of Management Proceedings, 6-8 September.

The empirical research detailed in this paper can be found in Chapters Five, Six and Seven of this thesis.

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LIST OF ABBREVIATIONS AND ACRONYMS

ABBREVIATION/ ACRONYM	TERM
N.C.T.	Novelty Categorization Theory
C.A.T.	Consensual Assessment Technique
C.P.S.S.	Creative Product Semantic Scale
C.P.S.	Creative Personality Scale
C.T.S.	Creative Temperament Scale
C.R.T.	Cognitive Risk Tolerance
T.T.C.T.	Torrance Test of Creative Thinking
C.S.D.S.	Cropley Solution Diagnosis Scale
N.D.A.	Non-Disclosure Agreement
H.R.	Human Resources
I.T.	Information Technology

CHAPTER ONE: INTRODUCTION

1.1 Research Background

This thesis examines how ideas generated in response to companywide innovation challenges within the context of a high-tech, multinational organisation come to be recognised as legitimate and the organisational processes through which they gain and maintain legitimacy. The thesis addresses several under researched areas including the nexus of the creativity and innovation processes, the receiving side of creative ideation and legitimacy within organisational creativity. It utilises a qualitative, case study methodology which is under-represented within the literature. These points are expounded on in subsequent sections within this introductory chapter.

Creativity is defined as the production of ideas that are novel, useful and recognised (Amabile, 1988; Runco and Jaeger 2012). It is widely considered to be a complex phenomenon, encompassing creative products, people, processes and systems. It operates at multiple levels including individual, group and organisation (Hennessey and Amabile, 2010) with manifold interactions between these levels (Woodman, Sawyer, and Griffin, 1993). It performs a vital role in organisational life (Pope, 2005) where it confers important benefits, such as improved resilience to changing market situations (Heidenreich, 2009) and the ability to respond better to new opportunities (Shalley, Zhou, and Oldham, 2004).

Creativity also forms an antecedent for innovation, the process whereby selected creative ideas are implemented into an organisation (Amabile, 1988; Perry-Smith, 2006; Cattani, Ferriani, and Colucci, 2015). Innovation is widely held up to be the means of creating competitive advantage (Urbancova, 2013; Mueller, Wakslak, and Krishnan, 2014) allowing companies longevity and improving their resilience in turbulent times. As many industries face the upheaval associated with

the move from an economy driven by knowledge and logic to one in which intuitive skills, including creativity and innovation are highly valued and in demand (Pink, 2005) organisations face unparalleled pressure to develop new processes, products and services for commercial benefit (Cropley and Cropley, 2015).

Given its importance, it is unsurprising that since the early 2000s there has been considerable growth in the analyses of creativity (Anderson, Potočnik, and Zhou, 2014), across a wide range of disciplines including psychology, sociology, organisational behaviour and management. There has also been calls for an increase in creativity within organisations (Serrat, 2017; Mochi and Madjar, 2018). This drive for increased creativity, however, has not gone hand in hand with an understanding of how the context of the organisation supports or constrains employee ability to act and the agency to contribute to innovation activity.

As creativity and innovation are considered to be such defining and important factors in future organisation success (Shalley et al, 2004; Kaufmann and Beghetto, 2009; Yuan and Woodman, 2010), then it is necessary for researchers to explore the factors which lead to its recognition and allow resources to be utilised to minimise failure and contribute to innovation success (Lengnick-Hall, 1992; Crossan and Apaydin, 2010).

A significant gap in current understanding surrounds the process by which some ideas, rather than others, are evaluated as creative and are therefore, assigned resources within the organisation and move toward implementation (Anderson et al, 2014; Blomberg, 2016). This is complicated by the tension created between the intrinsic characteristics of creativity – it is novel and useful – and the subjective evaluation of those characteristics. Amabile (1982, p.1001) has argued "A product is creative to the extent that *appropriate observers* independently agree it is creative" (italics added.

This raises further questions surrounding who are the appropriate observers of creativity and how they come to an agreement a product is novel and useful (Amabile, 1983; Runco and Jaeger, 2012).

Defining the "appropriate observers" (Amabile, 1982, p.1001) of creativity proves problematic for many reasons. When considering novelty, the level of expertise of the observer proves important, as what might seem novel and original to a newcomer might be considered prosaic by a more established member of the community (Crossan and Apaydin, 2010; Kaufman and Baer, 2012). Similar concerns present themselves when considering usefulness. Unless objective, predetermined criteria are established to judge an idea's fit with the presenting problem, situation or need, then evaluations of usefulness are made against subjective measures may be ambiguous, imprecise or contested (Drazin et al, 1999). There is insufficient exploration of these issues, especially how certain ideas rather than others, gain traction within an organisation. This is an issue of material interest to practitioners and academics, as there is a potential loss of value to both organisations and researchers if people and ideas with potential remain unexamined because of research design, methodological and other biases.

It is proposed that legitimacy theory is an important construct for deepening our understanding of the recognition and evaluation of creativity (Cattani et al., 2015). Legitimacy is defined as "A generalised perception or assumption that the actions of an entity are desirable, proper and appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995: p 574). It provides a well-defined theoretical framework which allows a comprehensive and thorough investigation of the research objectives (Bitektine, 2011; Tost, 2011; Deephouse, Bundy, Tost, and Suchman., 2017). A legitimacy perspective facilitates the exploration of structural factors which enable, or constrain, the recognition of creative persons and ideas within an organisational context. This offers the prospect of an explanatory mechanism for

how, and why, some people and ideas are considered creative while others are not. This thesis draws on the work of seminal legitimacy scholars in the institutional literature (Weber 1978 [1924], Dornbusch and Scott, 1976; Walker and Zeldicth, 199, 2003); Suchman, 1995) as well as those in the field of entrepreneurship (Lounsbury and Glynn, 2001; Zimmerman and Zeitz, 2002; Überbacher, 2014), drawing a parallel between legitimacy in entrepreneurial activity and within an organisation context.

By examining the creativity process using the construct of legitimacy, the thesis offers insight into why calls for heightened creativity and innovation within organisations leads to the generation of novel and apposite ideas, which are often then rejected or ignored. This thesis aims to critically evaluate this issue, using the lens of legitimacy theory to offer insight into how managers and employees from different occupational groups navigate ambiguous and uncertain situations when evaluating creativity and thus, promote understanding for researchers and propose advice for practitioners.

1.2 Thesis Focus and Relevance

The following section describes the focus of the thesis and the rationale for choosing it. It provides an overview of organisational creativity and legitimacy and the intersection between the two. It then outlines the research aims and questions.

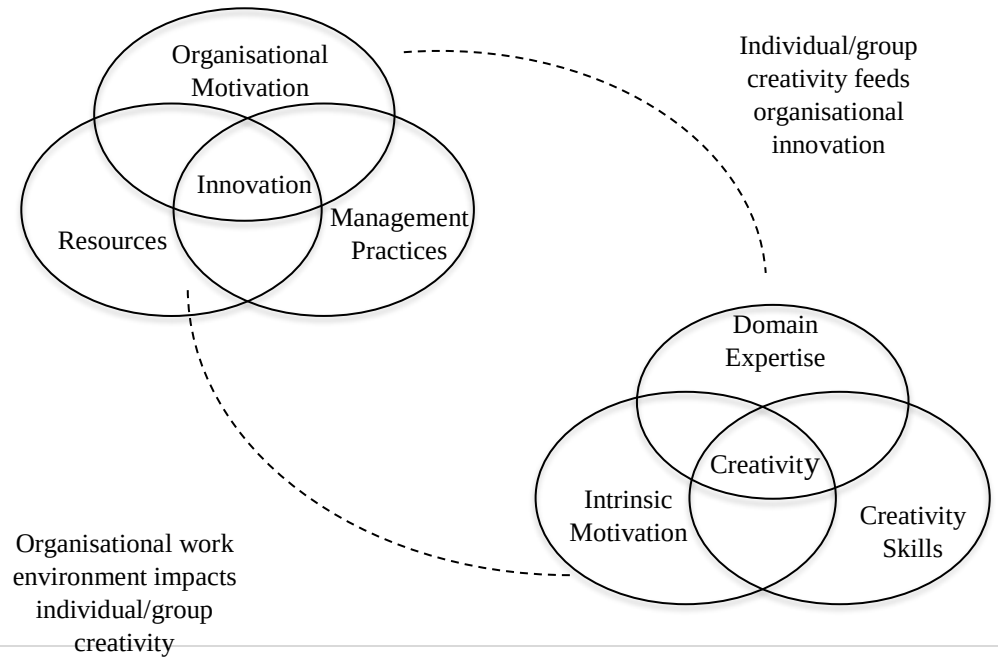
1.2.1. Organisational creativity

Organisational creativity is defined as "the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system." (Woodman et al. 1993, p. 293). There are two principal models of organisational creativity: the componential model (Amabile, 1983, 1988) and the interactionist model (Woodman et al., 1993).

These theoretical models have served to widen earlier creativity research which was focussed at the level of the individual, to encompass the social or group level and organisational level (Shalley and Zhou, 2008).

The componential model of creativity (Amabile, 1983) was developed from experimental research and its validity has been empirically examined in a wide range of contexts (Amabile, Schatzel, Moneta, and Kramer, 2004; Amabile, Barsade, Mueller, and Staw, 2005; Amabile and Kramer, 2011) and remains the most widely cited model of organisational creativity. The componential model of creativity (Amabile, 1983, 1988) identifies Domain Expertise, Intrinsic Motivation and Creativity Skills as the individual components of creativity and Organisational Motivation, Resources and Management Practices as the components of innovation at the organisational level. It integrates Amabile's earlier model of individual creativity (1983; Amabile and Pratt, 2016) with Organisational Innovation comprising three further components: Organisational Motivation, Management Practices and Resources.

Figure 1: Components of creative performance (Amabile, 1988; Amabile & Pratt, 2016)



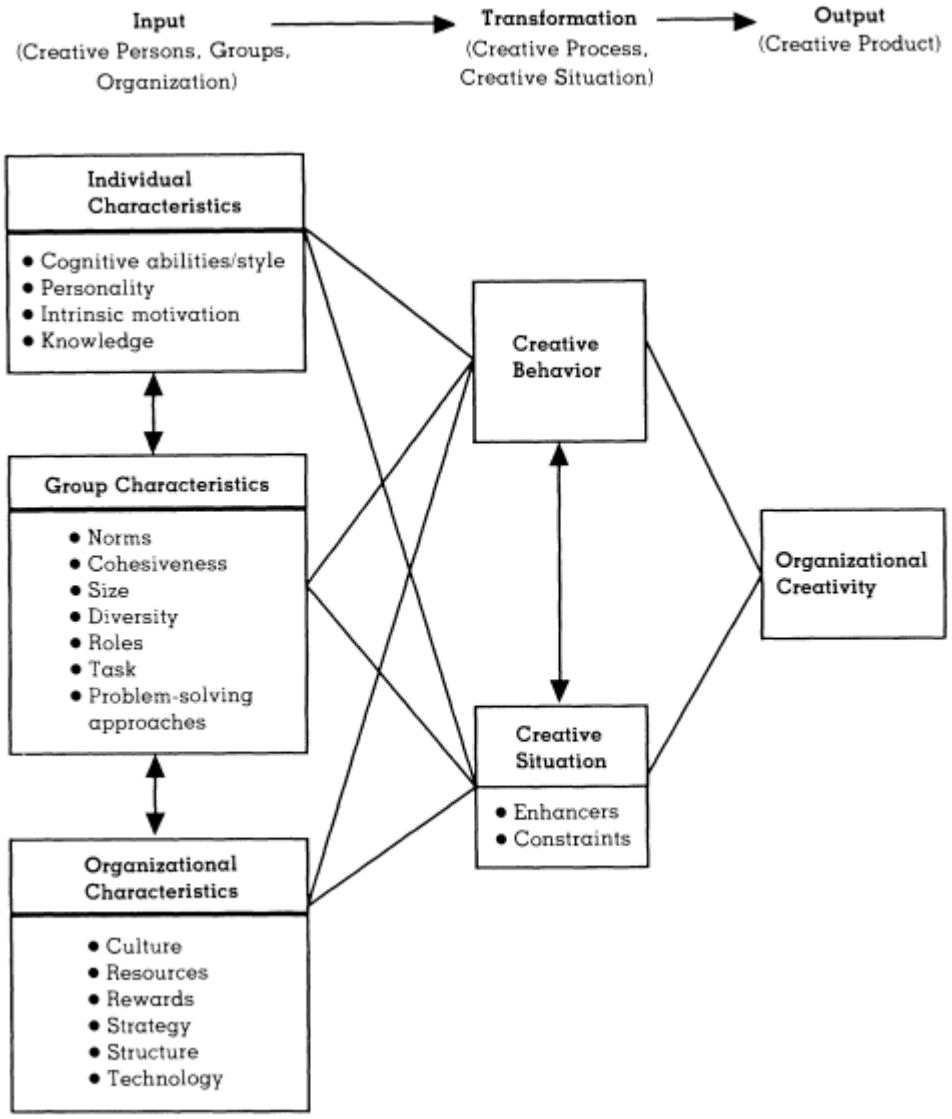
This model has been extensively researched and expanded since its first inception (Amabile, 1983; 1988; 1996; 1997, 2016) and addresses social and environmental factors which influence creativity within the organisation, in addition to interaction between factors of creativity at the individual level. Identification of the interactions across levels is considered particularly important in understanding which factors constrain, or enable, the development of individual creativity into innovation at an organisational level (Blomberg and Pohjanpää, 2017).

The model suggests organisational context has a significant effect on individual creativity, and vice versa. Without individual creativity, there are no creative people or products for the organisation to utilise to its advantage and without supportive strategies, structures, policies and processes individual and group creativity cannot flourish (Amabile and Pratt, 2016). Leadership and management values, attitudes and behaviours are shown to have the ability to sustain or suppress creativity and the everyday practices of all employees contributes to a culture which may be receptive or hostile to creativity (Baer, 2012b).

A second influential model of organisational creativity is proposed by Woodman et al. (1993) which links organisational, groups and individual creativity factors to organisational innovation outcomes. Whereas, Amabile's componential model (1983; 1988) infers interaction between the multiple levels within the organisation, the interactionist model seeks to make these explicit. It can therefore be considered to be the first model to attempt to map the cross-level interactions between the organisational, groups and individual levels of analysis (Shalley and Zhou, 2008).

Figure 2: Interactionist Model of Organisational Creativity (Woodman et al., 1993)

Conceptual Links amongst Creative Persons, Processes, Situations and Products



Woodman et al.'s (1993) interactionist model identifies variables at these three levels of analysis together with social and contextual factors. There is some parallel with Amabile's componential model (1983; 1988) particularly at the organisational and individual levels of analysis, however, the interactionist model adds group composition, characteristics and processes as factors into its

depiction of organisational creativity. Another key development is the introduction of Creative Processes, Behaviours and Situations as transformative actions which link the input from Creative Persons, Groups and Organisations with Output in the form of Creative Products (Woodman et al., 1993). Thus, the interactionist model indicates creative organisations, groups and individuals are factors which are combined and modified in manifold ways at all levels of analysis (Woodman et al., 1993). Of particular interest for this thesis is the suggestion that "This complex mosaic of individual, group, and organizational characteristics creates the context – the creative situation – within which individual and group behaviours are played out" (Woodman et al., 1993, p.310). Both the componential and the interactionist models illustrate the complexity of creativity and innovation as phenomena, with interactions between discrete characteristics, social and contextual factors within, and between, each level.

Within empirical creativity research, the level of analysis which has attracted most attention is the organisation, followed by individual and then group level creativity (Blomberg and Pohjanpää, 2017). This is partly due to organisational level creativity being included within research designs which include multiple levels of analysis. While organisational level creativity is strongly represented, previous studies predominantly focus on creative ideation and the creative process from the perspective of the generation of creativity (Simonton, 1984; Hennesey and Amabile, 2010), while overlooking the processes by which creative ideas are received, recognised and evaluated.

1.2.2. Legitimacy in organisations

Legitimacy theory (Weber, 1978) provides a promising opportunity for exploring such transformative processes, behaviours and situations between creative inputs and outcomes. The construal of a person or decision as legitimate occurs when individual group members come to

treat norms, values and beliefs within their social or organisational setting as though they are valid and objective facts. Legitimacy theory has been previously applied to organisations, social structures, policies, procedures and people (Tyler, 2006; Tost, 2011; Huy et al, 2014) and provides an apposite theoretical framework for exploring the idea recognition and evaluation stage of creativity.

Legitimacy is acknowledged to be important to organisations because it explains group and individual compliance with organisational values, norms and mechanisms even when there is no explicit enforcement or coercion present Deephouse and Suchman, 2008; Bitektine, 2011). Traditionally, legitimisation has been closely associated with institutional theory (Greenwood, Oliver, Lawrence, and Meyer, 2017) and focusses upon how the organisation as a whole entity gains legitimacy externally, within its industry context, and how it interacts with external stakeholders such as markets, regulators and the public (Mitchell, Agle, and Wood, 1997).

For the purposes of this thesis, the focus is on legitimacy within the internal boundaries of the organisation and how this allows or denies legitimacy to be conferred upon those engaged in creative ideation plus, as the output of that activity - the ideas themselves. While it is recognised there is a complex interrelationship between the external context and legitimacy framing the organisation as a whole, this is not the substantive concern of this study. Rather, the focus is upon examining how legitimacy emerges and evolves within the organisation and how this shapes the perceptions and behaviour of individuals who respond to the recognition of creativity.

Legitimacy theory may potentially aid understanding of the processes at work during idea recognition and evaluation in a number of ways. For example, Csikszentmihalyi (1999) describes how leading figures, associations and critics in a field act as ‘gatekeepers’, judging what is a permissible contribution and what is not; in effect making a judgement about the legitimacy of the

creative idea. Evidence from the study of eminent creative individuals and movements in history (Csikszentmihalyi, 1996; Cattani et al, 2015) shows artists, scientists and inventors have frequently been overlooked until they and their creative contributions are recognised and endorsed by those who already have legitimacy (Adarves-Yorno, Postmes and Haslam, 2007).

Legitimacy processes may also provide insight into how idea receivers delineate the boundaries of what is construed as novel and useful in their particular field or organisation and in doing so, constrain the range of ideas considered to be creative. For example, social pressure to conform may bias idea receivers to reject novel ideas and implement suboptimal, but safe, ideas (Woodman et al, 1993), as might fear of social rejection, if the idea receiver is uncertain whether a novel idea is also useful or practicable (Mueller et al. 2011).

This study seeks to better understand the processes surrounding the recognition and evaluation of creative ideas within organisational settings. While legitimacy is a well-established construct within management research (Johnson, Dowd and Ridgeway, 2006; Colyvas and Powell, 2006), to date very few creativity studies have studied sources of legitimacy or legitimacy processes in relation to creativity. Yet, it would seem to be a pivotal for exploring how organisations recognise and evaluate creativity and how those engaged in doing so might appear to reach consensus and subsume personal interests in service of the collective good of the organisation (Johnson et al, 2006).

1.3 Research context

The research context is a large, technology multi-national corporate given the pseudonym of TechCorp within this thesis. The researcher had previously worked as a consultant to the firm for a period of two years (2010 – 2012) which afforded access during the research process to people

within the organisation who might have otherwise been inaccessible. This section commences by defining an organisation and outlining the ways in which size, industry and utilisation of technology affects creativity and innovation. This is followed by a descriptive account of TechCorp as a specific context in which features are identified which contribute to an understanding of the firm as a large scale, complex and high technology institution with a significant history of creative ideas, invention and innovation, and the impact this has on its ongoing drive for creativity.

1.3.1. Firm size, industry maturity and high technology focus

In the broadest terms, an organisation is defined as "a social arrangement for the controlled performance of collective goals" Buchanan and Huczynski (p.8 2003). Organisations are a group of individuals united around the achievement of a collective objective. Membership of such a group is contingent upon performance and tasks are aligned according to individual knowledge, skill and interest in achieving the objective. Additional necessary attributes of an organisation are a distinct hierarchy of authority and clear boundaries (Sun, 2008) so members have clarity surrounding their positon within the organisation. Organisations still remain the predominant method of organising human labour and additional resources to achieve a goal such as the launch and maintenance of a product or service, despite increased fluidity in employment arrangements in the current economic climate such as freelance work and the rise of the 'gig economy' (Burtch et al., 2018).

Organisations are not homogenous entities; instead, variance such as firm size and industry influence the extent to which creativity and innovation are employed (Sarooghi, Libaers and Burkemper, 2015). The first significant factor relating to creativity and innovation within

organisations is firm size (Damanpour, 1996). Typically large firms have larger resources to invest in the exploration and exploitation of ideas and the literature demonstrates expenditure on innovation increases proportionally with firm size (Symeonidis, 1996).Thus, large firms are more likely to engage in creativity and innovation activities than smaller firms (Raisch and Birkinshaw, 2008; Azadegan et al., 2013). Furthermore, other attributes relating to firm size correlate with increased creativity and innovation include greater depth of research and development capabilities (Lubatkin et al., 2006), increased ability to exploit economies of scale (Coad and Rao, 2010) and broader and more extensive experience in developing creative ideas into new products and processes (Branzei and Vertinsky, 2006).

The maturity of an industry also moderates the relationship between firm size and creativity/innovation capability (Rothwell and Dodgson 1994, Antonelli and Scellato, 2015). Smaller firms are more likely to engage in creativity and innovation where the barrier to entry is lower and niche markets exist (Symeonidis, 1996). Small firms are more likely to flourish in the earlier stages of the development of an industry, in contrast to mature industries where barriers to entry are higher and firms with greater market power are more likely to exploit opportunities successfully due to the consolidation of opportunities (Acs and Audretsch, 1987; Coad and Rao, 2010).

The level of technology utilised also affects the level of creativity and innovation activity within an industry sector. Those industries which are categorised as high-tech due to the speed at which technology is advancing, focus more attention on innovation (Uotila et al., 2009) as it becomes a point of competitive differentiation and a means of ameliorating uncertainty (Heidenreich, 2009). As a result, high-tech industries tend to devote higher levels of resource to innovation than low-tech industries (Zahra, 1996; Kirner et al., 2009) and have superior capability in managing and

exploiting the creativity process. This is due to the benefits they gain from converting creative ideas into new innovations (Sarooghi et al., 2015) in contrast to firms from low-tech industries where competitive advantage is conferred through alternative factors such as economies of scale or effective distribution (Bierly and Daly, 2007) which are areas not directly correlated with innovation capability.

These characteristics of large size, mature industry and high technology were present in the selected case study – TechCorp. In line with the literature outlined above, TechCorp engages in substantial creativity and innovation activity (Azadegan et al., 2013) has significant research and development capabilities (Lubatkin et al., 2006), exploits innovation as a point of competitive differentiation (Coad and Rao, 2010) and has superior capability and sophistication in implementing innovation (Sarooghi et al., 2015). This established TechCorp as a suitable case study organisation for exploring the research question. Further features of the firm are explored in the next section.

1.3.2. The case study context: TechCorp

TechCorp plc is a British multinational public limited company which currently designs, manufactures and distributes technology for a number of industry sectors. First established in the early 1900s, TechCorp is a world leading manufacturer of transportation systems and also has major businesses in the distribution and utility sectors, employing over 50,000 people worldwide. The company is listed on the London Stock Exchange, with significant market capital and a strong forward order book. It is headquartered in London, with major manufacturing hubs in the UK, US and Asia Pacific and a worldwide network of offices and service facilities. The organisation maintains strong recognition as a brand, despite some recent reputational issues.

TechCorp invests a considerable sum of money in innovation and technology to identify new markets and meet current and future customer needs each year (Annual Reports, 2015-18). It states it is committed to radical innovation alongside the pursuit of continuous improvement. The organisation is conscious of a rapidly changing market environment, the potential for disruptive technology, and the opportunities and threats posed by regulators and large-scale societal challenges particularly around carbon reduction. The company positions itself as being at the forefront of science and technology and in a strong position to meet future customer requirements.

Information on innovation is open to the wider public through the company's Annual Report and its website showcases innovation developments in each of the five divisions of the organisation together with a discussion of industry trends and increased regulation - especially surrounding environmental standards, research funding and future technology. These significant developments have resulted in innovation being seen as a key component of the company's future, both strategic innovation to maintain market-leading performance and tactical improvements to drive operational cost and efficiency.

There is a high barrier to entry in the industries in which TechCorp operates which has resulted in a few dominant players in the market, TechCorp included. While this affords some protection from new entrants into these established markets, it does not necessarily shield TechCorp from a disruptive innovation event, which might change the marketplace making their products obsolete, in the way in which the digitisation of images and sound forever changed the photography and music industries. Indeed, a number of areas in which it competes are likely to be affected by developing trends in carbon neutral technologies, automation, big data and machine learning. This competitive pressure is a driver for the company to anticipate disruptive change, in order to lead change and maintain relevance for the company's products and services. In the company literature

(Annual Report, 2015 – 2018) and company website (2015 – 2018), great emphasis is placed on innovation, as a strategic mechanism for growth, future proofing the business and as an operational advantage to serve customers with effective, efficient products and services.

Customer facing company literature stresses the heritage of the organisation in creating innovative products and provides examples to substantiate and solidify its claims. The company highlights the high number of specialists and professionals they employ and their commitment to recruiting graduates for their early career development programme. TechCorp also refers to its partnership with universities and academics to embed current technology and envision and develop emerging technology. The development of the Innovation Challenges and Portal which are the focus of this case, is framed by an organisational desire to increase employee participation in pursuing creative ideas.

In particular, the Innovation Challenges and the use of the Innovation Portal represent a programme designed to stimulate creativity against a backdrop of regulation and challenging internal and external constraints. As such it is an exemplar of how the stimulation of creativity to drive innovation is attempted through the vehicle of a companywide campaign of intervention. The organisation was primarily selected because its size and scope provide the opportunity to observe multiple instances of creativity recognition by following several Innovation Challenges within one context.

1.4. Research Gaps

The following section identifies the gaps within current knowledge which this thesis addresses from a theoretical, empirical and methodological perspective.

1.4.1. Theoretical

This thesis is situated at the nexus of creativity and innovation, which is an area under-represented in the literature (Anderson, 2014). This slight separation of the creative process into the closely related constructs of creativity and innovation partly explains the tendency of empirical research to focus on either the generation of creative ideas or the implementation of selected creative ideas, without fully scrutinising the stage in between where creativity is recognised and evaluated. As a result, there has been comparatively little research into the manner in which creativity is received by others and how, when and why some ideas are recognised and evaluated as being novel and useful while others are discarded outside of an experimental or test setting. Herein lies an important inconsistency within the field of creativity: creative ideas are defined as novel, useful and *recognised* (Amabile, 1988; Runco and Jaegar, 2012) (italics added) and yet the nature of creative idea recognition within an organisational environment still remains unclear.

This thesis considers this essential aspect of creativity and addresses how the phenomenon manifests in this under-researched context. The research is grounded in both the creativity/innovation and legitimacy literature, drawing on the social psychology aspects of both research streams to explore the recognition and evaluation of creative ideas. There is a general assumption in the literature that creativity leads to innovation, however the relationship between the two is complex (Sarooghi et al, 2015).

While creativity primarily focusses on ideation and its subsequent development (Amabile et al., 1996; Baer, 2012), innovation is the transformation of a selection of these ideas into products and services. While there is correlation between these two undertakings, the generation of ideas and their implementation require inherently different activities (Lewis et al., 2002; Miron et al., 2004). Creativity entails exploration and experimentation (March, 1991), whereas implementation

necessitates efficiency and execution—attributes most often associated with exploitative activities (Rosing et al., 2011). Therefore, it is overly simplistic to suggest the strength of the relationship between creativity and innovation is uniform across all contexts and levels of analysis (Bledow et al., 2009).

While scholarly attention is gradually turning to idea recognition there still remains a scarcity of theory regarding the processes through which creativity is recognised and evaluated (Shalley et al, 2004; George, 2007; Adarves-Yorno et al., 2007). A focus on ideation at the front end, and creative outcomes at the other, has reduced much of the recognition and evaluation stage of the creative process to a 'black box' (Perry-Smith and Mannucci, 2017). As such, ideas are generated at the beginning; novel and valuable outcomes are recognised at the end, but with a lack of clarity around the process in between. This situation has emerged, in part, because the constructs of creativity and innovation are closely related (Anderson, 2014) and has been perpetuated by hegemonic research directions (Blomberg, 2016).

Creativity is typically defined as the production of ideas (Amabile, 1988; Runco and Jaeger 2012), while innovation is defined as the process of developing, adopting and implementing these new ideas (Amabile, 1988; Kanter, 1988; Perry-Smith, 2006). Thus, creativity is both antecedent to innovation and a subset of the broader innovation process (Baer, Evans et al, 2015). While this implies both the creativity and innovation constructs should encompass idea recognition and evaluation, in practice this stage has often been overlooked. Instead, research has tended to focus on either early-stage idea generation, also known as ideation (Roberts and Fusfeld, 1981) or the latter stages of the implementation of innovation (Oldham and Cummings, 1996; Cattani et al, 2012). This thesis attempts to address this gap focusing on this stage which lies within the nexus of the two.

There have been many attempts to theorise the creative process, initially due to its utility in describing and explaining creative problem solving (Young, 1965; Parnes, 1967) which widened into its use as a mechanism to elaborate on the creativity process as a whole (Amabile, 1996). Figure 3 (on the following page) is taken from Amabile (1983) proves helpful to illustrate the creativity process. Some caution should be exercised however, in attempting to represent and simplify such a multifaceted concept, as reducing it to such a linear process cannot encompass the full complexity, circumstances or context of the phenomenon (Kaufmann and Beghetto 2009).

Figure 3: Creativity as Process (after Amabile, 1983)

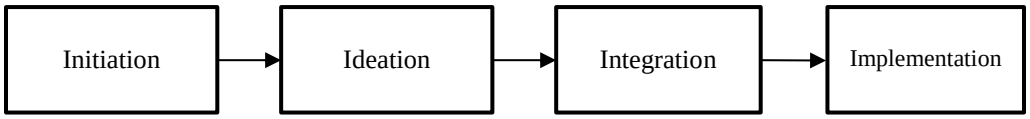


Regardless of the type of improvement sought, the creativity/front end of the innovation process is considered to start with the presentation or identification of a 'Problem' – the first stage (Young, 1965; Amabile, 1983), though it should be acknowledged many other situations and circumstances generate the need for creativity. This is followed by the preparation stage, applying extant knowledge to bear on the task by searching for additional information (Amabile, 1983). Next is the 'Response' phase, where ideation takes place, which is widely considered to be of vital importance in the creative process and for the overall success of innovation (Kohn, Paulus and Choi, 2011). This is followed by the 'Validation' phase, during which there is an assessment or evaluation of the ideas against each other, with a view to selecting those ideas which will be implemented and eliminating those which will not be developed further. Recognition is situated within the 'Validation' phase of the creativity process. The final stage is the 'Outcome', when the

ideas have been evaluated and the process ends with implementation or with the cycle beginning again.

While creativity is conceptualised as a five stage process, the innovation literature defines the process differently. Eveleens (2010) conducted a comprehensive review of innovation process models from which Frankenberger et al, (2015) determines there are four principle activities or phase involved – Initiation, Ideation, Integration and Implementation (see Figure 4 below).

Figure 4: Innovation as Process (Eveleen, 2010; Frankenberger et al, 2015)



Initiation is the first phase of innovation and involves identifying the need or presenting problem which forms the catalyst for the entre innovation process, whether this is an event, decision or idea (Frankenberger et al, 2015). The initiation phase of the innovation process broadly mirrors the initial 'Problem' phase of the creativity process (Amabile, 1988). The next phase of Ideation is concerned with the generation of novel and useful ideas in reaction to the initiating event or decision. The purpose of the 'Ideation' phase is to identify a series of appropriate responses which address the situation and overlaps the 'Preparation' and 'Response' phases of the creativity process (Amabile, 1988). While the second phase is divergent in nature, however the focus of the third phase, 'Integration' (Frankenberger, 2015) converges on one option and seeks to enhance and develop it into a process, product or service, assimilating it into the broader organisational context and apparatus. This phase encompasses the 'Validation' stage, albeit the 'Integration' stage in the innovation process is more extensive in nature. The final stage of the innovation process is

Implementation (Frankenberger, 2015), where the innovation process is concluded by the process, product or service being implemented into the routines and process of the organisation. Therefore the recognition of creative ideas is situated in the Validation phase of the creativity process and within the Integration phase of the innovation process.

1.4.2. **Empirical** and **Methodological**

A pivotal meta-analysis by Sarooghi et al, which examined 10,538 observations from empirical samples determined the relationship between creativity and innovation is dependent on context. Yet, the extent to which contextual and social issues influence the legitimacy given to certain creative and innovative outcomes has been underexplored. This thesis provides an empirical contribution, employing a social constructivist, interpretive perspective to understanding of legitimacy and creative idea recognition and thus, provides an opportunity for the development of a new conceptualisation of the idea recognition/evaluation stage. The research presented here also addresses a gap in the empirical data by examining this stage of creativity theory in a large multi-national organisational setting, whereas nascent studies of the processes surrounding creative idea recognition have predominantly been smaller scale or experimental.

The majority of studies of organisational creativity are quantitative (Taylor et al, 2015) and attempt to identify, quantify, measure and evaluate creative outcomes through laboratory, experimental or correlation studies in the field (Blomberg, 2014). Quantitative research has tended to promote a relatively limited conceptualisation of creativity through the necessity of operationalising the construct in such a way as to make its measurement and association with other variables possible (Sailer, 2011). Quantifying the relationship between creativity and other variables provides valuable information, however, such approaches are unable to develop deeper understanding or knowledge about the character of these relationships and how the phenomenon is experienced

(Edwards, 2010). Qualitative research takes an interpretative, naturalistic perspective, attempting to understand the phenomenon in situ, within the context and social setting in which it occurs (Denzin and Lincoln, 1998).

1.5. Research Aims and Objectives

This thesis explores how creative ideas are recognised in a large, well-established high-technology organisation where solving complex, ill-defined problems is commonplace. This study aims to develop an understanding of the practices surrounding the development of creative ideas and the different sources of legitimacy pertaining to them. Two assumptions surrounding creativity recognition and evaluation which frequently appear in the creativity literature prove worthy of further examination. These are first, what constitutes a creative idea is self-evident to assessors (Kaufman et al., 2008; 2009), and second, there is a consensual and shared view among assessors about what is considered creative (West, 2002; George, 2007). The main weakness with these assumptions is they fail to make clear how, and why, groups of assessors appear to naturally converge on decisions about creative ideas (Amabile, 1982), despite many of the members holding widely varying individual views on what is novel and useful. Yet, construing an idea as legitimate is important as a means of accessing and mobilising resources to implement an idea, as well as bringing personal accolade to the originator. The objective of this thesis is to increase knowledge and understanding of how a shared acceptance of what is a creative idea comes to be established and clarify the mechanisms surrounding this legitimisation within an organisational setting. As such the research objectives are:

a) To examine how the recognition of creativity is experienced within the context of the case study organisation;

b) To explore manager and employee experiences of creativity recognition with an organisational context;

c) To examine the process, sources and objects of legitimisation employed in the recognition of creative ideas.

An overarching research question was developed to encompass these objectives and is described in the following section.

1.5.1. Research Question

The research question which was developed to guide the development of the thesis is as follows:

> *How does legitimacy theory account for how creativity is recognised within an organisational setting?*

This research question addresses the central line of inquiry which is to examine and understand how certain creative ideas are recognised within the organisation and gain traction and resources. Yet, the question remains sufficiently broad to encompass the nuances and subtleties of studying a complex phenomenon in the field. The question also reflects how legitimising behaviour is enacted by those in authority, while responded to by those with lower status. Addressing this question increases our understanding of how people practice creativity within a large and individually, and collectively, legitimise certain ideas over others.

The study illuminates the experiences of those embedded within the business to understand how ideas are made manifest and legitimised within the organisation with the purpose of gaining resources. This acknowledges the importance of the environment in which people involved with

enacting and responding to creative ideas are situated. The next section provides an outline of the entire thesis and serves as an overview of the research undertaken.

1.6. Thesis Overview

The thesis structure reflects the design of the research, presenting the literature review of creativity, legitimacy and its intersection (Chapters Two and Three). Following this, the methodology is presented, together with a detailed description of the case study organisation and its context (Chapter Four). It concludes with a reflexive statement from the researcher. Chapters Five, Six and Seven present the findings: on the Legitimisation of Creativity; the Managerial Perspective and the Employee Perspective. The final chapter (Eight) discusses the findings within the context of the literature and research study and establishes the contribution of the thesis, together with its implications for scholars and practitioners. The content of the chapters is briefly outlined below.

Chapter One: Introduction

This chapter establishes the background to the research, why the topic is valuable and of interest to scholars and practitioners and the personal reasons for the researcher choosing this topic. The chapter also explains the focus of the thesis and its relevance to scholarly research into creativity. There follows a discussion of the research gaps which the thesis identifies and how the thesis increases our understanding of the phenomenon of creativity in large organisations. There is also an explanation of how the chosen method addresses gaps in extant knowledge about creativity in an organisational context. The chapter continues by outlining the aims and objectives of the research and the research question itself. Finally, the chapter states the contribution made to the field by the thesis.

Chapter Two: Creativity within the context of an organisation

This chapter forms the first chapter of the literature review and contains a thorough and systematic review of the creativity literature. It begins by framing recognition as an element of the creative process which is of critical importance, yet which has been under-theorised. It continues with a discussion of creativity as a complex, multi-level phenomenon operating within a broader social system. The literature review concludes by exploring issues relating to the external assessment and evaluation of creative ideas within organisational settings and the role of those formally and informally tasked with recognising and evaluating creative ideas.

Chapter Three: Legitimacy within the context of an organisation

The second literature review chapter draws on literature from the social psychology field and focuses on the processes by which social objects gain and maintain legitimacy. It provides a discussion of how legitimacy is enacted in an organisational context and the sources of such legitimacy. It also discusses schemas as a mechanism which is utilised in enacting legitimacy. The application of legitimacy to creativity and in particular, the role of non-conformity in the recognition of creative ideas, is then examined. This chapter culminates with a critique of the literature and the formulation and exposition of the conceptual framework to be explored in the empirical study.

Chapter Four: Research Methodology

This chapter focuses on how the research design was selected and its relevance to the research question articulated in the previous chapter. The social constructivist philosophy and interpretivist design underpinning the study and its alignment with the research objectives is explained. The rationale for a case study approach is discussed, together with a detailed description of the context and circumstances in which the research was undertaken, together with the resulting implications

for data collection and analysis. The chapter describes the data collection method, sampling criteria and ethics of the research. The descriptive detail on the participants in the research is also included here. A thorough explanation of the development of coding and thematic analysis is explained to inform the reader and demonstrate credibility and integrity. The chapter concludes with a reflexive statement from the researcher to aid scholarly rigour and transparency and in the interests of advancing validity, reliability and generalisation.

Chapter Five: The Legitimisation of Creativity

This first findings chapter is focussed on the empirical data from both managers and employees pertaining to the act of recognition itself. It presents a detailed exploration of the practices surrounding the evaluation of creative ideas. Data from specific innovation challenges within the organisation are considered, highlighting areas of commonality and difference. The analysis of the act of recognition itself in this chapter provides the framework for the exploration of the legitimisation of creative ideas from the perspectives of managers and employees in the following two chapters (Six and Seven).

Chapter Six: Enacting Legitimacy: A Management Perspective

This chapter discusses the data from the management perspective. It examines the understanding of creative ideas and creative people from senior managers within the organisation. It explores the meanings and practices underpinning the recognition of creative ideas by management and their sources of legitimation at three levels: individual, social and organisation.

Chapter Seven: Responding to Legitimacy: An Employee Perspective

The findings discussed in this chapter, are presented from the employee perspective. It examines the understanding of creative ideas and creative people from employees within the organisation.

The chapter provides insight into how employees respond to the legitimation of certain ideas within the organisation and their compliance or defiance of these norms.

Chapter Eight: Discussion and Conclusion

In the final chapter, the findings are discussed with reference to the literature and conceptual model. The theoretical contribution of the thesis is summarised alongside the practical relevance of the work. The chapter concludes with a discussion of the limitations of this study and suggestions for a future research agenda.

1.7. Research Contributions

1.7.1. Contribution to Theory

Exploring the research question outlined in this thesis advances creativity theory in a number of ways. The primary contribution of the thesis is to our conceptualisation of the recognition of creativity as a 're-cognition' where organisational norms and the structures and processes which arise influence who and what is accepted as creative. This adds to academic knowledge and comprehension of creativity at work. There are four further theoretical contributions arising from the thesis. First, it problematises the self-evident nature of judgements and other assumptions surrounding the recognition of creativity; second, the recognition of creativity is theorised by the researcher as having four separate elements: observation, acknowledgement, reward and enactment, which provides definitional clarity. Third, it brings to the forefront how non-conformity is a critical factor in promoting creative ideas outside of the legitimated norm. Finally, it provides an awareness of the enabling effects which social strategies have on the enactment and legitimisation of creative ideas by individuals in an organisational setting. The thesis also provides an empirical contribution, employing a social constructivist, interpretive perspective to

understanding of legitimacy and creative idea recognition and thus, provides an opportunity for the development of a new conceptualisation of the idea recognition/evaluation stage. The research presented here also addresses a gap in the empirical data by examining this stage of creativity theory in a large multi-national organisational setting, whereas nascent studies of the processes surrounding creative idea recognition have predominantly been smaller scale or experimental.

In summary, an understanding of the social processes surrounding the legitimation of creative people and ideas is still relatively lacking, despite their importance (Simonton, 1984; Perry-Smith 2006; Ohly et al, 2010). Research addressing this gap, based on observable data in an organisational setting, answers the call to deliver work of relevance and impact to the business community while at the same time being scientifically useful and advancing academic knowledge (Corley and Giola, 2011).

1.7.2. Contribution to Practice

As a former practitioner, the author has an enduring concern that theoretical scholarly advances in knowledge surrounding the recognition and evaluation of creative ideas, has a corresponding impact on its practice in organisations. This section outlines the principle contributions to practice anticipated from this thesis. Most significant is the intention the thesis addresses the largely unconscious social and contextual biases influencing the recognition process, which lead to potentially valuable ideas being forfeited early on in the creativity process, and equally may to lead to continued development of sub-optimal ideas which consequently result in failure. The thesis aspires to the development of a more extensive vocabulary surrounding the recognition and evaluation of creative ideas which will assist practitioners in navigating the front-end of the innovation process. This richer lexicon has the potential to contribute to an improved awareness and understanding of how legitimating forces within organisations affect, and bias, evaluations of

creativity. In practice, this involves increasing appreciation among managers that creativity recognition is inherently a subjective process and as such, it vulnerable to social, contextual and temporal influences, alongside demographic and cognitive bias. Increased consciousness among practitioners of the possible hazards and consequences of evaluation has the potential to reduce or eliminate biases and barriers which might otherwise be found in organisational creativity recognition. Here a comparison may be drawn with the significant change witnessed in recruitment practices which resulted from an increased awareness and appreciation of bias (Van den Brink, 2010) and its impact on individuals and groups, with consequences for organisation performance. The thesis hopes to contribute to changes in practice at the individual level for employees, with a focus on how and why some ideas gain traction, and not others and how social, temporal and contextual factors enable or constrain recognition.

This has practical implications for encouraging meaningful employee contribution to ideation and subsequent innovation, which is widely acknowledged to cause uncertainty and often invokes self-censorship and may result in a negative impact on wellbeing if ideas are repeatedly rejected (Martin, 2009). Together, these recommendations contribute valuable information and knowledge to organisations and to the groups and individuals within them, with the potential to optimise the chances of successful innovation from idea generation and ideation activities. This has important ramifications for the organisations seeking to elevate and enhance their current innovation performance and contribute to growth in the economy.

1.8. Conclusions

This introductory section has described the focus and provided an overview of the thesis. In the extant literature, the recognition of creativity remain under-explored; a ‘black box’ with many

assumptions explored in Chapter Two. Yet, at a time when there is a call for more creativity and innovation in business to enhance competitive advantage (Urbancova, 2013; Mueller et al, 2014), understanding this phenomena is important for academics and practitioners. Moreover, legitimacy has been explored in the context of institutional processes (Mitchell et al., 1997; Bitektine, 2011) and entrepreneurship (Lounsbury and Glynn, 2001; Zimmerman and Zeitz, 2002; Überbacher, 2014), but has not been applied to creativity. However, legitimacy seems a pivotal concept to explore how creative people and ideas are recognised and attract resource. Thus, the rationale for this thesis is to analyse how managers and employees in a large, multi-national organisation recognise and evaluate creativity within a series of innovation challenges enacted as part of a wider innovation agenda. The thesis generates a rich body of empirical material exploring the topic. The following chapter forms the first of the two literature chapters and situates the thesis within current knowledge and research.

CHAPTER TWO: CREATIVITY WITHIN THE CONTEXT OF AN ORGANISATION

2.1. Introduction

> "Creativity does not exist in a vacuum; it is in part an ascription by others. Hence, the creative individual will be identified as creative by virtue of being identified as such by others. To achieve such a label, the person must seek it to at least some extent and do what is necessary in order to achieve it."
>
> Sternberg (1988, p.145)

Within the field of creativity research, the predominance of research into the generation of creativity in contrast to the limited research into its recognition, seems to indicate it is better to give rather than to receive. Prior creativity research has primarily been concerned with the generation of ideas and solutions (Anderson, 2004; Unsworth and Luksyte, 2015); their novelty, fluency, and quality (Hennessey and Amabile, 2010); how to enhance ideation and not inhibit it (Shalley, Zhou, and Oldham, 2004); and individual, social and contextual determinants on idea generation (Amabile et al., 1996; Aleksić, 2016).

While interest in the recognition and evaluation of creative ideas can be traced as far back as Guilford's four-stage model of idea evaluation (1954), far more scholarly attention has been given to the generation of creative ideas (Basadur, Runco, and Vega, 2000; Blair and Mumford, 2007) rather than how they are received. While research focused upon creativity has expanded since the 2000s (Anderson et al, 2014), there has been comparatively little exploration of the manner in which it is received and particularly, how, when, where and why only some ideas are recognised and evaluated as novel and useful. To explore this issue, the initial chapters of the thesis offer a review of the literature on the topic of the recognition of creative ideas and legitimacy within

organisations. This review establishes the theoretical foundations underpinning the research question and examines relevant debates and limitations. The literature review situates the thesis within contemporary debate whilst also, identifying a number of gaps including the problematisation of assumptions upon which this study is predicated.

The first literature chapter explores the creativity literature relating to the research question:

> *How does legitimacy theory account for how creativity is recognised within an organisational setting?*

Chapter Three then provides a synthesis of the literature with regard to legitimacy theory and specifically the legitimation of creative ideas. This is followed by a description and discussion of the conceptual model on which the thesis is based.

Both chapters draw from literature identified through searches within the JSTOR, Business Source Premier (EBSCO) and SCOPUS databases, employing the search terms (and appropriate variants and wildcards) outlined in the table below:

Table 1: Search terms for Literature Review

Creativity	Creativity theory; creativity practice; creative idea; ideation; creativity recognition; idea recognition; creativity evaluation; idea evaluation; idea assessment; group creativity; social creativity
Innovation	Innovation; innovation process; innovation selection; innovation outcomes; innovation sponsors; innovation champions; innovation network;
Legitimacy	Legitimacy theory; organisational legitimacy; sources of legitimacy; objects of legitimacy; legitimacy and endorsement; legitimacy and authorisation

Criteria for including studies in this thesis included the title and abstract relevance, number of citations and journal quality, as judged by the ABS Journal Guide. Due to the emergent nature of research into creative idea recognition and evaluation, articles from the Management, Organisational Behaviour, Psychology, Sociology and Social Psychology disciplines were included within the scope of the literature review.

This chapter maps, and critically evaluates, the growing body of research into the recognition, reception and response to creativity; it is presented in four sections: definition, problematisation, theory across six dimensions and critique. First, the chapter defines the recognition of creativity, highlighting the centrality of this concept within the field yet, at the same time outlining boundaries and limitations (subsection 2.1.1) – specifically, the recognition of creativity within organisations. The following section (2.2.) problematises current understandings of recognition, explaining the need to question assumptions surrounding the nature of evaluation, including value being self-evident (subsection 2.2.1), perceived consensus (subsection 2.2.2), and static nature (subsection 2.2.3). It then discusses (subsection 2.2.4) theory-practice inconsistencies that raise a number of issues for the scholarly investigation of creativity in organisational settings. Second, the chapter maps the constructs and concepts forming the theoretical foundation of the topic which has been studied widely, but inconsistently, across the psychology, social psychology and management literature (section 2.3).

The review concludes with a summation of the limitations of theoretical and empirical inquiry into the topic (section 2.9.) and the identification of research gaps, which focus on the significance of exploring the sources and objects of legitimacy as a mechanism to explain the consensus regarding who and what is considered creative.

2.1.1. A definition of the recognition of creativity

While the recognition of creativity is acknowledged as an explicit area of research within the wider discipline of creativity (Mueller, 2014; Sternberg, 2018), as with many emerging fields there is a plurality of definitions and related terms. A clear understanding of what is being described and discussed is essential in order to move research beyond conceptual studies and into the examination of recognition within an empirical setting. Identifying the key components of recognition provides a helpful starting point for the development of an agreed definition. This is an essential prerequisite if recognition is to become an established field of academic investigation.

There has been much discussion and debate over the definition of creativity in general, due to the broad and multidimensional nature of the concept (Amabile, 1996; Adarves-Yorno et al, 2014). It has even been argued the descriptors 'creativity/creative' should not be used unless supplemented by an additional qualifying term such as a person, product, or process (Runco, 2010). Creativity is commonly defined based on two attributes; first, novelty/originality and second, appropriateness/utility (Amabile, 1988).

Although the definition was always intended to be a temporary conceptualisation to aid theoretical development, it is a longstanding and widely accepted definition in the field. Novelty refers to an original, or in some cases unique idea and thus is likely to be encountered infrequently (Runco and Charles, 1993). Novelty is commonly operationalised based on rarity, whether this involves simple counting or statistical analysis of how frequently an idea is expressed in a given context. Usefulness or appropriateness is defined as the idea's feasibility, effectiveness, or credibility (Long, 2014). When operationalised, usefulness is often measured by a whether the response meets predetermined requirements or solves the problem (Runco and Charles, 1993). Thus while both

have the potential to be assessed on a continuum, in practice they are likely to be evaluated in a dichotomous manner (Diedrich et al, 2015).

Within the innovation literature, there is a conceptualisation of novelty as being a continuum from incremental to radical (Subramaniam and Youndt, 2005; Madjar et al., 2011). At one end, incremental innovation represents minor improvements of changes to an existing process, product or service. At the other end of the continuum radical innovation is characterised by a departure from current technology, creating a revolutionary or fundamental revolutionary deviation from what is presently available.

Over time it has been acknowledged that assessments of these two intrinsic qualities of novelty and usefulness are dependent on extrinsic factors, primarily the evaluation by others and time and place (Amabile, 1998; Csikszentmihalyi, 1998). While seemingly objective tests have been developed to evaluate creative persons and products, there remains a subjective component of creativity; that of evaluation by others, whether they are testing administrators, judges or others whose opinion is valued (Amabile, 1982; 1983; Csikszentmihalyi, 1999; Adarves-Yorno et al, 2007).

The resulting definition of creativity is it must be novel, appropriate and *recognised* by individuals, groups or a wider community (Csikszentmihalyi, 1998) in order for it to be considered creative. This is an important distinction and one which has been implicit in much creativity research over the last two decades, but which has only recently been brought to the forefront. Yet, it is of significant importance. As stated by Adarves-Yorno et al. (p. 485, 2006) "in real life settings, the evaluations made by relevant perceivers (so-called gatekeepers; Csikszentmihalyi, 1994; Lewin, 1956; and regulators; Stein, 2003) is what determines what is implemented and what gets through to the public." This means the subjective recognition of originality and appropriateness by

observers (Amabile, 1999) is essential to identify and invest in creative persons and products as well as preventing such opportunities being dismissed or ignored.

It is worth noting the conceptual difference between creative problem solving and creativity per se. Creative problem solving in its broadest sense is the process of creating a response to a specific catalyst whether this is described as problem, challenge, or opportunity (Fobes, 1993) and is widely attributed to the work of Osborn (1953; 1963) who first documented creative problem solving techniques. However, it has come to refer to a systematic process, named Creative Problem Solving (CPS) used to facilitate creative thinking in order to effectively resolve complex problems and is defined as "comprehensive cognitive and affective system built on our natural creative processes that deliberately ignites creative thinking and, as a result, generates creative solutions and change" (Puccio et al., 2007 p. 29).

Creative problem solving is distinguished from other problem solving techniques due to its focus on creative ideation, as opposed to solutions generated from previously known or easily acquired knowledge. While this particular type of problem solving requires creativity, not all forms of creativity involve creative problem solving, particularly divergent creativity. Within the thesis, the term creativity is used to encompass the entirety of the response to the Innovation Challenges presented at TechCorp. While such a response frequently involved an element of problem solving, sponsors and participants did not receive training in Creative Problem Solving or utilise this process in a formal way. Thus, creativity is a more appropriate term to describe the wider activity undertaken within the case study context.

Research into the recognition of creativity has advanced beyond these earlier conceptualisations; however, the word 'recognition' nonetheless encompasses a wide variety of activities, actors and outcomes. It is worth elaborating on the vocabulary emerging in this area of research before

describing each term in more detail. The terms recognising, evaluating and implementing creativity have been used almost interchangeably within creativity scholarship (West, 2002; Zhou, 2007; Mueller, 2014). In a similar way to how we describe the generation of creative ideas as idea generation, production, origination and ideation, it is advantageous to develop a language on the recognition side of the relationship.

A number of constructs have been employed in the literature to examine the recognition of creativity and its accompanying terms fall into two broad categories: the act of recognition itself and describing those involved in recognition. Within the literature, by far the most common term used is 'recognition' (Adarves-Yorno, 2007; Mueller, 2014; Martin 2014). Those identified as recognising creativity are a broad and heterogeneous group so are described with a variety of terms - primarily based upon their role or task including: idea receivers (Unsworth and Luksyte, 2015), raters (Cropley and Kaufman, 2012), judges (West, 2002), gatekeepers (Csikszentmihalyi, 1999), and appropriate observers (Amabile, 1983; 1988).

Empirical examinations of receiving creativity focus predominately on multivariate, quantitative analyses of individuals and teams, often under experimental conditions or with samples comprised of students (Anderson, 2014; Blomberg, 2014). Many of the studies use tests such as the Consensual Assessment Technique and Torrence Test, considered to be robust for the assessment of creativity in experimental settings, but not necessarily generalisable to the complexity of the environment encountered within organisations. Therefore, this new theorisation of the recognition process in this thesis is essential in order to establish definitional boundaries surrounding the concept.

The research seeks to both clarifies the various stages of recognition, thus reducing the risk of conflating separate components, but also allow for further discussion and detailed analysis within

the field and particularly within the more complex environment of an organisational setting. The next section expands on the reasons why the study of recognition within the context of the organisation is both necessary and important.

2.1.2. The importance of receiving and recognising creativity

While generating a higher quantity of novel and apposite ideas is considered a crucial condition for successful innovation (Keum and See, 2017), resource constraints, whether time, money or personnel allocated to a task, effectively limit organisational ability to develop and implement ideas (Berg, 2016). This highlights the importance of idea recognition and evaluation activity in the creativity and innovation process, as this stage enables a quantity of ideas to be identified for implementation which does not exceed the organisation's capacity to allocate resource (Heinzen, 2003; Runco, 2003; Kijkuit and Van Den Ende, 2007). It is this constraint upon the number of ideas effectively resourced by the organisation which informs the need to ensure the organisation invests in only those ideas likely to offer future strategic or financial benefit (Berg, 2016; Mueller et al, 2017).

Due to the impossibility of investing in every idea, managers are required to evaluate and decide upon which ideas to implement based on their best assessment of the future viability and success of an idea (Sternberg and Lubart, 1991). Yet, creative ideas often lie outside the parameters of the current product, service, market or business model which an organisation offers or operates; so, by its very nature assessment is challenging. In the case of highly novel, disruptive or discontinuous creativity, this dilemma is heightened further as routines and processes designed for steady state innovation have been shown to be inadequate for such innovations (Bessant et al, 2005).

There is a natural tension between the need for routines and standardisation present in many large organisations and the desire for creativity, yet, this presents a paradox for managers and employees wishing to balance the two. Thus, it is helpful to consider creativity as a process with outcomes along a continuum from incremental to radical, instead of the traditional dichotomous approach (Shalley and Gilson, 2017).

In addition to academic consideration, there is also a practical need for organisations to recognise creativity more effectively and efficiently. Failure to select and implement apposite ideas represents a cost to firms with regard to wasted investment and the loss of future potential returns (West, 2002). There are inherent risks in an idea being brought to market and failing, or by ignoring an idea with value and could enhance performance (Gong, Zhou and Chang, 2003). Despite the importance of idea recognition and evaluation to facilitate the recognition of creativity, relatively little is known about this stage in the creation and innovation process (West, 2002; Mumford, 2003). Instead, a causal relationship has been assumed between the input of generated ideas and creative outcomes, without scrutinising the individual, social and contextual factors surrounding this process.

While some aspects of the recognition of creativity have been examined in the disciplines of psychology and social psychology there has been limited analyses within business and management research. Despite creative work frequently being linked with artists, scientists and inventors, it is not confined to specific professions or occupations (Mumford, Whetzel and Reiter-Palmon, 1997; Litchfield, Ford and Gentry, 2014). Instead, the potential for creative work may arise wherever an ill-defined and complicated problem is presented, to which a novel and appropriate solution is required (Mumford and Gustafson, 2007; Mumford et al, 2012) – a feature of many organisational settings (Mumford et al, 2002). The emergence of complex, high-tech

industries such as robotics, artificial intelligence, additive manufacture and biotechnology has created an increased requirement for an innovative, creative outcomes and has also presented new challenges (Drucker, 2014). Hard to define and conceptualise, new technologies may demand responses which are so novel their utility may prove difficult to recognise. Within organisations, creativity is no longer confined to the Research and Development (R & D) function. It is suggested most employees have the potential to be creative and increasingly, organisations are exploring beyond their boundaries through open innovation to identify opportunities and solutions from research institutes, customers and other collaborators (Martín-de Castro et al., 2013).

2.2. Typology of six P's of creativity

A systematic review of previous theoretical and empirical work allowed the literature surrounding the recognition of creativity to be grouped into six broad categories. These categories were labelled according to the typology initially devised by Rhodes (1962), and later built upon by Simonton (1990) and Runco (2003). Three of these dimensions – People, Products and Process – were proposed by Rhodes (1962), who also suggested a further category of Press, which encompassed the environment and context. The Press category was reinterpreted as Place by Runco (2007), who added a fifth category of persuasion (Simonton (1990) and potential (Runco, 2003). These six dimensions are outlined in the table below, together with extended definitions of what they encompass:

Table 2: Dimensions of Creativity (after Rhodes, 1962; Simonton, 1990 and Runco, 2003)

Section	Dimension	Description
2.4.	People	Who is considered creative; individuals, groups and roles

2.5.	Products	What is recognised as creativity; its products and outcomes
2.6.	Potential	When is creativity recognised; the effects of time and field
2.7.	Process	How is creativity evaluated; quantitative and qualitative methods
2.8.	Place	Where is creativity recognised; the impact of domain and context
2.9.	Persuasion	By whom is it recognised; self, non-expert and expert judges

An overview of the literature, key issues and opportunities are described for each section.

2.2.1. People: Who is considered creative? Individuals, groups and roles

Research into creativity was initially concerned with understanding the creative individual and the process of creative thinking (Hennesey and Amabile, 2010). Scholars have studied renowned individuals, both historical and contemporary, in areas such as the sciences and the arts. For example, these may be those who have revolutionised their field such as Grace Hopper, inventor of COBOL computer language (Beyer, 2009); been acknowledged as making a significant contribution during their lifetime such as economist Hazel Henderson (Csikszentmihalyi, 2013) or posthumously, such as pharmaceutical manufacturer Edward Haughey (Henry, 2013); or have won a recognised prize such as Marie Curie who won the Nobel prize for Physics in 1903 and for Chemistry in 1911 (McGrayne and Mielczarek, 1993). Studies of this type of eminent or "Big C creativity" (Kaufmann and Beghetto, 2009, p.2) has examined personal characteristics and traits (Galton, 1869; Simonton, 1975; 1986), correlation between age and creative productivity (Simonton, 1994) and age and creative quality (Simonton, 1997).

While the analysis of celebrated individuals is foundational for creativity research, its capacity to explain which factors promote or inhibit creative behaviour in an organisational setting is limited. Consequently, scholarly interest in 'everyday creativity' enacted by 'ordinary' people – described as "little C creativity" (Kaufmann and Beghetto, 2009) – has emerged. These studies are concerned with everyday creative activities such as writing a company web page or solving a customer service problem (Richards, 1990). Most management studies including generic employees as participants fall within this category, for example, Reiter-Palmon et al (1998) who studied 195 people to analyse the degree to which the ideas generated to resolve everyday challenges reflected personality.

Research into the creativity of such 'ordinary' individuals has explored several factors, including biographical features such as age (Simonton 1994, 1997), personality traits such as openness to experience (Woodman and Schoenfeldt, 1989), motivation (Amabile, 1988), and cognitive factors such as divergent thinking (Amabile, 1983), as key elements of creativity. As such, for the recognition of creativity, individual factors are key; they can be usefully categorised into two themes: demographic and cognitive (Hennesey and Amabile, 2010; Unsworth and Luksyte, 2015).

Demographic

As noted, in terms of the assumptions that value is self-evident, demographic factors such as gender, race and age are influential upon the degree to which a person is considered to be creative. Charyton and Basham (2008) used student participants in an experimental study with the purpose of examining gender differences in the identification of creative persons. Students undertook assessments using the Creative Personality Scale (C.P.S.) (Gough, 1979), Creative Temperament Scale (C.T.S.) (Gough, 1992) and Cognitive Risk Tolerance (C.R.T.) (Snelbecker, 1967). These tests established both groups of male and female had a similar level of general creativity yet, when

asked to suggest names of creative people, those most frequently selections were individuals in science and art, with the three most selected 'creative persons' being scientists. In addition to this, all those on the listed selected by more than ten participants were Caucasian males.

Further studies suggest the domain in which the creative person works may be important, as women were considered to be more creative in assessments of poetry and short stories (Kaufman et al., 2010) and men in the scientific domain (Lebuda and Karwowski, 2013). This illustrates a bias towards white, male subjects, indicating demographic factors and stereotypically creative roles may influence evaluations of the creative person and thus, creative outcomes.

Cognitive

A variety of research (Silvia, 2008; Katz and Thompson, 2009; Weiss and Johar, 2013) has been conducted to establish how people decide whether or not to classify a particular person as being creative. Katz and Thompson (2009) conducted a series of experiments to determine the extent to which a person was considered as creative as a result of being associated with creative outcomes. They identified evaluation of the person and the product of their creativity, was correlated, with the logic being the more stereotypical the act of creativity, the higher the degree of creativity assigned to its originator. This indicates the recognition of creativity is influenced by perceptions about the person and their products. Yet, Weiss and Johar (2013) found the correlation between personal creativity and creativity evaluation more nuanced. In an experimental setting, it was established creative people were likely to evaluate a creative product more favourably if they already owned the product and less favourably if not. This arose, it was suggested, because of the effects of assimilation and contrast in the cognitive processes of evaluation.

The conflation of personal characteristics and creativity outcomes is not only reported in individual creativity but also proves to be a factor in groups. In many organisational contexts work is

undertaken in group settings, resulting in managers being obliged to rate the creativity of group output. Kay (2013) suggests this group setting influences observers' assessment of the creative products, services and outcomes, as well as the constituent members of the group. In particular, the presence of other people in a group increases or diminishes the level of creativity attributed to individual members. This complex relationship between cognition, personal characteristics and evaluation is debated in the literature and an area of growing research (Grohman et al., 2006; Silvia, 2008).

2.2.2. Products: What is recognised as creativity; its products and outcomes

When considering 'what' may be recognised as creative, several issues arise. Products is the term given to the outcome and output of creativity activity, and is not limited to a physical or digital product but is inclusive of other outcomes such as services, processes or business models and more (Runco and Jaeger, 2012).

Dominant economic perspectives influence what outcomes might be considered valuable and useful by the organisation (Blomberg, 2014) and may lead to creativity within the organisation only being recognised if it can be exploited to improve productivity, competitive advantage or financial performance (Urbancova, 2013). This has implications for the practice of creativity, as ideas considered to be useless, inappropriate or otherwise lacking value to the organisation – characteristics that might apply to highly novel or disruptive creative ideas – may be dismissed (Horenstein, 2002). Likewise, managerial and leadership agendas inevitably shape what is recognised as novel and appropriate in the short term, with ongoing implications for the range of creative ideas available to the organisation.

Research (Förster et al., 2010; Diedrich et al., 2015) has been conducted to establish the extent to which the primary criteria of creativity – novelty and appropriateness – contribute to the overall evaluation of creative products. Novelty, rather than usefulness, appears to be strongly associated with product creativity. A study of 1500 responses to a divergent thinking test (Diedrich et al., 2015), suggested it was only if an idea was novel that its utility was taken into consideration as a secondary criteria. Indeed, if it was useful, but not novel, it was not recognised as creative.

Novelty Categorization Theory (NCT) (Förster et al., 2010) is a predicative model developed to identify when a creative product or outcome is recognised as original or novel. The model suggests the broader the classification or domain into which an individual categorises a product, the more likely it is the product will be perceived as novel, whereas a narrower categorisation increases the probability it will be rejected (Förster, Marguc and Gillebaart, 2010). This results from the necessity of integrating novel information into pre-existing knowledge and how individuals make sense of novel ideas.

During idea evaluation, a number of common information processing biases may also be observed, which may explain why people asked to evaluate ideas may misjudge novelty. A bias towards measuring creative ideas against current operational goals (Gehm, 1984; Gollwitzer and Brandstatter, 1997) means novel ideas are less likely to be chosen, as evaluations are rated against current, rather than emerging or future, criteria. In addition, expectations of creativity are based upon experience (Huber, 1998; Sharma, 1999); this can lead to the underestimation of the importance and worth of ideas departing from familiarity. A coherent understanding of the properties a creative idea, or outcome, possesses is important for informed assessment (Scott, Lonergan, and Mumford, 2001; Ward, Patterson and Sifonis, 2004); however, this is not always available or explicit (Andersen et al., 2001).

It is not simply matters concerning the recognition of novelty which can be influenced when evaluating ideas. Blair and Mumford (2007) examined how the perception of ideas could be affected by the attributes of the product. University students were required to develop creative ideas, whilst a second group of students evaluated them. The evaluation group demonstrated a preference for ideas which were straightforward, easy to implement, short-term and, importantly, were aligned with normative practice and custom. Conversely, there was a tendency to reject ideas which were perceived as carrying a high degree of risk, would take longer to implement and were novel. Thus, interpretations of value, novelty and appropriateness have been shown to shape, and potentially bias, the evaluation of creative products and outcomes. Yet, such perceptions are likely to be influenced by social and contextual cues about what is valid and proper within a specific context. This results in the potential loss of ideas to the organisation which might otherwise have been enhanced and developed to create innovative products, services and processes.

2.2.3. Potential: When is creativity recognised; the effects of time and field

There are also issues about temporal factors surrounding when creativity becomes recognised. Empirical research (Anderson, 2014; Blomberg, 2016) has tended to focus on actualised creative outcomes, particularly commodities such as products, services and processes, which can be implemented within the organisation. This emphasis on outcomes means theory is apt to reflect the same success bias seen in practice, with only those outputs recognised as creative being deemed worthy of consideration. Unrecognised creativity remains difficult to explore through study, as by definition, it goes unrecognised and hence, is not considered. Consequently, creative efforts which are under-developed, part-formed or aborted, or do not meet the success criteria of the appropriate judges in the organisation, are often overlooked or dismissed (Ford, 1996; Csikszentmihalyi,

1996). Together with the predominant assumption in theory and practice that creativity is always positive and progressive (Purser, and Montuori, 1999; Blomberg, 2016), the impact of such forms of 'unrecognised' creativity on individuals, groups and the organisation is largely absent from the literature.

As noted in section 2.2.3., there has been a tendency to treat the recognition of creativity as a static concept (Drazin, et al, 1999; Perry-Smith and Shalley, 2003), although there are numerous examples of creative work being overlooked at inception, but later attaining critical acclaim. Analyses of the recognition of creativity should, therefore, take account of three criteria: first, the intrinsic qualities of the creative idea or outcome; second, the evaluation or assessment by appropriate onlookers and finally, the subjective nature of evaluation and assessment, which is prone to bias related to it being situated in time and context.

Considering creativity to be a social phenomenon is a relatively new concept (Sawyer, 2007; Baruha and Paulus, 2009). However, examining social processes has been increasingly used in the creativity literature (Cattani et al, 2012; Venkataramani, et al, 2014; Perry-Smith, 2014, Adarves-Yorno, 2006), boosted by a more general move towards studying relationships, structures and contexts alongside the agency of individuals (Borgatti and Foster, 2003).

A social perspective is particularly relevant to questions relating to how creativity is recognised and evaluated in social settings. Here, Csikszentmihalyi's (1999) model of creativity as a system of interaction between the person, the domain and the field is helpful. This system model of creativity suggests the individual generates a creative idea or product which the field approves and the domain integrates. In this model, the domain is the general or specific area in which an individual operates and may be wide-ranging such as 'manufacturing', or a narrower subset such as 'industrial 3D printing and additive manufacturing'.

Csikszentmihalyi (1999) conceptualises the field as the leading figures, associations and critics who act as 'gatekeepers' for what is construed as legitimate creatively and thus, incorporated into a domain.

This is an important distinction for scholars examining the recognition of creativity, particularly within empirical work, as it illustrates the necessity of understanding temporal and contextual factors in the recognition of creativity, which may, in turn, be influenced by the social norms within an organisation. This becomes increasingly significant as the rapidity and complexity of technological innovation affects domains, makes expertise more accessible and attainable and levels the field (Gangadharbatla, 2010).

2.2.4. Process: How is creativity evaluated; quantitative and qualitative methods

A number of tests have been developed in an attempt to assess the creativity of people and products and increase the validity and reliability of evaluation. The most common test of individual creativity being the Torrance Test of Critical Thinking (TTCT), developed by Paul Torrance (1967) which has been widely used across many settings (Hennessey and Amabile, 2010). The test assesses figural and verbal forms of creativity such as fluency (number of ideas), flexibility (range of ideas), originality and elaboration (divergence and development of ideas). It is commonly used as a mechanism to measure personal creativity – as an end in itself or to form a baseline of individual creativity – prior to further tests or research experiments, which then correlate personal creativity with evaluation of the creativity of others.

There are two well-established tests to determine the creativity of products: the Consensual Assessment Technique (C.A.T.) developed by Amabile (1988) and the Creative Product Semantic Scale (C.P.S.S.) created by O'Quin and Besemer (1989). The pertinent distinction between the two, for the purposes of this thesis, is the C.A.T. relies upon agreement between a panel of experts and

the C.P.S.S. can be administered by a single judge, often a non-expert, acting alone. Both techniques have shown to be reliable in empirical settings, although both are dependent on the subjective judgement of others and thus, prone to the same biases and social and contextual influences as problematized earlier in section 2.2.

Attention is drawn again to the understanding, like the creative process itself, the recognition of creativity is dynamic in nature and while in some case it is a one-time event, such as with a formal assessment such as the Torrence Test of Creative Thinking, or the Consensual Assessment Technique, on other occasions it is a series of smaller evaluations which lead to adaptation of the idea or product in question. This is illustrated in the work of Kozbelt and Serafin (2009) who studied the assessment of artworks throughout the process of creation and how this influenced assessment of originality and 'realism' of the end result. The research identified artists valued originality whereas, and non-artists preferred 'realism', demonstrating the importance of both context (section 2.7) and by whom creativity is recognised (section 2.8).

2.2.5. Place: Where is creativity recognised; the impact of domain and context

The development of major theoretical frameworks in the creativity field (Woodman, Sawyer and Griffin, 1989, 1993; Ford, 1996; Amabile, 1983, 1997; Csikszentmihalyi, 1999) has brought attention to bear on how the individual aspects of creativity (discussed in section 2.1.) interact with their social and situational contexts. These models have sought to describe and explain the multifaceted nature of creativity, with the caveat that expecting these models and methods to be the explanatory mechanism for creativity in all circumstances and contexts (Kaufmann and Beghetto 2009) is unrealistic. In addition to the systems theory of creativity (Csikszentmihalyi, 1999), Woodman and Schoenfeldt (1989) put forward a model of individual creative behaviour with comparable attributes to Amabile (1983), which suggests creative behaviour occurs as a result

of personal characteristics mediated by situational factors such as social and contextual influences. Woodman and Schoenfeldt's model (1989) describes individual creativity as a combination of antecedent conditions such as personal history and demographics, personality traits, cognitive style and ability, relevant domain knowledge and intrinsic motivation, plus social influences such as supervisory support and contextual factors such as physical environment, task and time constraints. It is the last element of context which is discussed in this section.

A domain is the name given to the context or area in which a creative person or product is located (Csikszentmihalyi, 1999); it is important for two reasons. First, it is the context in which the individual or idea is embedded and as such, provides cues for what is accepted as novel and appropriate within a particular area of contribution, Second, it relates to the area from which the field of experts, or novices, are drawn who undertake the recognition of creativity in that domain. In both instances, domain appears to have an influence on who, and what, is recognised as creative. When administering tests which rely on knowledge and expertise, such as the Consensual Assessment Technique (Amabile, 1996) a panel of judges is recruited to evaluate contributions.

Their reliability and validity, however, in assessing creativity differs, not only from non-experts (Kozbelt, 2004; Kozbelt and Serafin, 2009), but also from domain to domain (Haller, Courvoisier, and Cropley, 2011). For example, in the evaluation of a modern building, people with dissimilar areas of expertise such as architects and structural engineers are likely to focus on different aspects in their assessments of its creativity yet, both would be able to offer an opinion based on their expertise in the overall area of modern buildings. Conversely, an expert in another domain, unconnected with modern architecture, such as a musician, physicist or chemist, would not be able to transfer their expertise and offer an informed opinion (Haller, Courvoisier and Cropley, 2011).

This is relevant to the exploration of creativity in an organisation where there may be many areas of discrete or overlapping expertise, which may influence the individual and group assessment of creative people and ideas. Here the empirical research provides a mixed picture. Domain knowledge appears to support the recognition and appreciation of novelty when evaluating products (Zhou and Nakamoto, 2007; Wang, Dacko and Gad, 2008). Yet, this appears to contradict earlier research, which argues domain knowledge hinders appreciation for novel products (Moreau, Lehmann and Markman, 2001), as expertise in a domain makes it more likely incremental improvement in products is more easily discerned and understood, whereas novices are better at discontinuous or radically different ideas as they are unencumbered by previous knowledge of what is valuable in a domain.

2.2.6. Persuasion: By whom is it recognised; self, non-expert & expert judges

Of all the questions associated with the recognition of creativity, defining the most "appropriate observers" (Amabile, 1982, pp.1001) of creativity proves the most problematic for many reasons. A creative product may be radically original or it may be a subtler progression or development. It may also be emergent and not fully realised; a 'work in progress' (Kozbelt and Serafin, 2009; Martin, 2014). As discussed in section 2.7., expertise in a domain is meaningful, as what might seem original to a newcomer, may be considered prosaic by a more established community member (Kaufman and Baer, 2012). The social influences and contextual factors influencing subjective judgements (section 2.7.) are still not fully understood so, knowledge in this area remains somewhat speculative, despite the important implications this has for creativity assessment.

In theorising about who recognises creativity, two areas are worthy of further examination. First, creativity and innovation is a social and political process (Baer, 2012; Martin, 2014) which those

wishing to be recognised as creative (Csikszentmihalyi, 1998; Sternberg, 2006) are required to persuade those who evaluate creativity. Addressing the first point, individuals may put forward creative ideas, but ultimately the motivation and skills to innovate reside with those with decision making power within an organisation. Thus, it is the people within the organisation who provide access to resource, who determine which innovation is adopted and implemented (Ibarra, 1993; Baer, 2012). As such, individuals are required to influence those with authority and power to encourage them to recognise and evaluate their creative solution positively and release the resources to implement it (Baer, 2012; Damanpour and Magelssen, 2012). This has implications for those who may lack social capital or legitimacy and so, may find their ideas remain unrecognised and overlooked (Yuan and Woodman, 2010; Martin, 2014).

Second, an idea or outcome is declared creative not just because of its inherent qualities, but because there are others who recognise and evaluate these qualities as creative (Csikszentmihalyi, 1998). Thus, it is right to focus attention upon those involved in recognising and evaluating creativity as well as studying creative people and creative outcomes. Such people can be experts, non-experts or the people who generate the idea and there has been much debate and discussion about which group provides the most reliable and valid measure of creativity (Plucker, and Runco, 1998; Dumas and Dunbar, 2014; Park, 2016). These three areas of judgmemt are discussed in the following section.

Self-evaluation

It may seem incongruent to begin a review of those who recognise creativity with the individual or group who is responsible for the original ideation. However, self-evaluation is an important factor to consider, with its propensity to reveal, or conceal, creativity at the earliest stage (Szymanski and Harkins, 1992). Self-evaluation may occur through an internal cognitive process

where an individual or group ranks ideas against one another or may occur in a more externalised way by comparing ideas against other examples or pre-established criteria. Overall, it has been demonstrated how self-assessment has a negative effect on creativity given the loss of ideas which could have been valuable with further development or, which were high in originality (Amabile, 1996; Hennessey, 2000; Szymanski and Harkins, 1992). This has particular relevance for this thesis suggesting a perception of which external criteria, or examples of creative behaviour or products, are accepted in the organisation, modifies the expression of ideas and represses creativity, particularly radical or original creative activity.

As well as being a self-directed process, contextual factors such as observation, objectives or performance evaluation and feeling self-conscious may trigger self-evaluation. This has been found to have a detrimental impact on levels of creativity, for examples, individuals and teams participating in idea generation activities might discard potentially creative notions (Faure, 2004; Putman and Paulus, 2009) as they attempt to predict organisational preference (Mumford, Lonergan, and Scott, 2003; 2004). In addition, expectations relating to external recognition, such as anticipating how an idea is likely to be judged, can alter the type of ideas generated (Szymanski and Harkins, 1992) as divergent thinking processes are constrained, (Runco, 1991).

Non-experts

It was assumed experts are the most effective evaluators of creativity; however, there are arguments that non-experts or novices are valuable or can be adept at evaluating the creativity of people and products suggesting the picture is more complex (Ozer, 2009; Haller, Courvoisier and Cropley, 2011). Thus, domain knowledge might enable more insightful evaluation among lead users rather than experts (Ozer, 2009) given knowledge of consumer needs and product trends. There is evidence experts are no better than novices at creativity evaluation. Haller, Courvoisier

and Cropley (2011) found experts (professionals and teachers) showed lower interjudge consistency than novices (visual art students) in a new product evaluation using the Cropley Solution Diagnosis Scale (CSDS). Similarly, Kornish and Ulrich (2014) found online consumer panels were more accurate in determining whether an emergent idea would be successful when launched than experts.

Experts

Those most appropriate to judge creative people and products are assumed to be experts in the domain in question (Plucker and Makel, 2010). The validity of widely used creativity assessment tools for assessing products – the Consensual Assessment Technique (Amabile, 1982) and people – the Torrance Test of Creative Thinking (Torrance, 1966; 1974), are founded on the principle of expert judges in a domain working independently with no guidance, other than their own aesthetic judgement, will reach similar conclusions about which products are most creative (Kaufman, Plucker and Baer, 2008).

Research regarding what is required to achieve domain expert status suggests even with everyday creativity with a 'little C' (Beghetto and Kaufman, 2009) it takes approximately 10 years from someone first entering a domain, until they achieve mastery (Ericsson et al., 2007). This echoes the findings of Simonton's review (1975) of eminent creativity. Judges want their assessments to be considered reliable and valid (Amabile, 1988; 1996); consensus between judges enables those assessed to feel confident results are reliable because there is no divergence of opinion – or at least not openly. Employing judges with experience and expertise in the domain provides creative individuals with a sense of validity as such judges are considered knowledgeable and well-positioned to make such assessments (Kaufmann and Baer, 2012).

Experts have been shown to have a higher level of interrater reliability than novices or non-experts; however, it is contested whether this is a sufficient condition to ensure the validity of such judgements (Kaufman and Baer, 2012). In practice, external assessors are relatively commonplace inside organisations, typically being a senior stakeholder who identified the original problem or opportunity, or otherwise a portfolio or programme manager or team leader to whom the task of solving the problem has been delegated. Occasionally, such assessors sit outside of the organisation itself, such as key customers, regulators or other organisations. Thus, there are several potentially conflicting arguments regarding what influences the recognition of creativity and who may be best positioned to assess this.

2.3. The problematisation of recognition

As might be expected with such a complex, multi-faceted phenomenon as creativity, this raises significant questions regarding how ideas become recognised as novel and useful as well as when, how and by whom (Amabile, 1988;1999). However, it is necessary to elaborate upon why the recognition of creativity, as it is currently portrayed in the literature, proves so problematic. In the following discussion, assumptions surrounding the recognition of creativity are outlined to highlight four key issues with the current conceptualisation, that: value is self-evident, consensus is attained and recognition is both static and separate from its context.

2.3.1. Value is self-evident

A critical assumption prevalent in research surrounding creativity is recognition is self-evident. This stems in part from the predominance of research in the field focused on idea generation, how to enhance it and what prevents or inhibits ideation (Anderson, 2014). As yet there has not been

the same level of scrutiny on how ideas are received and so, there is an assumption in much of the literature that creativity – in a person or product – is self-evident to recipients.

This is problematic for two reasons. First, it introduces a success bias, as there is an assumption that if an idea novel and appropriate, then it will be recognised, and if it has not been recognised then it is not creative. This creates a self-referential argument under which the phenomena under research is only selected if it is considered creative. Second, while creativity may be assessed against the objective criteria of originality and utility, these measures are in turn, assessed using a subjective mechanism; the opinion, view or perspective of an individual such as a test administrator or a group, for example, a judging panel.

This introduces further partiality as there is a growing body of research which shows as with other assessments, individuals and groups are prone to cognitive, social and political bias. For example, race and gender stereotypes have been shown to influence the assessment of creativity in both people and products (Baer and Kaufman, 2008; Kaufman et al, 2010a; 2010b), and social identity (Adarves-Yorno, 2007); social context (Kay, 2013) and culture (Nouri, 2015) all influence individual and group judgement.

When studies are analysed in detail, it is apparent sampling strategies often use supervisors, leaders or experts in the organisation to identify individuals who have created novel or useful ideas (Ohly et al, 2010). This assumption supervisors/leaders are best placed to assess creativity has, again, inadvertently introduced a success bias in creativity research because only those gaining approval at the idea recognition stage are included within the analysis.

2.3.2. Consensus is reached

Group influences and factors contribute to the second assumption which underpins much creativity research, of a consensus around what constitutes a creative idea or product. This is a particular problem within research which considers the innovation end of the recognition continuum, where this thesis suggests ideas are rewarded and enacted within the organisation. Research has been conducted on expert (Baer et al., 2004) and non-expert reliability (Kasof, 2007; Kaufman and Baer, 2012) in reaching conclusions about creativity. This has focussed upon the extent to which the people engaged to judge a task reach the same conclusion concerning a creative person or product.

It has been extensively used as a mechanism to support the reliability and validity of the widely administered Consensual Assesment Technique (CAT) for divergent thinking (Amabile, 1982; 1983; 1996). This commonly used approach relies upon judges independently rating the creative product according to their own knowledge, experience and personal criteria, before checking the extent to which this correlates with other judges (Amabile, 1996; Kaufman and Baer, 2012). This is problematic because creativity assessment within organisational settings is often not conducted independently and is thus, influenced by interaction with other judges and other social and contextual factors (Kay, 2013).

This brings into question whether there is actual or *percieved* consensus and whether social norms within organisations influence how individuals reach group decisions on who, and what, is creative. Overall, there is a tendency to assume decisions reached mean consent amongst all the members of the group, or a decision by a group on behalf of a wider set of stakeholders is agreed upon due to the absence of resistance or reprisal. In organisational settings however, it is likely there will be multiple assessors of an idea, conflicting views between observers and diverse

stakeholders (West, 2002; George, 2007). Consequently, it is important to explore the nuances of these conditions and the processes through which the recognition of creative ideas occurs.

2.3.3. Recognition is static and independent of context

There is growing acknowledgement that assessments of creativity, whether by objective or subjective measures, is a dynamic process (Kaufman and Baer, 2012) and embedded in a social context. Many studies of creativity are experimental in nature (Blomberg, 2016), with few longitudinal studies of creativity (Kijkuit and Van Den Ende, 2007; 2010). This tendency toward shorter-term studies has resulted in an incomplete picture of creativity and specifically, its recognition, which gives the impression assessments of creativity are static at one point in time (Drazin, et al, 1999; Perry-Smith and Shalley, 2003). This provides a problem for creativity scholars, as it is suggested in the literature a product can only be considered creative at the point at which it is recognised or evaluated.

This perspective fails to take into account the dynamic nature of recognition, based as it is on the opinion and expertise of individuals and groups who are likely to be influenced by contemporary knowledge, culture and social values (Csikszentmihaly, 1999). Yet, evidence from the study of eminent creative individuals and movements in history demonstrates what is considered to be novel, useful and valuable has temporal variability. Two examples are Raphael the artist, whose reputation has ascended and descended over time (Csikszentmihalyi, 1996) and Johann Sebastian Bach the musician who, following the endorsement of Mendelssohn, received acclaim after almost a century of being considered as a minor composer (Cattani et al, 2012). Thus, we find artists, scientists and inventors are frequently overlooked within their domain until they are recognised and endorsed by those with legitimacy and status (Adarves-Yorno et al, 2007).

Similar problems present themselves when considering key criteria such as appropriateness and usefulness. Unless objective, pre-determined criteria are established to judge how an idea fits a presenting problem, situation or need, then appropriateness and usefulness remain subjective and what is considered novel and useful may be ambiguous, contested or imprecise (Drazin et al, 1999). As Kaufmann and Baer (2012) note "Such criteria are rare; the very nature of creativity is such that it is expected to include the unexpected" (pp.83). Consequently, issues of context regarding cultural values, pathways to status and even personal attributes shape biases towards the recognition of creativity. A useful illustration here being gendered ascriptions; the historical discourse associates masculinity with creativity (Runco et al., 2010; Stoltzfus et al., 2012) such women, now recognised as highly creative and innovative – for example Ada Lovelace, the mathematician – are only now receiving acknowledgement of their achievements.

2.3.4. Theory-practice inconsistencies

As scholars, our inclination is toward the examination of a topic using peer-reviewed and published theory however, it is important to explore the role of 'laypeople' and their opinions on creativity (Kaufman and Beghetto, 2013). A comprehensive study of lay theories of creativity was conducted by Sternberg (1985); he identified four inherent characteristics of creativity widely understood by non-experts: first, non-entrenchment (thinking 'outside the box'); second, aesthetic taste/imagination; third, perspicacity (discernment or shrewdness); and finally, inquisitiveness. Lay theories of creativity are important given the lack of research upon how beliefs regarding who, and what, is creative might influence individuals and groups when recognising and shaping responses. It proves helpful to compare these commonly held assumptions with academic research outlined in this chapter, especially those which are erroneous or lack credible evidence.

Commonly held myths and misconceptions are: creative people are 'born not made', creativity is associated with those who have a negative psychological profile (the classic 'mad, bad and dangerous to know' personality type ascribed to Lord Byron, for example) and creativity is somehow mystical in nature, which dates from early research into the topic in the late 1800s (Plucker, Beghetto and Dow, 2004; Kaufman and Beghetto, 2013). Creativity research has demonstrated these common beliefs are not supported by theory development and empirical evidence yet, they persist among laypeople and thus, may influence interpretation and perception of creativity within organisations.

2.4. Conclusion and summary

This chapter has explained the diverse theoretical and empirical analyses of the recognition of creativity, examining its implications and importance, before outlining areas requiring further academic examination. It has also critically examined the recognition of creativity, including the influence which dominant themes, perspectives and methods in creativity research have had on understanding this topic and its implications for the practice of organisational creativity. Previous research has been principally concerned with understanding the creative individual and the processes by which they generate creative ideas (Simonton, 1984; Hennesey and Amabile, 2010). Hence, the personality traits, biases and motivations of those individuals within the organisation tasked with receiving, recognising and evaluating ideas remain relatively unexamined. The increasing trend of encouraging employees to be more creative and organisations to be more innovative, means it is important to analyse the consequences of the recognition of creativity, whether intended or unintended. The recognition of creativity is acknowledged in the psychology and social psychology literature yet, has not been extended to the broader management literature.

Defining creativity by its intrinsic properties of novelty and usefulness, while simultaneously focusing on its extrinsic evaluation by others, is deemed problematic. If creativity is an intrinsic property of the creative idea or person, then it is hard to account for creativity which remains unrecognised (Adarves-Yorno, 2006; Martin, 2009), unless this is explained by additional situational and contextual factors. This is partly addressed if we consider the influence legitimacy has on creativity recognition. In the following chapter (Three), the relevance of legitimacy as a construct for examining the recognition of creativity is examined. The definition of legitimacy, its sources and objects and how managers and employees within an organisation make sense and legitimise evaluations of creativity are considered. The chapter concludes with a detailed description of the conceptual model used within the thesis.

CHAPTER THREE: LEGITIMACY WITHIN THE CONTEXT OF AN ORGANISATION

3.1 Introduction

> "Purely novel actions and ideas cannot register because no established logics exist to describe them. Instead, such innovations fail to be adopted because they go largely unnoticed and unvalued. This presents a dilemma. Without invoking existing understandings, innovations may never be understood and adopted in the first place. Yet, by hewing closely to existing institutions, innovators risk losing the valued details, representing the innovation's true novelty that ultimately change those institutions."
>
> Hardagon and Douglas (2001, p. 478)

This chapter reviews the literature pertaining to the legitimation of social constructs, including those which are ephemeral such as practices and ideas. There are five main sections: First, there is an overview of legitimacy theory including a definition and general discussion of the work of Weber (1978 [1924]) and Dornbusch and Scott (1975) in order to establish the nature of legitimacy and its characteristics. This contains an examination of multiple sources and objects of legitimacy (Zelditch and Walker, 1993), and in particular, how this manifests itself within organisations (section 3.2.1.). The ways in which organisations purposefully use legitimacy as a means to endorse ideas and behaviour, or constrain them, is covered in section 3.2.2. Discussion about the purpose of legitimacy (section 3.2.3.) as a mechanism to encourage stability and allow members of the organisation to make sense of their experience follows (Tost, 2011; Bitektine and Haack, 2015). This emphasises how this stability makes rejecting, replacing or re-engineering legitimated

practices challenging. There is an exploration of how legitimacy influences beliefs and behaviour, focusing especially on how the concepts of validity, propriety, (section 3.3.1.) authorisation and endorsement (section 3.3.2.) promote stability, certainty and order within the organisation, albeit sometimes at the expense of speed, agility and flexibility (Zelditch and Walker, 1993).

Section 3.3 discusses the process by which legitimation occurs, outlining the four stages developed from the work of Johnson, Dowd and Ridgeway (2006), describing how new practices appeal to existing norms before spreading through the organisation. This model demonstrates how innovation strives for local validation before diffusion throughout the organisation into other contexts results in general validation (Johnson, et al. 2006). The final section concludes with a discussion of how legitimacy relates to the research questions posed by this study, namely the recognition and evaluation of ideas.

How members of the organisation make sense of what is desirable, appropriate and proper within their social and contextual setting and how this relates directly to novel creative ideas is covered in section 3.4. This section employs the literature on schemas to illustrate how situations which present originality, ambiguity and uncertainty – such as those encountered during problem-solving and ideation – require individuals and groups to rationalise their experiences and give them meaning. It continues by explaining how diverse occupational groups have a tendency to apply different schema and scripts to make sense of their context (Hardogan and Douglas, 2001; Battilana et al., 2009) and how this may influence their desire to engage in creativity and affect related enactments of it (Amabile and Pratt, 2016).

The penultimate section (3.5) brings the legitimacy and creativity literature to an intersection, where the work of Sternberg and Lubart informs discussion of creativity as an investment (Sternberg and Lubart, 1991) which requires individuals and groups to “buy low and sell high in

the realm of ideas" (Sternberg and Lubart, 1991, p2). Analyses by Sternberg (2018) on the role of defiance of self, crowd and paradigm (Zeitgeist) in creativity is presented; it is deemed to be critical in understanding how individual and group actions can be construed as a defiant response to a legitimate social order and acknowledge appropriate actions, when encountered in a familiar context. Finally, the chapter concludes by outlining the conceptual models employed in this thesis (section 3.6), the creativity-legitimacy process model (subsection 3.6.1.) and a model of organisational creativity and legitimacy in context (subsection 3.6.2.), closing with a discussion about the anticipated research outcomes (subsection 3.6.3.).

3.2. Legitimacy Theory and Creativity

Organisations can be seen as entities which are socially constructed and whose practices, beliefs and attitudes have become legitimated over time (Suchman, 1995). Legitimacy theory presents a view of organisational behaviour as an optimal balance between the desired outcomes at an organisational level and the needs of the individual. It explores how social constructs shape and affect actions within the organisation and recognises behaviour is influenced by the beliefs and expectations of organisation members. Gaining and maintaining organisational legitimacy is essential for those individuals who wish to have themselves, and their ideas, recognised, taken seriously and enacted. Moreover, potential for legitimacy is critical for accessing resources, which is a prerequisite for enacting and implementing ideas within organisations. The function of legitimacy in resource acquisition has been explored within the entrepreneurship literature (Lounsbury and Glynn, 2001; Zott and Huy, 2007); inferences can be drawn that those acting entrepreneurially within a corporation will utilise similar strategies in order to attract money, time and personnel to develop and execute their creative ideas.

Legitimacy is predicated on social order; certain approaches, actions and attitudes are 'taken for granted' or 'as they should be' (Etzioni, 1961). Thus, when confronted with uncertainty, ambiguity or ill-defined problems, individuals at all levels attempt to make sense of the situation by searching for social and contextual cues (Pontikes, 2012). These are utilised to enable members of the organisation to construct a credible and acceptable interpretation of the situation which assists them in making sense of what is happening and which reinstates their perception of order (Brown, 2000; Maitlis, 2005; Weick, Sutcliffe, and Obstfeld, 2005). The pursuit of creativity and innovation is a complex, imprecise and indeterminate process, requiring employees to decipher and interpret complicated and sometimes confusing signals about what is necessary to satisfactorily resolve a problem or exploit an opportunity (Runco, 2012; Pontikes, 2012). There is also the additional burden of endeavoring to navigate the social expectations and interactions inherent in engaging in creative activity within the organisation. Thus, in order to be construed as legitimate, employees must align their beliefs and behaviour with those they perceive the organisation desires, and for their actions to appear congruent with social norms.

Schemas is a well-established area of research in organisation, (Cornelissen, 2012; Stigliani and Ravasi, 2012; Maitlis and Christianson, 2014), as is the influence it has upon processes within the organisation, including creativity and innovation (Drazin, Glynn, and Kazanjian, 1999; Amabile and Pratt, 2016; Sonenshein, 2016). As a concept, schemas can assist scholars in exploring how employees make sense of the social norms pertaining to creativity within the organisation, how those with seniority enact legitimacy and how those with lower status within the social order respond. This is especially important considering both creativity and legitimacy are primarily cognitive in basis (Mumford and Gustafson, 2007), yet, their outcomes are heavily influenced by social and contextual factors (Perry-Smith and Shalley. 2003; Perry-Smith, 2006; Nouri et al.,

2015). Hence, this thesis draws on the literature from the fields of organisational behaviour and social psychology to examine the interrelationship between legitimacy and creativity within the empirical setting of a large multinational, matrix organisation. Legitimacy requires the widespread perception or assumption activities within the organisation are desirable, proper, or appropriate within some socially constructed system of norms, values, and beliefs (Tost, 2011; Bitektine and Haack, 2015). As such, members of the organisation are expected to comply with these normative structures in order to conform to recognised ways of behaving at work. This presents a problem when it comes to creativity as intrinsically divergent thinking and the production of novel and original outcomes necessitate a break from normative and traditional habits of thought and action. Sternberg and Lubart (1991; 1995; Sternberg, 2006) claim creativity can be likened to an investment where "creative people are ones who are willing and able to metaphorically buy low and sell high in the realm of ideas. Buying low means pursuing ideas that are unknown or out of favour, but have growth potential. Often, when these ideas are first presented, they encounter resistance. The creative individual persists in the face of this resistance, and eventually sells high, moving on to the next new, or unpopular, idea." (Sternberg, 2012 p.3). This frames the creative person and their ideas as defiant of social norms, persevering in the face of opposition and prepared to risk social sanctions in pursuit of their creative idea.

Sternberg (2018) develops this understanding of the creative person as 'defiant', describing a triangular theory of creativity, which suggests those who are creative prove defiant on three fronts: as an individual, defying other people (the crowd), and defying the shared paradigm in their field (the Zeitgeist). This theory is reminiscent of the systems perspective of creativity (Csikszentmihalyi, 1999) with Sternberg's three categories of individual, crowd and zeitgeist (2018), corresponding to Csikszentmihalyi's individual, field and domain respectively. The

construal of creativity as defiance challenges the assumption that recognition of creativity is self-evident and static, or consensus is easily gained; instead, it reflects the agency required to overcome normative pressures on behaviour with creative responses, especially when the goal of the individual is to manifest the creative idea physically through implementation.

The following sections of the chapter unpack both of these concepts – legitimacy, and 'creativity as defiance' – in greater detail, synthesising the literature before presenting the conceptual model which underpins the thesis.

3.2.1. A definition of Legitimacy

Legitimacy is a mechanism governing social interactions and helps to create and maintain social order through a process of compliance with a rule-governed system (Zelditch, 2001). A person, structure, process or entity comes to be treated as a 'matter of fact' and assumed it is as it 'ought to be' (Etzioni, 1961) and thus, the generally accepted definition of legitimacy is "compliance with a social order as either (a) a set of social obligations, or as (b) a desirable model of action" (Johnson et al, 2006, pp. 53). Individuals within a social group presumes certain norms, values and beliefs prevail amongst the majority of the group, even if they do not hold these views themselves. Over time, the behaviour of individuals in the group becomes oriented to the views they perceive to be accepted by other members of the group, resulting in individuals acting in accordance with what they assume to be the predominant view, even if they privately disagree (Weber, 1978). This is deemed mimetic isomorphism (DiMaggio and Powell, 1983). The fundamental principle which underpins legitimacy is the assumption certain actions are desirable, proper, or appropriate.

Members of the organisation react to their *perception* of what or who is legitimate; if a group accepts and supports a certain pattern of behaviour as a whole, despite individual doubts or hesitation, then the behaviour can be considered to be legitimate. Legitimacy as perception is based

upon the model of legitimacy developed by Tost (2011), who defined legitimacy as: "the extent to which an entity is appropriate for its social context." (Tost, 2011, pp. 688-689). Thus, at the centre of legitimacy theory is the belief it is primarily a collective process rather than determined by individual approval and the legitimacy of any person, act, position, or structure of positions relies upon the cooperation of others. Weber's classic paper (1978 [1924]) describes the phenomenon of legitimacy and claims social groups attempt to legitimise patterns of behaviour that support group objectives as when beliefs about conduct are widely shared and accepted, there is group confluence and accord.

Underlying Weber's theory is a tension between consensus and conflict, both states have the potential to influence the smooth, productive running of an organisation (Walker, 2004). Groups of individuals may reach consensus by relinquishing their short-term interests voluntarily for the collective good of the group, and in exchange for long-term benefits compatible with the individual's interests (Walker and Zelditch, 1993; Johnson et al, 2006). In contrast, conflicts of interest between members of a social group may lead to disorder and dysfunction if left unchecked and yet, using power to resolve such conflicts can be destructive and destabilising (Zelditch, 2001). Thus, it relies upon the collective members abiding by rules which transcend individual desires, wants or needs so as to maintain order. These potential issues of consensus and conflict are addressed in Weber's foundational theory (1978) when people act as if social rules are desirable and appropriate, and compliance with them is obligatory, then a consensus is achieved more frequently and conflict is mostly avoided, leading to a stable and productive organisation.

3.2.2. Legitimacy within organisations

Legitimacy can be a means for enhancing personal reputation within the organisation (Bitektine, 2011) as well as a mechanism for securing additional resources for creative ideas (Baum and

Oliver, 1991; Bitektine, 2011; Zimmerman and Zeitz, 2002). The process of legitimation provides an opportunity for individuals to adopt or abandon ideas (Lounsbury and Crumley, 2007) by making sense of new ideas and attempting to integrate them into existing perceptions of what is acceptable and proper within the organisation (Ridgeway, 2006). The following section describes the legitimation process examined the processes through which legitimacy is initiated and consolidated within the firm.

Although much of the legitimacy literature has focussed on how organisations maintain legitimacy with external stakeholders (Mitchell et al., 1997), it is internal legitimacy which is of primary importance when investigating the recognition and evaluation of creativity. Drori and Honig (2013, p. 347) define internal legitimacy as "the acceptance or normative validation of an organisational strategy through the consensus of its participants, which acts as a tool reinforcing organisational practices and mobilizes organisational members around a common ethical, strategic or ideological vision."

Internal legitimacy creates a sense of meaning and perpetuates stability attempting to reconcile the practices arising from 'grassroots' employee behaviour with a more directive approach from leaders and managers. When an employee elects to join an organisation, their acceptance of internal legitimacy is implied; they accept the structure, authority, rules and social conventions of the organisation as a condition of their being welcomed into its membership. Thus, the organisation reinforces a "pattern of assumptions that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel" Schein (1983, p. 14.)

Internal legitimacy can be further separated into two categories derived from Suchman (1995) which encompass different dynamics of behaviour: pragmatic and moral. At its heart, pragmatic

legitimacy is contingent on aligning the self-interest of the members of the organisation with the interests of the organisation as a whole (Suchman, 1995; Bitektine, 2011). Individuals and groups within the firm review organisational practices in order to establish what the impact of any given behaviour is likely to be: a 'what's in it for us?' response (Oliver, 1997). Therefore, pragmatic legitimacy can be seen as an instrumental exchange of value from the members in exchange for compliance with the rules and governance of the organisation (Drori and Honig, 2013).

In contrast, moral legitimacy is focused on the extent to which the behaviours articulated and promoted within the organisation are 'the right way to behave' (Suchman, 1995; Greenwood et al., 2002). While there is evidence such moral judgements are not entirely without self-interest on the part of individuals within the organisation, moral legitimacy is more concerned with the greater good of the collective whole of the group than of its constituent members. Thus, legitimisation processes seek equilibrium between the self-interest of pragmatic legitimacy and the altruism of moral legitimacy, but both are important for maintaining validity and propriety in internal legitimacy.

3.2.3. The purpose of legitimacy

When the benefits which can accrue from gaining legitimacy are considered, it is unsrprising it is valued by individuals and groups within the organisation. While there may be many reasons for seeking legitimacy, Suchman (1995) suggests two critical motives as the pursuit of continuity and credibility. Legitimacy enhances the stability of the organisation by acting as a check and balance on the self-interested behaviour of individuals in order to contribute to the greater good of the organisation (Hays and Goldstein, 2015). This has a secondary benefit however, in stabilising organisational accepted customs and practices also make it comprehensible and help employees to 'make sense' of organisational life. This, in turn, enhances the stability of organisational practices

and behaviour and the cycle of persistence and meaning becomes self-reinforcing (Suchman, 1995).

Stability is an outcome of legitimacy because members of the organisation are most likely to assign resources to those people, projects and products which most closely approximate the organisation's definition of desirable, proper and appropriate (Parsons, 1960; Suchman, 1995). As a result, those persons and practices which are perceived as legitimate require minimal intervention to maintain their primacy and become increasingly embedded in organisational life (Suchman, 1995; Deephouse et al, 2017).

Another condition of legitimacy is it brings meaning to organisational behaviour (Suchman, 1995) influencing how people make sense of the organisation as well as how they act within it. The emphasis here is on the cognitive function of legitimacy and the manner in which the existence, function and authority of persons or practices become 'beyond question', simply accepted as 'how things are done around here' (Meyer and Scott, 1983). Legitimacy provides a credible and congruent explanation which encapsulates the reason for certain actions and behaviours. Hence, uncertainty and ambiguity are diminished and behaviour is perceived as more dependable and trustworthy (Scott, 2001; Gronow, 2008).

3.3. Multiple Sources, Multiple Objects Theory

Dornbusch and Scott (1975) developed a more nuanced theory of how legitimacy is established and maintained which is named the Multiple-sources, Multiple-objects theory to describe how legitimacy influences organisational effectiveness.

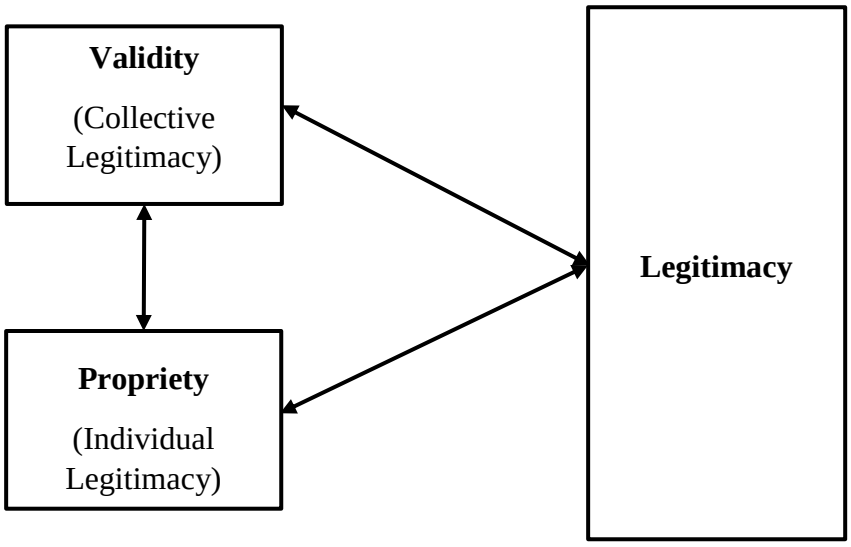
The theory suggests legitimacy is drawn from multiple sources, including validity, authorisation, endorsement, and propriety, which are elaborated on in the sections below. In addition to these

sources of legitimacy, multiple objects such as people, structures, positions in structures and acts) can gain and maintain legitimacy. This model was later extended by Walker and Zelditch (1993; Zelditch and Walker 2003; Walker 2004) to further describe the processes through which legitimacy is transferred from Acknowledged Legitimising Elements (ALES) (Zelditch and Walker 2003), elements which already have legitimacy through rules, regulations, previously legitimised actions or organisational structures, to new elements such as new structures, actions, operating processes or innovation.

3.3.1. Validity and Propriety

Dornbusch and Scott (1975) expound Weber's definition of legitimacy by identifying and separating the concept of legitimacy into validity and propriety, both of which have a direct effect on individuals within a group or organisation. Propriety is an individual's belief the norms and values governing social interaction in their social group or organisation are appropriate, attractive and encourage the desired behaviour. Validity is the belief individuals must comply with the rules, norms and beliefs that direct behaviour in their social group, regardless of whether they support them. Simply put - "Propriety is legitimacy at the individual level; validity is legitimacy at the collective level" (Walker and Zelditch, 1993, pp. 369). Validity relies upon the presence of collective beliefs and expectations about conduct. If an individual believes an object, idea or person to be valid, then they will be motivated to comply with social rules and behave accordingly; they will also expect others to comply and in turn, anticipate others will expect them to comply thus, strengthening compliance in general throughout the group or organisation.

Figure 5: Validity and Propriety: constituent parts of Legitimacy (Dornbusch and Scott, 1975)



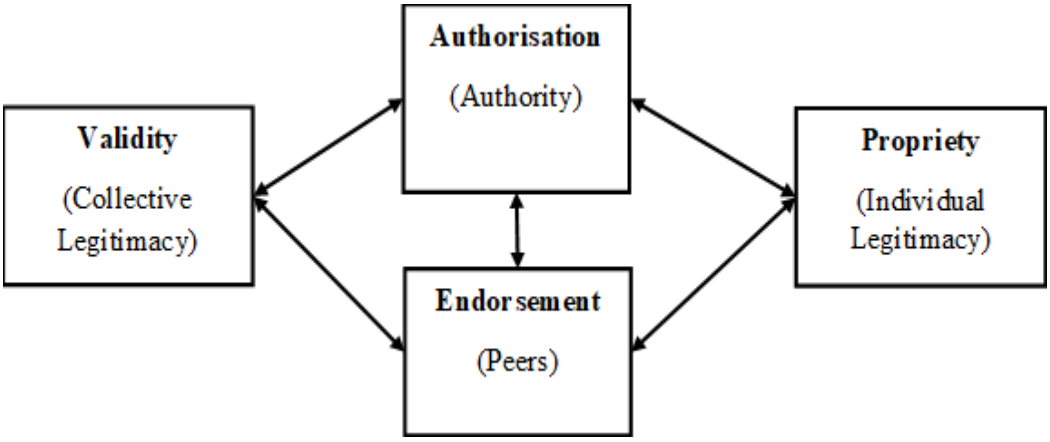
Research shows the collective nature of validity is more powerful than the individual nature of propriety (Zelditch and Walker, 1984; Johnson, 2004). The belief an object, person or idea lacks propriety may prove to be a catalyst for change and resistance within the organisation, however, validity directly countervails this reaction as they anticipate sanctions (Johnson, 2004) or ostracisation. The collective nature of validity allows an individual to deviate incrementally, or even radically, from social norms but, still maintain legitimacy for as long as this deviation remains unobserved or undetected (Suchman, 1995). As such, legitimacy is resilient to particular, specific incidents because they are dismissed as an aberration and therefore, do not attract condemnation or sanctions (Bromley and Powell, 2012).

3.3.2. Authorisation and Endorsement

Legitimacy confers the 'right to govern' on those with authority (Courpasson, 2000; Deephouse et al., 2017) realised through the acceptance of certain social arrangements, such as corporate policies and procedures, as well as structural elements such as hierarchies. This allows action to be aligned

with intentions at an organisational level. Legitimacy is conferred by 'sources'; those organisational members who observe processes, such as creativity and make evaluations of legitimacy, consciously or not, by comparison with particular criteria, standards or examples (Ruef and Scott, 1998). Thus, sources can be construed to be the judges of creativity, gatekeepers of resources and the wider organisational audience. Two factors are necessary to be considered a source of legitimacy: there must be an evaluation of the legitimacy of the person or idea, and judgement must generalise the object of legitimacy into a perspective of its overall appropriateness within the organisation.

Figure 6: Authorisation and Endorsement: constituent parts of Legitimacy (Dornbusch and Scott, 1975)



Authorisation and endorsement also enhances the perceived legitimacy of a person, product or practice (Dornbusch and Scott, 1975). High-status individuals may be seen to authorise a person or idea through their compliance and acknowledgement of its validity. Similarly, endorsement occurs when peers and lower status individuals comply with an order they appear to recognise as valid through fear of isolation and ostracism by their peers, even when the object in question is considered to lack propriety (Johnson, 2004).

3.3.3. The Legitimatisation Process

Understanding the process by which a person or practice gains and maintains legitimacy is important if the mechanism by which novel or discontinuous ideas are able to gain credibility and recognition within the organisation and attract resource (Lounsbury and Glynn, 2001; Zott and Huy, 2007). There is a symbiotic relationship between legitimacy and the structures and context which support it (Drori, 2013). New ideas must be incorporated into the organisation and once adopted and implemented become the new standard for behaviour amongst members of the social group.

There are two theoretical developments which build upon the work of Weber (1975 [1924]) and Dornbusch and Scott (1975) which explains how social objects acquire legitimacy and how legitimised elements of social situations influence social behavior. Zelditch and Walker (2003) introduced the concept of Acknowledged Legitimising Elements (ALES) which allow new, undefined or contested elements of an organisation to acquire legitimacy by appealing to elements within the organisation which are already considered valid and legitimate.

The mechanism for doing this is named a Regime Legitimising Formula (RLF), with the word regime referring to the organisation within which legitimacy is practiced. The theory suggests a Regime Legitimising Formula (RLFs) may link an Acknowledged Legitimising Element (ALEs) to a new, undefined or contested element if it meets the following four criteria: Consonance, Objectification, Impartiality and Consensus (Zelditch and Walker, 2003).

The first condition is Consonance which means the nature, condition and consequences of any new element are consistent with the values, norms, practice, belief or procedure of the overall organisation. Objectification means the legitimacy of the existing element (ALE) in the organisation from which the new element seeks to acquire legitimacy (through the RLF) is

considered to be objective fact. Thus, the original element has undisputed legitimacy within the organisation. The third condition is Impartiality which means any benefit gained from the legitimation of the new element is considered to be in the interest of all members of the organisation and applies universally. The final condition is Consensus among members of the organisation that elements are valid and therefore have collective legitimacy.

Within the context of creativity and innovation, this extension of the Multiple Sources, Multiple Objects theory suggests social interactions play a pivotal role in building legitimacy (Berger et al. 1998; Ridgeway, 1997) by first, helping establish the validity of ideas through appealing to existing organisational norms, values and beliefs (Walker, 2004) and second, allowing ideas to spread throughout the organisation into new domains and contexts (Ridgeway and Erickson, 2000).

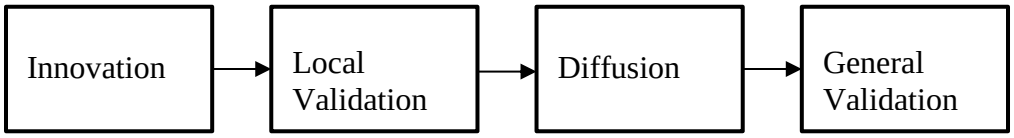
When seeking legitimacy, ideas must be positioned in such a way as to appeal to current representations of organisational authority, while simultaneously attempting to gain acceptance for new cognitive and behaviour patterns (Sewell, 2005; Drori et al., 2009). "Legitimacy formation is a fundamental social process because of its role in producing and reproducing structure in concrete situations of action" states Zelditch (2001, p. 13).

As new ideas gain acceptance through the Regime Legitimising Formulas (RLFs) they are incorporated into the norms, values and beliefs of the organisation through appealing to existing Acknowledged Legitimising Elements (ALEs) and therefore, contribute to organisational stability (Zelditch and Walker, 1984). Creativity and innovation requires new ideas to gain legitimacy through the deliberate and instrumental pursuit of strategies aimed at acquiring social support and engagement (Lawrence and Suddaby, 2006; Lawrence et al., 2011). These practices are embedded

within the organisational context and form a bridge between the social structures and social processes necessary to gain legitimacy (Kaghan and Lounsbury, 2011; Drori and Honig, 2013).

Social interaction helps "determine how the organisation is built, how it is run, and simultaneously, how it is understood and evaluated" (Suchman 1995, p. 576). Johnson et al (2006) identify four common stages a social object goes through to gain legitimacy: innovation, local validation, diffusion and general validation.

Figure 7: The Legitimacy Process (Johnson et al., 2006)



At the innovation stage, a new creative idea or solution to a problem is generated in response to a local need. Often these new social objects address a situation created by an external constraint such as access to resources or to exploit an opportunity such as a gap in the market. Local validation follows on from innovation; it is characterised by attempts to construe the new social object as fitting within the boundaries of current culturally accepted norms and beliefs (Walker, 2004). This can be an active process whereby local individuals justify and defend the creative product or idea as being consistent with existing social objects, or it may be passive such as when a social object gains local validation simply by existing without being overtly challenged (Johnson et al, 2006).

This proves a central distinction for individuals wishing to pursue a creative idea as the level of validation necessary to achieve legitimation is dependent upon the aim of the individual. If the desired outcome is to be left alone to develop an idea or project, then passive acquiescence may sufficient, with the idea, for all intents and purposes going 'under the radar' of the organisation.

Suchman (1995, p 575) asserts “To avoid questioning, an organisation need only ‘make sense.’ To mobilise affirmative commitments, however, it must also ‘have value’ – either substantively, or as a crucial safeguard against impending non-sense.” This can be applied to internal practices within the organisation; if the objective is to attract a significant investment of resource or the individual is in competition with others to attract funding, then active support is required and the value of the proposition made evident to gain approval and legitimacy.

After the creative idea has gained local validation it then disperses into areas where actors are facing similar challenges to the original situation it was designed to address. At this stage, diffusion into new contexts begins to happen faster and more easily as people identify the innovation has already been accepted by others in similar circumstances. In essence, future adopters lay claim to legitimacy because the social object has already achieved legitimacy in its originating location (Walker, 2004).

Finally, once the new social object has diffused into manifold settings and applications it gains currency as the customary practice, unless or until a new social object emerges to challenge its primary position. Indeed, at this stage of general validity, the product or idea may be implemented by late adopters purely because it is perceived as legitimate even though it may not be the best fit for the situation (Zbaracki, 1998). Implicit within this four-stage model of the legitimisation of social objects (Johnson et al, 2006) is the importance of social processes in achieving local consensus, allowing the diffusion of ideas into new contexts and subsequently enabling general validation.

These interactions and relationships cement certain creative products and ideas as legitimate at the expense of others. Inside the organisation this may result in suboptimal ideas being suggested and implemented. This may be because they are believed to be legitimate and therefore, receive less

scrutiny or remain unchallenged. Conversely, they may be implemented in the full knowledge they are ineffective or inefficient because those implementing them believe others construe the solution as legitimate so, fear sanction and reprisal if they do not conform (Zbaracki, 1998).

3.4. The intersection of legitimacy and creativity

3.4.1. Schemas for how to behave in occupations

In their pivotal paper on creativity, Drazin et al. (1999) explain how such differing perceptions in occupational groups within an organisation can affect the way in which individuals approach creativity. They draw upon the work of Dougherty (1992) who postulates that different communities within organisations have developed divergent interpretations of their context, which may often be in opposition to the schemas and scripts of other groups. Drazin et al (1999) note two of the four groups which Dougherty (1992) identifies – technical and planning – are frequently present in the creativity and innovation process.

Technical specialists are those engaged in areas requiring domain expertise such as engineering, manufacturing and scientific roles, whereas those who are categorised as planning play a role in managing and administering budgets, scheduling and customer interaction (Dougherty, 1992). Of significance for this thesis is the assertion "these two communities – technical and managerial – likely have different views of what makes sense and, therefore, different views of what constitutes creativity" (Drazin et, al, 1999, p. 294).

It is suggested these two occupational groups propose different types of creative solution originating from their differing schemas and ways of making sense of the world (Daft, 1978; Sarooghi et al, 2015) which compete for credit, resources and control (Trice, 1993), often adopting social strategies to achieve this aim (Kannan-Narasimhan and Lawrence, 2018). Individuals

categorised as technical (Dougherty, 1992) are more likely to promote creative ideas rooted in their expertise, whether engineering, manufacturing or software, whereas those who are as planning/managerial are more likely to focus on creative ideas around risk, performance, cost, staffing, and scheduling (Frame, 1994). This raises the question of whether this preference for types of ideation is also likely to have parallels in the validation stage (Amabile, 1983) where ideas are evaluated.

Research suggests distinct occupational groups, such as technical staff and managers interpret ambiguous and uncertain situations using schema which are likely to differ in composition (Dougherty 1992; Trice, 1993) and lead to individuals interpreting social interaction differently (Sarooghi et al, 2015), constructing problems in specific ways which make sense to their professional affiliation (Leonardi, 2011) and expressing creative ideation in divergent ways (Drazin et al., 1999; Kannan-Narasimhan and Lawrence, 2018). Thus, it seems a logical step to suggest schemas relating to occupation group invoked at the problem, preparation and response stages of the creative process (Amabile, 1983) are to be anticipated in the validation phase as well, having a direct bearing on the recognition of creativity.

3.4.2. The investment theory of creativity

The work of Sternberg and Lubart (1991; 1995; 1996) suggests individual creativity is an investment where the person proposing a creative idea "buys low" (1995, p.270) with an idea which is under-developed and unsupported. Through social interaction and persuasion, they are able to "sell high" (1995, p.270) when achieving acceptance for the idea. This frees them to pursue further ideas which are undervalued. Investment in ideas which are largely unrecognised and underrated has ramifications for the idea, and the individual. Sternberg and Lubart, 1996) suggest "When creative ideas are proposed, they are often viewed as bizarre, useless, and even foolish, and

are summarily rejected, and the person proposing them regarded with suspicion and perhaps even disdain and derision." (Kaufman, 2008 p. 405). This is due in no small part to the necessity of the individual generating the idea opposing the dominant view of what is novel and appropriate within a particular context (Amabile, 1983), which is likely when developing a creative response, particularly if it is highly original. In these circumstances, the audience for the idea, whether the field, domain or other appropriate observers (Amabile, 1986; Csikszentmihalyi, 1999), struggle to recognise the idea either because it is not understood, does not appreciate its value or they are too invested in the current status quo (Sternberg and Lubart; 1995; Kaufman, 2008).

It is in overcoming this resistance to the new idea where the individual requires persistence; in both influencing others and in ignoring the consequences and potential social sanctions which arise from defying normative behaviour (Stenberg and Lubart, 1995; 1996). The notion of defiance is introduced which is developed in the later work of Sternberg, with Lubart and individually (Sternberg and Lubart 1995; 1996; Sternberg, 1998; 2017; 2018), as the necessary position which the creative individual adopts in order to get their ideas accepted. A critique of investment theory is its assumption that creativity is radical and disruptive; a dichotomy of either 'radical creativity' or 'not worth noting'. This conflation of creativity with novelty, narrows our conceptualisation of what is creative and ignores creative responses which may lead to incremental creativity and innovation. However, the concept of defiance; of the individual's previous experience and understanding, the crowd and the prevailing paradigm, proves critical in exploring the recognition of creativity. This is explored in the following section.

3.5. Defiance

In parallel to theories developed by Amabile (1983; 1988) and Csikszentmihalyi (1999) which examine the components of organisational creativity and the system in which creativity operates

respectively, a theory of the nature of creativity as defiance has developed (Sternberg, 1998; 2017; 2018). This posits that any creative response is inherently at odds with understanding and acceptance of current ideas, as any novel and original idea is by its very nature a departure from what has previously been presented. Sternberg (Sternberg, 2017; 2018; 2019 in press) develops this idea further by dividing defiance into three key areas: defiance of oneself, the crowd and the Zeitgeist. Each of these areas has important inferences for the recognition of creativity, as if creative responses are considered defiant then it is reasonable to argue there will be significant normative pressure at an organisational level, as well as a disruption to the prevailing schemas used to make sense of creative ideas at an individual and group level.

3.5.1. Defiance of Oneself

Creativity requires individuals to develop ideas to address challenges and respond to opportunities which may be materially different from other events and circumstances previously encountered (Runco, 2012). This departure from prior knowledge and experience necessitates divergent thinking (Guilford, 1967) and undermining perceptual sets (Bugelski and Alampay, 1961), among other creativity relevant skills. Thus, a creative response demands the defiance or questioning of previous knowledge and experience to extend thinking and allow the development of alternative ideas.

3.5.2. Defiance of the Crowd

Proposing a creative idea often positions an individual in opposition to the legitimate view, especially if an idea is discontinuous, disruptive or otherwise radical. This lies at the root of why creativity is explicitly articulated as being desirable yet, is often rejected in practice (Mueller et al. 2011). In the triangular theory proposed by Sternberg (2017; 2018), this is positioned as ‘defying the crowd’, with the implication being a novel and original contribution is likely only when it

diverges from the normative practices of the group. Perhaps the most significant implication of such arguments for the research question in this thesis, is the claim individuals make decisions about whether and how to engage in creativity based upon the extent to which they are prepared to defy the group and organisational norms. This is reflected in evidence individuals often self-censor in order to avoid expressing ideas contrary to what they perceive as legitimate (Williams, 2002; Sternberg, 2018).

3.5.3. Defiance of the Zeitgeist

The final area of the triangular theory of creativity is of 'defying the Zeitgeist'; the prevailing paradigm in a particular domain or in culture at large (Sternberg, 2018). This is the area where there is the potential to make breakthroughs and shifts (Kuhn, 1970). Thus, defiance is imperative for significant breakthroughs yet, far less likely to occur. This is due to the extent to which cultural paradigms are, for the most part, held unconsciously by the majority, with few individuals able to detect and defy a worldview, which is by its very nature all-encompassing and pervasive. As a result, Zeitgeist defying creativity is a rare occurrence, dependent on the field and domain in which it is held, and requires a high degree of non-conformity because it sets the individual up in opposition to not only the crowd within their domain but potentially, the wider culture as a whole (Glaveanu, 2015; Sternberg, 2018).

It is suggested in this thesis, this concept of defiance (Sternberg, 2017; 2018) is central to an understanding of the recognition of creativity, as it portrays the creative individual challenging local and popular perceptions of what is novel and appropriate within their social and contextual setting. Yet, such individuals are not 'rebels without a cause' and as such, they must have a set of beliefs, values or norms to defy. It is suggested defiance within an organisational setting can be redefined as non-conformity; a decision to go against the normative thinking and behaviour of the

firm and the individual's occupation which is codified in local schemas and scripts and is the antecedent of creative action. Thus, it is the conformity of the organisation, legitimated by authority and endorsement (Dornbusch and Scott, 1975), which the individual or group is defying and this has a pivotal role to play in understanding how the recognition of creativity is shaped by social and contextual factors.

3.6. Anticipated Research Outcomes and Conceptual Model

Legitimacy theory is a useful theoretical and analytical model for the exploration and explanation surrounding how legitimacy is enacted and responded to within the organisation, and the extent to which this enhances or constrained the emergence of new ideas in the research setting. This study explores the creativity and legitimacy processes, specifically during the validation stage, where creative ideas are expected to be recognised by appropriate observers (Amabile, 1988; Runco, 2012). It investigates the extent to which legitimacy provides an explanatory mechanism for who is recognised as creative, and how, as well as what, where and when how creativity is recognised. It is anticipated it will provide an explanatory mechanism for how members of the organisation make sense of social norms and assign meaning to their practices.

The model below is built upon the literature review presented in this, and the preceding chapter. It encapsulates the elements of the research question, namely:

> *How does legitimacy theory account for how creativity is recognised within an organisational setting?*

The model is developed for the thesis from the work of Dornbusch and Scott (1975) and Zelditch and Walker (2003). It shows multiple sources of legitimacy within the organisation: Validity (collective legitimacy), Propriety (individual legitimacy), Authorisation (from authority) and

Endorsement (from peers). The model also illustrates how validity is supported by the four conditions identified by Zelditch and Walker (2003): Consonance, Objectification, Impartiality and Consensus.

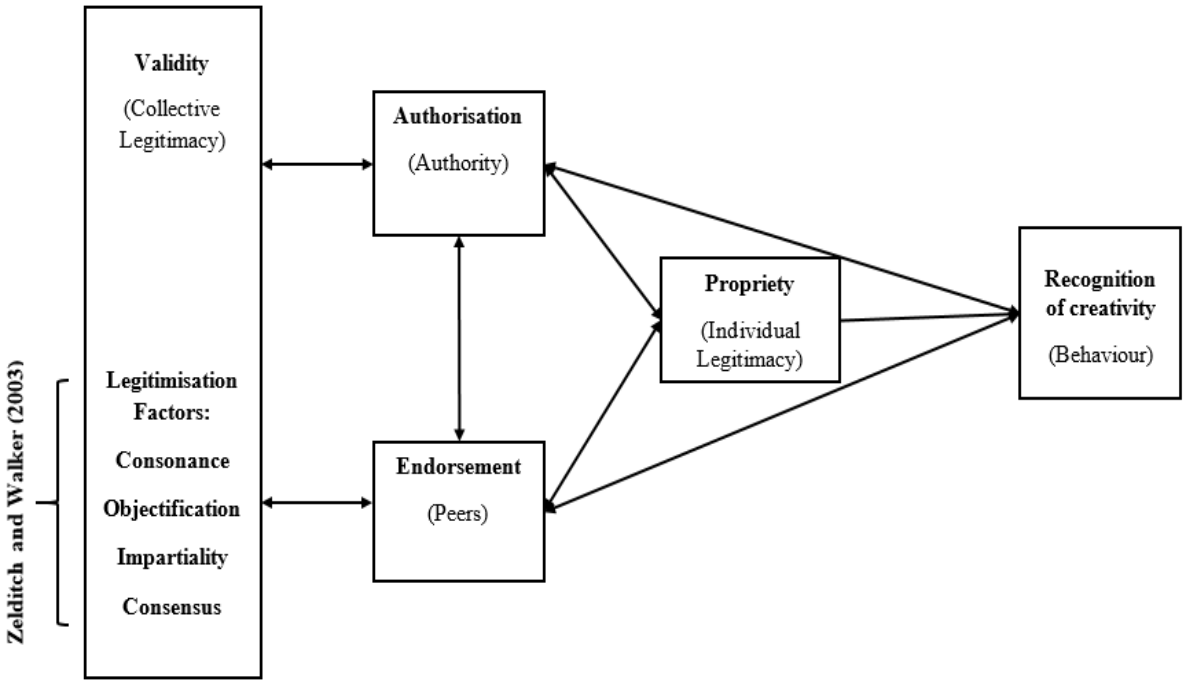
The conceptual model suggests when assessing creative ideas generated in response to the Innovation Challenges, multiple sources of legitimacy will apply. As the strongest source of legitimacy, validity will be conferred on those ideas which fit most closely with prevailing organisational norms, values and beliefs. Individual judgements of legitimacy (propriety) while important, will be countered by the stronger influence of collective legitimacy. Authorisation from senior members of the organisation and endorsement from peers, bolsters the legitimacy of normative outcomes.

This study provides insight into how new ideas are legitimised in an organisation, despite being contradictory to normative conceptualisations of what is perceived as novel and appropriate in different contexts. Legitimacy theory is expected to yield insight and improve the understanding of how the recognition of creativity manifests within an organisation. It is suggested multiple objects within the organisation acquire and maintain legitimacy through their association with legitimised organisational rules, structures and acts and creative ideas may be considered as such an object with potential to gain legitimacy.

It is anticipated sponsors and contributors will look to legitimising factors (Zelditch and Walker, 2003) within the organisational context to establish the legitimacy of normative ideas over those which are not consonant, accepted as objective fact, impartial or have consensus. As a result, it is predicted that ideas which are highly novel will be rejected more often than those considered to be apposite and useful, but with a lower degree of novelty. This suggests promoting novel ideas will require a higher degree of social engagement, in order to lay claim to legitimising sources such as

authorisation and endorsement. On the part of contributors this potentially means a higher level of communication or lobbying, while for sponsors selecting highly novel ideas, this may mean acceptance of a more difficult path towards implementation. For this reason, the study explores issues of defiance and non-conformity which illustrate the importance of individual agency in the face of normative and isomorphic pressures.

Figure 8: Conceptual Model after Dornbusch and Scott (1975) and Zelditch and Walker (2003)



Taken together, this thesis contributes to a contextualised understanding of how members of the organisation interact and how this effects perceived legitimacy leading to some creative ideas and persons attracting recognition and resources, at the expense of others. This has strong implications for deepening the understanding of the recognition of creativity, but also has recommendations for organisations wishing to increase their effectiveness and utilisation of creativity in order to improve innovation outcomes and achieve competitive advantage.

3.7. Critique of the literature and research gaps

In this, and the preceding chapter, literature has been discussed pertaining to the recognition of creativity and its legitimisation within organisations. Chapter Two problematised current conceptualisations of recognition in creativity research; this section identifies limitations in the legitimacy literature, synthesises the two and presents gaps in current research.

In Chapter Two, it was argued temporal, social and contextual factors which influence the recognition of creativity are under-represented in the literature. The validation stage of the creative process (Amabile, 1983) is frequently presented as self-evident, static and constant across contexts. Yet, there are sufficient examples from history (McGrayne and Mielczarek, 1993; Lindauer, 2011; McDermott, 2014) to illustrate the recognition of creative persons and ideas is subjective, prone to bias and influenced by cultural, contextual and temporal factors. This is compounded by an assumption of consensus between "appropriate observers" (Amabile, 1982, pp.1001), when in practice, normative pressure may suppress perspectives which do not conform to prevailing opinion.

The use of the word 'appropriate' which occurs in both the creativity (Amabile, 1983; 1988) and legitimacy (Tost, 2011) definitions, also proves problematic due to its subjective nature. While attempts have been made to find alternative ways of expressing the concept within this thesis, such as apposite, suitable, fitting or apt, or qualifying it by means of explaining its situational and embedded nature, there is no escaping 'appropriate' is an ambiguous and localised term. Yet, despite the problematisation of appropriateness as a criterion for assessments of creativity and legitimacy, the word is foundational to definitions of both concepts. Thus, while the thesis endeavors to circumnavigate this challenge, this remains a limitation in the literature and a gap which needs to be addressed.

The predominance of quantitative methodologies has resulted in an emphasis on the variables, attributes and antecedents of creativity, which has led to a relative lack of research into the relationships between factors and the contexts within which creativity is enacted. As Blomberg (2014, p.79) states "Although there are historical reasons for the quantitative orientation of organisational creativity studies, the continuous dominance of it is still somewhat surprising…quantitative conceptions of creativity are necessarily quite narrow, and focus only on one side of creativity, such as attitudes, behavioural tendencies, or past behaviours." This limited perspective means social and contextual influences remain relatively unexplored, particularly the processes which influence the validation stage of creativity. Thus, this thesis answers the call for increased qualitative and case study research into creativity in organisations (Anderson, 2014; Blomberg, 2014).

A further critique of the creativity literature is the dichotomous perspective of creativity recognition; where persons, products and outcomes are either recognised as creative, or not. This has resulted in people and ideas which might have potential to be considered creative, ignored or dismissed, due to research design, methodological and other biases. Similarly, the validation stage of the creativity process is frequently presented as a unitary construct – a single act of recognition. Yet, this is an oversimplification; in practice, recognition encompasses observation through to enactment (see the theoretical contribution in subsection 8.2.2.). Furthermore, the earliest stages of recognition, sometimes described in the innovation literature as 'the fuzzy front end' (Koen, 2001), is largely ignored by the current definition of creativity. The assertion an idea or person cannot be creative if they remain unrecognised, does not account for ideas which pass unobserved and unacknowledged. Yet, defining creativity as such, results in ideas lost as a result of 'non-recognition' with consequences for academic and business.

A further issue is much of the literature adopts a perspective that creativity equates to originality and novelty – often radical and disruptive originality – whereas in practice, there are gradations of creativity (Kaufman and Beghetto, 2009). Interpretations of degree of originality and 'appropriateness' are dependent on the context in which ideas are embedded and the perceptions of those who confer legitimacy. Yet, we know little about those incremental ideas which are lost to the organisation as a result of being defined as 'not creative'.

Finally, the legitimacy literature tends to be concerned with the external legitimacy of organisations and their interactions with stakeholders, such as regulators and investors (Weber, 1978; Suchman, 1995). As a result, studies have tended to leave the effect of legitimacy on organisational processes relatively underdeveloped. Likewise, entrepreneurship studies (Tost, 2011; Bitektine, 2015) focus on examining the sources and objects of legitimacy yet, research into how legitimacy is conferred within organisations is limited.

This represents a gap in our current knowledge surrounding how legitimisation influences the recognition of creative ideas and persons within a firm. These gaps in the literature are addressed through the research question and design and empirical evidence to answer these deficits is presented in Chapters Five through Seven. The qualitative case study methodology and the research design employed in this thesis - including the data collection and analysis techniques – are explored in the next chapter.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

> "The most important vehicle of reality-maintenance is conversation. One may view the individual's everyday life in terms of the working away of a conversational apparatus that ongoingly maintains, modifies and reconstructs his subjective reality. Conversation means mainly, of course, that people speak with one another. This does not deny the rich aura of non-verbal communication that surrounds speech, nevertheless, speech maintains a privileged position in the total conversational apparatus. It is important to stress, however, that the greater part of reality-maintenance in conversation is implicit, not explicit. Most conversation does not in so many words define the nature of the world. Rather, it takes place against the backdrop of a world that is silently taken for granted."
>
> Berger and Luckmann (2002, p. 246)

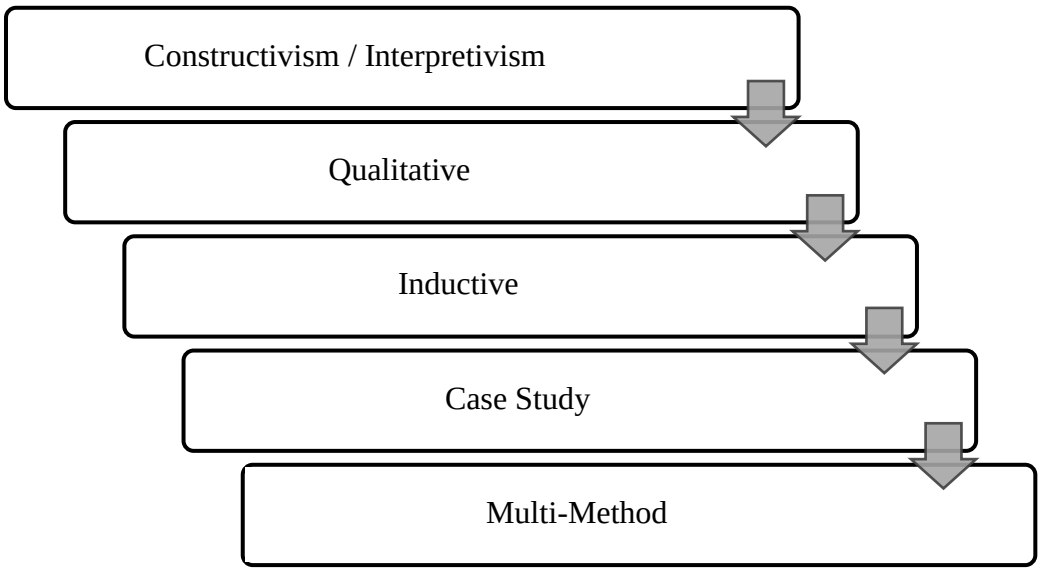
This chapter describes the philosophical and methodological approach selected for the research based on the review of the relevant creativity and legitimacy literature. It recounts and explains how the research strategy was developed, how the case study was selected and how the data were gathered and analysed. The chapter begins with an overview of the research strategy (Section 4.2.) including why a qualitative approach was undertaken (subsection 4.2.1.) together with a description of the philosophy underpinning the choice of methodology (subsection 4.2.2.). Section 4.3 covers the inductive approach and case study methodology in more depth. A detailed account of the organisation chosen as the case study follows, which provides the context for the research (subsection 4.3.1), including key features of the setting pertinent to the research question and the

researcher's prior involvement with the firm. The next section (4.5.) describes the data collection including sampling method (subsection 4.5.1.), ethical considerations (subsection 4.5.2.) and the sources and methods utilised (subsections 4.5.3. - 4.5.5). The analysis of the data gathered is explained in the next section (Section 4.6) including coding (subsection 4.6.3.) and the development of themes from the data (subsection 4.6.4.). The chapter concludes with a discussion of the role validity, reliability and generalisation play within the research (Section 4.6.5.) and the importance of researcher reflexivity (Section 4.6.).

4.2. Research Strategy

The research strategy is an essential element of any research project and provides the compass by which decisions upon methodology and method are made. When considering a methodological approach, the primary concern should be its suitability to answer the research questions being presented (Bryman, 2015). The research strategy for exploring this thesis is illustrated in the flow diagram below:

Figure 9: Research Strategy Flow Diagram



The following sections of the thesis expand on why the chosen methodology, a social constructivist case study, was deemed most appropriate in order to explore the recognition of creative ideas within a large, technology multi-national corporate organisational setting.

4.2.1. A Qualitative Methodology

A qualitative approach favours the exploration of meanings, characteristics, metaphors, symbols and descriptions in contrast to the measurement and causality typical of quantitative methods which are commonly deductive and hypothesis-driven (Richardson, 1996; Berg, 2004). Also indicative of qualitative work is the use of interactive data collection methods, smaller sample sizes and an inductive approach to theory building (Richardson, 1996). This qualitative approach to the study of creative ideas proves critical to understanding the practices surrounding the recognition of creative ideas as understood by those engaging in them.

4.2.2. Social Constructivism and Interpretivism

Qualitative research emphasises the social construction of the subject under examination - the recognition of creativity - and is influenced by the philosophical choices made by the investigating researcher (Guba and Lincoln, 1988; Creswell, 2003). While these decisions are often implied, it is helpful to explicitly acknowledge the ontology and epistemology underpinning the thesis as this has implications for qualitative practice including the methodology and methods selected (Guba and Lincoln, 1988; Crotty, 1998; Creswell, 2007).

Ontology is concerned with the nature and character of reality. A qualitative approach enables multiple, subjective constructions of reality to be considered, including those of the researcher, the research participants and the individual readers of the research (Creswell, 2007). This study adopts a social constructivist ontology, advancing the perspective that social phenomena and their

meanings are created from the insights and resulting actions of people as opposed to existing independently (Burrell and Morgan, 1994; Bryman, 2003; Saunders et. al., 2009). The philosophy underpinning social constructivism suggests individuals imbue their experience with meaning and these meanings are subjective, diverse and shaped through social interaction (Creswell, 2007).

The researcher's role is to understand, analyse and represent participant views so meaningful results and discussion can be advanced (Guba and Lincoln, 1989). A social constructivist approach is an appropriate fit with the research question posed in this thesis because it allows the experience of the participants to be closely discerned (Emmel and Clark, 2009) and examines individual understanding of their activities, processes and interactions and the meanings they ascribe to them.

Epistemology is the debate surrounding what can be known about the world and how knowledge is created. An interpretivist epistemology takes the standpoint that knowledge is actively constructed during the research process through the social interaction between researcher and participant (Guba and Lincoln, 1994; Brinkmann and Kvale, 2010). An interpretivist approach seeks the subjective understanding making an experience meaningful for people (Saunders et al., 2009). Knowledge is "a constant process of interpretation and reinterpretation of the intentional, meaningful behaviour of people" (Smith, 1989, pp.85).

Such knowledge is considered to be highly contextual; the result of a particular place, time and personal interaction with the researcher (Brinkmann and Kvale, 2010). For this reason, an empirical study is based in the field where the study participants live and work, to allow the researcher to contextualise the information participants provide (Guba and Lincoln, 1988). This perspective assists in the exploration of creativity and legitimacy, both widely considered to comprise complex social processes and practices (Woodman and Sawyer, 1993; Csikszentmihalyi, 1999).

4.2.3. An Inductive Approach to Research

An inductive research approach is utilised in the thesis to develop and advance theories around the processes employed in the recognition of creative ideas and their legitimation. Classifying a research design as inductive, deductive or mixed proves helpful in understanding the approach and role of the researcher, both in terms of methodology and reflexivity (Saunders et al, 2009). Inductive research requires a close understanding of the research context and promotes the collection of data which best illustrates the meanings actors attach to events (Saunders et al, 2009). An inductive approach moves from a set of specific observations to the discovery of patterns in the data at a higher level of abstraction (Babbie, 2012). An inductive or predominantly inductive approach is often associated with case studies such as the one explored in this doctoral thesis, in which several data collection approaches are used to gather different perspectives on the phenomena and generate explanations of what is observed (Saunders et al., 2009). While qualitative researchers often portray their research as wholly inductive, in practice there is seldom such a straightforward division between inductive and deductive methods: “In fact, of course, all research involves both deduction and induction in the broadest sense of those terms: in all research, we move from ideas to data as well as from data to ideas” (Richardson, 1996, pp. 166).

Where theory exists in a relatively mature field of study – such as creativity and innovation – the researcher adopting an inductive approach inevitably brings an awareness of a priori constructs to the analysis while remaining sensitive to emerging themes from the data (Marshall and Rossman, 2014). In this thesis, the researcher first identified a gap in the literature from which a research question and conceptual model was developed. As empirical data are collected, an inductive approach allows the researcher to order and analyse information with a view to developing and

extending theory, opening up new areas of inquiry and creating new research agendas (Collis et al, 2003; Marshall and Rossman, 2014).

4.3 The Case Study Methodology

Case studies allow for "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1984, p. 23). It provides a distinct benefit over other research strategies when exploring how and why a social phenomenon such as the recognition and legitimation of creative ideas occurs (Yin, 2013). This is because the case study method allows a detailed analysis of creativity within the social and physical context in which it arises. This has particular importance because creativity is complex, multifaceted and has proved difficult to operationalise (Blomberg, 2014) and the case study format allows for a more expansive and all-encompassing observation of creativity in an organisational setting.

Yin (2013) identifies three variants of case study: descriptive, exploratory and explanatory. Descriptive case studies attempt to provide clear observations and accurate descriptions about the characteristics of a phenomenon. Such studies map the territory for further research by obtaining information on a certain subject; however, they are not suitable for investigating causality or relationships between variables (Hedrick et al., 1993). Exploratory case studies prove valuable when little information is known about the phenomenon. They are broad in focus and aim to establish feasibility, uncover key issues and variables and guide the selection of the most appropriate methods for later case studies (Babbie, 2007). The objective of explanatory case studies is to elucidate upon how and why the phenomenon happens and examine the relationships between it and other factors in the surrounding context (Yin, 2013). This type of case study can be used to consider questions of causality and assess how well theory explains a particular

phenomenon in the field (Yin, 2013). This thesis is based on one case firm, and includes an exploratory study of Innovation Challenges with the aim of understanding and explaining the relationship between the recognition of creativity and the practice and processes of legitimation among managers and employees.

4.3.1. The Research Setting - TechCorp

The Innovation Challenge cases are embedded in a large, technology multi-national corporate given the pseudonym of TechCorp. This section commences by providing a descriptive account of the organisation as context. Specific features are identified which contribute to an understanding of it as a large scale, complex and highly regulated institution which has a significant history of creative ideas, invention and innovation, and the impact this has on its ongoing drive for creativity. In particular, the Innovation Challenges and the use of the Innovation Portal represent a programme designed to stimulate creativity against a backdrop of regulation and challenging internal and external constraints. As such it is an exemplar of how the stimulation of creativity to drive innovation is attempted through the vehicle of a companywide campaign and intervention. The organisation was primarily selected because its size and scope provide the opportunity to observe multiple instances of creativity recognition by following several Innovation Challenges within one context. This approach increased the internal validity of the study (Thomas, 2003; Yin, 2013). One criticism of case studies is that qualitative samples do not enable generalisations to the wider population to be made (Kempster and Cope, 2010). However, this thesis is exploratory in nature and seeks to identify and understand convergent and divergent experiences of the recognition of creativity in the field. Thus, the credibility of the findings can be considered relevant to organisations which share the characteristics of the case study company such as its size, maturity and level of technology.

TechCorp plc is a British multinational public limited company which currently designs, manufactures and distributes technology for a number of industry sectors. First established in the early 1900s, TechCorp is a world leading manufacturer of transportation systems and also has major businesses in the distribution and utility sectors. It is listed on the London Stock Exchange, has significant market capital and a strong forward order book. It is headquartered in London, with major manufacturing hubs in the UK, US and Asia Pacific and a worldwide network of offices and service facilities.

The company went through a significant period of financial instability about five decades ago when many business assets were either disposed of or passed into public ownership. This is within the working life of some long-tenured employees and has had a profound effect on them as individuals as well as featuring heavily in the corporate memory. TechCorp was subsequently re-listed on the stock market and has since gone through several restructures as a legal and corporate entity, most recently becoming a wholly new company, TechCorp Holdings. The organisation has maintained strong recognition as a brand, despite its difficult history and some recent reputational issues.

The researcher had previously worked as a consultant to the firm for a period of two years (2010 – 2012) which afforded access to people within the organisation who might have otherwise been inaccessible. The researcher met with a contact in the organisation in May 2015 to discuss the proposed research and gather the names of potential contacts. These contacts were pursued until a telephone meeting with a Director at the organisation in June 2015 led to the researcher being given contact details for the company's Innovation Team. A change of personnel in the Innovation Team meant these initial discussions were put on hold until a new team leader was recruited and began work at the firm. In January 2016, the researcher conducted a preliminary interview on site

with the Technology Lead for the Innovation Team who had been assigned as the organisation's point of contact for the research. After gaining formal approval for the empirical work from the company, a lengthy negotiation of a Non-Disclosure Agreement (N.D.A.) began. This was a necessary part of the process, as access to the organisation was dependant on signing an N.D.A. in order to provide legal protection for both organisation and researcher.

Although the research is concerned with the experience and social interaction surrounding the recognition of creative ideas rather than the content of the ideas per se, nevertheless, observations were situated within the context of highly confidential and proprietary innovation projects. One benefit of the lengthy journey to gain access was the development of a joint research proposal document developed between researcher and organisation, which led to a strengthening of support and commitment from the host organisation. After the N.D.A. was in place the Technology Lead in the Innovation Team assisted in marshalling resources and gaining access to the people required to participate. The following section describes the role of innovation at TechCorp based on secondary research from documentary sources.

4.3.2. Innovation at TechCorp

TechCorp invests a considerable sum of money in innovation and technology to identify new markets and meet current and future customer needs each year (Annual Reports, 2015-18). It states it is committed to radical innovation alongside the pursuit of continuous improvement. The organisation is conscious of a rapidly changing market environment, the potential for disruptive technology, and the opportunities and threats posed by regulators and large-scale societal challenges particularly around carbon reduction. The company positions itself as being at the forefront of science and technology and in a strong position to meet future customer requirements.

Information on innovation is open to the wider public through the company's Annual Report and its website includes developments in each of the five divisions of the organisation together with a discussion of industry trends and increased regulation - especially in environmental standards, research funding, big data and future technology.

There is a high barrier to entry in the industry which has resulted in a few dominant players in the market, TechCorp included. This does not protect the organisation from a disruptive innovation event, which would change the marketplace making their products obsolete, in the way in which the digitisation of images and sound forever changed the photography and music businesses. These significant developments have resulted in innovation being seen as a key component of the company's future, both strategic innovation to maintain market-leading performance and tactical improvements to drive operational cost and efficiency.

4.4. Bounded Creativity at TechCorp: The Challenges and Portal

Within any case study, it is necessary to establish boundaries and define what is within the bounds of the study and what is excluded (Stark and Torrance, 2005; Yin, 2013). The choice of a single firm is intentional as it allows for a rich and detailed description of the context and affords an opportunity to gather substantial data from multiple Innovation Challenges within a common context. Examining innovation challenges within a single case organisation was successfully employed as a method by Kijkuit and Van Den Ende (2007) in their study of 'The organisational life of an idea' which scrutinised the processes surrounding the development of creative ideas at the front end of implementation within an organisation. Researching the multiple Innovation Challenges allows conclusions to be drawn across the challenges as a whole and provides sufficient data for generalisations to be made about how theory applies to these circumstances and draw attention to areas of consistency and variation (Yin, 2013).

As part of the boundary setting, one important consideration is the unit of analysis under investigation (Yin, 2013). Yin (2013) proposes four different types for case study designs based upon whether they are single or multiple, holistic or embedded. This study adopts a single case study (embedded) design to investigate the recognition of creativity in organisational innovation challenges. The context for the case is the organisation itself, TechCorp, and embedded within it are smaller units of analysis which are the individuals enacting and responding to Innovation Challenges set by different business areas.

The case study at TechCorp centres on an initiative operating within the organisation to increase the frequency and fluidity of creative ideas to resolve technical challenges within the company. The challenges, process used to elicit and evaluate them and the technology utilised (the portal) form a bounded instance of creativity activity suitable to explore the research question. Creativity and innovation were described as the lifeblood of the organisation and its key to competitive advantage. For this reason, the organisation wanted to increase employee participation in pursuing creative ideas.

> *We are embedding a culture of innovation across the business. We are looking to all our people for ideas that improve how we work and how we are organised, as well as the technology we develop and the products and services we provide. We know that to drive innovation we must create the right environment; curious, challenging, unafraid of failure, open-minded and able to change with pace.*
>
> **TechCorp Internal Report, 2016**

Innovation Challenges were seen as an important mechanism to engage employees and offer a means of bringing creative ideas to the attention of leaders in response to specific challenges. Further exposition of the challenges and portal are contained in the following sections.

4.4.1. The Challenges

This section sets the scene for how Innovation Challenges and the portal were used as a catalyst to identify and solve complex problems within the organisation. It frames the discussion in the remainder of this chapter and examines how this initiative provided a practical mechanism for creative ideas to be evaluated and resourced within the organisation and thus a suitable setting for observing the legitimation of creative ideas.

In the literature review, legitimacy was conceptualised as a belief social norms surrounding the recognition of creative ideas within the organisation were both valid and appropriate and which people felt obligated to follow (Johnson et al., 2016). Understanding the organisation and its complexity, structure and hierarchy are important to explain how innovation has become a prominent theme within the organisational narrative and is advanced as both an appropriate behaviour for employees and a desirable and advantageous outcome for the organisation.

The process by which an Innovation Challenge is created and managed is straightforward, though sometimes time-consuming, and is facilitated by the Innovation Team. The process begins with an initial meeting between the potential Challenge Sponsor in the business unit and a member of the Innovation Team. This meeting is exploratory in nature and establishes what the problem is and whether it is appropriate for a companywide Innovation Challenge. A key feature of this discussion is whether the problem is broad enough and sufficiently generic to result in answers from employees without technical, domain-specific knowledge. This often means challenges are elevated from their original form to a higher, overarching concept which can be understood by all.

Another consideration during this initial meeting to make sure the problem does not inherently suggest or imply a particular conclusion or solution in the way it is framed – described by Innovation Team member ZZ as *"leading the witness"*.

The Innovation Challenges are welcomed by those with problems as well as those who can potentially solve them:

> *The company needs something like this to solve problems because* ***it's not just a way of airing your solutions but of airing your problems.*** *Getting people to come out of the woodwork.*
>
> **QQ, Contributor**
>
> *When you're in a manufacturing environment and you've got a couple of hundred people in a facility,* ***chances are all the obvious stuff is going to be tried not just by the team once, but as leadership changes, these always get tried.*** *New EVPs (Executive Vice Presidents) and business leaders, they're always trying the 'go-to' things.*
>
> **BB, Sponsor, Turbine Component Cost Challenge**

Once a challenge has been agreed upon, the Innovation Team adds the challenge to the portal which is embedded within the company intranet. The challenge is featured on TechCorp's intranet homepage and an email alert is sent to any employee who has registered an interest in receiving updates on Innovation Challenges. In response to the challenge itself, there is a range of options an employee can pursue. Any employee can post a solution, ask clarification questions, critique or build on other people's ideas, present counter arguments and vote ideas up or down the leaderboard. In addition to these engagement behaviours, employees have the option to choose to observe without making a visible contribution or to not engage with the challenge at all.

Employees who do not engage with challenges are a source of concern for the Innovation Team and some investigation has been undertaken by them into why these employees choose not to engage with the portal and to remove any obvious barriers to use such as shop floor workers lacking access to a computer. This has increased engagement, however, there remains a large group of employees who do not take part in the innovation challenges via the portal.

Challenges run for a period of time which is determined at the start and communicated as part of the challenge. During this time, employees can engage with the challenge as much or as little as they like. At the end of the initial open discussion phase, employees are asked to vote on the ideas which have been put forward. This is done in a pairwise voting system, where pairs of ideas are presented to the voter and they are asked to select one. Various binary combinations of challenge ideas are presented until there is sufficient data to select the highest ranking idea. This process ranks ideas by individual voter, and also cumulatively, so the system collates the ratings of all participants in response to a challenge.

There was a broad acknowledgement that the process is valuable as a mechanism for unearthing new ideas and addressing challenges within the organisation.

> *I thoroughly believe in sourcing input from as wide a field as possible, be that idea generation or idea development, you need a nice big bucket and then you need someone who knows what they're doing to filter that bucket. The technical specialists behind the scenes who evaluate it are valuable in their own right. Well, clearly they are, they know what they're talking about and the ideas are from people who don't… as I said at the beginning, I really appreciate it. I was very glad to see it here and I really enjoy*

contributing to it. But it is trying to do something that is inherently difficult. Generate new ideas and get them to go somewhere.

XX, Contributor

It's useful in that it exists in the first place. The fact that we've got a proper tool that is not an Excel spreadsheet that someone's come up with and stored on a network drive somewhere. It's got the right look and feel about it, it feels like it's there to do a proper job. It's great, it's great you can access - the single sign-on is brilliant, that's absolutely essential, because I do tend to find that once you start trying to promote something that's more than a couple of clicks away people don't want to go there. It's also good in that you can put anything on there - no challenge is a bad challenge.

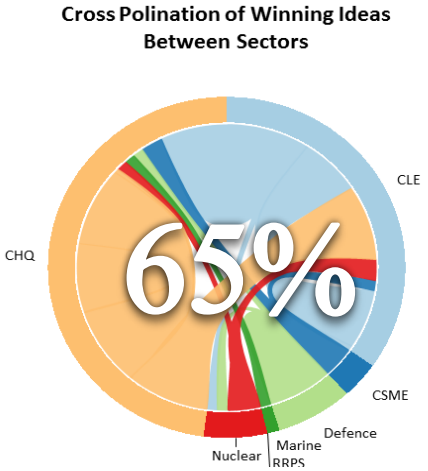
BB, Sponsor, Turbine Component Cost Challenge

Once this stage is complete, discussion and evaluation of the options moves from the public arena of all employees and becomes a Sponsor and Innovation Team task. Typically, this management evaluation of the ideas is conducted at a meeting with the challenge sponsor and other subject matter experts, such as technical specialists, intellectual property specialists and those with specific domain knowledge. This meeting is facilitated by a member of the Innovation Team and involves in depth discussion of the top-ranking ideas. The criteria used are not prescriptive, however, typically factors such as feasibility, novelty, safety and value for money are taken into consideration alongside constraints such as time taken to implement, cost, and domain-specific factors such as weight or durability where necessary.

While the peer ranking provides a table of results with ideas positioned according to their value as perceived by employees, pressure from management teams has led to a 'wildcard' option being

made available. This allows the challenge sponsor and/or the Innovation Team to include additional ideas which they see as worthy of further investigation, even if these were overlooked or undervalued by employees and therefore were ranked lower in the employee voting. Once the selected ideas have been discussed then one idea is selected for further investigation, which is considered to be - and labelled as - the 'winning idea'.

Figure 10: 65% of winning ideas originate outside of the domain which set the challenge



The intention of all parties from here on in is to further investigate and develop the winning idea to the extent it can be implemented or deployed in the business. In practice, there are a number of different outcomes for winning ideas. These include being developed and implemented, being part-developed and then paused or halted, or being disregarded and not progressed further. There are a number of key reasons why the winning ideas are not implemented more frequently and this is illustrated in the data gathered and presented in the later findings chapters (Chapters Five, Six and Seven).

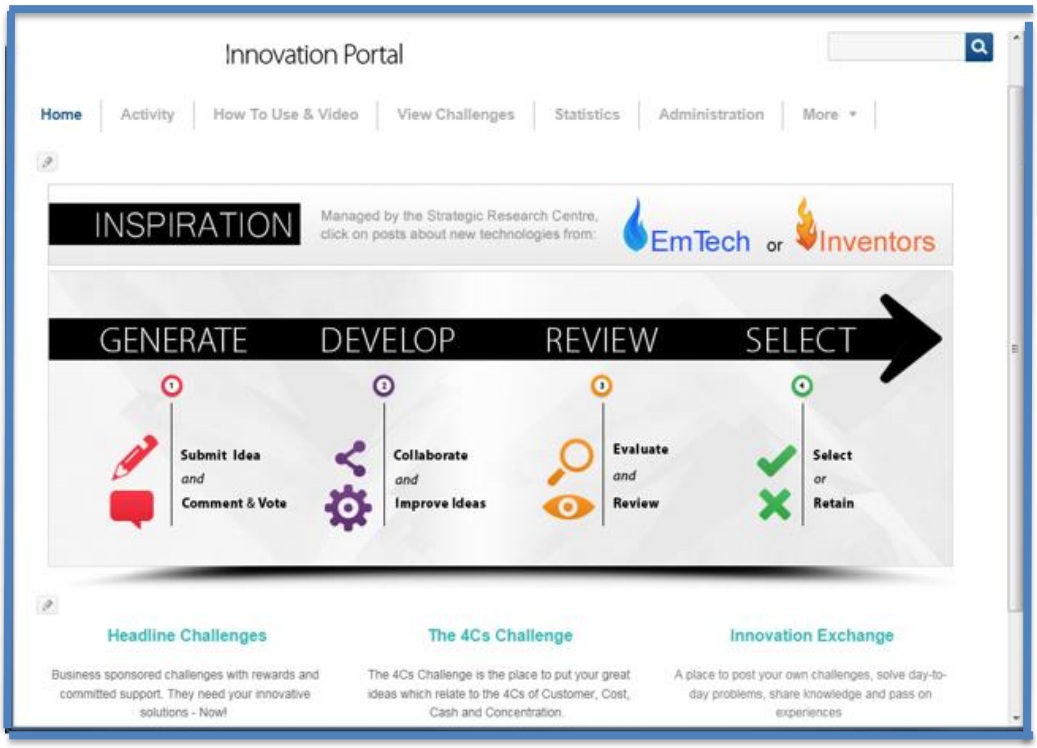
4.4.2. The Innovation Portal

The Innovation Portal is a technology solution which has been implemented within TechCorp to allow intractable problems and challenges to be posted across the organisation. The purpose of this widespread dissemination of challenges is to seek innovative and previously unconsidered ideas, especially to those challenges which transcend one particular division or product. Electronic networks of practice have been used in organisations to capture and codify information for many years. (Davenport and Prusak, 1998; Orlikowski, 2002). Knowledge management systems are not without their limits, however, namely the effort required to elicit and input the data and the ability for people elsewhere in the organisation to search for and access data (Hinds and Pfeffer, 2003; LaMonica, 2006). Such social sites have the benefit of enabling people to interact electronically allowing the opportunity to connect to others, share information and build on ideas (Fulk and Yuan, 2013). The portal itself consists of an external technology platform called Spigit, a widely used innovation management platform with over six million users worldwide.

The platform allows TechCorp to crowdsource ideas from across the whole company, plus selected suppliers, partners and customers. The technology itself uses data science and algorithms to help employees contribute, enhance, select and advance ideas and its main benefit is seen as gaining responses to challenges from across the entire organisation.

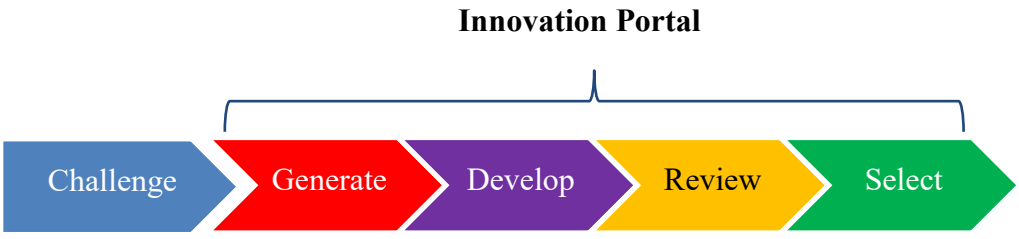
> *So, basically the business needed an answer in nine months, we couldn't wait years and we didn't have a million pounds either or the several million to do it, so they put it on the Innovation Portal.*
>
> **UU, Contributor**

Figure 11: The Homepage of the Innovation Portal



While it is widely reported that there are 20,000 unique visitors to the portal, in practice a far smaller group of around 50 employees can be classed as 'extreme users': frequently engaging with the content and either contributing ideas, building on the ideas of others or voting ideas further up the leaderboard. It is from this population the sample of employees participating in the Innovation Challenges was drawn.

Figure 12: The Innovation Challenge Stages



Within TechCorp the Innovation Portal is used to facilitate Innovation Challenges across the organisation. Challenges are selected in two ways: a) initiated by managers approaching the Innovation Team with a current or future problem or b) initiated by members of the Innovation Team reaching out to a business area to identify problems to be solved. In the early days of the portal, it is reported how launching an innovation challenge was actively encouraged by the Innovation Team and senior leadership.

> *I'll be frank with you - we entered this project into the innovation challenge because senior management thought it was a good idea, as an exercise. 'You guys have a problem and here's a portal that's out there - go use it'. Within the team, we didn't reach out and say 'Boy, this is a good opportunity to get additional insight' - it was a directive if you will.*
>
> **HH**, **Sponsor, Fault Tolerant Electrical Marine Challenge**

This led to a number of managers and employees having an objective in their annual performance review such as running an innovation challenge, submitting ideas or having a winning idea. The results of this approach were mixed and led to Innovation Challenges being set to complete an objective, rather than because they were a pressing organisational need. Subsequently, these challenges often led to ideas which were not implemented or funded further. Similarly, in the past employees have been encouraged to participate on the Innovation Portal with prizes such as an iPad for a winning idea. Both these approaches to incentivising activity on the portal have ceased in the last two years due to the recognition it was not driving the desired engagement and participation or gaining the organisation the results they required.

> *It's been fairly successful so far, it's gathered a few ideas and I think the portal is a very good tool for getting the problem recognised as well because it's a very public, not the*

general public, but a very public domain in terms of the population of TechCorp; anybody can go and look at it and see what the ideas are for a single challenge when perhaps nobody ever sees the day to day of what goes on in the design environment. In the general development of an engine.

OO, Contributor

It is acknowledged the Innovation Challenges and Portal provides an example of creative problem solving within a wider practice of creativity within the organisation. This activity includes complex problem-solving in the everyday working environment, as well as creative ideation pursued through other avenues such as programmes, projects and patent applications. This choice of sample – managers and employees highly involved in creativity and innovation – provides certain limitations on how results can be generalised to other creativity and innovation activities within the organisation. It also limits the degree to which results can be generalised to populations in the organisation beyond the groups who contributed to this study, however, it is this bounded sample of specific challenges and problems which has been advanced and made visible to the whole organisation, which provides a suitable case study to focus attention on the creative activity of those individuals – managers and employees – most amenable to solving these type of ill-defined problems.

4.5. Research Methods

Research methods are "the techniques or procedures used to gather and analyse data related to some research questions or hypotheses" (Crotty, 1998: pp 3). Sample selection is an essential consideration for qualitative research and correlates directly with the ability to generalise the result of the completed study (Mason, 2002). Within case studies, there are a number of methods

commonly used to gather data: interviews, focus groups, direct observation, participant observation, document analysis, archival records and physical artefacts (Yin, 2013). To create the dataset for this thesis, data were gathered through semi-structured interviews, direct observation and document analysis. These methods allowed detailed and in-depth information to be collected in the field and triangulated. They also provide a rich picture of the recognition of creative ideas and mitigates the issues surrounding the reliability and validity of data sometimes considered to be a weakness in the design of case studies (Yin, 2013). These methods are described and discussed over subsequent sections.

4.5.1. Sample Selection

In qualitative research, careful consideration needs to be given to selecting participants so the data sources chosen can be related in a meaningful way to the wider population or context (Mason, 2002; Yin, 2013). Mason (2002, p. 121) shows sampling reflects where the qualitative researcher's attention and emphasis lie: "you are not interested in the 'census' view or trying to conduct a broad sweep of everything, so much as focusing in on specific issues, processes, phenomena and so on". The research participants were managers and employees across a broad range of business areas within the company who had all participated in Innovation Challenges in some way. The sampling strategy employed in this research is non-probability and purposive; designed to identify participants and information sources appropriate and relevant to the theoretical constructs explored by the research questions (Babbie, 2012). This theoretical sampling approach endeavours to select "incidents, slices of life, time periods, or people on the basis of their potential manifestation or representation of important theoretical constructs" (Patton, 2002. p.238). This method is particularly effective for the in-depth examination of a small population (Schutt, 2011). Sampling also included the opportunistic recruitment of additional participants during the study through a

'snowballing' technique, asking participants to identify additional participants based on their own knowledge of people who would be suitable to include.

The following table provides demographic details of the sample of Sponsors and Contributors interviewed within the course of data collection. Information on gender, tenure and nationality was collected.

Table 3: Demographic data from Sponsors (Managers)

Code	Gender	Age	Tenure	Nationality
AA	F	45	1996	British
BB	M	37	2006	British
CC	M	55	1985	British
DD	M	42	2012	Norwegian
EE	M	46	2001	N. American
FF	M	51	1988	British
GG	M	40	2005	British
HH	M	48	1991	British
II	M	42	1998	British
JJ	M	28	2013	British

KK	M	53	1988 (with 10 years elsewhere)	British
LL	M	42	2009	British

Table 4: Demographic data from Contributors (Employees)

Code	Gender	Age	Tenure	Nationality
MM	M	57	1997	British
NN	M	39	2006	British
OO	M	44	2006	British
PP	F	30	2009	British
QQ	M	59	1990	British
RR	M	36	1999	British
SS	M	52	1984 (with 6 years elsewhere)	British
TT	M	39	2004	British
UU	M	46	2005	German
VV	M	58	1995	British

WW	M	55	2011	British
XX	M	42	2004	British

Table 5: Demographic data from participant sample - Innovation Team

Code	Gender	Age	Tenure	Nationality
YY	M	48	2012	British
ZZ	M	41	1997	British

The Innovation Challenges

The challenges which were included in the study were primarily selected based upon the sample of sponsors and contributors who agreed to participate in the research. This was a purposive sample and while an attempt was made to include challenges from different areas of the business it is not intended to be proportionate in its representation of the organisation. For each of the challenges listed, there was one main sponsor who was accountable and responsible for initiating the challenge. In most cases, the contributors interviewed had participated in many of the challenges, both those featured in this study and further challenges which were not discussed. This was anticipated as the contributor sample was initially identified as those who had high participation rates in the online challenges. The areas in which the challenges originated are listed as the literature suggests challenges arising in different contexts may be subject to different processes.

Table 6: Sample of Innovation Challenges

Challenge	Business Area	Description
Ballast Water Challenge	Marine	Challenge relating to management of ballast water to stabilise vessels at sea
VSV Activation Challenge	Gas Turbines	Problem related to how to measure the variable stator vanes in situ within gas turbines
Bearing Cooling Challenge	Services (Helicopters)	Problem related to cooling helicopter bearings in the field
Fault Tolerant Electrical Challenge	Marine	Challenge surrounding how to prevent burn on with composite materials
Awkward measurement challenge	Civil Nuclear	Challenge to measure heart extraction from fluid
Prevention of corrosion of stainless steel	Nuclear Submarines	Challenge relating to preventing corrosion staining in situ
Indoor Thrust Measurement Challenge	Gas Turbines	Challenge relating to measuring thrust in gas turbines on indoor test beds
Engine Cradle Performance Challenge	Civil Aerospace	Challenge relating to engine cradle drag being calibrated on indoor test beds
Fuel Pipe Vibration Challenge	Defence (Helicopters)	Challenge relating to pipe vibration on a series of helicopters
Engine Health Monitoring Challenge	Civil Aerospace	Challenge relating to remote monitoring of in-flight engine data
Unit Cost Reduction Challenge	Purchasing	Challenge relating to cost reduction of components
Turbine Component Cost Challenge	Civil Aerospace	Challenge relating to cost reduction of specific turbine components

Future Technologies Challenge	Future Technologies	Challenge relating to opportunity for new technologies i.e. carbon neutral travel, autonomous shipping

4.5.2. Ethics

Research involving human subjects gives rise to distinct and sometimes complex issues regarding research ethics. Ethical considerations in research are vital and provide standards for conduct which determine what is acceptable, and not acceptable, on the part of the researcher (Berg and Lune, 2004). Research ethics seek to balance the objectives of the research with the risks associated with researching human behaviour. Within this thesis, a number of general issues relating to research ethics arose, alongside some which were specific to the research setting. Both general and specific ethical considerations are described below and were carefully considered and responded to before, during and after the study.

In qualitative research, the objectives of research ethics are threefold: first, to protect human subjects of research, second to ensure research is in the best interests of participants, the research community and wider society and finally, the consideration and management of elements such as informed consent, confidentiality and data protection (Miller et al, 2012; Israel, 2014). Within this study care was given to minimise psychological and social risk to participants and to respect their autonomy and anonymity. The first consideration was to ensure access was gained in such a manner that participants felt they had informed consent: choice about whether to take part or decline (Marshall and Rossman, 2010). As access was gained through the Innovation Team, potential participants were contacted by email and were provided with an information sheet explaining the scope of the thesis, the researcher's credentials and a statement regarding data confidentiality and anonymity. It was made clear that participation was voluntary and it was left to participants to contact the researcher if they wished to take part in the research. The information

provided also explained informed consent and how participants would be able to withdraw from the study at any point. During the data collection, care was taken to ensure topics which might be problematic for participants to discuss, for example, how their ideas may have been rejected in the past, were handled with tact and sensitivity. Care was taken not to press for answers, on the rare occasions, where participants did not expressly wish to give them.

A further consideration was to ensure participants were drawn from a group who would also benefit from the research as well as being a relevant sample to participate. Participants were selected from two groups: sponsors who had initiated Innovation Challenges and participants who had taken part in those challenges. As both groups were identified through their participation, they were also likely to benefit from the research interviews and the later findings of the research.

Finally, ethical standards also protect the confidentiality and anonymity of the subjects. During the interview process, care was taken not to share information between participants or report any demographic detail or data which might identify specific participants. Procedures were also put in place to protect the data and names of participants. This included anonymising participants' data during the transcription and coding process so individual answers could not be traced back to a specific person. When providing a summary of findings back to TechCorp, data was represented in such a way extracts could not be attributed to the individual from whom they originated. Through this methodical approach to identifying and mitigating potential risks to participants and balancing these with the benefits of the research, the researcher ensured ethical considerations were addressed throughout the thesis process.

4.5.3. Individual Interviews

Interviews are a valuable means for gaining insight into the ways people understand, interpret and make sense of complex social experiences (Mack et al., 2005) and were the primary data collection

method for this research. The most prevalent form of interview found in qualitative research is the semi-structured interview (Flick, 2009), this offers a number of advantages. It had sufficient structure to enable specific matters and issues to be explored in the interview while allowing the researcher the flexibility to identify and pursue important and interesting subjects as they arose. This was achieved by adapting the interview while it is in progress to probe particular answers, or by modifying the interview guide for use in future interviews by adding or removing questions (Seale, 1999). Second, it allowed the researcher to vary the order of questions in the interview, rather than follow a prescribed order, which allowed the interview to follow the flow of the conversation (Seale, 1999).

Another feature of the semi-structured interview is it provided the opportunity to ask for further information or explanation from the participant, in the form of probing questions. This proved valuable as it enabled the researcher to begin to uncover the particular experience and meaning of the phenomena for the participant being interviewed with more clarity and less assumption of shared meaning (Richards, 2014). This is a significant point because "An interview is literally an inter-view, an inter-change of views between two persons conversing about a theme of mutual interest" (Kvale, 1996:14). The researcher must remain aware of their own interests, experiences and affectual state and practice reflexivity to ensure the data from the interview is not imprinted or influenced unduly by the researcher (Patton, 2002).

To gather initial data to plan the study, a joint interview was conducted with two members of the central Innovation Team in order to understand more about the way in which innovation challenges on the portal are undertaken and promoted at TechCorp. The interviews also covered the relationship the central Innovation Team had with the rest of the organisation and their understanding of what their role was in encouraging creativity and innovation and the role of the

rest of the organisation. From these initial pilot interviews and a series of observations, an interview guide for sponsors and participants was developed. Questions probed for what individuals perceived and understood of their own recognition and evaluation of creative ideas and have their creative ideas recognised and evaluated by others. A copy of the interview guide is included in the appendix to this thesis (see Appendix B).

Interviews were then conducted with senior managers who had set the innovation challenges. These were individuals within the organisation who had identified a problem or challenge which needed to be solved to support current or future innovation aspirations. In each case, these problems or challenges had not been solved through standard problem-solving channels and forums in the business area where the problem originated. The purpose of these interviews was to understand senior manager experience of the Innovation Challenge, how they set and framed the challenge, understanding of the conditions required to be met to 'win' the challenge, current and past experiences of recognising creative ideas and their perspective on how and why the 'winning' ideas were chosen. These challenge sponsors were also asked about whether the creative ideas chosen as 'winners' had been successfully implemented and if so how successfully, as it was important to establish whether the idea solved the problem in the field or was a 'winner' in name only.

A further series of interviews were conducted with participants in the Innovation Challenges. These were people identified by the Innovation Team as the top users of the innovation portal based on frequency and who had participated in multiple Innovation Challenges and either had their idea selected for shortlisting or won a challenge. The aim of these interviews was to explore their involvement with the innovation challenge, to understand their process, the meaning they

ascribed to it and their current and past experience of having their ideas recognised. An interview guide was developed in advance to provide structure for each of the interviews.

All interviewees had been provided with an Information Sheet prior to the interview to provide them with material about the aims and objectives of the research study. The sheet also provided information about how the information would be used and a Non-Disclosure Agreement was in place, which was important as the subject of some of the Innovation Challenges was highly confidential. It was anticipated with this safeguard in place that conversations would be open and focussed on the recognition of ideas without the distraction of concern about the disclosure of proprietary information.

Each interview began with a brief introduction, restating the name of the researcher, the institution and the objectives of the research project. This was followed by introductory questions about the participant, their position and brief employment history, to provide context and to establish rapport between the researcher and interview participant. Each interview lasted between sixty and ninety minutes and was conducted at TechCorp's premises during regular working hours. Each interview was recorded after gaining consent from the participant. Notes taken to capture additional content and context during the interviews were also written up and included in the analysis where appropriate. At the end of the interview, permission was obtained for further contact with the interviewee to clarify participant statements, check the researcher's understanding and enable meaning to be constructed collaboratively between researcher and participant. All participants were thanked for their time and contribution. Interviews were transcribed and analysed and the findings are included in Chapters Five, Six and Seven.

4.5.4. Direct Observation

While formal encounters such as interviews were the primary method of data collection, research in the field also provided opportunities to gather data through direct observation (Yin, 2013). Direct observation was sometimes spontaneous such as informal conversations, at other times it was carefully planned and involved the researcher observing and recording what occurs in a particular situation or interaction such as a meeting or event. This method allowed the researcher to observe and comprehend the context within which people interact. Direct observation allows the observer to directly experience the phenomena being studied in situ and go beyond how the phenomena is presented by participants in settings such as interviews.

The researcher was also able to observe and discover practices people in the organisation might overlook or conceal in their accounts provided in interviews of recognising creativity. It is also well-established how people may modify behaviour when being observed, however, direct observation is limited to observable, external behaviour with the researcher unable to explore underlying thoughts, emotions and motivations unless actively articulated in the setting (Flick, 2009). With these caveats in mind, direct observation provides valuable supplementary data and particularly supported the researcher in the triangulation of data gathered through other methods such as interviews

During the research project, direct observation was used to undertake a walkthrough demonstration of the process used for the Innovation Challenges by the Innovation Team, including the Innovation Portal, the internal name given to the computer software platform used. The types of challenges and details of the people who engaged with them were observed during this session, and notes were recorded alongside the explanation given of the process and its results. As part of this observation, reports, analysis and other management information generated from the different

challenges were presented to the researcher and recorded along with other data. This direct observation proved beneficial in emphasising the process for each challenge and the features of the computer platform. In this way, the direct observation session complemented the information gathered through the interviews and provided a helpful framework to understand the subtleties of the data collected via interviews.

The same method was used in two other instances: i) to observe how Innovation Challenges were framed through discussion between the Innovation Team and Challenge Sponsors and ii) to observe how Challenge Sponsors, Expert Reviewers and the Innovation Team for each challenge, discussed shortlisted creative ideas for Innovation Challenges and selected the winning idea for implementation. During these observations, the discussion between the parties was observed and their dialogue recorded alongside notes about the context. Direct observation provided useful information about the process and language used by the participants during the discussion and selection process without the researcher participating or being obtrusive. The data collected supplemented the information gathered through the interviews and added rich detail which might otherwise have not been captured.

4.6. Data Analysis

Data analysis is the process whereby data collected by the researcher is disassembled in order for its essential underlying parts to be fully comprehended and understood (Mouton and Marais, 1991). Words and phrases repeated in the data are labelled and the data is analysed against these to develop more nuanced categories, eventually using these insights to explain the social processes and relationships involved in the phenomenon. In the social constructionist /interpretivist paradigm, the researcher seeks to understand the environment and circumstances underlying a particular event or experience. Within this thesis, the practice and meaning ascribed to the

recognition and legitimation of creative ideas in organisations was examined from the perspective of the different participants in the Innovation Challenges. Rather than attempting to construct a unified or archetypal model, the research attempted to reflect the complexity and multifaceted nature of the recognition of creativity through the experience of people engaging and enacting such behaviour within the context of the firm.

4.6.1. Triangulation

Triangulation is the term given to the use of multiple approaches in an attempt to significantly diminish or eradicate methodological and individual biases and bolster confidence in the generalisability of results (Arksey and Knight, 1999; Thurmond, 2001). This can include the triangulation of methods, data, researchers or theories (Denzin, 1970). This research uses multiple methods (interviews, direct observations and document analysis), data sources (different departments, functions, innovation challenges, job status) and theories (creativity, innovation, legitimacy) in order to triangulate effectively. The purpose of triangulation in qualitative work is not to corroborate evidence or to establish a 'correct' or 'accurate' view of the phenomena; instead it "encourages the researcher to approach their research questions from different angles, and to explore their intellectual puzzles in a rounded and multifaceted way" (Mason, 2002, pp. 190). Given one criticism of the creativity literature is how the phenomenon is frequently conceptualised as stable, measurable and one dimensional (Blomberg, 2014), the triangulation of methods, data and theories represents an attempt to the explore creativity's nuances and distinctions.

4.6.2. Transcription

The interviews were transcribed verbatim by the researcher and pseudonyms were assigned to each participant to protect identity and maintain confidentiality. During the transcription process, words and short phrases were highlighted and pre-coded if there was a close fit between them and the

research question (Miles and Huberman, 1994). The transcribed data plus direct observation field notes and documents collected for analysis was collated within an NVivo qualitative analysis database to assist in the management of the data and support evaluation. Interviews were transcribed directly into Nvivo while listening to the recordings and examining notes taken at the time of the interviews when necessary to clarify meaning.

4.6.3. Coding Process

Data coding is an essential part of the analysis. Coding allows themes, structures, patterns, similarities and differences to be observed in the data collected (Seidel and Kelle, 1995). The first cycle of coding in qualitative analysis (Saldana, 2015) involves the researcher generating categories or labels to attach meaning to the data. For the first cycle of coding an open coding method was used. Open coding is the name given to high-level categorisation or conceptualisation of data identifying the key constructs which emerged (Given, 2008). The purpose of an open coding approach is to approach the data from an inductive perspective and establish authenticity by ensuring the labels applied by the researcher resonate with the phrases used by the participants in the research (Saldana, 2015).

The second cycle of open coding enabled the key concepts described in the data to be broken down further where transcripts and documents were examined, categorised through the use of increasingly refined sub-levels of coding (Saldana, 2015). The objective of the second cycle of open coding was to gradually identify configurations in the data and to progressively interpret their meaning. This culminated in the creation of definitions for each of the categories, together with boundaries for what was included and excluded (Maycut and Morehouse, 1995). The main consideration with open coding is consistency, with the researcher sensitive to repeated patterns in the data and mindful to represent and label such data as closely as possible to what was intended

by the participant or author of the data (Braun and Clarke, 2006). The open coding of the data was followed by axial coding to relate the categories and concepts which had emerged during the open coding of the data. The purpose of this was twofold: first, to ensure the categories identified in the open coding were an accurate reflection of the data collected and second, to identify the interrelationship between the categories identified.

The code most frequently identified within the data was ideas (682 times), and the least occurring were 'doubt' (four times) and 'censorship' (three times). Other frequently coded concepts were 'people' which was referred to 492 times, together with 'thinks' and 'work' which was referred to 414 and 315 times respectively. The codes were generated through an inductive coding process whereby the focus was driven by identifying patterns of meaning in the data beyond the concepts referenced in the theories underpinning the thesis. Thus coding was sensitive to concepts within the literature, but allowed themes to emerge from the accounts beyond those anticipated by current theory. Analysis of the initial data within NVivo allowed a series of categories and subcategories (called nodes and subnodes within NVivo) to be developed. Although the stages used in the analysis of the data appear sequential, they were in practice iterative.

4.6.4. Thematic Analysis

The most frequently utilised method of analysis for qualitative data is Thematic Analysis (Denzin and Lincoln, 2003). 2006). Thematic analysis is the "identifying, analysing, and reporting patterns (themes) within the data" (Braun and Clarke, 2006, p.79). Rigour during the development of themes is essential to capture accuracy and authenticity. The themes for the participant data were developed in a systematic and consistent manner, with a focus on maintaining the integrity of participant accounts while being cognisant of the conceptual models discussed in Chapter Three.

The coded nodes on NVivo were reread and analysed to identify broader patterns of meaning prominent in the data which could be recognised as potential themes.

The initial thematic analysis of the data identified seven main categories within the challenge sponsor data and six within the challenge contributor accounts. Part of the flexibility of thematic analysis is it allows the themes and their prevalence to be determined in a number of ways (Braun Clarke, 2006). Theme development occurred in parallel with a review of the conceptual framework. The result was the theoretical framework and attendant literature informed the generation of a further ten themes directly related to the creativity process.

4.6.5. Validity, Reliability and Generalisation

Demonstrating accuracy in qualitative research is an important defence against claims it lacks the integrity and rigour of quantitative work in the positivist tradition (Horsburgh, 2003). The two dimensions used to assert accuracy are reliability and validity. Reliability is the degree of consistency of results, while validity refers to accuracy in measuring what was meant to be measured (Denzin and Lincoln, 2005).

Reliability measures the extent to which the research findings are repeatable by another researcher using the same research methods in the same or similar setting. The complete reproduction of a qualitative study in other circumstances is challenging for many reasons (Marshall and Rossman, 1999; Seale, 1999). This thesis features material (Babbie, 2012) appropriate for its research objectives, and examines the recognition of creativity at a particular point in time. The data collected and the conclusions drawn reflect the setting, circumstance and participants involved during the period of research. While a longitudinal study would allow idea recognition and legitimacy processes to be studied over time, this was not a feasible prospect during the time period

allowed for this thesis. Adopting a social constructivist perspective acknowledges the way in which people construct their view of reality is temporally mediated (Berger and Luckmann, 1991).

Consequently, it is unlikely data would remain consistent over time had a longitudinal study been considered and to anticipate otherwise may be considered an unrealistic expectation (Lewis and Ritchie, 2003). Instead, the researcher endeavoured to show "the audience … as much as possible of the procedures that have led to a particular set of conclusions" (Seale, 1999:158). To aid transparency, aid replication and increase reliability, each decision and action undertaken during the course of the thesis has been clearly documented in the literature review and methodology. This includes a thorough discussion about the aim and objectives of the study, the conceptual framework, how the research was conducted and the justifications for the research strategy and methods used.

Internal validity is concerned with the trustworthiness of the data and the extent to which observations and analysis are transparent and repeatable (Gibbs, 2002). Validity is demonstrated in this study by accurately portraying what participants say about their experience while being sensitive to the understanding different people will construct their reality of the phenomenon differently. This derives from the theoretical approach: social constructivism concentrates on capturing the intended construction of meaning attributed to an experience without the need to establish a particular perspective as correct (Trochim, 2006). Hammersley (1987, pp. 69) expresses this as "An account is valid or true if it represents accurately those features of the phenomena, that it is intended to describe, explain or theorise". During the process of research, data were recorded alongside notes about the context and any details about participants which illuminated the meaning of their words. Interactions were transcribed promptly by the researcher to ensure familiarity with the data, timeliness and accuracy in capturing data. Interviews were continued until data collection

reached a saturation point when information was being consistently repeated without new perspectives emerging. At the data analysis stage, validity was established through continuously reflecting on and reaffirming the research questions. This was aided by recording the researcher's thought process in a memorandum in NVivo as the research analysis developed.

The degree to which research findings can be generalised to a wider population determines external validity (Denscombe, 1998). Lincoln and Guba (1985) define generalisation as "the assertions of enduring value that are context-free" (pp. 110). Qualitative research does not make claims of generalisability based on the study's proportional or statistical representation of a wider population. Instead, the qualitative researcher seeks to generalise the findings from the study to the theory itself. Thus, the test of external validity is met if the conclusions of the research study show the theory under examination is supported in the context in which it was studied (Yin, 2013). Choosing a case considered typical of a particular setting and investigating multiple embedded units of analysis are two ways of bolstering external validity. Both approaches are utilised in this thesis: the organisational context, innovation programme and innovation challenges themselves are common to many large businesses in the manufacturing and engineering sector and beyond, and several separate innovation challenges within the same programme are examined in the case firm. Two further recommendations to strengthen the generalisability of conclusions are clarity about the sampling strategy and a comprehensive description of the context or research site (Kalof et al., 2008).

In this thesis, detailed information about sampling procedures and participant selection is provided. In addition, a rich description of the organisation, its innovation strategy and innovation programme have been included in the findings chapter. In conclusion: "The validity, meaningfulness and insights generated from qualitative inquiry have more to do with the

information-richness or the cases selected and the observational/analytical capability of the researcher than with sample size" (Patton, 2002, pp.245).

4.7. Reflexive Statement

The findings of the research should reflect the focus of the investigation and not the bias of the researcher. Denzin and Lincoln (2011, pp. 500) suggest "In the social sciences, there is only interpretation. Nothing speaks for itself". This presents a significant problem for the qualitative scholar, as interpretation is known to be highly subjective (Berry and Warren, 2009). As a result, the researcher needs to be transparent about how they arrived at their interpretation of the data, in order to demonstrate quality and rigour in their research and withstand scrutiny among their peers (Davies and Dodd, 2002).

The practice of reflexivity attempts to remedy this problem of subjectivity, through the researcher maintaining continual awareness of their personal involvement and impact on the process and outcomes of their research (Johnson and Duberley, 2003; Davies et al, 2004). Reflexivity applies to every stage of the research journey; from outlining and characterising the problem, to amassing data, conducting analysis, writing up and publishing (Haynes, 2012). Interpretive empirical work necessitates interaction with research subjects and the research context, thereby potentially altering or affecting data pertaining to both (Denzin and Lincoln, 2011). Through the subjective filter of the researcher's background, education, experience and interests; the researcher unavoidably brings a priori beliefs and values to their interpretation, some they are consciously aware of and some less so (Alvesson, 2003; Haynes, 2012).

Researchers must, therefore, strive to become "an instrument of research, which implies self-awareness, a self-reflexive attitude in which researchers are no longer neutral intermediaries, but

are now called upon to reflect on themselves and their work" (Medico and Santiago-Delefosse, 2014, pp. 342). Careful reflexivity provides this necessary meta-analysis or 'interpretation of interpretation', satisfying the need for transparency in methods and practice (Alvesson and Sköldberg, 2000; Johnson and Duberley, 2003). The reflexivity statement included below recounts and reflects on the researcher's perspective of the recognition of creativity and how the research process itself was navigated by the researcher.

A social constructivist epistemology suggests all knowledge is constituted and (co-)created between the researcher and research participant (Cunliffe, 2003; 2004). It adopts the position that research interviews and other interactive qualitative data collection methods are conversations instigated solely for the purpose of research and the knowledge generated through them is a product of these planned encounters and not a mirror of reality (Weick, 1989). Interaction is considered situational and dependant on time, place and audience, with participants and researcher performing, based on accepted cultural values, norms and beliefs (Goffman, 1959). Thus, the researcher is required to manage the inherent tension between being fully immersed in the field, while simultaneously preserving sufficient distance from the subject of research to accomplish scholarly detachment (Cunliffe, 2003).

Having previously worked for two years as a consultant within the organisation chosen for the research study, there were a number of issues which had to be considered (Finlay, 2002). The first was care needed to be taken to avoid being positioned as an insider. An assumption of insider status might lead to the researcher or participant supposing they had shared knowledge about the organisation, its processes and people, leading to incorrect assumptions and a failure to gain further clarity (Mason, 2002; Brinkman and Kvale, 2010). Prior identification and consideration of this point allowed the researcher to approach each interview aware of the need to challenge

assumptions and explore meanings and practices articulated by the participants. Transcribing the first interviews supported this and brought further clarity to the researcher about the need to question shared assumptions, for example when a research participant responded: "You know what I mean?" This type of self-awareness and reflexivity aided the removable of researcher bias as the study progressed.

The researcher also needed to address the dynamics of the interview. Initial meetings at the start of the empirical work made it apparent the researcher was considered to be someone with specialist and valuable knowledge. To illustrate, a member of the Innovation Team, ZZ, asked for the researcher's "thoughts on reward and recognition with respect to creative ideas, it's an ongoing discussion we're having within our team". This was interpreted as positioning the researcher as a privileged person with a credible and interesting viewpoint on how extrinsic motivation affects creativity because I had access to different data to the team member and their fellow practitioners. This neatly demonstrates the point that the researcher does not enter the research interview as a "neutral intermediary" (Medico and Santiago-Delefosse, 2014, pp. 342) but directly influences the conversation.

As well as providing insight into matters of knowledge construction, reflexivity can also be employed to strengthen the quality and rigour surrounding theory and methodology (Haynes, 2012). Theoretical reflexivity is the call to suspend judgement and continue to revise research as new information, literature and data come to light (Alvesson, 2003; Haynes, 2012). Pragmatism in this context means a willingness to postpone some doubt and still use the material for the best possible purpose. Pragmatism builds on an awareness that time, space and patience are limited. It also means "the occasional bracketing of radical doubt and self-critique for the achievement of results" (Alvesson, 2003, p.25). Applying legitimacy theory to the evaluation stage of the creative

process has obliged the researcher to consider wider organisational processes alongside the actions of individuals, providing insight into the tension between levels of analysis which lies at the heart of the research question.

During the thesis, it was essential to continually reflect on the interaction between theory and methodology and how each informs the other. Qualitative research benefits greatly from methodological reflexivity, which aims to provide the reader with a clear description of how the research has been conducted and interpreted (Creswell, 2007). A number of tools were adopted, such as bracketing off assumptions, completing a fieldwork diary and making notes of observations; these helped the researcher to maintain self-awareness during periods of lengthy research, (Johnson and Duberley, 2003). The aim of making personal notes and records in qualitative work is not to prove validity, but to bring rigour and clarity to methodology and methods so the research can be relied upon, replicated or repudiated (Alvesson, 2003). While qualitative research does not claim to offer broad generalisations beyond its own context, it can uncover lived experiences, strengthen understanding and extend theory (Yin, 1984). Researchers must therefore, continually critique, challenge and change their methodology and methods in light of emerging knowledge and evidence (Haynes, 2012).

The consciousness and voice of the researcher conducting the research is privileged throughout the research process as it is they who choose most aspects of the methodology and methods – who participates, what theories are applied, what data and how much is collected and how the results are interpreted, published and disseminated (Cresswell, 2007). It has already been established why methodological reflexivity is important, however, a balance must be maintained between allowing the researcher's voice to be heard and ensuring the researcher's voice is not privileged to the extent the voices of participants are not given as much attention (Medico and Santiago-Delefosse, 2014).

Instead, the researcher should aim for multiple voices, positioning themselves as part of the research project alongside the other participants (Hibbert, 2010). In the case of this research, it has been useful to think through how the researcher would answer the interview questions; to position herself alongside the participants and gain an understanding of any hidden assumptions and preconceptions held which might influence the research.

While Flick (2009, pp. 422-423) warns "the original motive for the research – to produce knowledge about the contexts of living and subjective points of view and their contexts – is in danger of getting lost in an endless discourse of self-referentiality", there are many benefits of a reflexive approach: rigour, quality, equality and the avoidance of systematic error. Matters which were identified as having significant connotations for the research thesis have been discussed and illustrate the importance and relevance of researcher reflexivity in addressing emerging issues throughout the entire research journey. Hibbert (2010) suggests reflexivity brings about a change within the research process, but more importantly, in this case, it brought about a change in the researcher. While change might have sometimes been unsettling because the researcher's assumptions and preconceptions were challenged (Haynes, 2012), ultimately reflexivity made for a better researcher and better research.

4.8 Conclusion

A qualitative research strategy is employed to explore legitimacy processes surrounding the recognition of creativity, including a social constructivist philosophy, case study methodology and multiple data collection and analysis methods. Research addressing this gap, based on observable data in an organisational setting, answers the call to deliver work of relevance and impact to the business community while at the same time being scientifically useful and advancing academic knowledge (Corley and Gioia, 2011). This methodology chapter provides a transparent account of

the decisions taken during the design and execution of the research and documents in detail how the research was conducted.

The following chapter presents the findings from the research and is the first of the findings chapters. It is the first chapter to explore the findings and ways in which the creative process is legitimised through extracts from the data pertaining to the case of TechCorp's Innovation Challenge programme.

The interpretivist philosophy advances the perspective that social phenomena are constructed through the interpretation of individual meaning and practice (Burrell and Morgan, 1994; Bryman, 2003; Saunders et. al., 2009). Thus to understand how and why individuals and groups engage in creative ideation within the context of the organisation, requires analysis of meaning and practice at the micro-level, while considering the macro-level effects present within the organisation. The findings are divided into three chapters reflecting the main lines of investigation within the thesis:

- the creativity process and the legitimisation of ideas (Chapter Five),
- enacting legitimacy from a management perspective (Chapter Six), and
- responding to legitimacy from an employee perspective (Chapter Seven).

Evidence of the legitimation of creativity, how this is enacted and responded to within the organisation emerges from the collected data over the three findings chapters. This framework links established concepts previously employed in the creativity literature (Chapter Two) and also builds on Legitimacy theory (Chapter Three) to explain the interplay between creativity and legitimacy.

This conceptual approach shines a light into the 'black box' surrounding the recognition of creativity and makes a further contribution by examining how certain forms of creative ideas are legitimised through the replication of normative management behaviours and operational pressures. This results in a new theoretical dimension which emerges from the data and which is named here as Nonconformity. This construct in which employees must adopt a position of non-conformity in response to the conformity required by the legitimation of the status quo surrounding creative ideas - is explored more fully in Chapter Seven alongside participant accounts and in Chapter Eight is the discussion and conclusion of the thesis.

CHAPTER FIVE: THE LEGITIMISATION OF CREATIVITY

5.1. Introduction

> "With the generation of new ideas, the idea development and implementation activities that characterize innovation become possible. Implementation, of course, depends on the evaluation of ideas (Runco and Chand, 1994). Evaluation, however, serves not only to select ideas, but also as a spur to the progressive refinement of potentially useful ideas (Barlow, 2000). As ideas are extended and refined, plans must be formulated for idea implementation (Berger, Guilford, and Christensen, 1957; Mumford, Schultz, and Osburn, 2002). These plans must be implemented in an opportunistic fashion after acquiring requisite support (Mumford, 2002)."
>
> Mumford, Scott, Gaddis and Strange (2002, p. 708)

In this, the first of the findings chapters, data is presented which expounds upon the process and practice of creativity and demonstrates recognition is a necessary component for acquiring support and obtaining resources to progress an idea further, albeit with other factors and conditions present. This data also reveals how organisational norms and social interactions legitimise certain outcomes of the creativity process. In this thesis, the recognition of creativity is summarised as:

> *the practice of noticing, evaluating and affirming a creative idea especially, but not necessarily, for the purpose of attracting more attention, support and resources (Amabile, Runco and Jaegar, 2012)*

As explained in Chapter Two, this thesis adopts a multifaceted view of creativity, encompassing its process, practice and context. While this adds to the complexity of understanding the concept, this is essential in order to fully examine the meanings and practice attributed to its recognition.

Imposing strict boundaries on what creativity is or should be would undermine the aim of the thesis which is to focus on the specificities of recognising creativity within an organisational context and examine the dynamics of individual creative activity, social practices and sources of organisational legitimacy.

The chapter is structured in the following manner. First, in Section 5.2., an amalgamated model of the creativity and legitimisation processes of Amabile (1982) and Johnson et al (2006) respectively is developed and presented by the researcher as a framework to discuss the mechanism by which creative outcomes are legitimised. This model contextualises how the recognition of ideas is legitimised and provides a focus for the descriptive accounts from sponsors and contributors. It allows exploration of the way legitimacy permeates creativity practice, allowing normative perspectives on what is a legitimate idea to dominate and delineate what, and who is, and is not recognised as creative. Section 5.2. presents the findings and key themes uncovered for each of the stages of the creativity process as follows:

Table 7: Comparative table with stages of the Creativity process (Amabile, 1983) and Innovation process (Everleen, 2010)

	Creativity Process	**Innovation Process**
5.3.	Problem	Initiation
5.4.	Preparation	Ideation
5.5.	Response	
5.6.	Validation	Integration
5.7.	Outcome	Implementation

Finally, the chapter concludes with a summary of the findings from the process of legitimising creativity and an exploration of how this pertains to the data collected from the perspectives of sponsors and contributors in the following two chapters (Chapters Six and Seven).

5.2. Creativity Process Model

The creativity process described in Chapter Three provides a useful tool for exploring how creative ideas come to be legitimised. According to Amabile (1983), there is a five-stage process to creativity and unsurprisingly, the format of the challenges broadly follows this framework. When viewed alongside the process of social legitimation suggested by Johnson et al (2006), this becomes a valuable mechanism for illustrating how these elements interlink.

The sections which follow draw on both sponsor and contributor accounts to present the stages of the creativity process and promote a deeper understanding of how legitimacy permeates the process. The purpose of the analysis of sponsor and participant accounts is to authentically explore meaning by exploring individual stories from those engaging with creativity within the organisation. As such, there is a recognition these accounts are inevitably examined and presented from the researcher perspective and it is acknowledged the accounts provide the potential for manifold interpretations, descriptions and explanations. The analytical process is necessarily selective and a reflexive perspective appreciates there is scope for identifying different interpretations of the material gathered and presented based on different perspectives and analytical frameworks. The themes and sub-themes for each stage of the creativity – legitimacy process are summarised in the table below.

Table 8: Themes and sub-themes by stage in the Creativity process

Stage	Aggregate Dimension	Theme	Sub-theme
Problem	Suitable challenges	Necessity problems	
		Opportunity problems	
Preparation	Components of Creativity	Domain relevant knowledge	
		Creativity relevant processes	Cognitive processes
			Personal Characteristics
Response	Idea development	Elaboration	
		Confidence	
Validation	Recognition	Peer Review	
		Panel Review	
Outcome	Enactment	Resource Allocation	
		Implementation	

5.3. The Problem Stage

Creativity models generally agree the earliest stage of creativity is where the organisation either encounters a complex problem or identifies a complex opportunity for which there is no

straightforward answer (Amabile, 1983). Within TechCorp there was a wide range of operational and technical challenges; all were characterised by complex requirements and constraints. It is important to frame the type of problem being considered in the case study to provide context and an appreciation of the difficult and intractable nature of these issues, which resulted in them being promoted to the whole organisation in an attempt to solve them. This excerpt from an interview with a participant who had entered sixteen challenges provides a representative description of the complexity common to many challenges.

> *The engine cradle affects the performance of the engine - it makes it worse - but there's nothing we can do about that, you have to hang the engine off the big box because there's no aeroplane to hang it around. So, what we do is apply a correction factor to the engine's results, which accounts for the fact that the cradle makes the performance worse… What you need to understand is because of what they do test beds are certified, so you go through an exercise with the certification authorities where you measure all the calibration factors and then after that, you leave it alone. And essentially we'd done this exercise about 35 years ago when things like computers and CFD [Computational Fluid Dynamics] were not as advanced. And there was a lot of compelling evidence to suggest that maybe the correction factors were not quite right.*
>
> **PP, Contributor, Engine Cradle Performance Challenge**

> *The challenge I put on there was only last week, so it's at the beginning at the moment. It's around protecting composite structures from fires. The history is we've developed a commodity which has issues with what we call 'burn on'. So, when we put it in a fire and take the heat source away, it's got a certain amount of time in which it has to extinguish itself and we couldn't pass that test for various reasons. So, we spent some time as a project*

team looking at various ideas, with varying levels of success. I decided I wanted to put it on as a challenge to see what people with different backgrounds and experiences could do too. People in the project team were very, almost focussed, down a narrow beam for so long, it sometimes makes it difficult to find ideas from the wider world. The classic cliché - you can't see the wood for the trees.

HH, Sponsor, Fault Tolerant Electrical Marine Challenge

The identification of a suitable problem or opportunity was mentioned in several of the interviews. The importance and urgency of a problem were seen as a pre-requisite to gain access to the Innovation Portal, run a Challenge and gather ideas from employees. A challenge's perceived fit with organisational strategy and objectives also determined the level of time and resource allocated to the idea, both during the challenge and subsequently. What constituted a suitable problem or opportunity was especially prominent as a theme in sponsor and participant accounts. This is explored in the subsections below.

5.3.1. Legitimate problems

The majority of the descriptions of problems given by research participants either addressed an urgent or important business issue or customer requirement, although there were occasional challenges which focussed on horizon scanning and opportunities.

Necessity problems

Most interviewees gave accounts of challenges which addressed problems the organisation had encountered through conducting their core business, especially those which had significant operational or financial urgency. Suitable problems for Challenges were those for which a solution had not been identified within the area in which the problem had arisen. These were considered

appropriate to be published on the portal as this afforded the sponsor the opportunity to gather ideas from across the company. Diverse perspectives from employees outside the area where the problem originally manifested might enable the sponsor to identify and create a better and more sustainable solution. This was the case with a challenge to reduce vibration in fuel pipes:

> *I guess we understood at the point of going to the forum [Innovation Portal], we understood what was causing the mechanism of failure and we had solved it, but in a pretty crude way and we wondered if there was a more elaborate, more elegant solution, which would maybe be more effective across a range of products and different sizes of pipes and things.*
>
> **CC, Sponsor, Fuel Pipe Vibration Resonance Challenge**

After this particular challenge concluded, the sponsor's team shortlisted the employee ideas which had been suggested and selected one which they felt had potential. He asked a team of graduate trainees to create a prototype and test it. The sponsor felt there was a strong possibility this would be a permanent and more satisfactory solution to the issue, plus he felt this solution might have scope to be applied across the rest of the organisation and be taken into consideration when designing products in the future, thus eliminating the issue altogether. He felt this combination of a problem in the present and a future solution in the making, confirmed the legitimacy on the challenge, justifying input from the wider organisation.

Constraints of time, money and resource combined in some areas of the business to create the urgency and operational need typical of these necessity-driven challenges. This was the case with a challenge concerning sand in helicopter rotor blades. The sponsor spoke about how low-profit

margins and demanding customers in his area of the business meant it was hard to get financial backing to pursue creative ideas unless they were justified by either an immediate return on investment or met a pressing need in the business. This sponsor stressed how his Challenge was of material importance and how constraints in his area meant funding was more likely for operational problems.

> *Within our helicopters product line it's extremely challenging, so if there is a novel or even a less than novel idea, not way out of the box, but at the perimeters, getting someone to support that financially or getting somebody to give justification for that pursuit tends to just quench the excitement of the idea...I hate to use the word constrain, but in terms of innovation, you need to have a thorough understanding on what those non-technical issues such as cost and schedule are in order to get focussed ideas that move towards a resolution.*
>
> **EE, Sponsor**, **Helicopter Bearing Cooling Challenge**

For those employees who frequently engaged in, and enjoyed ideation within their role, the portal provided an outlet for their creative ideas and importantly, a mechanism for pre-qualifying a problem was a legitimate one to contribute.

> *I find the most difficult part of having an idea is having a problem to point at. You can look at the pieces and come up with a dozen solutions take them round to people, six of them you'll knock down and five might get knocked down by other people and one might have legs. But none of that is really value added if the company isn't trying to solve that problem. 'I've found a really great way to do X but we don't need to do X' whereas the Innovation Portal starts with the premise that, usually a valid premise but not always that the company*

needs to solve X. So, it tells you there is value in pointing yourself at this for a bit and seeing what you've got.

XX, Contributor, Multiple Challenges

Time, cost and customer service constraints were described many times during the interviews. Sponsors and contributors highlighted the importance of resolving a problem and emphasised the necessity of the challenge. These data extracts provide a representative sample.

*We had **a real problem in the field that was affecting our customers - effectively on a daily basis** - and we needed to get some effective, but not perfect, solutions.*

EE, Sponsor, Helicopter Bearing Cooling Challenge

*So, it was Cathay Pacific who set it; they had six challenges. TechCorp **ran an internal innovation competition, got six winners, they flew all six out to Hong Kong, we all presented to Cathay** and they [Cathay] picked an overall winner.*

PP, Contributor

*I think the challenge was **how do we get the unit cost down to, I forget what it was, two and a half million, whatever because we believe the business case needs it.** What I said instead was 'instead of trying to cut the cost up front, why don't we make it [the product] last twice as long between services?'*

MM, Contributor

This necessity driven category was the most prevalent type of challenge described by sponsors and contributors. This dominance of necessity was also reflected in the accounts of creative ideation outside of the portal and challenges, such as in everyday problem solving and in patent

applications. This aspect is described in more detail in the section of sponsor accounts in Chapter Six.

Opportunity problems

While most challenges sought creative ideas to address current business problems and issues, there was also evidence creative ideas could, and should, be generated in response to opportunities identified by the organisation for future products or service opportunities.

> *What we try to do is not only seek what can be improved, so to speak but also challenge the things that have been done - often we ask, 'why has this been done this way?' Is there another way it can be done?* ***We position ourselves by thinking about what the customer should be asking for, not waiting for the customer to ask****, putting ourselves in that business, modelling that business and try to see what might benefit him. Without him having to come and ask for it.*
>
> **DD, Sponsor, Ballast Water Challenge**

This sponsor explained how his division not only sought to address operational issues but questioned and challenged the status quo. This was achieved by modelling the customer's business to proactively identify what might be beneficial. He felt restricting challenges to current operational issues resulted in limited, incremental innovation and it was through examining current and future opportunities his division would achieve radical, market-leading innovation.

> *The customer will not ask for something he doesn't know exists. The whole idea behind the team is to explore new ideas…this kind of blue ocean strategy, that you go into more uncontested waters where there's less competition.*
>
> **DD, Sponsor, Ballast Water Challenge**

Another opportunity driven challenge was one which focussed on optimising and utilising the data from aircraft engines. The response from a contributor was influenced by an opportunity she had seen when she had been seconded to a customer's business.

> *I had a whole spate of ideas after I went out to Air New Zealand* - ***being with the customer really stimulates your thinking. And I remember just after I got back they had a challenge all about data and it was 'how can this business do more in the kind of engine health monitoring space?'*** *and at Airlines, I learned that the aeroplane itself has the ability to talk to the ground. As aeroplanes fly around they have the ability to collect data and send it.*
>
> **PP, Contributor, Engine Health Monitoring Challenge**

In this engine health monitoring challenge, the open-ended nature of the problem statement led to a diverse range of ideas and this specific contributor was not successful. The generation of creative ideas to explore opportunities was considered an appropriate use of the innovation challenges, despite not featuring as heavily in sponsor and contributor accounts.

There was an acknowledgement that a balance needed to be maintained in the business with an ambidextrous approach to addressing existing issues while focusing on future opportunities. This is best summarised in an interview with a sponsor with experience of running challenges in both arenas.

> *There is Blue Ocean and Red Ocean - the big innovations. We need new products into both different types of environments. In Purchasing, you can have an innovative solution to a contract, whereas in Future Programmes the whole marketplace, component or*

architecture could be new. It's keeping the balance between tried and tested and changing to something better. But this brings risk; it's hard to quantify.

LL, Sponsor, Unit Cost Reduction Challenge

This quote highlights the contextual nature of assessment, with the Sponsor attempting to balance material risks inherent in introducing new ideas, with the understanding that retaining tried and tested procedures might prove safe in the short term, but would leave the organisation at risks from competition. This ambidextrous approach to exploiting existing learning and exploring new areas is considered to be the hallmark of excellence in an innovative company (He and Wong, 2004; Raisch and Birkinshaw, 2008), although in practice this proves notoriously difficult (March 1991).

Within the Innovation Challenge process, the organisation was seeking to normalisation and stability, usually through the identification of a solution for a problem or need which was affecting customers or operations. As a result, the identification of problems was instrumental and not left to chance. Thus, challenges focused on activity deemed legitimate by the organisation and the opportunity for more ambiguous, uncertain activity is, potentially, constrained. This had implications for later stages of the process, as the preparation and response to the challenge were shaped by the framing of the problem. In particular, the dominance of necessity problems, appears to have led to a focus on usefulness as opposed to novelty. The focus on resolving a problem which was having an effect on operational or customer experience meant the types of ideas considered were framed by the necessity of solving the problem and thus ideas which were pragmatic and which appeared to be straightforward and fast to implement were more attractive than ideas which were higher in novelty and originality, but which required more conceptual understanding, further investigation or a more convoluted path to execution.

This framing of the challenges constrained the rest of the process as ideas generated were developed in relation to the challenge set and therefore, restricted to responses which were apposite with the presented problem or opportunity. It is also important to note this limited contributions in a way which would not have occurred if the organisation had invited employee suggestions without the restraints or conditions which accompanied the innovation challenges. Thus, problems and opportunities which were important to management were given primacy above those challenges which may have been important to employees.

5.4. The Preparation Stage

Amabile's Componential Theory of Creativity (1983; 2016) suggests an essential stage of the creativity process is where individuals attempt to build up their store of information about a problem or search their existing knowledge and understanding for relevant information. Within accounts of this stage, two of the three components of creativity were prevalent: Domain Relevant Knowledge and Creativity Relevant Skills.

5.4.1. Domain relevant knowledge

Both sponsors and contributors noted the importance of domain-relevant knowledge as a factor in preparedness for creativity. A domain relevant skill is technical expertise, knowledge or talent in a specific, narrow or clearly defined niche considered to be directly or tangentially linked with the domain where the problem or opportunity resides (Baer, 2015). Domain relevant expertise in a field enables an individual to identify useful information which might have a bearing on the solution of a particular problem (Csikszentmihalyi, 1996; Baer, 2012). These skills form the repertoire from which the individual draws when preparing a response, and uses to evaluate the novelty and appropriateness of their creative ideas and those of others. As the problems presented by the Innovation Challenges had been prescribed by the organisation, it is unsurprising domain

relevant skills were highlighted as important by both sponsors and contributors, as both would expect relevant experience would be needed to understand and resolve the situation.

> *I guess a creative person is one that doesn't have to have to have twenty years of experience but they can close their eyes and know what a factory's like, what a typical Turbines facility is like. It came across in some of the ideas, where people either thought or didn't think that having robots was the solution. I'm not saying you have to have years of experience in the field just you've got to be able to close your eyes and imagine what it's like and for that imagination to be relevant and not off pitch.*
>
> **BB, Sponsor, Turbine Component Cost Challenge**

Sponsors emphasized the role of domain knowledge as a mechanism for contributors understanding the parameters of the challenge and the relevance of their experience to identify apposite ideas. This was considered important for recognising opportunities as well as solving problems, as in this observation from an account given by a challenge sponsor:

> *You need a lot of domain knowledge, I definitely see those people who understand the shipping business can produce more valuable ideas than those who don't. You're limiting your ideas to incremental improvement - a little bit more powerful, improving the efficiency a little bit, increasing the strength a little bit something like this - small incremental things, but when you start understanding what really is the customer's business then you can challenge more – 'is this at all the kind of product the customer needs or can we do it in a completely different way?'*
>
> **DD, Sponsor, Ballast Water Challenge**

Contributors also felt domain knowledge was important in the preparation stage although in this account the emphasis was on the identification of technical opportunities, rather than business or commercial opportunities.

> *And there's someone like Stanley [name changed] who is, has a very powerful mind and I think on the strength of that has a very deep understanding of how the engine works. Like when you're learning a language, at first you learn the rules and you learn the phrases and at some point, you get past all that and you just speak. You've watched The Matrix? First, you see the green lines and then ultimately you see the world. I think Stanley's [name changed] like that. I think he can see past the numbers and the data and the facts. He doesn't need to translate them into something - he just understands. He just naturally understands because he has that level of knowledge and so he sees ways of doing things and can determine himself which ones have merit.*
>
> **XX, Contributor**

Sometimes this deep expertise would lie dormant until the preparation stage motivated the individual to retrieve it from memory and apply it to solving the problem presented in the challenge. In this way, they connected their previous store of knowledge to the current situation.

> *At the university, I went to we had a lot of water tunnels, but we were really short of air ones. So, when you applied to run something on an air tunnel, you had to prove in your application it couldn't be done on a water tunnel. So, for me, it was standard practice to think about testing in water tunnels because that's how I'd been brought up at the university...And so we were in this position where computers couldn't solve this problem*

and I could turn round and say 'have you thought about using the antiquated approach from thirty years ago?'

PP, Contributor, Engine Cradle Performance Challenge

Such preparedness of mind is often considered to be a factor in serendipitous discoveries and breakthroughs such as Röntgen's discovery of the X-ray in 1895 (Rontgen, 1896) or Fleming's discovery of penicillin in 1928 (Fleming, 1944). The domain-relevant knowledge presented in these accounts suggests it primes the mind for noticing opportunities and remembered experiences which may have an unrecognised, yet appropriate, application in another area (Niknafs and Berry, 2017). Overall, the focus on domain relevant skills reflects how the organisation anticipated and legitimated knowledge which was directly relevant to the challenge which was being presented.

Even those areas of knowledge which were more tangential to the challenge or suggested by those outside of the area who initiated the challenge were still directly related to the domain or subject matter. This is indicative of the way in which contributions were potentially constrained by the way the problem was initially fashioned, thus, allowing more convention knowledge to gain primacy.

5.4.2. Creativity relevant processes

Creativity relevant processes also emerged from descriptions of preparation for creative problem-solving. A wide range of creativity focussed skills emerged from sponsor and contributor accounts. Those examples presented in the section below illustrate the cognitive processes and individual characteristics provided by research participants. Those categorised by the researcher as social skills or strategies relating to creativity are discussed in more depth in the findings from participant accounts in Chapter Seven.

Cognitive processes

Cognitive processes such as divergent and convergent thinking (Guilford, 1967), the ability to break out perceptual sets (Bugelski and Alampay, 1961), the capacity to contemplate wide-ranging ideas and the skill to suspend judgement were all described by individuals interviewed. A typical account is this extract from an interview with a sponsor who provided an example of an individual he considered to be creative who brought diverse experiences together in preparation to solve a problem.

> *They seem to think independently, so their 'out of the box' ideas were clearly something they'd thought about outside of the work environment. They were clearly connecting nature to the workplace, or life at home to the workplace, so they were connecting ideas outside of the environment we're talking about, putting two and two together to see if it added up and made sense and was relevant and clearly evident as well.*
>
> **BB, Sponsor, Turbine Component Cost Challenge**

Contributors also described divergent thinking as an important factor in developing creative ideas. In this case, the participant described a divergent thinking approach and how an 'incubation stage' (Dodds et al., 2003; Sio and Ormerod, 2009) was involved between contemplating the problem and making a response.

> *For example, sitting here at my desk, I'm unable to come up with answers, or ideas, but as soon as I'm outside cycling, driving a car, walking around, looking into the countryside, a lot of stuff becomes clear to me and it has been more than once when I've been annoyed I can't fix a problem then an idea came to me and I'd stop and write it down.*
>
> **UU, Contributor**

Contributors to challenges spoke about the ways in which they and other contributors applied creativity related skills such as convergent thinking and broad categorisation of information to aid synthesing concepts and ideas.

> *I've always had lots of ideas, I'm at my best when I treat a system as a stack of jigsaw puzzle pieces and* ***I don't need to know the exact detail about every piece but just enough about it to say 'what about if I put them together in a different way?'***
>
> **XX, Contributor**
>
> *They've applied common sense to an idea* ***when everybody else has been looking for a technical solution and they've come up with an amazing non-technical solution****. There was a challenge about trying to detect a bird strike and they detected it by basically having a recorder for the sound and not the impact.*
>
> **NN, Contributor**

These cognitive processes were seen as a necessary element of preparing to address challenging and complex problems.

Personal Characteristics

A theme which emerged from both sponsor and contributor accounts was about the personal characteristics demonstrated by people considered to be highly creative. These creativity related skills ranged from intellectual capacity (Feist and Barron, 2003), attentional focus (Mendlesohn, 1976), latent inhibition (Carson et al, 2003) as well as systematic and a persistent and disciplined approach to generating ideas.

Roland [name changed] is incredibly bright and he's a thinker and a guy I'd go to if I wanted a smart person to help me, whether it's his field or not, you can see [Roland] put his head back and half close his eyes and you know he's thinking. He's probably one of the brightest guys I know, from an intellectual point of view, so the way I politely describe Roland [name changed] is he's got the brain the size of a planet.

FF, Sponsor, Variable Stator Vanes Activation Challenge

The creative people are the ones who also… care about the, if it's in a company, they care about the company, they want the company to succeed. They're not just treating what they're doing as a job, they're actually more likely to go outside the boundaries of the job profile and start to look at things that are someone else's responsibility, so they're not afraid to step into someone else's territory. People who are not creative, I absolutely think they are the person who comes in to work to do their job and only that job and sometimes in a respectful way, they understand they've got a role to play and they're a cog in a machine and that's the shape they have to be.

BB, Sponsor, Turbine Component Cost Challenge

It is notable how cognitive processes, particularly divergent thinking, were likely constrained by the way in which the challenge was framed during the problem stage. This is due to the absence of divergent ideas significantly beyond the parameters of the problem as described in the challenge. Similarly, the personal characteristics of those considered to be creative tended to be those which either conformed to organisational norms – 'the creative person has the characteristic of a manager' –or stereotypical lay perceptions of creative people – 'the creative person is smart and contemplative'(Glăveanu, 2011).

5.5. The Response Stage

The response stage of the creativity process, where ideas are offered to address an opportunity or solve a problem corresponds with the innovation stage of the legitimacy process. It was apparent from the accounts presented by both sponsors and contributors that the response stage was a complex and commonly redacted and often overlooked phenomenon. Two themes emerged from accounts; a) the elaboration and refinement of ideas and b) degree of certainty about the response.

5.5.1. Elaboration

A benefit for the researcher of utilising the portal and challenges as a bounded case study is the ability to observe and witness the progression of ideas as they develop. One factor which was apparent from direct observation of the portal itself was a clear elaboration and development of ideas from their initial proposal to being presented as a final response. This facet also emerged from the interviews, particularly, but not exclusively, from contributor accounts. Many contributors recalled building on their initial ideas or those of others.

> *To be honest, I've been involved in most of the challenges on the portal in some way or other whether I've generated some ideas or commented on other people's ideas.* ***It's one of these mechanisms where even if you don't have an idea yourself, as you go through and look at the ideas other people have created, reading those ideas can almost trigger another idea to pop up****. Although I might have mentioned it but historically on the Innovation Portal, when ideas have been proposed, the idea has got some merit, but when you look at those ideas in conjunction with some of the others which have been mentioned it quickly builds up into being something that really does satisfy the problem - almost like a snowball effect. And I tend to find if you go and look at the portal, look at the ideas*

people have generated, it is one of those, you get the inspiration for an idea through reading something else's.

RR, Contributor

Contributors valued the interaction with others to help elaborate on and improve their ideas. Contact with others who were interested and committed to solve the same problem or exploit the same opportunity helped spark and accelerate creativity.

I think in my opinion, talking to people and ***bouncing ideas off each other again triggers new ideas, so working in confinement, working on your own is not necessarily a good thing in my personal view****. Infrequent or maybe even frequent discussions with likeminded individuals definitely helps you to be more inventive.*

UU, Contributor

The collaborative approach taken to developing ideas meant there was often ambiguity about how the idea developed, but a clear sense emerged that the resulting idea often had more merit than the initial response. This was the case in this example where two contributors from different locations and business units had similar ideas and chose to amalgamate them.

Can I remember what it was? The last one I did? I came up with something, I can't remember what it was, ***a chap in Bristol came up with a similar idea and we put them both together and then I thought maybe it was more of his idea than mine.*** *We then put together a presentation and promoted it to the RAF because the Bristol Innovation Team were more interested in it than the Derby one.*

VV, Contributor

Occasionally, collaboration and amalgamation were subsumed by more problematic behaviour where contributors felt a line had been crossed and their ideas had been deliberately misappropriated. This is explored in more detail in the theme of Gamification in the Participant accounts.

The ability to connect people to one another to improve ideas was considered a benefit of the portal. While sponsors were aware high-quality ideas were contributed by a relatively small group of high-frequency users, this ability to cast the net wider than their own area was attractive to them.

> *I think there's a lot of ad-hoc, er, similar, if you will, unofficial innovation portals, if you will, through just the circle of colleagues you know and recognise as having a good mind about them and bouncing ideas or problems across them and doing it within a circle of colleagues. The thing the portal does is open that circle significantly wider.*
>
> **EE, Sponsor**

This allowed teams to build upon their own networks of contacts and increase the volume of people whose ideas they could consider and incorporate into ideas which had potential to address the challenges upon which they were working.

5.5.2. Degree of certainty

It is widely acknowledged in the creativity literature (Dewett, 2004, 2006; Toh and Miller, 2016; Stam, 2016) that there is a degree of risk involved with any creative response, as novel and set-breaking ideas are in themselves non-conformist and therefore present an inherent risk of rejection, both of the idea and the individual. What arose from the accounts of the response stage of the creativity process was how contributors found it difficult to predict their level of success. This may suggest a lack of awareness and understanding of either the challenge itself, other contributors or

the judging criteria. One contributor described how he had learned not to self-censor his response to challenges.

> *I tend not to discount any ideas. One thing I've learned from using the portal is you can put in* ***an idea which you think is completely daft, to begin with, but as people look at it and contribute to it, it becomes something more viable as it evolves through the process.*** *I tend to find those ideas that do get looked at more and get more traction are ones with a bit more detail when they are put on, people have taken the time to put more detail into the idea than some of the ones on it which are one or two sentences. It gives people more fuel, if you like, to read and digest and contribute to.*
>
> **RR, Contributor**

This was echoed in the account of another contributor who found it difficult to predict which ideas would be successful. Having failed to predict which of her responses would make it to the final stages on previous occasions during the challenges, she was inclined to respond to challenges with any ideas she had and allow the peer review and judges to determine those which won.

> *The thing is it is very difficult to do it on demand.* ***Most of my best successes have largely been unplanned.*** *So, for example, I love the Innovation Portal. I was on there loads back in the day when it was new. But all the ideas that won of mine were never the ones I thought would be winning ideas. I don't know. The ones I have mostly felt the most passionate about have often made it to finals, but have not made it over the line. Whereas strangely, the ones where I've gone 'well I might as well put this one on here' have won, whereas the ones I feel most excited about are the ones where I genuinely knew it was a novel idea.*
>
> **PP, Contributor**

Not all contributors were so magnanimous. A high degree of domain expertise and a love of debate often led to a discussion over the relative merits of ideas which had been submitted to challenges. This sponsor described such a situation where there were arguments about the choice of ideas selected as finalists.

> *You've got a lot of people, absolutely convinced they're right, it was the best idea and we were wrong. You could understand - a lot of these guys are paid to be right and they want to be right! (laughs) They spent time trying to explain to me why their idea was better than the others, but for the life of me, I couldn't see the difference!*
>
> **LL, Sponsor, Unit Cost Reduction Challenge**

This sense of certainty or uncertainty did not seem to be aligned with the outcomes of the creative process. This is a point of interest, especially as this research study moves onto the stage of validation as it to signposts how difficult it is for contributors to assess their own creativity accurately, especially when it comes to its likely success while being judged by others. An explanatory mechanism for the disparity between the self-assessment of contributors and the evaluation by sponsors is the legitimation of ideas which are appropriate at the expense of those which are novel. Thus, contributors suggest ideas which they believe meet the criteria of solving the challenge by novel means. Yet, sponsors favour those ideas which are appropriate and disregard novelty, leading to the mismatch between contributor evaluations and those of sponsors.

5.6. The Validation Stage

The validation phase is central to an understanding of idea recognition. This was the stage within the challenges where ideas were first evaluated by peers, and then the sponsors of those challenges. The outcome of peer evaluation was either rejection or shortlisted for the opportunity to progress

to the next stage of evaluation, which was by the sponsor and technical experts from the sponsor's team. Two themes from the legitimacy literature emerged from these accounts related to the Validation stage: Endorsement and Authorisation. Endorsement occurs when peers and lower status individuals comply with an order they recognise as valid for fear of isolation and ostracism by their peers, even if the object in question is considered to lack propriety (Johnson, 2004). Authorisation is compliance with the social norms promoted by those with seniority and authority, principally to avoid potentially undesirable consequences associated with transgression. These concepts emerged from both sponsor and contributor interview data.

5.6.1. Endorsement

Within the portal process, there was a system by which other employees were able to vote challenge responses up and down. This was described as a pairwise or paired comparison where participants voted for their preferred option for pairs of ideas until a shortlist of top ideas were collectively determined. This provided an opportunity for employees who were not idea contributors to have an involvement in the challenges. The accounts highlighted the importance of domain knowledge for judging.

> *Then there's the pairwise voting. Sometimes it's good for your ego and sometimes it's disappointing. I do, I thoroughly believe in sourcing input from as wide a field as possible, be whether idea generation or idea development, you need a nice big bucket and then you need someone who knows what they're doing to filter that bucket. The technical specialists behind the scenes who evaluate it are valuable in their own right.*
>
> **XX, Contributor**

This opportunity allowed employees with insight or interest to flag those ideas they perceived as having value, however, it also led to a variety of unintended consequences for individuals and the organisation. These illustrative quotes show how the ideas which topped the list were not considered to be the best ideas – by contributors and sponsors alike.

> *But we've seen quite a lot of the sort of Boaty McBoatface syndrome.* ***Something which is completely ludicrous, gets the popular vote so gets to the tops of the list*** *and you think 'how on earth did that happen?*'
>
> **QQ, Contributor**
>
> *It's great you've got peer review,* ***but then some of the ones exciting Turbines were down the bottom,*** *people had, it's like they'd almost underestimated the craziness of the idea we were getting excited about.*
>
> **BB, Sponsor, Turbine Component Cost Challenge**
>
> *That's not to say all his ideas are good because* ***he actually won an innovation portal exercise, a challenge, with an idea I didn't think was any good, but it got voted for and got likes****. So it was curious - we ended up with an idea we weren't overly happy with, but in general, I'd see him as inventive.*
>
> **FF, Sponsor, Variable Stator Vanes Activation Challenge**
>
> *It was generating lots and lots of good ideas, but then it sort of, went off on a tangent, because* ***then they would only select five ideas and then you got into the habit of - what about some of the other ideas****, how do you actually get them implemented?*
>
> **TT, Contributor**

This managed endorsement element was one area of the challenges and portal which seemed to be viewed in a rather negative light. It was acknowledged as a mechanism for creating a shortlist and reducing the number of options for judging to a manageable amount, however, as the extracts above demonstrate, it was often considered to come to a different or wrong conclusion depending on the perspective of who was evaluating the shortlist. One explanation for this is the discrepancy between sponsors who already had a view of what type of idea they were looking for – one which was apposite, normative and straightforward to implement – and who were frustrated when their preferred choice was circumscribed by the pairwise voting.

Ultimately, this led to the wildcard option being added to the Innovation Challenge process which allowed sponsors to reinstate ideas which they were interested in, regardless of where these ideas had been placed in the pairwise voting rankings. In practice, this meant ideas which were apposite, rather than novel, were restored. Similarly, contributors often used the pairwise voting as a mechanism for gamesmanship, seeking to capitalise on the effort they had invested in the process thus far. Evidence of manipulation of voting, comments and other activities designed to promote one idea above others was evident. Such endorsement by peers also played a prominent role outside of the paired comparison voting and this is demonstrated in the Social Strategies theme in Contributor accounts in Chapter Seven, Section 7.4.2.

5.6.2. Authorisation

Pairwise voting was the last public element of the challenge and the last to be conducted via the portal. Beyond this point, the shortlisted ideas were discussed offline in a meeting or series of meetings between panels of judges. The purpose of these meetings was to evaluate the shortlisted ideas, eliminate ideas which did not meet the criteria of the sponsor and establish a winner. This stage forms the crux of the thesis as the recognition of ideas by those deemed appropriate observers

is central to the research question. Therefore the accounts of this stage presented here, from both sponsor and contributor perspectives, are quoted at length to provide a sense of the process by which ideas were recognised as winning ideas.

In the Helicopter Bearings Cooling Challenge, the sponsor and a team of technical specialists he had selected initially met for a brief discussion of all the ideas put forward. This was followed by a more detailed review where the responses from the shortlist created by pairwise voting were sent out via email for the specialists to examine individually. Then a second review meeting was held with all the judges present.

> *We read them all, some frankly were immediately discounted in terms of practicality. There were people who were suggesting systems that were clearly additions of tens, if not hundreds, of kilograms of weight to the product and that was a show stopper. But even with those it was like 'huh, that's kind of clever' and the value came out of reading those non-practical, yet innovative, solutions changes the mindset of the reviewer a bit to be more innovative and think about the art of the possible - it helped to open our view of how big the box is. It was somewhat informal. The team leadership had some, if you will, collaborative reviewing and discussing together those ideas that passed that first, kind of, sanity check. They were all sent out to - the team had access to all the ideas generated and then we had some discussions over the ones we thought had some grain of value to them. I think that worked out well and one of the benefits of having some of those far out ideas is it changed the mindset a bit of the reviewer, to think about some other - it opens other opportunities. I would say there wasn't, er, there wasn't anything close to being a strong difference of opinion, there may have been some minor discussions about a couple of ideas,*

but generally, everyone, there wasn't anything contentious too, no, it was generally universal.

EE, Sponsor

In this case, there seemed to be a general consensus on the winning idea after the group had collectively decided which ideas met the initial criteria of appropriateness. In this instance, appropriateness seemed the primary consideration, however, novelty seemed to extend the parameters of ideas the reviewers would ordinarily be prepared to consider.

In the other example presented here, the Fuel Pipe Vibration Resonance Challenge, the appropriateness of the response was again the primary consideration. The panel consisted of specialists who had domain expertise in the chief technologies involved in the problem. This is reminiscent of the type of panel of experts suggested in the Consensual Assessment Technique (Amabile, 1983).

How did we choose the solution? I'm trying to think now - how did we do it? We narrowed it down to about three or four based on practicalities and common sense, being logical about what was possible and achievable because some ideas were not achievable or clearly not desirable because they add a lot of weight or complexity or various things. We narrowed it down to three I think, there was some pedigree in those and some logic as to why they were likely to work…We involved like a head of fluid systems, a specialist in the fluids group and who else did we have? It wasn't many, three or four people who had an understanding of the issue we had in service and as I said a specialist in the fluid systems who was - didn't understand the service issue -but had a lot of experience in how we design pipes generally and how fluids and systems work at a theoretical level. I think it was about

four, myself and two or three others who had experience of fluids and pipes and vibration. Yes, there was, it was a fairly clear consensus I think. One of the other solutions was a bit of a 'sledgehammer to crack a walnut' solution, therefore, yes, it might work but it wouldn't look good and one of the others was maybe a bit more wacky and this one settled in the middle as being novel but had some mileage we felt to solve the issue we'd got.

CC, Sponsor, Fuel Pipe Vibration Resonance Challenge

It is noteworthy the response selected was in the middle ground, and was perceived as neither too novel nor too mundane, for this context. Yet, this demonstrates the contextualised nature of decisions as what was considered legitimate in this situation may not have been interpreted that way in other contexts within the organisation. A broad consensus was reached with apparent ease by the panel of experts, in this case, possibly because in this case the shortlist had also been pre-screened by this same group.

Accounts of the validation stage were also gained from the contributor perspective. In this interview, the participant presented to a senior panel of executives on a Marine Vessel Thrusters Challenge. This judging panel was the most senior featured in this research and was also cross-sector, with members coming from other areas as well as Marine as significant funding would be required to deliver this innovation.

I have been selected quite a few times, at least to present to the panel. Sometimes it's been a disaster (laughs) and sometimes I made something out of it. I'm not too fussed really about it. It's obviously nice to be recognised, I mean the competition is fierce - people have a lot of good ideas and it has to be really a good idea in order to be recognised obviously but sometimes I think the panel doesn't really understand what's going on (laughs). One of

my experiences in the past - don't tell them! Look this, all I'm saying is pretty biased and subjective right?... Although the invention for the Marine sector, the data transfer from the Azimuth thrusters was recognised, it is good, but it didn't make the prime spot, it only came in as a runner-up. Why is this? I have no idea, don't know, no idea. I just keep going. I don't know. I don't know what is really going on behind the scenes and how these decisions are being made. I have to admit when I had to present ideas to a panel, some of the presentation could have been done better, from a presentation point of view. I don't know if some of this had an impact. Maybe, and then it was not necessarily recognised… competition is incredibly fierce you know, everyone has brilliant ideas in this company. What I should say in defence of the panel is it's hard to make a decision, who is the better one.

UU, Contributor

It appears the contributor was aware of general factors which affected the outcome, such as parts of the presentation of the idea which could have been improved, but had not received specific feedback about why his shortlisted response was unsuccessful. It was mentioned twice within this account that the standard of ideas was high and competition was intense and in the absence of further feedback, this perhaps became the justification for the participant as to why the idea had not been judged as the best on the day.

Similarly, this contributor who participated in the Inventory Tracking Challenge was not clear on how judges had determined the winning idea. In this panel, there was a mix of experts from TechCorp and one of their major suppliers who were the ones who were sponsoring this particular challenge.

So, this was a challenge run in collaboration with TechCorp and TechProvider, who is one of our suppliers. On the panel, there were three guys from TechProvider and there were two from TechCorp and one was the Executive Vice-President of Installations and the Director of Technology. And the three from TechProvider, one was the CEO or the one down from CEO. I can't remember the other two. I can't comment on their judging criteria, we didn't get to see any. The idea that won was one of the ideas which came out from TechProvider, very similar to what we were proposing. They proposed what they were calling an iPhone app which scans a QR code. The difference was where we had created a database to store information linked to an app and their one was linked to a website. I'm being diplomatic. (laughs). But oddly enough I have not seen anything of it at all, I talk to [Innovation Team Member] quite regularly but I haven't seen any further development of the app or any further ideas. They said at the presentation they were all going to be developed in some way, but nobody's heard anything since.

NN, Contributor

It was apparent this was a further example of similar responses being proposed by contributors to the same challenge. While it was certainly possible the winning response provided by a contributor from the supplier side was superior due to insider expertise, the implication from the contributor was it was also somehow politically expedient that the winner came from TechProvider too. The final example from a contributor sums up a number of reasons why contributors felt their ideas were rejected.

So, why do some of my ideas not win? Some don't win because actually, they aren't the best ideas. I'm going, to be honest, I don't have the best ideas all the time. Some of them I post and then you see other people's comments and you think 'oh, maybe that's not such a good

idea!' Some of them don't win because it's the right answer to the wrong question, some of them don't win because they are too big. Some of them don't win because the people on the panel are the wrong people or because of the people on the panel.

PP, Contributor

A common factor in the contributor accounts of the recognition of creativity is they rarely received feedback and often did not understand how their ideas had been judged. This led to further uncertainty amongst contributors surrounding what made a successful idea.

5.7. The Outcome Stage

Enactment

The final stage in the aligned creativity process is that of outcome. This is the point at which the creative idea which achieves the closest fit to a presenting problem is agreed upon and the creativity process is considered to have reached its conclusion. Within the legitimacy literature general validation is achieved when an innovation has diffused into a wider context than the one in which it originated (Johnson et al, 2006). This was operationalised in this study as the point at which an idea was moved from being a winner in principle to being implemented. Within the data, there were two distinct sub-themes which emerged which exemplify this stage – those of Resource Allocation and Implementation. These were encapsulated in the overarching theme of Enactment.

During the analysis of the accounts from both sponsors and contributors, it was highlighted how being recognised as the winning response to an innovation challenge on the portal did not necessarily - or even frequently - mean the idea would be enacted within the organisation. This was not limited to the winners of challenges; it also applied to creative ideas in response to many different creative problem-solving situations in the business including:

- operational issues within business areas,
- innovations in processes, procedures and products, and
- in the pursuit of patents.

The following extracts from the data illustrate how enactment through resource allocation and implementation more strongly reflected which creative outcomes had legitimacy within the organisation than being a winning idea in an Innovation Challenge.

5.7.1. Resource allocation

The allocation of resource within the company was considered the seal of approval and legitimacy. Failure to award resources – whether time, money or personnel – to winning ideas, allowed them to disappear from view or wither on the vine. The following accounts provide examples of the correlation between resource allocation and implementation.

> *I think what also happens is, with our winning idea, the problem is as a company because innovation is quite new as a way of thinking in our culture, winning isn't the same as being put into practice. That's a separate thing. If you speak to the Innovation Team, they'll say there's a lot of ideas that win, not many make it into the market or actually have an impact because we don't really fund it that way. So even, like I was saying, the one I won, how far it will get now, I'm not sure. It's not clear how we'll progress. How we'll get funding to deliver it and stuff.*
>
> **NN, Contributor, Multiple Challenges**
>
> *What the team wants is an idea which is desirable, feasible and viable, which means it's got to be an idea which the team is able to influence. So, let's imagine someone sets a challenge about component design and somebody posts an idea and actually the problem*

is not component design, we can solve all the component design problems if you fix this system design problem. But the team which sets the challenge knocks that idea out because it's not within their scope of influence to influence system design. What they need is a winning idea they can actually take on. So, they knock out the big idea because it's too big to handle and they pick a smaller one to win they can do something with. So, this is one problem; the Innovation Portal is not very good at handling big ideas.

PP, Contributor, Multiple Challenges

In this example, the contributor described how winning a challenge did not equate to having it funded. Yet, without funding, he was uncertain how he would proceed with the idea. He implied this was not an infrequent incident, but one which commonly occurred.

Another scenario which was described was the difficulty in securing early or seed funding. Without this early stage funding, it was often difficult to get proof of concept, which led to an understandable reluctance within the organisation to invest in an unproven idea, especially if it originated from outside the team who had posed the problem. This could create a vicious circle where ideas were not given the time and funds to develop into a more robust proposition such as prototype or beta test version. This contributor talked about the impact this had on developing an idea.

You know I can talk first hand, we've spent three years working on something where we started off with two thousand pounds worth of budget and so far we've spent a quarter of a million quid. So far it's taken three years to prove and it's - we've had to beg, borrow and steal to make progress - and then last Thursday I stood up and made a presentation and they asked how much money we needed to take it forward and I said 'another quarter

of a million quid' and a guy in the room said 'you can have it'. I mean, great, so we have now got to the point where asking for a quarter of a million quid is a no-brainer for the company because we've demonstrated legitimacy, but in hindsight would I have set off on this journey? No! (laughs heartily).

VV, Contributor

Another contributor described a similar problem with early-stage funding and how the context in which an employee worked had an influence on whether ideas would be enacted.

I think it's only those people work in those type of environment which has let them do it who are open to being creative, given that chance. I think until we crack that and also the funding model of 'we are taken seriously and we will make sure an idea if we feel it's going to be successful then we will take it from A to C without just stopping at A.

NN, Contributor

Money was not the only resource which appeared to be constrained. The allocation of time and human resource was also necessary to advance an idea. However, time was not always apportioned to a project due to day to day operational pressures, as this sponsor recounted.

A lot of the operational business work is focussed on delivering the processes we have and not thinking about the connection to the wider problems. It's a constraint having to stick to that. More people come up with ideas than can implement them; they're under pressure to do the day job. Even cases where people have funding, they have to do customer-focused work. I wasn't able to spend my innovation funding because the day job got in the way.

AA, Sponsor, Future Technologies

This was borne out again in this example where the contributor explained a major factor in his winning idea making it into service because he had the skills to deliver it and was given the time to implement it himself.

> *That one got implemented a) because it was my idea and b) I was actually in the position where I could do the work to generate the toolkit, communicate it and get it out to the wider audience - that was very insular to the role I was doing at the time. I think some of the others where you come up with an idea and it's then down to another team, another project to actually do the work to implement it, it then becomes a case of, you've come up with the idea, but then you've got to wait until someone else has the time or resource to be able to implement it.*
>
> **TT, Contributor**

Thus, it appeared how even with funding, it was not always possible to move forward with a creative response if other barriers – such as operational and customer responsibilities – were not taken into consideration and addressed. While resource allocation was a necessary condition which needed to be met before an idea could progress, it was not the only condition. This can be seen in the final theme of Implementation.

5.7.2. Implementation

Implementation is often considered by academics and practitioners as the most difficult stage of the process and one where many ideas fail (West, 2002). TechCorp accounts suggested winning ideas were not always implemented even when resourced. On the whole, respondents were accepting about the situation, such as in these accounts where both contributors were sympathetic about why their ideas, and those of others, were not taken forward.

There have been cases where the company has been hesitant to implement and this could have been because resource issues, cost issues or the company was focused on more important ideas which would be financially more attractive to the company. The whole scheme I had in place wasn't at the top of the list so I guess there's some prioritisation going on which I guess is fair enough. Then they look back at the business case and if the business case is not strong enough it will not necessarily be acted upon which I can understand in some ways which is maybe another reason why ideas are not taken forward.

OO, Contributor.

Some ideas which go on will require heavy investment and a long time to get to a point where you develop the technology to where you could put it into a product. It's a balancing act between what is technically feasible and what can be done in a reasonable timeframe for a reasonable amount of cost. And on balance, if an idea would be a complete game changer and very profitable for the company, then I suppose it gets balanced off against the amount of time and money you'd need to implement it.

RR, Contributor

Sometimes there was an explanation or justification for why a winning idea was not being implemented and at other times there was no explanation as to why this had happened. Some contributors felt there was insufficient communication on what happened with winning ideas, as in this case.

I have had ideas which apparently, apparently been seen as, I'm looking at one now – there's, what does it say, um, um, there's something – there's a couple where, literally, one of mine actually did win. So, they set a challenge and one of my ideas was selected as the

winner, but then I've heard nothing subsequently, so I have no idea whether it was taken forward, or if there was a loop to feed back to me.

SS, Contributor

It appeared it was possible to implement ideas, but it took a concerted and coordinated effort to move to completion, which was not always possible. This seemed sometimes due to lack of resource allocation but often seemed due to organisational inertia. This was echoed in some sponsor accounts too and seemed to reflect what was happening in practice.

Out of those we picked one we felt was an interesting solution and we felt it would have potential long-term benefits to various pipes and so on that we have issues with it was kind of a more generic solution, but it was novel so it had pedigree and maturity and actually that's why we decided to put a design/make team together to make it and trial it and try and prove it because of the innovation of the idea suggested it needed a lot of work to develop it - which is still not completed and we've left it alone to other people now. I hope it's worked but it still hasn't been completed to my knowledge.

CC, Sponsor, Fuel Pipe Vibration Resonance

This seemed to imply how despite an idea being selected as a novel and appropriate response, this was not always enough to ensure it would be implemented. It would seem sensible to assume the ultimate test of whether an idea was a winning idea was having it implemented; however, in practice this was affected by many individual, social and organisational factors. These barriers to implementation and to creativity, in general, are explored in more detail in both the sponsor interviews (in Chapter Six) and those of Contributors (in Chapter Seven).

5.8. Conclusion

This Chapter set out to provide a framework for discussion of the creativity process and those forces which legitimise the recognition of certain ideas. To do this a model has been adapted from Amabile (1983) and Johnson, et al (2006) to aid understanding of the stages through which novel and appropriate ideas are recognised. Accounts from both sponsors and contributors of challenges were presented as evidence to illustrate the key stages of the process. Prominent themes emerged around necessity and opportunity as suitable challenges; the component of creativity involved in preparation; elaboration and confidence in idea development and response; endorsement by peers and authorisation by judging panels; idea recognition and resource allocation and the implementation in the enactment of ideas.

Represented in these accounts is the interaction between sponsor and contributor roles; while both have a common goal of solving complex creative challenges there are also similarities and differences emerging. These are developed further in the following chapter which presents the key themes from the interviews with Challenge Sponsors. It was argued sponsors of these challenges and the specialists which supported them in evaluating ideas, fulfilled the role of expert judges, frequently described in the creativity literature (Kaufman, Plucker and Baer, 2008; Plucker and Makel, 2010).

CHAPTER SIX: ENACTING LEGITIMACY: A MANAGEMENT PERSPECTIVE OF CREATIVITY

6.1 Introduction

> "What, then, is legitimation? Peter Berger and his colleagues argue convincingly that legitimation is fundamentally a problem in the social construction of reality (P. Berger, B. Berger, and Kellner 1973; P. Berger and Luckman 1967). It is a process by which cultural accounts from a larger social framework in which a social entity is nested are construed to explain and support the existence of that social entity, whether that entity be a group, a structure of inequality, a position of authority, or a social practice."
>
> Berger, Ridgeway, Fisek, and Norman (1998, p. 380).

In the previous chapter, the creativity process was described and data from the interviews with challenge sponsors and participants at TechCorp was provided to illustrate this process in practice. This chapter focusses on the interview accounts of sponsors of innovation challenges. A description of the challenge sponsors and their key attributes is provided, adapted from the descriptive data of participants first reported in the Methodology in Chapter Four. This is followed by the presentation of the themes which were identified from the data which are described in Table 9 below.

Table 9: Thematic Analysis for Chapter Six: Manager Interviews.

Aggregate Dimensions	**Theme(s)**
Creative People	Scope and nature of role
	Ideation
Creative Ideas	Appropriateness
	Novelty
Persuasion	Influence
Communication	Top-down communication
	Lateral and bottom-up communication
Structure	Hierarchy
Process	Procedure
	Regulation

While this chapter is primarily grounded in the data, there is an acknowledgement that theoretical constructs from both the creativity and legitimacy literature inform the analysis. The themes reveal which people and ideas were considered legitimate by challenge sponsors. It also introduces the concept of non-conformity and in particular, the framing of a novel or radically disruptive response (and those who proposed them) as *non-compos mentis* – from the Latin for 'not having control of one's mind' meaning these ideas and people were construed as bizarre. The chapter explains how challenge sponsors attempt to elicit creativity and enact legitimacy through appealing to

institutional norms, drawing out differences and similarities in accounts across different challenges and different business units.

Legitimacy theory suggests certain ideas are more likely to gain acceptance within an organisation, as they are an apposite fit with organisational norms (Weber, 1978; Walker and Zelditch, 1993). Those employees who also fit managerial perceptions of creativity, based on factors such as location and role may thus, find their ideas considered more favourably. The findings from this study support this assertion, with Challenge Sponsors and the Innovation Department favouring those ideas and individuals who fit the criteria which are important to top management. The findings from the interviews suggest leaders look for domain specificity, feasibility and speed and ease of implementation when recognising ideas as creative.

Those senior members of the organisation authorised to assess creativity, interpret ideas according to local social norms and may struggle to make sense of those they perceive not to fit. There is a visible tension between the organisation's objectives around creativity and innovation, the interpretation of this objective by senior leaders and the subsequent response from employees. The findings suggest employees are likely to suggest creative ideas based on the overarching innovation narrative of the organisation, yet, in doing so they risk having their ideas rejected as a result of not acting within the boundaries of division or department constraints. This is a common dilemma for large organisations who must attempt to balance organisational constraints with the desire for innovation (O'Reilly III and Tushman, 2008).

When these constraints are not communicated fully to employees it inadvertently compounds this situation, leading to the generation of types of creative ideas from employees, which lack propriety from the perspective of leaders. In the next chapter, findings from the accompanying case study illustrate how employees respond to legitimacy within the system leaders have constructed.

In Chapter Six, manager accounts of who was construed as creative were tied to perceptions about the scope and nature of the employee's role. Hence, those who had centrally located or boundary spanning roles and those who had discretion over how they could spend their time were more frequently seen as creative. Their accounts also exposed how managers closely associated creativity with ideation, rather than implementation, yet, in practice employees who generated ideas were subsequently tasked with enacting them. This is a clear theory-practice inconsistency.

The criteria used to evaluate ideas varied between different parts of the business and it was argued what is considered 'novel and appropriate' is heavily dependent on local interpretation and context. Manager accounts also highlighted a further key distinction; that both subjective criteria, such as "common sense" and objective constraints such as weight, cost and time were taken into consideration. It was argued conflation of subjective and objective measures is inherent in the 'expert judge' role, yet, this raises important questions around the potential biases this obscures. Communication, both top-down and bottom up was identified in accounts as being important.

While some accounts revealed how employees used the innovation challenge process to suggest ideas which had not been acknowledged or rewarded when previously suggested directly to management, others demonstrated the efficacy of communication as a mechanism to support the creative process. Therefore, it was argued while there were material constraints related to structure, procedure and process apparent in manager accounts, clear articulation of such constraints to employees meant ideas were more likely to be construed as meeting evaluation criteria, but at the expense of novel or original ideas which were acknowledged as broadening perceptions of what might be achieved. A picture emerged of assessment criteria being consistent within business areas, but varied across different domains, and this was attributed to localised interpretations about which criteria were considered to have validity and propriety in specific

contexts. Thus, Chapter Six, began the detailed examination of the influence of legitimacy on the recognition of creativity.

It has been argued how creativity is a multi-level construct with organisation, group and individual level dimensions (Drazin et al, 1999). This is important in our advance of legitimacy as an explanatory mechanism, as it is also a multilevel construct which subjugates individual propriety and validity for the common good of the organisation. Furthermore, as expanded upon in sponsor accounts in Chapter Six, the number of viable ideas which are presented exceeds the number the organisation can support with its resources. Accounts suggests legitimacy may be a factor in people and ideas attracting the support, time and money necessary to be implemented successfully.

6.2 The Challenge Sponsors

The role of the Sponsor in supporting innovation is widely acknowledged in the literature (Markham et al., 2010; Dedehayir, Mäkinen and Ortt, 2018). The Sponsor plays a critical role in innovation by providing support for an initiative such as managerial, technical and financial resource for a challenge or project which is still early on in the creative process has not received formal approval for implementation (Roberts and Fusfeld, 1981; Markham, 2010). At TechCorp, sponsors were managers who had formal accountability or delegated responsibility for the particular product, service, process or area which was the focus of the Innovation Challenge. In addition to this formal obligation, the sponsor would also have their primary role as a technical expert who also had employee management responsibilities. Therefore the sponsor role was one of many activities undertaken, as opposed to their primary occupation.

The sponsor role at TechCorp was intended to provide a single point of contact in the business area from which the challenge originated, with the explicit goal of ensuring the problem had

ownership and thus, was likely to be implemented once a solution was identified. The criteria by which sponsors were selected for the study were they had used the Innovation Portal to run an Innovation Challenge within the previous two years.

Each sponsor had a problem or opportunity for which they deemed it necessary or desirable to gain creative input from a wide cross-section of employees across the company. Their challenges covered a wide variety of topics such as issues concerning coolant in machines, measurement of velocity, fault tolerance, and stability of containers. Most challenges were focused on internal matters, although one challenge responded to an opportunity in a customer's business and another was run on behalf of a significant supplier. In both cases, these external challenges were developed to strengthen relationships with strategic goals in mind.

The data presented here derives from twelve interviews from between one hour to two hours in length. The interviews with sponsors were conducted upon a one to one basis with the researcher. The challenge sponsors were all employees within Bands 8 to 11 at TechCorp which can be classified as middle management. These managers enjoy a high degree of autonomy and are responsible for teams of people and the Profit and Loss (P & L) for a particular vertical or horizontal part of the business.

Outside of these criteria, there was a range of demographic characteristics. Some had joined the company as apprentices, graduates or early in their career, while others had joined the organisation mid-career with significant industry experience. One had a period of ten years where he had left the organisation to work for other organisations and later returned. The managers who acted as sponsors came from a wide range of areas within the business such as Aerospace, Nuclear and Marine. All were Caucasian. With the exception of one American and one interviewee from the Nordics, they were all British. All challenge sponsors were male except one; this broadly reflects

the gender composition of middle managers at TechCorp, an engineering and manufacturing based organisation which is heavily gender biased. It is noteworthy how alongside the Innovation Challenge process, the people engaged as Challenge Sponsors were also involved in other significant innovation activity including local initiatives and programmes, wider Research and Development activity and patent applications.

Alongside the demographic data provided in Chapter Four, these extracts below give a sense of the types of individuals who were sponsors.

> *And if you look in Marine right now, I mean, how many of the patents are made in Marine I would say, most of them originate from this blue ocean team and myself. At least we are by far the most creative per head for innovation patents so to speak. All creativity doesn't have to end up in a patent, running the business, doing support functions, it's not patentable, but it's still an area where we need to innovate and be creative.*
>
> **DD, Sponsor, Ballast Water Challenge**
>
> *I get to do the interesting things - the interesting things are fixing problems, I don't know whether this will answer your questions. Indeed a number of the patents I've submitted recently have been to fix specific problems we've got rather than random ideas that have been generated, which people tend to have less issue with because, for me, most of my patent requests get accepted because they're mostly fixing problems.*
>
> **FF, Sponsor, Variable Stator Vanes Activation Challenge**

I'm working on another issue that's turning into a longer-term issue, I seem to get them, and it's to do with microprocessors not communicating with each other at the right time during a flight and it's a very different issue but it's the kind of issue I'm more used to dealing with but we're struggling to get an understanding of it, so I'm building a team and putting more specialists into it at the moment to create a solution and an understanding of it.

CC, Sponsor, Fuel Pipe Vibration Resonance Challenge

In the following sections, the data acquired from the challenge sponsors are presented in detail. It represents their personal accounts of sponsoring an innovation challenge, judging different entries and recognising and selecting a winning idea, alongside their more general observations, insights and perspectives about creativity and innovation. The data is drawn mainly from the interviews and some informal meetings with sponsors and innovation team. The chapter considers the themes which emerged surrounding the recognition of creative ideas through these reflective accounts from the challenge sponsors, as well as gathering contextual data from additional sources.

6.3 Findings

6.3.1. Creative People

A major theme within the data centred on what constituted a creative person. This included the attributes, motivations and expertise of those individuals who were considered creative by sponsors. Among sponsors, there was a prevalent view about what type of people had the ability to be creative and this related to how those with seniority within the organisation legitimised particular groups of people. To understand more about their perception of who constituted a creative person, interviewees were asked to describe a specific, real-life example of such a creative

person with whom they were familiar. The construal of personal legitimacy emerges when individual group members come to treat norms, values, and beliefs within their social or organisational setting as though they are valid and objective facts (Suchman, 1995). In this study, this prevailing view about which type of people had the ability to be creative had an impact on the ideas which were accepted as legitimate. This effectively created a concealed barrier with employees from other groups being excluded from being categorised as creative.

This was reminiscent of how studies of eminent creative individuals and movements in history (Csikszentmihalyi, 1996; Cattani et al, 2012), and how innovators and inventors have frequently been overlooked until they, and their creative contributions, are accepted and endorsed by those who already have legitimacy (Adarves-Yorno et al, 2007). Sponsor perceptions of the type of person who was creative were, therefore, important to this study. Two main themes emerged around what factors led to employees to be recognised as creative: the scope and nature of roles and their locus of control and subsequent behaviour.

Scope and nature of the role

This theme highlighted how the role an employee occupied influenced perceptions of their level of creativity. Sponsors were more inclined in interviews to classify an employee as creative, and thus capable of creative ideas if the employee's role was either in a centralised function or had scope within the role to allow for discretionary effort to be put into tasks unrelated to the employee's core business objectives.

One challenge sponsor described an employee from a central team who he felt was creative. This employee's ability to exercise discretion over his own time was a key factor underpinning the opinion he was creative.

He's interesting. He's allowed time to think and do useful stuff, not necessarily on anybody's list so he's allowed to think about the future. He supports a lot of research activity and by doing that he - you can multiply your efforts, he has quite a few Ph.D. students working for him, so I think he mixes in with a bright crowd shall we say and that probably keeps him top of his game, so I think he likes the intellectual challenge and it keeps him incredibly sharp. To be honest I've forgotten most of what I've done in my degree (laughs).

FF, Sponsor, Variable Stator Vanes Activation Challenge

This Challenge Sponsor explained how this employee enhanced his credibility as an innovative person by positioning himself as supporting future research. This also had the practical advantage of additional resource in the form of university students he supervised who could develop his ideas further. The ability to transcend operational tasks, span boundaries and contribute on a broader scale was construed as creative behaviour and resulted in this employee, and others like him, being labeled as creative people.

Who is creative? Peter [name changed] in Future Technologies, he's creative. He seems prepared to rip up the rulebook! It's partly the role; he's paid to think about how society is moving, rather than just aero engines. A lot of the operational business work is on delivering the processes we have and not thinking about the connection to the wider problems. It's a constraint having to stick to that… There's not so much creativity in this role, but there was more in future technologies-the emphasis is on innovation.

AA, Sponsor, Future Technologies

The broad consensus was employees within certain roles were more creative than others led to these people being recognised when they suggested ideas in the portal as well and being sought out to contribute to shaping ideas outside of the Innovation Challenges. Many sponsors considered people in these roles to be more creative and this strengthened the validity of the employee position and ideas. This contrasted with employees who were involved in technical or detailed work who had less freedom over their choice of activity or a narrower job role. Employees who had these characteristics were more likely to be categorised as lacking the scope or character to be creative. One sponsor gave an example of an employee who was valued and respected but whose focus on detail led to both him and his ideas being categorised as lacking creativity.

> *He's well-respected within the organisation and someone people will go to - and he'll quote procedure off the top of his head and if you go look those up, yeah they're correct - the company procedures as they're written, he interprets them between the lines and does them just like the book and that thwarts creativity. It's not an overt attempt to stifle, it's just an adherence to what is written in terms of the way in which we're supposed to work. It's probably a combination of the two, probably a flavour of different people have different characteristics and upbringing from very early days back in childhood, in this case, it's the area he works in - it's not accounting but it's a configuration management role where details matter. The nearer you get to details then the more prescriptive the procedures and policy.*
>
> **EE, Sponsor**

This conceptualisation of employees in centralised or boundary-spanning roles as being more creative is supported in the creativity literature (Hu, 2016) which suggests employees who occupy

these positions in a social network have increased access to information and more opportunities to combine divergent concepts into novel and creative ideas (Giustiniano, 2016).

This dimension mainly reflected on the legitimacy of the person in relation to their personal traits. Locus of control refers to the degree to which an individual believes they can influence events and outcomes in their life (Robinson, et al, 1991). While research on the relationship between locus of control and creativity has been mixed (Pannell and Claxton, 2008), some of the findings support the arguments presented by Richmond and De La Serna (1980) and Chadha (1989) who conclude there is a significant relationship between creativity and internal locus of control, where an individual believes they can impact events and outcomes.

Ideation

Many sponsors differentiated the ideation and later stages of the creativity process, considering the people who were good at generating ideas as being creative, rather than those who were able to implement ideas. Sponsors intimated there were two types of people who needed to be involved in the process: those who were skilled in creative ideation and those who could gain traction and resources for innovations to be put into practice. This was particularly clear in this account from a sponsor.

> *This is my own personal perception and filters of creativity and innovation and the difference between the two. I tend to, to be honest, I tend to look at creative people as the people who come up with ideas. Maybe they are the more artistic kind of people rather than the people who are heavily involved in the technical detail. Maybe they are the ideas people and maybe they are not the people who have got the staying power to drive that through to completion in a practical environment. So, for me creativity is, I guess, it's all*

around the ideas generation and coming up for the need for something rather than fulfilling that need.

KK, Sponsor, Awkward Measurement Challenge

Similarly, this sponsor described a person who was able to visualize ideas without necessarily stumbling at the constraints which held others back.

What I would characterise as creative and able to spark innovation, one is, this guy has a good level of product experience and he's able to envision the art of the possible without necessarily considering the challenges of bringing that into fruition. They think in terms of what's possible instead of how to get it done. Visionary and not very pragmatic about how to get ideas into our organisation. It's more just the cloth from which they're cut, he's still working post-retirement in one of our facilities, in terms of the physical environment it was the same as the rest of us, just, I don't know if it's a hereditary thing, we are all products of our upbringing, but from what I know of him it wasn't noticeably different from any other random engineer working in an industrial environment.

EE, Sponsor

Within the creativity literature, there has been much discussion of the characteristics required at different stages of the creativity process and how the enablers and barriers for creativity and innovation are different, summarised in the meta-analysis by Sarooghi, Libaers and Burkemper (2015). Whether this distinction was reflected in the accounts by sponsors or whether knowledge of this difference informed the views of sponsors was not clear, however, it seemed apparent this was one area where participants in the study were broadly aware of theorisation surrounding creativity and innovation and the difference between the two.

They're not always necessarily extrovert, so while you might think those creative ones will be those trying to innovate and come up with ideas even though you might think they formulate their ideas, even though they're an extrovert, their ideas are often formulated in an introvert way, they think about it quite a lot, they might not want to shout about it a lot, they may not want to necessarily reveal it until it's reasonably certain it's a good idea, I think, which is interesting in itself because they might hold back.

BB, Sponsor, Turbine Component Cost Challenge

6.3.2. Creative Ideas

Creative ideas or products is the label given in the creativity literature to the output and outcomes of the creative process. This can be a tangible object or artefact such as a prototype or diagram representative of the concept, but equally, this can also be an idea which is conveyed or presented in such a manner as to make it possible to evaluate by appropriate observers. Evaluating the merit of a creative product is a method frequently employed in psychological evaluations of creative output such as creativity tests (Torrance, 1966; 1974) or in more subjective reviews of creative output such as tests of creative products using panels of judges (Amabile, 1982).

Central to the research question presented in this thesis is an understanding of how creativity was perceived in the organisation. The dialogue between members of the organisation and accounts presented in interviews on what was considered to be creative proved relevant and provided insight into how individuals embedded within different roles and areas of the business identified creative ideas. It was evident that while creativity was a heterogeneous concept there were some noticeable similarities and distinctions represented in the data collected. The accepted definition of creativity is it is appropriate, novel and observed by others (Amabile, 1988; Runco and Jaegar, 2012). The balance between appropriateness and novelty was clearly apparent in the interviews with

Challenge Sponsors and the extent to which ideas were recognised as creative is considered in the following sections.

'Appropriateness' of creative ideas

It has been suggested in the creativity literature that while leaders in organisations may express the desire for novel creative ideas, in practice they often reject them (Mueller et al. 2011). When considering this through the lens of legitimacy, it can be speculated that while an organisation may publicly announce their commitment to creativity and innovation, what constitutes a legitimate creative idea within the wider organisation may vary. Judgements may differ between business areas, with some accepting a higher degree of novelty, while others favour ideas based on feasibility and appropriate fit. The interviews with leaders in the organisation, were conducted within a prevailing narrative of the need to innovate.

The interview findings revealed creative ideas needed to be perceived as appropriate and feasible for the specific context they are situated in order to be selected by sponsors. These notions varied between different business areas. Concordant with the literature, there appeared to be a minimum level of 'appropriateness' necessary for a creative idea to be considered creative, as opposed to 'silly' or 'senseless' (Runco and Charles, 1993). Beyond this threshold, the degree to which creative ideas needed to be appropriate for the setting varied, depending on a range of factors such as length of the product cycle, regulation, market conservatism and the exigence of the situation. Yet, decisions were also likely to be shaped by the schemas, scripts and biases held by those judging the ideas.

This Sponsor, who had set an innovation challenge to generate creative ideas about how to resolve pipe vibration more effectively, was one of many to mention the importance of an idea being appropriate.

We narrowed it down to about three or four [creative ideas] based on practicalities and common sense; being logical about what was possible and achievable because some ideas were not achievable, or clearly not desirable because they added a lot of weight or complexity or various things.

CC, Sponsor, Fuel Pipe Vibration Resonance Challenge

This extract shows how judges combined biases, such as 'common sense' with factors which had objective, material significance or physical constraint like 'weight'. Another challenge Sponsor, who had been disappointed with the creative ideas put forward to address his urgent service issue and dismissed them as not feasible, described the necessity of appropriate ideas and how ideas which did not meet these criteria were quickly discarded. This suggests he may have had a nascent solution in mind which excluded some, or all, of the ideas he was presented.

The novelty of creative ideas

While a creative idea needed to meet a minimum requirement of appropriateness within the organisation, there were also apparent parameters surrounding its degree of novelty. The interviews uncovered what was considered normative and revealed that while sponsors espoused the need for novel and innovative ideas, these ideas should not be so novel as to make implementation of the idea difficult or unlikely.

One challenge sponsor stressed the track record his division and in particular, his team had for selecting novel ideas. He had personal experience of promoting novel ideas within the organisation in the past, although it took time, due to the incremental nature of innovation in some areas of the organisation. He explained how radical innovation was easier where he was currently located as it was a relatively new market.

Of course, it helps if you work in an area that's new. People working on a product that's been on the market for thirty years, obviously there are less new things you can patent around compared with a totally new business segment. For example, now you see a lot of patents coming out in the area of ship intelligence, nobody else in the world has done that before. So much easier to find things, then you can innovate.

DD, Sponsor, Ballast Water Challenge

According to Johnson et al (2006), repetition and familiarity encourage legitimacy as people categorise and make sense of the ideas which have acquired local validity in one context and gradually gain general validity as they diffuse within an organisation or industry. The highly-regulated and safety focussed nature of other parts of the business made radical change unattractive. Sponsors explained how employees often associated novelty with risk and additional workload. Any change beyond minor, incremental improvements, meant the safety of the product needed to be retested. The analysis and documentation of safety test data meant radical change placed a particularly high burden on employees.

It's a valid reason not to implement new ideas, although I'll be honest, it's also sometimes used as an excuse to deliberately block innovation too. We have to report based on billable hours and it's hard to justify working on experimental ideas. New technologies mean establishing new relationships and when you work with a product that's security sensitive, getting new suppliers in is put in the 'too difficult' bucket".

JJ, Sponsor, Prevention of Corrosion Challenge

The situation this sponsor faced was a need to remedy an issue with the discolouration of metalwork on their product which had to be corrected in situ. He felt there was a good response to

the challenge, although he labelled a proportion of the ideas as “daft ideas”, and when prompted he clarified this meant they were either too novel or complex.

This was indicative of a theme emerging from the interviews: creative ideas deemed as appropriate were often labelled positively, in comparison with the negative labels attached to ideas which displayed a higher degree of novelty. Appropriate ideas were described as *common sense (EE), logical (EE), practical (DD), relevant (AA)* and they *made sense (AA),* whereas as well as being described as *daft (HH),* creative ideas which were highly novel but not considered feasible, were described as *mad, (HH) wacky (EE), craziness (AA),* and *out-there (FF),* and those generating them fondly described as *lone nuts (AA).*

This appears to indicate language was used to enforce the legitimacy of ideas which met the criteria of appropriateness in contrast to those more novel. Sponsors acknowledged the value of the highly novel ideas they rejected in expanding their horizons and allowing them to approach a problem differently. Although sometimes creative ideas put forward did not meet material constraints of time and cost, sponsors felt these ideas did bring residual value, though they sometimes struggled to make sense of them in the context of local social norms..

Within the sponsor accounts, there was a clear indication of the role of social factors in the recognition of creative ideas. Here there was a dual aspect to the data, with sponsors describing the social factors which were important in order to bring creative ideas to their attention, but also in gaining attention for their own creative ideas. The predominant themes within these accounts were those of Persuasion and Communication.

6.3.3 Persuasion

Influencing peers and those in authority is an important aspect of promoting an idea, as any departure from current norms requires the organisation to marshal resources to enable the idea to

be implemented and this necessitates senior leadership (Wang, (2015). Employees who are successful in garnering support for their creative ideas are likely to be those who are aware of what is considered legitimate within the organisation and able to leverage this knowledge to build ideas around what they believe will be accepted (Ferris, 2007; Gatignon et al, 2016).

Employees appeared to use their networks to gain social support for their ideas which assisted in building credibility (Perry-Smith and Shalley, 2003). The legitimacy literature suggests networks are also used to support the diffusion of ideas into other contexts, helping build legitimacy (Berger et al. 1998; Ridgeway, 1997). Social interactions help establish the validity of ideas through appealing to existing norms, values and beliefs (Walker, 2004) and allowing ideas to spread throughout networks into new domains and contexts (Ridgeway and Erickson, 2000).

A vivid example of an employee who had learned how to influence those in senior positions was Leo (name changed), who was highly regarded by one sponsor who considered him to be a successful creative person. A good track record of successful ideas meant confidence in this employee was widespread, due to the employee's instrumental approach and active promotion of himself and his ideas.

> *Leo's smart in terms of playing the game, or he can be. He knows the right levers to pull when it comes to him filing in a patent form – he fills it in in order to be successful. Leo's won the Chairman's Award, very successful at those, because he does good things, but he's also clever, now he's done this a few times, he's got the measure of the process. I tried once and failed, but he showed me his application which was successful and it was a lot better than mine. Sometimes it's about knowing what you need to do! He's skilled in that he's learning and putting it into practice.*
>
> **FF, Sponsor, Variable Stator Vanes Activation Challenge**

Tenure and experience also had an effect on the likelihood of people promoting their ideas and this is an aspect which was prominent in Contributor accounts described in Chapter Seven. In this instance, a Sponsor explained how deference to the expertise of more senior and experienced employees could stifle the possibility of younger staff in promoting their ideas.

> *Here's a classic example: we got all the Fellows together about the future engineering problem, and then I did a session with the graduate trainees. There was unconstrained thinking from the junior group. The power in this was bringing the two groups together. We don't want to throw away experience as it's been built on making mistakes and we don't want to make those mistakes again. Experience is much appreciated, on the grounds we're a hierarchical organisation and amongst the graduates, it's a joke because I am a younger person that instead of 'Trusted to deliver Excellence' it really is 'Trusted to deliver Excel'. (Laughs) But then the greybeards pontificate, so bringing the two together is where the power lies…The vast majority look, but when we had apprentices and fellows the immediate dynamic with the apprentices and grants deferred to the fellows. Some of them are young enough and brave enough to believe enough to not defer to the power base of knowledge!*
>
> **LL, Sponsor, Unit Cost Reduction Challenge**

This was a recognised consequence of having highly experienced employees working alongside newly qualified engineers and other technical specialists and might lead to less tenured employees making suggestions in front of older employees, thus, limiting novel ideas and methods coming from more recent university research to which these younger graduates might have been exposed. This intimated there was insufficient insight or knowledge at lower levels to determine the appropriateness or novelty of ideas. This observation indicates the social and contextual nature of

recognition as what might seem novel or appropriate to a more junior employee, or one without domain-specific knowledge, might be considered impractical or ordinary by a more senior or knowledgeable community member (Crossan and Apaydin, 2010; Kaufman and Baer, 2012).

Employees who were prepared to actively promote their ideas were viewed as having an advantage in getting their ideas heard. This type of employee could get support for their ideas and was crucially able to push the idea afterward to make sure it remained on a senior leader's agenda. Interestingly, some sponsors used similar persuasive strategies themselves to gain acceptance, particularly for novel ideas.

> *What helps is if they [the creative employees] are like - a little bit of a leader, they like to be seen and heard - it'll be the same kind of people who tend to be giving a presentation, standing up and expressing opinions. That tends to, you see it correlates there… I consider myself to be creative. Of course I studied the ship intelligence and the unmanned ship and remote ship came from my vision and I've had many of this kind of vision and concepts in my career and of course, you can see it in the patents I've generated, it is there. And it comes from market recognition - I've been highlighted externally in magazines as one of the most innovative persons in shipping helps as well. If you take for example autonomous shipping I was driving, you can say to sell it internally in TechCorp I had to go external. I sold the idea externally before it really caught on, so basically I used external marketing to drive my idea.* [1]
>
> **DD, Sponsor, Ballast Water Challenge**

[1] This sponsor was unable to get his ideas for autonomous shipping authorised within his business unit, despite occupying a senior position himself. To circumvent this, he presented his ideas at an industry conference and used subsequent interest from competitors as leverage internally to get eventual support for his ideas.

This provides an example of how individuals attempt to construe a new social object as fitting within the boundaries of current culturally accepted norms and beliefs (Walker, 2004). In this case, this was an active process whereby he used external support for the idea to justify and defend his creative product idea as being consistent with existing social objects (Johnson et al, 2006). Sponsors identified how employees used such strategies to promote their ideas outside the portal and crucially, they saw their own leadership attributes reflected in this approach. These themes were also prominent in the contributor accounts where many social strategies were invoked as a mechanism for increasing visibility and gaining legitimacy for the idea as well as the person promoting it. This is reminiscent of the ideas presented by Csikszentmihalyi (1990) which suggests one of the most important characteristics required in the promotion of new ideas in order to have them recognised is persuasion. These social themes are discussed in more depth in contributor accounts in Chapter Seven.

6.3.4. Communication

A further social factor was communication. In the accounts given by sponsors, two-way communication about the challenge was an important theme. Sponsors spoke of the necessity of getting top-down communication right and the importance of ongoing communication during the challenge and bottom-up communication from employees.

Top-down communication

Sponsors were primarily occupied with communicating the challenge to attract wider participation, be accessible and invite employees outside of the business area to solve the challenge, but also in such a way as to be likely to elicit ideas which were relevant and which could be implemented more effectively. From the interviews, it was clear that general communication led to novel (but

less apposite) responses, whereas more specific communication of the challenge led to apposite (but less original) ideas. The nuances of this balance between general and specific communication emerged through the interviews with sponsors and innovation team members.

> *When you're asking a generic question you don't tend to get a mature response.* ***If you ask a very specific physics question people engage. You think if you ask a broader audience you're accessing more people, but in my own opinion, it's just the same people****. The logic is to access a wider variety of backgrounds but they don't have a research mindset, it's good if you're asking a specific question; engineers like a good debate, they believe in debate.*
>
> **LL, Sponsor, Unit Cost Reduction Challenge**
>
> *We needed to get something out there in weeks or months as opposed to years and years. I guess we didn't do a good job of reflecting that in our problem statement having said that getting some of those out there ideas got us – it fired a few synapses in our brains and got us thinking 'is there a nugget of that idea we could implement?' Having a good and well-formed problem statement would help in terms of looking at the ideas.*
>
> **EE, Sponsor**, **Helicopter Bearing Cooling Challenge**
>
> *Well, if it's really open-ended, where do you begin? Cause you're not, I dunno if it's like,* ***I guess it's the difference between me asking you to tell me a story versus me just asking you to speak English, do you know what I mean? At least there's some kind of frame of reference****, so if you were going to tell me a story then you're going to give it a beginning, middle and an end, whereas if I just ask you to speak some English, wh, what is that? So we did experience one of the challenges was so open-ended people didn't know where to*

begin and it was almost like manufacturing bingo, how many buzzwords can you get in their like flow and lead time reduction and batch size.

BB, Sponsor, Turbine Component Cost Challenge

We would reword this in an inclusive way; inadvertently they'll pick up on the fact it's all Aerospace lingo, so when we write it we need to write it for the Nuclear guys, the Marine guys, so we'll give it a shot. Go really ambitious, shoot for the stars and if you get the moon - that sort of thing. It makes it more open. It's still the same challenge, the same thing. It gives them more scope.

ZZ, Innovation Team, Meeting with Challenge Sponsor

Lateral and Bottom-up communication

Lateral and bottom-up communication also proved to be a key theme. Here sponsors talked about how employees communicated with one another and with the sponsor running the challenge. There was an acknowledgement of a failure in the everyday environment and running of the business which manifested as ideas being presented via the innovation challenges from people within the same business area as the Sponsor, but who had not put their idea forward during their regular employment. Despite his division having thousands of employees, this sponsor shared his opinion that a significant number of creative people might not know how to put their ideas forward to managers and leaders in a way which would get them recognised.

They were also asking questions, through the portal, they wanted to know more, they'd be really curious, even more so if they took actually the time to just find the sponsor or someone in the business to - I don't think that happened, but you could see it in some of the

questions, wanting to know more and I think we offered it to some of the people, but I don't think they took it up, we tried to put them in touch with people.

GG, Sponsor, Indoor Thrust Measurement Challenge

In an area with 6000 people, there is a handful who generate patents, there are not many. Out of those 6000 people, there could be a lot of creative people, but they just do not know where to, how to get their ideas forward and file it in. So, we're not using the talent pool we have out there, well not efficiently, but even those areas where you know there's the right environment, there are people who don't...First of all, it does help to work, I think, if you work in the right part of the organisation which has a tradition of filing patents, then it's easier. Certain departments are just run in a way that makes it, well, easier to get recognised.

DD, Sponsor, Ballast Water Challenge

This quote revealed how recognition was dependant on context, in this case, if a person worked in a department where it was commonplace to file patents and implement new ideas and approaches, then it was more likely they would have ideas recognised. This again suggests recognition is reliant on social and contextual factors, as well as environment.

Another sponsor was surprised when employees within his division submitted ideas to his Innovation Challenge through the innovation portal. He was not sure whether the employees had tried to submit these ideas before through conventional communication in the division or whether it was the format of the challenge which had sparked the ideas. Regardless of which was correct, he was surprised employees had engaged in this way and questioned the point.

What was really interesting is the number of people from within Turbines in a space where you'd like to think they could have put forward their - they're working here and they don't feel like there's a space for them to put their idea forward naturally within Turbines and they were using the Portal. They were using a third party in some instances to tell their boss they've got a good idea. Because one of the lead engineers was one of the team reviewing these submissions and it was one of this team putting forward these ideas, yeah. Now, I know he knows that person is innovative but I don't know whether those specific ideas have been put forward or whether or not they fully understood it and they were trying to use the Portal to elevate its importance of it, but it's interesting, something in Turbines is not naturally promoting.

BB, Sponsor, Turbine Component Cost Challenge

A further example described how the innovation challenge had provided a solution to the pipe vibration problem, however, this had come from a member of the team already working on the issue. In this case, the sponsor thought the idea would have come to the attention of leadership regardless of the innovation challenge. As such, he did not plan to investigate further.

I would say the idea put forward into the portal would have been recognised within or implemented or adopted without the portal, simply because it came from a member of the team working on the project irrespective of the portal.

EE, Sponsor

These observations were interesting as they highlighted some of the potential barriers to creativity and creative problem solving which were reinforced by participants in their accounts in the

following chapters. In particular, the difficulty in getting visibility and gaining feedback from senior members of the organisation was reflected in contributor interviews.

6.3.5. Structure

TechCorp is a matrix organisation, organised vertically along a divisional structure, with each division aligned with a major market segment within the transportation and utility sectors. Each of these divisions is operated separately from a finance and accounting perspective and the heads of each of these divisions report directly to the Chief Executive. Centralised, support functions such as H.R., Finance and I.T. operate horizontally across the business to consistently support the separate divisions with specialist activities. Within each division is a series of sub-units which operate together to fulfil the strategic and operational requirements for the division. Often these sub-units are numerous, and understanding the whole operational chain from supplier to customer can be difficult. Even within a business area, the number of people involved in a project can be numerous and complex, as in this example this Sponsor vividly described from the Nuclear business.

> *I think of an engineer as being the hub in the centre of a wheel, we had lots of stakeholders who all had various requirements for the product we were designing, we had physicists who needed to get a certain amount of power and lifetime out of the product, we had thermal analysts who had to demonstrate the heat power and heat output of the product, we had hydraulic engineers who understand the fluid flows over the product and therefore, how much heat was taken out, we had people who needed to understand the stressors in the product life and material specialists interested in the material that went into it, we had manufacturing engineers who had to come up with ways they could make that product, we had the operators who were going to operate it. We had the whole lifecycle of engagement,*

people who were going to maintain and repair the product, including its afterlife care and decommissioning…It's quite a mechanistic process and it kind of takes the heart out of the idea; takes the heart out of what to run with.

KK, Sponsor, Awkward Measurement Challenge

Sponsors also described how the organisation's structure often made it difficult to identify how and where to progress an idea, even for those who were in senior roles or had been working in the organisation for an extended period of time.

Our organisational structure, when I have what I think is a novel idea, I don't, I am confused at times where in the organisation should I take that idea and er, that just puts a bit of a headwind, is it worth my time to go and sort through the organisation and talk to so and so and so on and so forth? Often times those battles aren't worth my time - I get discouraged.

EE, Challenge Sponsor

This complex organisational structure and the potential challenges and opportunities it presents was one driver behind the decision to establish and maintain a companywide innovation portal. Understanding the way in which the company is organised is helpful in framing how the Innovation Challenges and Portal is intended to cut across division and function barriers and also highlights how those barriers in themselves are still perceived as an obstacle to innovation. There is a widespread belief that problems which present an issue for one division of the business may have been encountered and solved in another division and there is some evidence for this.

Certainly things inhibit it [creativity]. You might have a thought and trying to check it out to see whether its maybe been done before or whether it's really got significant potential

to be a solution that's obviously not an easy thing to I don't think in our organisation, lessons learned for example, are often written down are hard to find and hard to search through and see whether they've been thought of before. Things like that are phenomenally difficult I think to do anything useful with. I know people spend a lot of time adding to them but getting the information out is not easy. There are specialists around the company but you get to know your own area but if you're working on something outside your area then knowing those guys is not easy to find out, so yeah knowledge of peoples roles and specialisms is not - again I think there's information available but then again I don't think it's easy to find.

CC, Sponsor, Fuel Pipe Vibration Resonance Challenge

Divisions were often focussed on different objectives and priorities and this made it hard for leaders to advance creative ideas. As a result, this sponsor found it difficult to implement some ideas suggested in Innovation Challenges, especially if they crossed organisational boundaries.

Unless you have a route forward, very quickly it hits a roadblock. It's not a battle everyone wants to take on at that stage…The portal has given you the idea, but if you don't own the system, you can't implement the idea.

HH, Challenge Sponsor, Fault Tolerant Electrical Marine Challenge

Often sponsors were reliant on other areas to make progress with ideas which were not directly under their control and this sometimes led to lack of momentum and at worst, to inertia.

It needed a lot of work to develop it which is still not completed. We've left it alone to other people now. I hope it's worked, but it still hasn't been completed to my knowledge.

CC, Challenge Sponsor, Fuel Pipe Vibration Resonance

6.3.6. Processes and Procedures

A key theme which emerged from Sponsor interviews was the manner in which process and procedure affected idea recognition. Some of this was general process and procedure which had been put into place to help allocate budget or ensure only strategic priorities were progressed. Other processes were in place due to the nature of the business; particular areas where there were strong regulations and legislation such as Nuclear and Aerospace or where there were national security considerations such as in the Defence business.

This sponsor described the annual process for allocating funds which she felt was necessary to ensure a coordinated approach to technology innovation but which had unintended consequences for the flexibility and agility surrounding creativity and innovation.

> *The technology selection process has an annual budgeting process. If you come up with an idea in May, June, or July it can go in before the deadline in August for funding from January, but you have to think ahead. If I came up with an idea in September I'd have to wait until the following spring. So an idea in August 2017 and it would not be funded until 2019, if I had to rely on that route – and sixty to seventy percent of innovation is funded that route. It's meant to fit with the roadmap or they won't give it funding or resource; it's filling a form to the resource manager, an estimate form. The research part makes sense for the safety and reliability and triage is through speaking to the Capability Managers. There are some good ideas where people don't have a visionary messenger though. The process is well understood, but the process itself is ready for innovation.*
>
> **AA, Sponsor, Future Technologies**

This sponsor felt the process was necessary for safety reasons but it did stifle creativity sometimes and led to ideas not being recognised.

> *We make very good stuff that's more expensive than it needs to be. We need to take the unit life-cycle cost out and wanted to use the portal to reach as many people as possible. Ideas can be picked up or lost; there is a cultural element to how they are promoted in a hierarchical organisation. It's great to have a process, but with gatekeeping, it can stifle innovation, they have their own blindspot. It's quite rightly so done for safety reasons, but with really solid processes an interesting idea can get lost.*
>
> **LL, Sponsor, Cost Unit Cost Reduction**

Even the Innovation Challenge process itself could become bureaucratic and procedure driven. This sponsor found the analytic method of determining which ideas had most merit reduced the innovative feel of choosing a winning solution.

> *Where I think I became frustrated was I think where we lost the innovative feel was when it came to analysing each idea in a spreadsheet with lots of boxes to fill in, and it felt quite mechanical and we're here to search for innovation and the process has been innovative up until now and now we've hit this bit where it feels clunky and cumbersome and if the purpose was to feedback to ideas generators, something needs to be a bit more innovative.*
>
> **BB, Sponsor**

This may partly explain why incremental ideas were favoured over novel ones in some areas of the business such as in this example. The modular reactor programme led by one sponsor was involved in the design and manufacture of products which typically had a twenty-five year life cycle. He described how the appropriateness of a creative idea was of high importance in a market

which was highly regulated and where products were predominantly commissioned by governments. Novel ideas were generally too challenging to incorporate into current products.

> *When I say, 'new and exciting' I mean new and exciting from a Nuclear perspective. (Laughs). We have to get approval for safety standards, compliance, all the work, done. It's a long-lead item; if someone has an idea, it has to be done at the build stage. It has to be fed into the next generation of the reactor.*
>
> **JJ, Sponsor, Prevention of Corrosion Challenge**

This sponsor was a leader who stated he, and most of his team, were creative. This was attributed to the diversity and forward-thinking nature of the team and the number of patents they had achieved was offered as evidence of their creativity.

> *Creativity is not a process; of course you have people who are creative and others are less, but generally, for all, you should stimulate effectively, create, er, the creative environment where they're working and drive it. Innovations don't happen by themselves, you need to work on it, and for some people it's easier, for some it's harder, but it's definitely important you have an active stimulation of it - you can do it in workshops, you can do it in brainstorming sessions - there are so many different ways to achieve it but it's very important you actively drive it. When we do brainstorming and so on, it's very important you have one or two who are naturally creative people because they usually trigger other people to innovate… There are definitely places where you are less likely to be creative and generally I think the more process and strict environment you have the less creative you are, you need freedom. You need a certain amount of freedom for people to generate*

ideas to be creative and if you describe everything in a process and where people must work by applying a process it's clearly hard to be creative.

DD, Sponsor, Ballast Water Challenge

6.4. Conclusion

Whilst Chapter Five examined the legitimisation of creative ideas from the perspective of both sponsor and contributor, Chapter Six described the findings from the challenge sponsors in depth to gain a deeper understanding of their top-down role in shaping those ideas recognised within the organisation as creative. The data suggested sponsors, who are senior managers within the organisation, have a tendency to legitimate those ideas which best fit their management objectives, operational priorities and resource and external constraints. This chapter represents the findings of the contributors to innovation challenges and reflects their bottom-up response, subversion and sometimes rebellion, against legitimating forces they perceive as promoting conservative ideas and constraining novel and discontinuous ideas within the organisation.

In the previous chapter, it was identified how the sponsors who set innovation challenges were frequently privileged as a group; as a source of legitimacy and as gatekeepers who could access and allocate resources to ideas. However, contributors to creativity within the organisation frequently voiced the agenda and actions of the management community (from which most sponsors derive) differs from those of other employees. While tension between management and employee perspectives is a common theme in many organisations (Oldham, and Cummings, 1996; Hirst et al., 2009), within TechCorp the rhetoric of management versus employee is more nuanced. Most employees outside of management within TechCorp are highly specialised, technically adept and well educated. In terms of education, most of the engineering and manufacturing employees

will have an undergraduate and many a postgraduate degree, either a Masters or Ph.D. This differentiates employees as an intellectual and well-regarded group in TechCorp when compared with some other organisations. Yet, despite education level frequently surpassing managers, these employees closely fit the description of the technical occupations described by Dougherty (1992) with a focus on technical ideas and expertise rather than planning and management tasks such as scheduling, managing costs and customers. The next chapter presents findings from the accounts of employees at TechCorp who were contributors to the Innovation Challenges.

CHAPTER SEVEN: RESPONDING TO LEGITIMACY: AN EMPLOYEE PERSPECTIVE OF CREATIVITY

7.1. Introduction

> "Critical to the theory is that defiance is necessary but not sufficient for creativity (at least in our society and ones like it). To be fully creative, individuals need be not just defiant; they also must have the analytical skills to assess the quality of their ideas, the practical skills to persuade others of the value of their ideas, the passion to pursue their creative ideas to their ends, and the resilience to persist in the face of opposition."
>
> Sternberg (2018, p.50)

This thesis is based on the premise that legitimacy may be a pivotal construct to understand the manner in which creativity is enacted and recognised within organisations. Both sources and processes of legitimacy may account for how just some creative ideas are recognised and implemented. It may also contribute towards an explanation of how ideas gain momentum and traction over time or are advanced successfully by one individual, despite being unsuccessfully articulated by others in the past. There were a number of aggregate dimensions beneath which were themes, subthemes and the individual codes generated from the data. Taken together these key themes indicated individual action was necessary to overcome organisational factors which constrained employee creativity and overcoming such barriers was achieved through the medium of social interaction. This is reflective of the understanding of creativity and legitimacy as being social processes as well as individual phenomena (Perry-Smith and Shalley, 2003; Johnson and

Ridgeway, 2006). This chapter explores these themes and illustrates them with appropriate quotes which explore the themes in more detail.

Table 10: Thematic Analysis for Chapter Seven: Employee Interviews.

Aggregate Dimensions	**Theme(s)**
Motivation	Intrinsic
	Extrinsic
Non-conformity	'Maverick' Personality traits
	Validity and Propriety
	Job or Financial Security
Social Capital	Access to information
	Network
Social Strategies	Endorsement
	Authorisation
Culture	Conservative
	History
Boundaries/hierarchy	Resource
	Gatekeepers

7.2. The challenge participants

Those participating in Innovation Challenges spanned a range of divisions, sub-units and specialisms. TechCorp has a hierarchical structure with 14 levels of employee from interns and graduate trainees to executives. A recent exercise to rationalise and create parity across each grade resulted in widespread shifts in some employee populations regarding remuneration such as pay and access to bonuses. The employee population at TechCorp is highly skilled and educated with lower grades of employees well-educated and well paid compared with the general market, in line with the specific skill and experience they bring to the role.

The majority had engaged in multiple Innovation Challenges either submitting ideas or contributing and refining the ideas of others through the Portal. The challenge participants were specialists in their areas, usually within manufacturing, engineering and technology. To illustrate the specialism present within the organisation it is worth discussing two significant horizontal operational functions – Engineering and Manufacturing - which support these two major activities within the company. These operational functions serve to maintain standards across the business and gain efficiencies from companywide processes and ways of working. These two major specialisms carry considerable influence within the organisation; yet, there exists a clear tension between the function and the division allegiances. Employees typically identify themselves as belonging to a subset consisting of their specialism and division i.e. an engineering employee based in Civil Aerospace or a manufacturing employee based in Nuclear Submarines.

Many employees held patents within the company and sometimes, from previous companies. Similar to the challenge sponsors, the participants ranged from those who had begun their career at TechCorp, those who had joined from other companies before moving to TechCorp and some who had worked for TechCorp, moved to other employers and return to TechCorp later on. All

Innovation Challenge participants who were interviewed for the research were British and Caucasian; all except one, was male. These employees, who were classed by the innovation team as 'extreme users' of the Innovation Portal, had a particular interest in innovation and engaged in innovation-related activity within their role and wider team. Many were also involved in creative activity outside of the organisation, either through membership of professional bodies connected with their specialism or through hobbies which required finding complex technical ideas to ill-defined challenges or opportunities.

Many Innovation Challenge participants were known to one another and were aware of being part of an informal network of like-minded creative and innovative people within the organisation. A number of these individuals had conducted their own investigations and research into innovation practices within TechCorp. This exploration of innovation was motivated by an intrinsic interest in innovation and an interest in testing their own hypotheses about how creativity and innovation was enacted within the organisation. In one instance a challenge participant had also been the sponsor of a previous challenge, which is indicative of the fluidity between roles, where the blending of the sponsor and participant role was not just possible, but had actually occurred.

7.3. Findings

7.3.1. Motivation

Motivation has been a key area of study within creativity research due to its inclusion as one of the three components in the Componential Model of Creativity (Amabile, 1999) and the subsequent lines of research which have proceeded as a result. Earlier studies have focussed attention on intrinsic motivation as important for fostering creativity due to the internal desire to invest time in generating and developing ideas through to fruition, and the propensity for extrinsic motivation such as rewards or remuneration to negatively affect creativity (Deci and Ryan, 1985;

Sue-Chan and Hempel, 2016). More recently, however, research is suggesting motivation is unlikely to be a single unitary construct and thus the relationship between motivation and creativity is far more complex and nuanced than previously argued (Mumford, 2003).

Intrinsic Motivation

Many of the contributors talked about their interest in creativity and innovation and how this permeated their work life. This contributor who had taken part in multiple challenges on the portal was typical of the types of user who were engaging in creative problem solving and innovation.

> *So, I've always been interested in innovation and driving innovation. I should mention as well I was with the Open University for a nine-month course on Design Innovation as part of my first degree, I've been a contributor on the portal since it was conceived I think. It came about around 2013, so I've been doing that, so yes, I've got about six patents that have successfully been raised if you like, submitted, filed, granted (laughs) I should say and lots of ideas here.*
>
> **SS, Contributor**

QQ was a patent holder as well; he had successfully filed patents in his time at TechCorp as well as in previous companies. He had run a problem-solving workshop and this had whet his appetite to learn more about formal creativiy relevant skills and incorporate them into his role.

> *I've done various bits of what I would call it, structured problem solving or structured thinking, I've run several sessions in the company over the years, looking at different methods, so I used to run a lunchtime club, people used to bring problems along and we would try another method, almost at random, try methods on it. The idea was people could bring along things which were not necessarily TechCorp problems, if they wanted to bring*

along a TechCorp problem and do it properly then we'd ask people for man hours and their time too - but yeah it meant we tried all sorts of things and at that time it was also a lot or Triz and did some training with a couple of Russians, one in Seattle and one in London.

QQ, Contributor

Similarly, XX had been involved in creative problem solving, in this case on an external online platform early in the new millennium. This interest and motivation to pursue creative ideation had preceded his employment at TechCorp and indicated his intrinsic motivation for problem-solving without any external reward.

Yes, I was really glad to see the Innovation Portal when it appeared. When I was a student and had less time and more money and less opportunity for creative output, I spent a lot of time on a website called www.halfbakery.com which is possibly worth a look at for background knowledge and the idea was you'd post an idea and then people would comment on it and vote for it. Purely ideas for the sake of ideas and some of them would be funny and some of them serious but it was very much like the innovation portal. People put ideas up, people vote on your idea. So I contributed quite heavily for a while. It was another opportunity for a creative outlet for ideas I wouldn't normally see in my day job.

XX, Contributor

Contributors also explained how the innovation challenges fed their curiosity for exploring new ideas. This was an activity which they sought out in their day to day roles as well and as in this case, many contributors found the opportunity for working with creative ideas and innovation was a rewarding activity in itself.

I think that makes the job interesting as well. The project management and administrative tasks alone don't do it for me really. And the role I'm working in at the moment gives me the flexibility to have ideas and try to realise them – that's good for me. I've tried other roles, team management and project management and I find them a bit dry at times, but being involved with technology and understanding technology and applying it to existing problems I find this more rewarding.

UU, Contributor

An intrinsic motivation for creative tasks was not only indicative of contributors in the organisation. Many of those interviewed had hobbies which required them to practice problem-solving and bring together knowledge from different areas to apply them practically. VV described how one of the key defining features of the people he described as creative was their interest in hobbies involving engineering, which was his specialism.

Let me think about people. Okay, there is - in terms of - there are one or two people who are really keen on engineering and they, you know, they have engineering hobbies. I think that helps a lot. I'm thinking, I'm thinking of two or three people who definitely - one I'm thinking of is into flying model aeroplanes, another one is into model railways that sort of thing, another one is into chemistry - oh, that's another thing! I think there's like if you've got a cross knowledge it helps, you know, if you know two different technologies and the idea you have is the joint between one and the other. When somebody's into material science and they're actually doing a job where that's applicable but not actually part of the job. But they draw information across.

VV, Contributor

Such intrinsic motivation characterised by an early and sustained interest in creativity and innovation, fulfilment in solving complex problems and involvement in these areas outside of the organisation, as described above, was commonplace.

Extrinsic Motivation

Intrinsic motivation was more frequently described than extrinsic motivation. However, external rewards and benefits resulting from engaging in creativity and innovation activity was mentioned in a number of contributor interviews. For example, RR explained how honouring a commitment made in front of senior management was an external motivation to pursue his idea.

> *I was fairly motivated to do it because I'd been stood up in front of some quite senior people, if you remember [Director of Engineering] and [Executive Vice-President Component Engineering] was there at the time and I sort of made this promise I could save them this amount of money over this number of years if this toolkit was introduced so I didn't want someone to turn around and say where's our money?! So there was the motivation there. I wanted to do it myself as well so I had come up with the idea and wanted to see it come up into something that actually existed and made a difference. My drive for a lot of the innovation work I do is to make a difference. I want to make a difference to the company but more generally I want to make a difference in the industry.*
>
> **RR, Contributor**

His motivation was to deliver on his commitment and underlying this was a desire to benefit the organisation and the industry as a whole. This aspiration to bring collective value to the company and beyond was a strong motivator for many of the interviewees.

The benefit is to TechCorp and I'm trying to benefit TechCorp rather than take a very personal view. It doesn't actually make much difference to me, from my viewpoint I want TechCorp to be more successful as I'm not going to financially get benefit from it. If potentially there was more of a financial benefit for me, a financial reward for it then potentially I'd be more competitive. But it doesn't work like that so I've got to be more pragmatic and think it's TechCorp that's winning if we get more ideas and I'm paid by TechCorp to come up with ideas. If someone implements them that's a benefit. It's nice to be competitive, but if there's no reward and recognition at the end of that competitiveness, why so competitive? Maybe that's slightly unfair. If there was a nice 'you saved TechCorp one hundred million pounds you get one percent', then I'd be more competitive. I've tried this one before 'if I get a brilliant idea will you pay me one percent of it?' 'No.' 'Okay, fair enough!

TT, Contributor

A small group of the interviewees suggested external rewards and recognition were sometimes not worth the time and effort invested. In this example, QQ spoke about how he had participated in an award scheme named after TechCorp's founder for which the reward was minimal and which left him feeling it had cost the company more than it was worth. He told the second story about another award, where he felt the prize he received was useful in terms of enhancing his short-term job security, but had not left him feeling particularly valued by the senior management population.

It's a bit like any of the other award schemes. If I was to put a submission into the [Founder's name] award, which I did do ten years ago, you've got to argue with your boss for the time to do it and if you get to the final then you have to find a budget of £50 for a poster and other bits and then you've got to plead for a couple of days off to do the display

and see the judges and then if you win it you get a certificate. If you win some of the other prizes you might win £50. But you've put two weeks of your life into this and you've spent quite a lot of time haggling with your boss for the resources to do it and you just think, this has cost the company an absolute fortune. For them to recognise you! Again it's all part of - so people just don't do it. They're not going to spend two weeks to develop an idea. It's just not worth the attention.

QQ, Contributor

Overall, an intrinsic motivation in creative problem solving and innovation seemed to be the driving factor in accounts of why contributors to the portal participated. Extrinsic rewards, while mentioned, were centred on an altruistic benefit to the organisation as a whole or recognition for the purpose of career advancement rather than the reward of the individual in monetary terms.

The following section theorises the emerging concept of non-conformity, characterised by individuals who responded by rejecting the normative behaviour surrounding creativity which was considered legitimate within the organisation.

7.3.2. Non-conformity

An emerging area of academic research (section 3.6) suggests creativity and innovation require a degree of defiance – relating to their prior individual perception and practice, as well as defying the collective beliefs of the domain, field and wider culture (Sternberg, 2018). This research, which principally builds on Sternberg's earlier 3-facet model of creativity (1988) and his investment theory (Sternberg and Lubbart, 1995) suggests such an orientation is an important factor in the development of ideas, particularly those which are defiant "of the crowd, of the self, and of the Zeitgeist" (Sternberg, 2018 p. 52) and lead to radical or disruptive innovation. Yet, this

demonstration of defiance takes on a new depth of meaning when it is examined within the context of the social norms and interactions inside the organisation. Put simply, the individual may only display non-conforming behaviour beyond their self within an environment characterised by conformity.

Within contributor accounts, this theme of explicit and implicit nonconformity was prevalent and seemed to play a strong role in not only the initial persuasiveness required to gain support for ideas (Csikszentmihalyi, 1999) and tenacity required to persist in promoting an idea in the face of opposition. The strong theme of nonconformity in the contributor accounts was foreshadowed in the sponsor accounts where nonconformity was implied, rather than explicit. However, whereas nonconformity was portrayed as a desirable or neutral quality by contributors, this contrasted with the portrayal of the nonconformity of people and ideas in sponsor accounts as being inappropriate, unworkable or, at the extreme, 'insane'. Accounts of nonconforming behaviour and attitudes emerged from contributor interviews unprompted and led to the identification of this theme as an important theoretical dimension of the recognition of creativity.

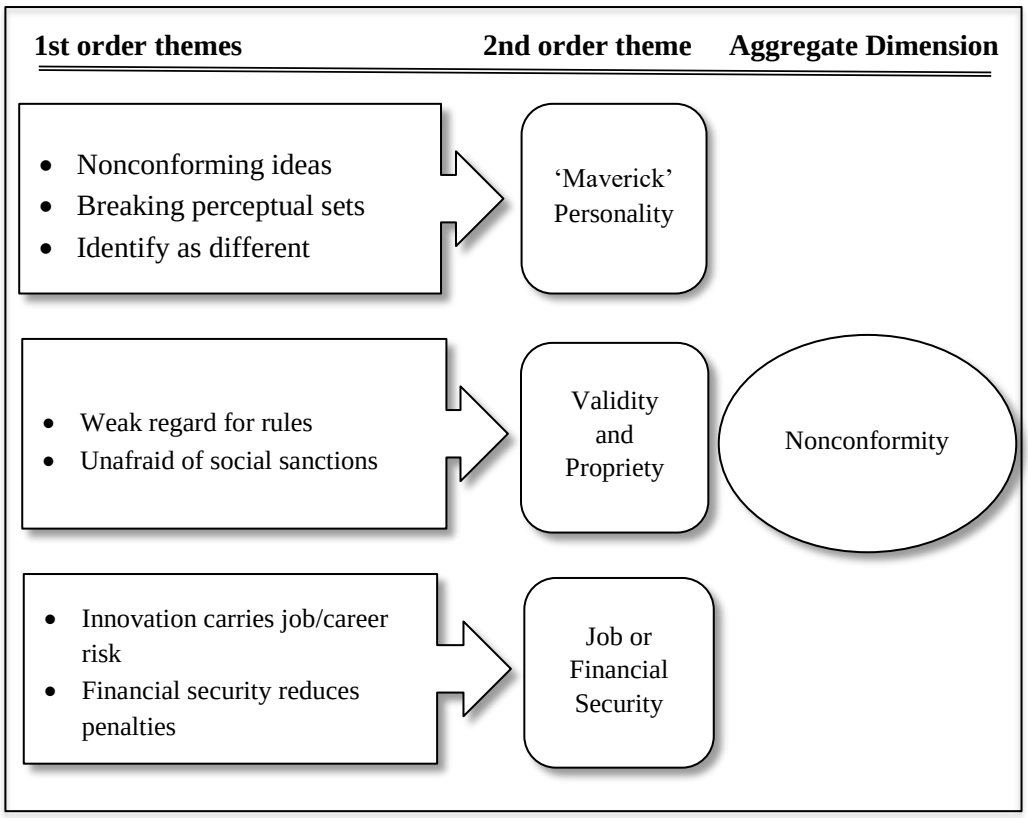
There were three main concepts which were detected during the coding process, those of 'Maverick' personality, Validity and Propriety and the role of Job or Financial security.

'Maverick' personality

The term 'Maverick' entered the English lexicon in the late 1800s and derives from the surname of Samuel Maverick (1803-1870), a Texan lawyer, politician and land baron whose refusal to brand his cattle led to the term being used to describe both unbranded cattle and people who were stubbornly independent in their thinking and behaviour. This seemed a fitting term to describe the behaviour described by contributors, who often seemed to take pride in their opinion of themselves

as different from others within the organisation (Giovacchini, 1991). The data displayed three separate themes which together constitute the 'Maverick' personality as described here: unconstrained curiosity, breaking perceptual sets and identified as different. Contributors described how they and others who they considered creative were unconstrained in their curiosity and pursued ideas which were perhaps self-censored in other people.

Figure E: Coding structure for Nonconformity within Contributor accounts at TechCorp



This ability was reminiscent of the more novel thinkers described by sponsors in Chapter Six, Section 6.3.1. A second aspect of the 'Maverick' personality was the ability to think beyond the constraints of the situation and notice information and data others filtered out when considering creative ideas. Finally, people described themselves as different from the other people within the

organisation, either due to the background, skill set or because they felt they did not match the profile of the rest of the population in the organisation. This element of identifying themselves and other creative people as different was prevalent across many of the contributor accounts.

Table 11: Illustrative quotes for Maverick Personality

Maverick Personality
Unconstrained curiosity *Part of what made him good was is he wasn't afraid to put wild ideas out there. Some people self-censor their ideas, sometimes to an excessive degree. Ken was more towards the other end of the scale. He'd put something out there you'd know was clearly not practical in that context, but by going that far in a brainstorming session he'd spark ideas*. ***(OO)*** *I've seen people pushing their field outside of work and then bringing new knowledge back into work and then applying it to ideas, so they, I think it depends on the individual. I think it comes down to their personal nature. Some people just want to be excited by new technology and really want to push themselves.* ***(NN)*** *I'll always lived in a household of scientists, medics, I suppose engineering is just a branch of that and so we have always had questioning minds, saying how can we make things better, can we do other things…I suppose that's why I've been a freer thinker.* ***(QQ)*** *He's based here, runs the grad programme. He's an early career specialist. Very – I want to say freethinking without making him sound like a 1960s California hippie! He's nothing of the kind. He's very open to ideas. Very good with first principles thought.* ***(XX)***
Breaking perceptual sets

All the while you've been staring at the same terrain and you've worked out all your solutions. And when someone says 'how do you fix this?' you say 'you fix it like that' and when someone says 'well, how about this?' and your natural response is probably 'no, I've thought about that', but you might not be right to do so. ***(XX)***

The last coherent thing that's going to be said by a human being is – and it'll be a physicist – will be 'whoops!' I'm sorry I'm taught to poke at the end of reality and go and test this. If you talk to any physicist, they're quite comfortable with pushing the edge of reality, test it, test it, test it. ***(VV)***

I'm strange, I'm kind of strange…I'm quite a strange engineer with being split 50/50 arts and sciences. So, I did maths, physics, English literature and art which is unusual. And I've always loved the English; most engineers love the maths and computing and I hate those bits. ***(PP)***

Identify as 'different'

I can probably name quite a few of the people who you been told to talk to because yes, it's the radical element in TechCorp. The people who don't 'seem at home'. ***(OO)***

So, I'm a bit of a bizarre engineer as most engineers at TechCorp have a - you know engineers fall into pots? You're a technical person and you have a real skill … or you have a domain - you've done lots of different jobs, but they're all about turbines...You've then got the function people who own methods and capabilities…then you've got the random people who just don't fit in a box and I'm one of those. ***(PP)***

In case you are wondering why I am so off the ball on this one, you've got to remember – I'm not an engineer. I am employed as one and I'm a chartered engineer, but I'm a physicist. ***(VV)***

I always nicknamed them the 'weird and wacky' group, because that's what they do, look at weird and wacky technologies. ***(MM)***

Validity and Propriety

Within this theme, there were two characteristics which interviewees described: a weak regard for rules and being unafraid of social sanctions. These two concepts broadly map to the constructs of propriety and validity found in the legitimacy literature (Zelditch, 2001). A weak regard for rules within the organisation was demonstrated either through a perception the rules were not important or the rules were made to be challenged. This is indicative of the propriety aspect of legitimacy, which is a personal view of whether a specific act, belief or process is right and proper.

The other aspect which was established was the lack of regard for social sanctions occurring as a result of rules, norms and values within the organisation being ignored or challenged. This reflects the validity element of legitimacy in which collective agreement and compliance with those norms, actions and beliefs considered proper in the organisation. Examples ranged on a spectrum from being disinterested in the opinions of others on one end of the scale to active antagonism and disregard of the consequences at the other. This disregard of consequences echoed the final theme which was related to job and financial security.

Table 12: Illustrative quotes for 'Perception of Validity and Propriety'

Perception of Validity and Propriety
Weak regard for rules (Propriety) *The difference I've noticed between engineering and physics is engineers go to university and get told a load of rules and obey them. If you go and do Physics and you're taught Physics properly, what you actually get told is 'here are all the rules, right, go away and see if they're true or not'.* ***(VV)*** *You've got a process which is guaranteed to produce Victoria sponges every day, and you fancy an ornate gateaux. 'We could do that, but it might go wrong, I'll get the oven temperature on so we can do you a cake, it's going to be a Victoria sponge – sugar, butter, flour, you know what, I may use some vanilla essence'. (laughs)* ***(MM)*** *I'm going to go and do this because I think it's the right thing to do. If you tell me otherwise, I'm not going to listen to you. What's the worst thing you can do to me?* ***(OO)*** *Yeah, so this last round, we had to prepare these presentations. I said to my boss, this is just a waste of time. So, at my review, I put the two patents I'd done on the table and do you know what the HR person said? 'But you haven't done a PowerPoint presentation'.* ***(QQ)***
Unafraid of social sanctions (Validity)

It depends who you speak to and in what order. I've certainly found that. Some people are more swayed by someone else's opinion than others and some are more open to new ideas than others. ***(TT)***

Some people are simply non-conformist. Again, they're not heavily influenced by the group opinion. I think that's quite useful. If you're not someone who gets told, 'well, we do it this way and it works, that must be the solution then'. ***(XX)***

He would put the ones out which you'd say 'that's a bit wild but we could achieve 50 percent of it this way'. But he was really good at sparking ideas off other people and he wasn't afraid to look silly in saying 'why not this?' that worked very well in a group. ***(OO)***

We have these RMT Awards on an annual basis and I have been selected quite a few times there as well, at least to present to the panel. Sometimes it's been a disaster (laughs) and sometimes I make something out of it. I'm not too fussed really about it. ***(UU)***

You know, you put something out there to try and challenge the company, to challenge ourselves and certainly, I don't know whether people in management were (afraid) to engage. ***(SS)***

Job and Financial Security

The final theme which emerged from the findings surrounding nonconformity was job and financial security and its relationship to the other two themes of Maverick Personality and Validity/Propriety. Job and financial security summed up how innovation was a potential risk to job and career progression and as a result those who had more job security were more likely to put forward ideas which were unconventional and challenge the status quo. Many contributors talked

about how creativity and innovation could be a potential risk when objectives and performance were measured on delivering work on time and to budget and where failure was not always considered acceptable. Mitigating this risk was the benefits of having job security through reputation or long tenure or financial security as a result of having less financial commitments and outgoings or having fiscal provision through higher pensions or potential redundancy pay.

Together these three main themes underpinned by the data from accounts given by participants in the innovation challenges cumulated in the proposed theoretical dimension of Nonconformity, This dimension is related to, but conceptually different from the notion of defiance as articulated in the work developed by Sternberg (2018) from initial research into this area beginning in the mid-1990s (Sternberg and Lubbart, 1995). Similarly, this concept is resonant of underexplored scholarly enquiry from around the same time into how the creative personality might be explained by the presence of antagonistic or antithetical personality traits (Giovacchini, 1991), giving an individual a higher degree of cognitive flexibility, described as 'paradoxical personality' (Csikszentmihalyi, 1996; Hoffmann et al, 2014). This dimension of Nonconformity, its theoretical contribution and ramifications are discussed in further detail in Chapter Eight, the Discussion and Conclusion.

The following table shows demonstrative quotes which provide the data for the theoretical dimension of Nonconformity as identified within the contributor data.

Table 13: Illustrative quotes for 'Job or financial security'

Job or financial security
Innovation carries job/career risk *Nokia invented the smartphone but "it doesn't fit round here sonny", so guess what? They don't do smartphones. Kodak invented digital cameras which is why – well, explain to me where Kodak is! (laughs) Xerox invented Windows…That's why things come from outside. Innovation comes at a risk and there's your career at stake.* ***(OO)*** *What's the most important thing? My career progresses or we go and build a slightly cheaper engine? Why would I want to be involved if it could stall my career path?* ***(MM)*** *I think it is one of the blockers to have in innovation. I think people here have ideas but are slightly wary of putting an idea on the portal in case somebody looks at them and says 'that's a daft idea, what would we want to do that for?'* ***(RR)*** *They're all soft issues these, aren't they? We have the intelligence, but we don't have the intellectual horsepower. This conversation, as I think about it, keeps revolving around soft issues. And the fact you have a bunch of conformist geeks.* ***(VV)*** *People being cynical. Or at least people being innovative and having been burned at least once. To say people being cynical is perhaps unduly negative. But they've had bad experiences.* **(XX)**
Job and financial security reduces penalties

Well, I've got a final salary pension, I'm well known in the organisation, I'm not bothered about going much further up it. You know, what's the sword of Damocles hanging over me? Why should I conform? What's in it for me? Yeah? ***(VV)***

One or two of the lads in here, you know, young family, large mortgage, go and see if you can persuade them to behave the way I behave. Do a profile, try and do a profile of what the backgrounds are for the people you are interviewing. What their personal life situations are. How much are they willing to stick their necks out? ***(MM)***

This is going to sound incredibly arrogant and I don't mean it this way, but over time you build a reputation and people know you as the guy who has ideas and they are generally not terrible. So, you're then a lower risk for someone to back you. ***(XX)***

Sorry, you want them to be innovative? You want them to take risks? Let them face their wives - and they will be wives. Because you hear the youngsters around here and you think, bloody hell, I'm glad that's behind me. ***(OO)***

In addition to the individual level themes, there were two main themes which emerged from the employee data. These were categorised as social capital and social strategies. Social capital is typically defined as "resources embedded in a social structure that are accessed and/or mobilized in purposive action" (Lin 2001. p. 29). This was mentioned by participants in relation to the networks and the influence they held within them. Contributors to the portal then went on to talk about the ways in which they utilised social strategies with senior managers and peers in order to gain recognition for their ideas.

7.3.3. Social Capital

While other forms of capital are based on assets or individuals, social capital resides in the fabric of relationships between individuals and in their connections within their communities (Putnam 1995). Baker (1980) defined social capital as the structure of the relationship network itself. However, Bourdieu (1986, 1993) and Putman (1995) also included the actual and potential resources that can be accessed through these networks. Social capital is defined as "the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit." (Nahapiet and Ghosal, 1998 p.243)

Access to information

Accessing information and knowledge was one of the reasons for maintaining and utilising a broad social network OO explained. He relied upon people in his network with complementary and contrasting skills to build up his ideas and test them.

> *It wasn't taught, but maybe it's the natural way I do things. I've got an idea, it's not in an area where I don't have deep knowledge. There's not many of those I've got broad, but shallow knowledge so I can understand a lot of things qualitatively but when it comes to the detail, I need someone who knows. I'm not keen on setting up big meetings, so I'll go to someone's desk who I know has a level of knowledge and I'll say you know 'what do you think? Can we break this idea?' And I found it worked better when I went to people in the right order.*
>
> **OO, Contributor**

XX claimed being 'well known' meant it was more likely he would have his ideas accepted.

What I observed was, other innovative people who had been here longer, they would have ideas and they would just sort of sail through. It wasn't necessarily a better or worse idea but they were better known. When they went to Fred, Fred didn't sort of, 'hang on, I don't know this person, I haven't got history with this guy so I don't know whether what he says make sense, I daren't put my political capital behind this. From a technical perspective, I can't see any problems with my area, but there are potential problems elsewhere, so I'm not backing you. But when Fred knows Stan has been here ages and has a good track record, he thinks it's a good idea, 'no issues from my side, you might want to talk to these people but fundamentally it works'. After ten years in the company, I can now have an idea, and people say, yeah I think that's right.

XX, Contribution

Networks

The networks in which the innovation challenge contributors were situated and the effect this had on their ability to generate ideas and get them recognised emerged from the data. One contributor talked about how having a network of people he could get feedback from was a helpful way of improving and promoting ideas.

I've worked all my life as an engineer and I've never wanted to do anything else, but if I had to say my core skill it would be linguistics rather than maths and physics. I can handle the latter, I can make them work but my knowledge, my strengths are all in the fuzzy, qualitative, if I've got an idea I can do the analysis, but I'm better off leaving it to other people...Yes, in terms of socialising an idea, I have a good network of people who I can talk to about an idea and say, 'does this do what I think it does?' Yeah, when it comes to

analysis, I know what I'm meant to do and I'll come to the end and the answer will be ridiculous and I'll come to the answer and I'll go back through and hang on a minute, I've turned a plus into a minus or something. What happened?

XX, Contributor

QQ realised the same group of people with whom he interacted on the portal were the same people he recognised as creative, both in the organisation and outside it. Encountering them in his professional and personal life piqued his curiosity and led to him investigating how the group was connected and how well known they were to managers in the company.

So I thought, this is a bit odd. So I thought 'I know, I'll ask someone who works in the pigpen where the inventive person works' and about all of them named the person who sat with them and none of them named anybody else in the company unless they happened to be in the same department or the immediate circle or in their department. So I thought 'what is it about this group of 50 people who have somehow connected themselves across the world without anybody knowing it, some in Marine, some in Nuclear, some in Aerospace, some out in Services, why is it they're talking to each other? Why is it we know each other?' So, I then started saying where do I meet these people.

QQ, Contributor

He concluded from his study of other people in the organisation who he deemed creative, the connection between them was their shared interest in creative problem solving and innovation.

7.3.4. Social Strategies

Within their networks, employees had devised various strategies and tactics in order to gain acceptance for their ideas. It was evident these were conducted with two aims: first, to gain

endorsement from their peers and second, authorisation from senior managers. These two aspects of social interaction are widely recognised as bolstering legitimacy through reinforcing and amplifying the validity and propriety of normative behaviour (Dornbusch and Scott, 1975).

Endorsement

Most contributors spoke of how they used their social networks online and offline to test, refine and get support for their ideas. XX described how important it was to identify and address potential problems with ideas – whether real or imaginary – by interacting with individuals outside of the group setting. Over time, he had developed a process to follow which he felt gave him the best chance of success in winning over peers.

> *I found there were sort of key people who were both open to listening and their view was respected and you'd go to them first and then you could go to Mike - he's a good guy but takes more persuading and you could say well, these two guys like it and you automatically push them in the right direction. If on the other hand, you were to get Mike and those other guys and everyone else all in a meeting room together and you sell it to them and say 'Look, I think this, there will be a long pause and everyone will look at one another and almost like a bit of a Mexican standoff and then someone will put their cards on the table. But the safest thing to do is to say 'well, have you considered this?' and it will be a valid technical objection, but it injects uncertainty and that person is making a genuine and valid technical contribution but if they haven't looked at it and gone 'yes, I'm willing to take a risk on backing this' then they sort of swing the room in the wrong direction and then someone else will say 'yeah, yeah and you need to think about this as well' and 'what about that?. You don't get a second chance. When you come to Fred outside the meeting, he's heard his peer group are not supportive, he was there and he watched it happen and it's much, much*

harder to overcome. You need to have cast iron technical arguments and generally, there's not the data or the time to support it.

XX, Contributor

Other contributors had developed a similar approach to targeting key colleagues and stakeholders outside of more formal evaluation settings to reduce uncertainty and build personal social capital and therefore, gain legitimacy for themselves and their idea. Some participants felt tthis approach, while instrumental in achieving the personal goal of getting an idea recognised, was not optimal for the company in the same way as true collaboration on a shared goal.

I'd argue there's an awful lot of cooperation going on, but not much collaboration, because collaboration indicates you've got to take your own personal objectives out of the equation to deliver a result beneficial to everybody. And that's a lot more complicated in a working environment, whereas cooperation, 'yes I've asked you to do it and you do it back', but to go a step further and go, 'actually I can do this, this and this and make your life even easier' that's where you start to get into the more collaborative space.

TT, Contributor

Endorsement and recognition from peers could also be indirect as a result of participating in a challenge which had positive implications for the person who won. This contributor succinctly summarised the benefits of having a winning idea on the portal, especially in terms of getting wider recognition in the organisation.

There are two levels of recognition. There's day to day creativity which is the usual day job of creative designs, manufacturing methods. Although there's creativity in innovation there, it's classed as the day job whereas the innovation portal, it pulls out a specific

challenge which is perhaps a problem which goes above and beyond the day job, maybe has implications in a wider context for the company. Therefore because it's a higher level it gets more recognition. I have some ideas on the innovation portal which have been chosen as winners and they do get slightly more recognition. If you get your picture on the intranet somewhere which can be quite embarrassing! It's more publicised. When things go on the portal the challenge is announced on the newsletters we get and the results are communicated as well so you see a bit more of what's going on to finding solutions to the problems and challenges.

RR, Contributor

A number of contributors to the innovation portal felt the technology and the way in which the challenges were administered allowed some people to game the system. In this way, the aim of developing ideas and getting collaboration was subsumed beneath personal advancement.

I can see what [Innovation Team Member] was trying to do, he was trying to make it competitive, whereas what we ought to be doing is trying to build up - I kept saying to him - 'take people's names off it'. The name - it shouldn't matter who is contributing, what's important is to build the idea up into something that works. The outcome is not a prize for an individual, it should be for the benefit of the company. And earlier on today, I was having a look, because I've got something like 250 notifications coming up on the system and there was a whole load of comments I put on which I thought were fairly positive comments where people have put dislikes against them. But they haven't bothered to put a comment to say why they dislike them. And what you suspect they are doing is they're disliking some of mine to get higher rankings and reduce me. As soon as you start putting individuals in rankings, you're starting to change behaviour.

QQ, Contributor

While this contributor understandably felt frustrated by this activity, this also showed others were using social strategies to advance their ideas, albeit in a less than positive fashion. In addition to the use of social strategies to gain endorsement from peers, innovation challenge participants also utilised support from those in more senior roles.

Authorisation

Authorisation from senior managers was a key factor in promoting ideas successfully, yet this was not always easy. The first hurdle was being visible to management without which it was impossible to get the necessary recognition to proceed. QQ described how his own research into who was creative had identified how many senior managers did not notice the talented and creative people in their teams.

> *Well, I did some experiments almost ten years ago now because I realised I was talking to people, I had quite a network of people across the company who I thought was inventive and I'd bounce ideas off them, so I sent a request out to all the people I thought were inventive asking them to give me a list of all the people they (emphasis) thought were inventive, without telling them who else I'd sent it to and I only got two more names to add to my list. But the other thing interesting was they almost all knew each other. So I thought, well, that's a bit odd, so I sent the same request to their boss and said 'tell me who you think the most inventive people are in the company. And about 40% named the person who worked for them. Most of them said 'well, I don't think we've got any really inventive people around and I think only one mentioned somebody in a different department.*
>
> **QQ, Contributor**

This can be partly explained by the disconnection between what was perceived as creative by sponsors (appropriate ideas) and by contributors (novel ideas) which are described earlier in the findings in sections 6.3.1. (Creative People) and 6.3.2. (Creative Ideas). Without an appreciation of the type of person or idea considered to be creative by contributors, this led to managers often overlooking them. This was dependant on the individual manager and their relationship with team members. Some contributors took an instrumental approach to get their ideas recognised by attempting to anticipate what leaders were looking for in a solution.

> *What you think is, it's stopped from progressing because of a few small things or someone's personal view. You've got to take all that into consideration. Personally, I think with some of the challenges they know what they kind of want the winning idea to be. I'm trying to think of the best way to phrase it. You do this as a contributor as well, because if you know, like I have got a good network at TechCorp; if you know somethings going to link quite heavily to someone quite senior's agenda some kind of criteria on a senior's agenda, which you link to then you've got a better chance of progressing further. If you can make a valid link between that and something someone senior is trying to push and there's a valid link then there's nothing wrong with that. But you do see, tend to see some of the ideas where you think 'that person's going to pick it because it links to what they're pushing'.*
>
> **NN, Contributor**

This same strategy of determining the values, priorities and constraints of a sponsor and tailoring a solution to fit was utilised by this contributor to take an idea which had not been successful in one challenge and propose it for another.

The one I reinvented, I put it in Challenge A and then eight months later I put it in Challnege B. It was in the final, I won the category but it didn't win the overall. It got shunted over to the bright person who has now picked it up and is doing something with it. Well, what were the two different challenges? I would have to go back on the Portal and look. I know the critical difference was one challenge was run out of the Customer Management organisation and the other was run out of Engineering and the one I put into Engineering - it got kicked out because it wasn't Engineering enough - but the Customer Management people saw it as a really obvious win because their focus is around improving customer experience. This is what I mean, you've just got to find the right home. The idea was the same.

PP, Contributor, Multiple Challenges

Senior manager recognition was traditionally sought to enable contributors to gain credit for their ideas, however, some people described allowing senior managers to claim ideas as their own in circumstances when getting the idea implemented was more important than personal recognition.

It's partly down to the manager and their relationship with their team. There are a couple of managers who recognise innovation, but shamelessly steal those and pass them off as their own and they use that fairly successfully to get on in the company. Certainly, for some of us, if we want an idea to go somewhere we can say to one of these guys, 'here's the latest thing to help you', so without naming names, I had one last week. Gave it to someone who had just had a new promotion, so I know he's looking for the next thing to shine at, so I'm hoping that will go ahead and fix things in his new department.

QQ, Contributor

A wide range of social strategies was utilised by participants in an attempt to establish and maintain legitimacy for themselves and their ideas. It was apparent social approaches to building capital, networks and accessing resources were a critical method of overcoming some of the individual barriers and constraints to getting ideas recognised within the organisational context. It is to these organisational level themes which attention now turns.

Organisational factors are acknowledged as being important within both legitimacy and creativity research (Amabile, 1988; Bitektine and Haack, 2015). The extent to which conditions within the institution constrain or assist the inception and dissemination of creative ideas and support or frustrate the implementation of those ideas through the innovation process are well documented. There were two themes which could be classified under the heading of organisational factors and these were Culture and Boundaries. Beneath these were four subthemes which emerged from the initial and subsequent coding: Culture was comprised of Conservative culture and History and Boundaries included Resources and Gatekeepers. They are explored here in more detail with example quotes used to demonstrate these themes.

7.3.5. Culture

One prominent theme in all the contributor accounts was organisational culture and its effect on the recognition of ideas and on creativity and innovation more generally. Culture is a factor which is shown to be influential over the degree of creativity which is demonstrated in the organisation and is recognised as being an enabler or constraint on organisational innovation.

Cautious culture

A major theme in the employee data was the cautious nature of the culture. This was attributed to causes such as safety, regulation and process but also due to an organisational focus on current

operations without having time to spend on future areas of interest. TT bemoaned the fact employees had little time to be creative and innovate due to day to day operational pressures. Yet, research shows free time to explore ideas is an important environmental factor in creativity (Amabile et al., 2002).

> *I've always got a bit of a challenge with innovation, not because of the idea of the innovation, but because how you encourage innovation in a way people feel involved? Feel they can make a difference in what they do and are being listened to? Because if you've got a culture where you're doing innovation, you almost allocate - I heard something from Google the other day, which was they allocate 20% of your time to doing an innovation or doing an improvement activity, rather than day to day, nine to five, I'm working through what I need to do. Having free time to innovate and do the things you've been putting off then makes a far bigger deal or improvement in the long run. You need that culture and that time to step back and think - how do I improve? What could we do to make this better? How could we change our approach? So, if there's anyone in the company who can suggest an improvement and gets them available and on-site to work the problem. Whereas it's often 'and as part of your day job, on top of that, can you do some innovation as well? And it falls down the cracks.*
>
> **TT, Contributor**

SS described how generating ideas was easier than getting recognition for them. He compared his experience with TechCorp with the organisations he had previously worked in and found the culture at TechCorp to be a more challenging culture in which to gain traction for his ideas.

I did Design and Innovation in my degree with the Open University a long time ago and it was clear to me there was a complete difference between invention and innovation. And everyone comes up with the invention bit and then it's the innovation that's putting everything together, building the environment to take an idea forward which is where we lack. I've got lots of examples where I've come up with ideas in other companies and they've been picked up quickly whereas I've struggled to get anything floated in TechCorp.

SS, Contributor

Some of the cultural issues with creativity were attributed to the conservative, cautious nature of the business. This was in part due to the safety considerations evident in many of the organisation's business lines.

TechCorp has made some efforts in changing the office environment and modernised it a bit. It makes it easier but it isn't perfect. But I mean Google is a company that's 20 years old. TechCorp is a hundred years old, so you can't expect changes in five minutes. It's a conservative organisation. For example, the aerospace sector is very conservative, but what we're doing in Marine at the moment is progressive because we've come up with this idea of ship intelligence of autonomous shipping. This is really progressive and the aerospace sector is probably conservative for certain reasons, one of them being safety.

UU, Contributor

VV believed it was partly due to the organisation's longevity and the difficulty with changing an existing culture rather than being a newer organisation unencumbered by its past. Another contributor was quite frank, but not without humour, about how conservative the organisation had become.

Yeah, TechCorp is an innovation company, apparently, it's in our DNA. Are you aware of that? And do you know what DNA stands for? Derby Never Alters or Do Nothing Again or Does Not Apply. (laughs) Yeah – we are hyper-cautious. Nothing's changed around here in thirty years, forty years.

VV, Contributor

The history of the company was mentioned by a number of contributors and formed a distinct theme in the data of its own.

History

Half the participants made reference to the history of the firm. Much of this was tied in with the heritage of the company and how it had been recognised as a leading innovator in the past. Some accounts suggested the organisation had rested on its laurels and failed to make the big discontinuous leaps in innovation which they had in the past. Others felt the organisation still had the potential for blue sky thinking as long as barriers to innovation were overcome.

In 1914, all of a sudden the British Government became our biggest customer and we had a great time and then stunningly on the 11th November 1918, with no warning, the First World War ended. And the British government did two things: it stopped being our biggest customer and worse still, it wanted all its money back. So, it started flogging off all of its second-hand, but now almost worthless kit. And people bought it. So, we had an absolute bomb in our OEM (Original Equipment Manufacturer) supply until the mid-1920s. You then had the Second World War in 1943, it was self-evident the Allies were going to win and the guys running TechCorp knew damn well come the end of it all the British government was going to sell all its surplus stuff…Now, you weren't going to get a

thousand pounds of thrust out of a Griffin engine and that was your starting point for the jet. So, they would start to make those things then the British government could go whistle because everyone is going to want a jet engine. So there is the ability to innovate, it just seems we've lost it. I mean just imagine what it would be like around here if we said we're going to stop doing jet engines and go to ion drive. (laughs).

VV, Contributor

It is worth noting as frequent contributors to creative problem solving, the assessment of these contributors about the level of innovation within the company was held in comparison against their own high benchmark.

I'll be honest (laughs) I don't know if you can write this down, we are quite arrogant as a company at times. Because TechCorp is seen as the crème de la crème it's taken for granted, but now we are reaching a point where we have to change and we have to have a key differentiator between ourselves and everyone else, either others are catching up such as GE or have already done something we haven't even looked at yet. I think a lot has changed since I've been here, but the cultural side of things hasn't changed. The infrastructure and the tools we have access to have changed a lot more. i still think we're playing catch up but it's a massive improvement, but the cultural side at times is still missing.

NN, Contributor

NN felt the company was unaware that while still highly innovative, competitors were closing the gap in performance. It was against this backdrop of institutional inertia that contributors were trying to get their ideas recognised and implemented.

7.3.6. Boundaries

The combination of divisional and functional structure and significant levels of hierarchy has resulted in a complex array of roles which are indicative of, and comparable to, many large, matrix organisations. Within the organisation, this complexity has benefits regarding customer responsiveness, strategic development of products and services, and clear accountability for operational and financial goals. However, it has also led to self-reported 'silos' where finding and accessing the right person, gaining permissions and making progress with ideas becomes time-consuming and fraught with difficulty. There were two main themes which emerged under this dimension, the inability of ideas to span boundaries successfully and of gatekeepers and the resource they enabled contributors to access.

Boundary spanning

Contributors talked about how difficult it could be to find the right person to pitch an idea to within the organisation. This had echoes of one of the sponsor accounts who had identified the same issue. This contributor contrasted his experience in a company he had previously worked within.

> *I reported into the R and D lab and the manager, basically I had access directly to the site manager, the marketing managers, this is direct access, you could just go down and chat to these people and say 'I've had this idea and they would be positive and say 'yeah, yeah okay let's'. Arguably, here I'm at the same level and yet I'm so many levels removed - finding someone is hard. It's difficult to find people. You could look at the title and it would say Chief - everyone's a Chief! (laughs) - Chief of Monitoring so I went to find somebody, but couldn't. Not through lack of trying, not through lack of trying. TechCorp is like the Civil Service; it's not an incubator.*
>
> **SS, Contributor**

The matrix structure of the company meant although many Innovation Challenges were won by those from outside the main area who had set the challenge, in day to day operations it was often hard to get an idea recognised if it spanned across different areas of the firm because it meant it moved out of the span of control of a single sponsor or leader. This was seen to have a direct impact on the type of creative ideas generated.

> *I went back over the last forty years of TechCorp patents and I could only find two which were at level four or level five* so most people are working within their own area of expertise in their own sector, they're not branching out. And what that said to me is we've got huge potential across the company because we've got the people, we're just so siloed. But we also don't encourage people to jump the boundaries of those siloes. So coming back to my 50 people knowing each other all over the place, it's no wonder they are the ones who've got the level four patents because they're starting to go outside their areas of expertise, but not always jumping between sectors. * Altshullers Score*
>
> **QQ, Contributor**

While each division and its management team bear similarities to one another, there were distinct differences within each based upon the market it serves, its products, services and history. This meant it was often difficult to find out information and different types of creative ideas (and the people who suggested them) were recognised in diverse areas.

> *Well, you know the golden rule about finding information in TechCorp? You can only go over one line. So, TechCorp has businesses, it's got functions and it's got geographies. So, for instance, I am an Engineer - that's my function. I'm currently working in the Nuclear business and I'm based in Derby. Now, you can find out about stuff going on but only if*

you go across one line. So, I can find out about what's going on in Civil Aerospace Derby. So, as I'm in Nuclear I can find out what's going on in Engineering in Nuclear in France, but that's because I'm in Nuclear and Engineering and it's only the geography. If I was trying to find out what's going on in Marine Engineering in Sweden, then I've got NO hope at all and that's the fundamental truth in TechCorp you have to know. Once you try and cross over more than one of those boundaries your world becomes an extremely difficult place. And that's the problem because a lot of my ideas are cross-functional and the difficulty I have is trying to find the people because you are going across boundaries too often.

PP, Contributor, Multiple Challenges

OO shared the same view and explained how it was easier to promote ideas if located in a centralised function which allowed access to other areas, of a sort.

I struggle with this a lot at TechCorp, we don't talk to each other that way. I think it's the company misses a trick because in some cases we duplicate things. I think we could harness this a lot better but somehow it doesn't happen. I've tried to improve things by talking to various decision makers but it hasn't happened, or at least it hasn't happened to me. Why is it so? It takes a huge amount of effort to network and contact people in other sectors and maybe we are too focussed on our day to day business there is little time left to share with others or raise awareness. I'm in a central function of TechCorp which sort of hovers above, that's the picture I have in my head, it's above the four or five business units and feeds into each of the business units, so I have contacts in most places, whereas if people are just focussing on Aerospace or Marine or Nuclear then it's probably more difficult for them to see what is needed in the other business sectors. It's more segregated and the

picture would be of someone sitting in a box and not lifting up his head in order to look and find out what's going on outside. But if you are sitting above these four or five boxes then you have visibility of what's going on. That's the sort of image I have in my head.

OO, Contributor

Yet, it was this boundary spanning activity which contributors felt was so critical to the novel and even not so novel ideas being identified and recognised. This reflected the Innovation Team's data which suggested ideas tended to come from outside the area setting the challenge. The conclusion drawn was the Innovation portal acted as a type of conduit to bypass the difficulties associated with accessing different parts of the company.

I don't think we mix up the people as much as we should do. For example, I was originally an electronics engineer, designing electronics and now I'm into mechanics. Turbomachinery and I think that helps when I talk to the control system people and one of the innovations I put in was an electrical one recently. An electrical - you know the - so going back to the people. It's important to have like a knowledge of another area and they bring that knowledge into the innovation.

VV, Contributor

The other main issue with crossing the many boundaries within the organisation was at each intersection and boundary them was a set of stakeholders or gatekeepers who controlled access to resource in the shape of time, money or personnel. This leads to the next theme of Gatekeepers.

Gatekeepers

Many contributors mentioned how the matrix structure and hierarchical nature of the organisation meant it was necessary to encounter and address many stakeholders and gatekeepers who

controlled access to the resources needed to implement ideas. This contributor spoke about how gatekeepers meant it was difficult to get traction and move ideas forward.

> *Obviously when you have these ideas you do think they're pretty good but I guess, what I'm trying to say is, what I found is, and you may want to go deeper into this, what I found is when you have ideas and you're quite energetic to push them forward - in GE and HP I was able to get some traction behind the ideas, here I failed full square in TechCorp to do that, and I've got one idea I just wouldn't let go of, but it took me about three years to get it filed for patent. I've been trying to push it just now and I've gone back through the whole process of, when you get an idea there's interest it, 'it's an interesting idea' and then I've tried to get Cranfield and Warwick on board, but it's still it's gone slowly and it's partly the way we're organised, it's because we're a bureaucratic organisation, gatekeepers everywhere and you can't get things done.*
>
> **SS, Contributor, Multiple Challenges**

TT, who had contributed to many challenges explained how in his opinion getting ideas recognised as valuable was easier than getting them implemented.

> *All good ideas are recognised by the business. That's the problem, it's then what happens next. 'That's a good idea. What next? What are you going to do about it?' There are lots of good ideas, it's then just a question of getting traction of actually getting support and motivation to put that idea into practice. That's when it falls apart. We have an innovation hub but we also have 'Better If' logs we have 'What If' ideas and blue sky thinking, but then you get into the challenges of how complex is the ideas to implement. If it's more complex then normally you have to put it into a business case and then go up against other*

established pieces of work. If it's a zero cost or minimal cost idea then the question which comes back is: 'well, are you going to deliver it?' So, you came up with the idea, are you going to deliver it. Even if it's not in your role or position to deliver.

TT, Contributor

The formality of having to submit a business case in order to get past gatekeepers was a major consideration and one reason why more complex ideas were less likely to be championed and promoted by employees. Another issue with gatekeepers was their ability to halt a creative idea by offering a critique of its problems rather than identifying what might improve it or make it workable.

So, we're very good at doing coming up with ideas we're just rubbish at innovating. We have got too many stakeholders, too many people who think they have an opinion and why you're wrong. And there's another behaviour which comes with it which is this idea we shouldn't be doing 'we've got this idea. Hmm, well that's wrong' instead of 'I can see what you're trying to do, here's how to improve it' right and so we have a debate about whether your thinking process or my thinking process is correct. It almost a religious thing. So, we sacrifice the virgin at dawn otherwise the sun won't come up. Has anybody done the experiment of not sacrificing her and found out what happens? No (laughs). We don't do that, it's not our culture. That's religious fervency, not engineering.

VV, Contributor

TT explained how it was often necessary to make the case for an idea multiple times if there were many gatekeepers or stakeholders who had an operational or managerial interest in the area concerned.

Most of our products take longer because of that. Even cybersecurity and things like that, there are parts of TechCorp that just don't see it as being an issue. We are like 'look, you need to understand this is a massive area at the moment and this is the problem'. The business sees it as an issue but not as an issue for what we do. They see this as a general issue in the world and not a specific application to TechCorp. It's been hard at times to get them to take it seriously, especially Civil Aerospace about the possible cyber-attack on an engine, the loss of potentially millions of pounds worth of data. We have to repeat the message multiple times to multiple stakeholders. We end up spending lots of time and effort in things like stakeholder management and similar things.

TT, Contributor

Gatekeepers and the effort required to manage and influence them was an important theme in the employee data. Ultimately though, the reason for negotiating various stakeholders within the organisation was to gain access to the resources necessary to move an idea from a 'winning' idea in the case of the challenges to one which was actually enacted or implemented.

Resource

The consensus among contributors was that often the originator of an idea was expected to contribute towards its implementation. This was problematic for employees who were already busy and especially if the idea they had developed involved working in another area.

So someone will set up an improvement system or a process, but then they almost say their job is done by giving you an avenue to track the improvement, not necessarily a way to make them happen…And it came down to the person whose idea was selected was, 'you're going to go and make it happen aren't you?' Er, am I? I've given you a hint guys to what

the problem is, what the issue is and how we can solve it, but now you want to take me out of my existing role, put me in a new role and for me to champion that through. What about my current role and current position?

TT, Contributor

Even if the idea did not require them to work on implementation, the time and effort required to move the idea forward was significant and was not often provided for in the regular working day.

But that's the problem - the person who puts forward the idea is often not in a position to spend time pushing forward that idea. They've thought of the idea but they're not in a job where that idea is part of the job so they have to spend their own time pushing forward and this goes back to, you've got the same thing with the patents. You spend your own time pushing forward the patent and they can't be bothered. They think of the ideas to solve the problem, but getting them pushed forward is another stage in the process and there's time and effort needed. It's not necessarily, should not necessarily be down to the person who thought the idea up.

VV, Contributor

The amount of work required was not something all employees wanted to invest in; not everyone was as intrinsically motivated as the contributors to the Innovation Challenge.

It's also a really cumbersome process if you come with an idea, people are put off by the amount of work needed to be done to get even a small amount of money to develop it further. I think the Amazon model was we set aside x amount of money for the year that anybody can have access to if they come up with an idea and develop it further, we can apportion out this money. Rather than at TechCorp, you come up with an idea and then

you have to bid for the money and put together a business case. People don't have the time. It's a shame because it could be there's an absolute golden nugget of an idea somebody's got but because they don't have the time or the resources to develop it then it gets dropped

RR, Contributor

For example, Csikszentmihalyi (1999) describes how leading figures, associations and critics in a field act as 'gatekeepers' judging what is a permissible contribution and what is not; in effect making a judgement about the legitimacy of the creative idea. Overall, these two elements of having to negotiate gatekeepers and then allocate time to securing resource were barriers to getting ideas implemented even if they had been recognised.

7.4. Conclusions

Responding to institutional norms around what constitutes a legitimate idea, employees either strived to match what they felt was expected or chose to pursue ideas which they believed were important. The first method involved understanding what sponsors and other senior members of the organisation desired, meet those criteria and employ social strategies to get authorisation. The alternative was to adopt a nonconforming approach, whether consciously or unconsciously.

These findings showed a Maverick personality, together with a weak regard for propriety and lack of concern for social sanctions were necessary conditions to pursue ideas which fell outside of those types of creative ideas legitimised within the organisation. Even with these attributes, many experienced the same frustrations of navigating gatekeepers and accessing resources as those with ideas which more closely met the attributes valued by the organisation, namely those which were appropriate rather than novel. This is the third findings chapter and concludes the presentation of the data gathered from the case study. In the final chapter, the findings of the study will be discussed and conclusions are drawn.

CHAPTER EIGHT: DISCUSSION AND CONCLUSION

8.1. Introduction

> "First, is the practical problem where decision-makers claim to value creativity and innovation but do not actually support them. This may result from ignorance or duplicity. Both are apparent at different times. Ignorance occurs when creativity and innovation are simply misunderstood. In fact, divergent thinking can again be cited: often it is tied to creativity, and for that reason, people state, "divergent thinking will be supported" (e.g., in the classroom, business organisation, or culture). But then wild and original ideas are presented, and the tune changes. Those original ideas are weird! The truth of the matter is that, to support creativity, you need tolerance. You need to accept unconventional ideas, even if you do not understand them or see their value. The creative process is not teleological. You either open up to originality, divergence, and possibility, and perhaps find a creative idea or breakthrough, or you target and focus and probably miss the most original options."
>
> Runco, (2015. p.21)

This extended quote from Runco (2015) highlights the central concern of this thesis: that in order to foster creativity in an organisation, there needs to be a degree of tolerance for ideas which initially, seem not to conform to perceptions of what fits in a given context, time and situation. Yet, it inadvertently perpetuates the issue problematised in Chapter Two: what is "wild and original" (Runco, 2015, p.21) to one, may seem conventional and prosaic to another. Moreover, there is often an assumption of consensus in the recognition of ideas when in practice, there may be divergent assessments suppressed by normative pressure.

This thesis asserts that the recognition of creative persons and ideas is highly dependent upon organisational and local legitimising factors and is prone to bias due to the different interpretations individuals reach as they strive to make sense of complex, ill-defined situations. This final chapter discusses matters arising from the findings in relation to the literature and draws out the main issues and contributions. It reviews the aims and objectives of the thesis (section 8.1.), the theoretical contributions (section 8.2.) and empirical contributions (section 8.3.). This is followed by a discussion of the implication of these findings for practice (section 8.4.). The chapter considers the limitations of the study and suggestions for further research (section 8.5.) and is drawn to a conclusion in section 8.6.

8.1. Review of Aims and Objectives

This section revisits the central research question and the aims and objectives of the study. It seeks to address the research question, relating the findings to the literature discussed in Chapters Two and Three. The findings chapters provided an in-depth illustration of the legitimisation of creativity (Chapter Five). Participants included managers who sponsored innovation challenges (Chapter Six) within TechCorp, together with employees from the technical and specialist population who contributed creative ideas in response (Chapter Seven). This question was examined through Innovation Challenges conducted through an online software – the Innovation Portal – at TechCorp, a large, multinational technology company headquartered in the UK.

At the outset, the research question was identified as:

> *How does legitimacy theory account for how creativity is recognised within an organisational setting?*

The associated objectives were stated as:

A) To examine how the recognition of creativity is experienced within the context of the case study organisation;

B) To explore manager and employee experiences of creativity recognition with an organisational context;

C) To examine the process, sources and objects of legitimisation employed in the recognition of creative ideas.

The study found Legitimacy Theory accounts for recognition in a number of ways, primarily the legitimacy of the process and people, which affects the extent to which outcomes – creative ideas – were recognised as creative or not. In particular, it is argued the process surrounding the recognition of creative ideas demonstrates how participants draw on multiple sources and objects of legitimacy (Weber, 1978 [1924]; Dornbusch and Scott, 1975) when evaluating creativity in organisational settings. The concepts of Acknowledged Legitimating Elements (ALEs) and Regime Legitimising Formulas (RLFs) (Zelditch and Walker, 2003) are shown to make an important contribution to the creativity process within the context of a large, high technology firm in a mature market.

This extends theory and knowledge of how internal legitimacy accounts for the recognition of creativity. Specifically, the findings show how features of the organisation which are already Acknowledged Legitimising Elements (ALEs), such as structures and hierarchies, are linked by Regime Legitimising Formulas (RLFs) to new and emerging ideas, practices and beliefs in order to gain legitimacy (Walker and Zelditch, 1993, 2003). These points are expanded in the sections below, in which the aims and objectives of the study and the overall research question are discussed.

8.1.1 To examine how the recognition of creativity is experienced within the context of the case study organisation

The thesis examined the creativity (Amabile, 1983; 1983) and innovation processes (Everleen, 2010) and found while the recognition of ideas is alluded to within both models, there remains a deficit of theory surrounding the conceptualisation of the recognition of creativity itself. A review of the literature revealed while there is a nascent vocabulary and an emerging theorisation of recognition, this remains underdeveloped. Accordingly, a continuum model of recognition was developed from the findings in Chapter Five, focussed on extending current conceptualisations and expanding terminology in this area of research.

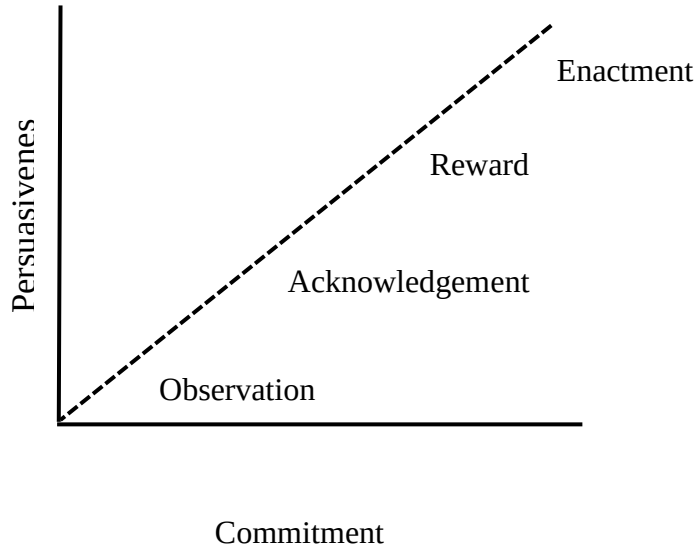
A new definition of recognition is offered which presents four separate stages as opposed to one single act. This new definition arose in response to the problematisation of the current understanding of recognition in Section 2.3, which argued the need to question assumptions surrounding the nature of creativity evaluation including its self-evidence, perceived consensus, and static nature.

In developing a definition of the recognition of creativity it is useful to adopt a broad conceptualisation which encompasses a wide range of attributes, activities and actors, without conflating them. This is necessary to unpack the complexity of the concept whilst elaborating upon its constituent parts.

For the purpose of this thesis, the recognition of creativity is theorised by the researcher as having four separate elements: observation, acknowledgement, reward and enactment. These aspects are developed from the findings in Chapter Five and extend beyond the narrow conceptualisation of recognition or the ‘receiving of creativity’ described within the extant literature (Adarves-Yorno,

2007; Martin 2014; Unsworth and Luksyte, 2015). Stages are sequential and describe how the recognition of creativity progresses. These are plotted against the degree of the persuasiveness of the idea (Sternberg, 2006; Baer, 2012; Martin, 2014) on the generation side and the level of commitment to it (Suchman, 1995; Cottam, Ensor, and Band, 2001) on the receiving end.

Figure 13: The Recognition Continuum: Four Stages



Observation is the first stage where there is a cognitive perception or observation that an idea is valuable due to its novelty and appropriateness. This is followed by an acknowledgement stage, where there is a visible or tangible reaction or response to the idea, whether affirmative or adverse. The third stage is that of reward, where there is some recompense or remuneration for ideas which are considered to have an initial value, whether this is reward of the individual and/or the award of time, money or assigning resources to explore the idea further. Finally, should the reward stage prove fruitful, the idea is enacted; it is incorporated or implemented into the organisation and becoming part of the fabric of everyday life. This is the stage at which we can consider innovation to be embedded or entrenched as the new status quo. These are summarised in Table 14 (below).

Table 14: The Recognition Continuum - Definition of four stages

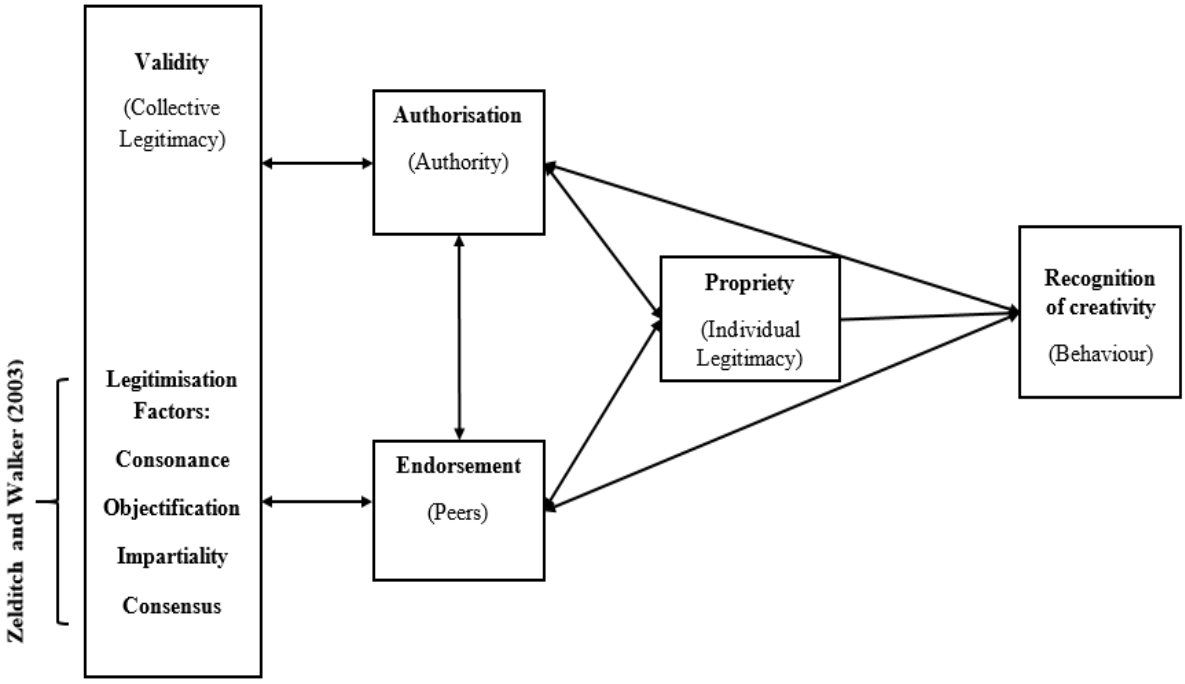
Stage	Description
Observation	The first stage is to discover or notice a creative idea
Acknowledgement	This requires a tangible reaction to show the idea has been noticed
Reward	The idea (and/or its originator) is credited through symbolic, social or monetary reward
Enactment	The final stage is the application or implementation of the idea

Previous research concerning the validation stage of the creativity process (Amabile, 1983) has treated the act of recognition as a single construct, with a tendency to conflate its constituent aspects. The findings in this study demonstrate how creative ideas can be observed, but not acknowledged; similarly, they can be acknowledged without being rewarded through the allocation of resources. Of some interest, it is noted that both manager (Chapter Six) and employee accounts (Chapter Seven), highlight that the enactment of ideas is the major test of organisational commitment. This is echoed by West suggesting that: "Invention is the easy bit. Innovation, by contrast, is the genuinely difficult part…what it does depend on is the single-mindedness with which the business plan is executed, as countless obstacles on the road to commercialisation are surmounted, by-passed or hammered flat" (West, 2002, p. 411).

While it is acknowledged that this definition has not been empirically tested in other settings, it forms a theoretical scaffold upon which recognition can be explored in a more nuanced manner. It is intended to makes a contribution to the study of creativity by extending understanding of the validation stage (Amabile, 1983), operationalising the concept of recognition and allowing for further refinement and future research.

The following two sections relate the findings back to the conceptual model developed from the literature, first included in Chapter Three and reproduced again here.

Figure 14: Conceptual Model after Dornbusch and Scott (1975) and Zelditch and Walker (2003)



8.1.2. To explore manager and employee experiences of creativity recognition with an organisational context

A comparison of the data in Chapter Six and Seven revealed several areas in which managers and employees differed in their experiences of the recognition of creativity. This is proportionate with

the way in which they enacted or responded to legitimising factors within the process and can be attributed to their differing roles in the Innovation Challenges process.

As assessors of the creative ideas generated in response to the innovation challenges, sponsors embody both formal institutional authorisation (Dornbusch and Scott, 1975) and human agency. This dual role reveals the extent to which legitimacy is dependent upon managers enacting behaviour commensurate with Acknowledged Legitimising Elements (ALEs) in the organisation (Zelditch and Walker, 2003). The criteria used to evaluate ideas had some consistencies across the organisation, particularly in the prominence of apposite ideas being privileged over those which showed a higher degree of novelty.

There was some deviation from the normative criteria in different parts of the business and it is argued that what is considered 'novel and appropriate' is dependent upon local interpretation and context. The findings in Chapter Six show how sponsors frequently appealed to Acknowledged Legitimising Elements (ALEs) (Dornbusch and Scott, 1975) when evaluating ideas, selecting those which were apposite with operational, cost and efficiency goals. Yet, on other occasions they departed from organisational norms, appealing instead to local Regime Legitimising Formulas (RLFs) (Dornbusch and Scott, 1975) such as industry trends and linking theses to established organisational factors.

When evaluating ideas, sponsors of these challenges fulfilled the role of expert judges, or "appropriate observers" (Amabile, 1982, pp.1001) described in the creativity literature (Kaufman, Plucker and Baer, 2008; Plucker and Makel, 2010). Thus, they occupied a position of authority; in hierarchical terms as senior managers, legitimacy terms as those with Authorisation (Dornbusch and Scott, 1975) and in practical terms as gatekeepers (Csikszentmihalyi, 1999) with the ability to allocate or withhold recognition and resources.

When operating as a panel of judges, sponsors and specialists mostly agreed with one another, drawing on the validity and propriety of organisational norms (Dornbusch and Scott, 1975) to legitimise outcomes. Where local constraints and conditions were present, sponsors and their teams related these to Acknowledged Legitimising Elements (ALEs) within the organisation or their business area. There was the appearance of a high degree of consonance and consensus surrounding chosen outcomes, with sponsors treating them as objective fact. This supports the legitimacy literature which suggests that new objects of legitimacy, in this case ideas, must fulfil the conditions of a Regime Legitimising Formulas (RLFs) in order to be accepted (Zelditch and Walker, 2003).

Manager accounts also highlighted a further distinction; that both subjective criteria, such as "common sense" and objective constraints (such as weight, cost and time) were taken into consideration. It was argued that conflation of subjective and objective measures is inherent in the 'expert judge' role, yet, this raises important questions around the potential biases this obscures. Although the outcomes were largely uncontested among sponsors and their panel members, employee accounts of the creativity process exposed a lack of certainty surrounding what the judging criteria might be and therefore, how their ideas might be received. As a result, some employees tried to gain an understanding of the priorities and objectives which sponsors might have and tailor apposite responses accordingly; others continued to promote novel ideas, even when they risked these being rejected by sponsors. Contributors assessment of the legitimacy of sponsors' judgements was predicated on whether the outcome of their recognition of creative ideas was consistent with organisational or local norms and thus, uncontested.

The application of legitimacy theory to these findings suggests there is incongruity between the organisational elements which sponsors/managers draw upon when evaluating the legitimacy of

ideas and those which contributors/employees hold as valid and proper. While Acknowledged Legitimising Elements (ALEs) (Zelditch and Walker, 2003) such as structure, regulation and procedure were considered valid and proper by both groups, the data suggests that the necessary conditions for Regime Legitimising Formulas (RLFs) (Zelditch and Walker, 2003) were not met. Thus, there was neither consonance nor consensus (Zelditch and Walker, 2003) around the degree to which novelty and usefulness were valued as attributes among sponsors and contributors. In practice this resulted in sponsors favouring useful ideas over novel, demonstrating the constraining and stabilising force which legitimacy has on the creativity process. This is a potential avenue for exploration in further research.

The criteria used to evaluate ideas varied between different parts of the business; it was argued what is considered 'novel and appropriate' is heavily dependent upon local interpretation and context. The findings from Chapter Six highlighted a further distinction; both subjective criteria, such as "common sense" and objective constraints (such as weight, cost and time) were taken into consideration. It was argued conflation of subjective and objective measures is inherent in the 'expert judge' role, yet, this raises important questions around the potential biases this obscures. It is argued that while there were material constraints related to structure, procedure and process apparent in manager accounts, clear articulation of such constraints to employees meant that some ideas were more likely to be favoured given they reflected evaluation criteria. This was however, at the expense of novel or original ideas acknowledged as broadening perceptions of what might be achieved but deemed inappropriate.

Sponsors were motivated by extrinsic demands, predominantly pursuing operational and customer issues, whereas, employees who engaged in the creative process more often influenced by an intrinsic motivation to be creative and invent. This was frequently characterised as 'managers with

problems seeking solutions' and 'employees with solutions seeking problems'. This aligns with the components of creative performance model (Amabile, 1988; Amabile and Pratt, 2016) which suggests that Organisational Motivation and Management Practices impacts group and individual creativity. Counterbalanced with this is the model's assertion that employee Intrinsic Motivation and Creativity Skills feed organisational innovation (Amabile, 1988; Amabile and Pratt, 2016).

Among employees, social capital, individual motivation and non-conformity were established as important factors in participation in this instance of creativity and innovation activity. Intrinsic motivation was widely demonstrated in accounts; buttressed by participation in creativity related hobbies and membership of innovation related fora and groups outside the organisation. This supports the creativity literature which asserts that intrinsic motivation is a strong driver of creativity and innovation (Amabile, 1983, 1988; Woodman et al., 1993). Extrinsic motivation was also expressed and articulated by employees as a desire for the organisation to benefit from creative ideas and innovation.

Employees utilised their social capital (Nahapiet and Ghosal, 1998) and employed social strategies to persuade others of their idea. The importance of local knowledge, to identify and influence sponsors and other key individuals, were explained. Instrumental social interaction ameliorated some of the difficulties in getting recognition for ideas, especially if they were novel and thus, likely to transgress the bounds of what was considered a legitimate response. The ability for organisational level constructs, such as culture and boundaries, to enable or constrain recognition and particularly, it was identified as underpinning the creativity process. Accordingly, when employees, or sponsors, are situated in an area perceived as receptive to creativity, they were more likely to engage and persist in promoting ideas. However, there was a clearly identifiable group who refused to abandon ideas, regardless of context or difficulty.

The literature at the intersection of the two bodies of literature, frames creativity as an investment (Sternberg and Lubart, 1991) which requires individuals and groups to "buy low and sell high in the realm of ideas" (Sternberg and Lubart, 1991, p2). It is argued that legitimacy is critical in understanding differences in how such ideas are recognised at an organisational level. Specifically, conceptualisations of creativity as a defiance - of self, crowd and paradigm (Sternberg, 2018) – prove important when considered how legitimising forces tend to stabilise and reinforce the status quo, thus positioning those who counter authorised perspectives, together with their ideas, as defiant and nonconforming.

It emerged that underpinning these attributes was often a degree of career or financial security; consequently, such employees were less concerned with job risk and social sanctions as a result of non-conformity. While non-conformity is considered to be a known attribute of creative persons (Sternberg and Lubbart, 1995; Sternberg, 2018), its framing as a response to overcoming robust sources of legitimacy such as collective validity (Dornbusch and Scott, 1975) and authorisation extends the investment theory of creativity (Sternberg and Lubbart, 1995; Sternberg, 2018), while also expanding understanding of the influence legitimacy has on the creativity process.

8.1.3. To examine the process, sources and objects of legitimisation employed in the recognition of creative ideas

The legitimacy literature tends to be concerned with the external legitimacy of organisations and their interactions with stakeholders, such as regulators and investors (Weber, 1978; Suchman, 1995). As a result, studies have tended to leave the effect of legitimacy on organisational processes relatively underdeveloped. Likewise, entrepreneurship studies (Tost, 2011; Bitektine, 2015) focus on examining the sources and objects of legitimacy yet, research into how legitimacy is conferred

within organisations is limited. This represents a gap in our current knowledge surrounding how legitimisation influences the recognition of creative ideas and persons within a firm. The findings demonstrated that legitimacy theory provides a suitable framework for addressing this.

Sources of legitimacy

Validity proved to be the primary factor in establishing the legitimacy of ideas within the Innovation Challenges. Both sponsors and contributors complied with the generally held rules, norms and beliefs within the organisation, regardless of whether they support themed them on an individual level. Validity had a direct, but unconscious influence on behaviour collective beliefs and expectations about conduct during the challenges was upheld. It strengthened compliance in general throughout the group participating in the challenges and deviance from this such as the 'wildcard' process among sponsors and the gamification of contributors had little effect on the overall perception of validity. The collective nature of validity allows an individual to deviate incrementally, or even radically, from social norms but, still maintain legitimacy for as long as this deviation remains unobserved or undetected (Suchman, 1995). It may have been the case that both sets of sponsor and contributor behaviour was largely unknown and unnoticed by the other party, or alternately, specific incidents were dismissed as an aberration and did not attract condemnation or sanctions (Bromley and Powell, 2012). It is suggested that this would be an interesting avenue to explore in future research to establish clarity around this point.

The innovation challenges were designed and developed as a corporate initiative to generate novel solutions to intractable problems and circumstances. It might therefore be expected that as a result of enjoying a high degree of support and legitimacy, the outcomes from the challenges – the winning ideas – would be resourced and implemented, yet this way not necessarily the case. This

brought into questions about the overall legitimacy of the innovation challenge process within the organisation when compared with alternate avenues for creativity and innovation, together with other competing activities focussed on routine and current practices. Importantly though, employees held the process to be proper and therefore consented to the process being run in whatever way sponsors and the central team ran it (Dornbusch and Scott, 1975). This suggest that those who took part in the challenges drew on propriety as a source of individual legitimacy, suggesting the norms and values that govern social interaction in during the challenges was appropriate, attractive and encourage the desired behaviour (Dornbusch and Scott, 1975; Walker and Zelditch, 1993). This has implications for practitioners and theory as people need to bear in mind how they structure idea programmes to ensure that they have propriety and validity.

Within the innovation challenges, there was evidence that authorisation and endorsement were important sources of legitimacy which is supported by the literature (Weber, 1978, [1924]; Dornbusch and Scott, 1975). Both of these aspects of legitimacy were designed into the Innovation Challenges through the employee voting (endorsement) and sponsor evaluation (authorisation). Authorisation was a significant influence on outcomes from the challenges with sponsors having the ability to shape the challenges set as well as guide the process and determine the outcome. The findings showed little evidence of resistance to this, instead demonstrating the general acceptance of employees who contributed to challenges that sponsors had the legitimacy to make evaluations.

There was evidence that employees used the innovation challenge process to suggest ideas which had not been acknowledged or rewarded when previously suggested directly to management. This indicates that within the microcosm of the innovation challenges, employees appealed to authorisation (Weber, 1978, [1924]; Dornbusch and Scott, 1975) as a source of legitimacy for ideas which might not have been recognised by the employees' regular line management. Thus the

innovation challenges lent legitimacy to ideas, and by extension, those suggesting them, which may have been lacking within normal business operations.

On the other hand, endorsement was sometimes contested by sponsors who attempted to circumnavigate the prescribed process through introducing a 'wildcard' element, allowing ideas not selected by peer voting to be reinstated. The evidence that sponsors felt able to override the process, is commensurate with literature which shows that when manager authorisation is robust, in this case built into the actual process, then such activity remains unchecked (Schilke, Reimann, and Cook, 2015; Kanat-Maymon, Yaakobi, and Roth, 2018). In such circumstances, when employees become aware of such situations they are likely to either acquiesce or abstain from subsequent opportunities to participate. However, the extent to which contributors to the challenges were aware of this manipulation of outcomes through the 'wildcard' process was not clear and is an area for further exploration in subsequent studies.

Endorsement as a source of legitimacy was leveraged extensively by employees who actively engaged in developing the ideas of peers and garnering peer support in order to influence voting. Social processes such as communication and consensus building were evident in employee accounts others demonstrated the efficacy of communication as a mechanism to support the creative process. Interestingly, employee accounts indicated that while the innovation challenges had a clear and explicit element of endorsement, similar consensus building and communication was used to elicit support for ideas in the day to day practice of employees. This suggests that endorsement strengthens the legitimacy of creative ideas through its ability to buttress the validity and propriety of normative behaviour and is supported by the literature (Dornbusch and Scott, 1975).

Objects of legitimacy

The two primary objects of legitimacy explored in this study were ideas and people. The findings suggest that evaluations of creative ideas are often conflated with evaluations of the person who suggested them.

Ideas were legitimised through a process of 're-cognition'; where the sponsors who evaluated them already had their perception of what was creative framed by the validity and propriety of organisational norms. As such, sponsors did not enter into the recognition of creativity with a 'blank slate', but instead, compared ideas against their existing understanding and interpretation of what was legitimate within the organisation as a whole and within their domain, . It had been anticipated that ideas generated in response to the challenges would be novel for two reasons: the challenges were framed as desiring original responses and ideas were solicited from outside the area which had originally posed the problem. Both of these necessitate lateral and divergent thinking (Dodds et al., 2003; Sio and Ormerod, 2009). Yet, the ideas which were frequently selected were those which had a high degree of domain expertise or which were closely aligned with the ideas which had been previously trialled or tried within the organisation.

Sponsors prioritised ideas which demonstrated domain relevant knowledge (Baer, 2012; 2015) even when this resulted in choices which were not as original as other ideas presented to them in response to the challenge. This indicates sponsors make use of Acknowledged Legitimising Elements (ALEs) such as customer, cost and efficiency objectives at an organisational level, but also utilise local contextual factors such as domain relevant knowledge to make judgements about the legitimacy of the ideas with which they are presented.

A picture emerged of some assessment criteria being consistent within the organisation as a whole, but with some variance across different domains. This is an important extension of current theory as the validation stage of the creative process (Amabile, 1983) is frequently presented as self-evident, static and constant across contexts. Hence, domain relevant knowledge appears to be a Regime Legitimising Formula (RLF) linking specific creative ideas to acknowledged elements of organisational legitimacy, thereby attempting to demonstrate such individual judgements are valid, proper and consonant with organisational norms.

It is argued that the earliest stages of recognition, where ideas are potentially self-censored and go unobserved and unacknowledged is largely ignored as the current definition of creativity asserts that an idea or person cannot be creative if they remain unrecognised. Yet, ideas rarely emerge fully formed and defining creativity in such a manner, results the early filtering and loss of ideas as a result of 'non-recognition'. Moreover, much of the literature adopts a perspective that creativity equates to originality and novelty – often radical and disruptive originality – an issue which aligns with the conceptualisations of creative persons and products among laypeople. It is argued that there are gradations of creativity; mundane to novel, apposite to unfeasible, every day to eminent (Kaufman and Beghetto, 2009) and that these continua are dependent on the interpretation of those who have, and confer, legitimacy based on the context in which they are embedded. The findings from the study contribute towards a more nuanced understanding of the contextual, social and temporal factors which may influence which ideas are recognised as legitimate when assessed for creativity.

Manager accounts of who was construed as creative were tied to perceptions about the scope and nature of the employee's role; hence, those who had centrally located or boundary-spanning roles and those who had discretion over how they could spend their time were more frequently

considered to be creative. Here the Regime Legitimising Formula (RLF) seemed to be the congruence between organisational normative perceptions of creative people and thus, their ideas were more likely to be considered appropriate. These accounts also exposed how managers closely associated creativity with ideation, rather than implementation, yet, in practice employees who generated ideas were subsequently tasked with enacting them. This is a major theory-practice inconsistency which merits further exploration and which has implications for how creativity and innovation is practiced within large organisations.

The findings reflect the inherent tension between the concepts of creativity and legitimacy, particularly given that many organisations face the need to balance ambidexterity (Lubatkin et al., 2006; Raisch. and Birkinshaw, 2008) in exploiting current practices and exploration of new ones. Specifically, the findings showed concepts of collective validity, individual propriety, authorisation by managers and endorsement by peers (Dornbusch and Scott, 1975) within the legitimacy literature promoted stability, certainty and order within the organisation, while creativity and innovation encouraged divergence, change and non-conformity. This stabilising effect of legitimacy within the creativity process made it challenging for the organisation to reimagine and replace already legitimated practices, at the expense of speed, agility and flexibility (Zelditch and Walker, 1993).

8.2. Theoretical Contributions

This section relates the findings to the central thesis and expounds upon their contribution to theory development. The thesis examined the extent to which legitimacy influenced the recognition of creativity during a series of innovation challenges run within a complex, multinational organisation. As such, the process by which ideas were evaluated and recognised by 'expert' judges generated a situation where employee ideas were compared and assessed, with the end

result expected to be that the 'winning' idea chosen would be resourced and implemented. Examining this initiative provided a detailed case study where data on multiple challenges, participants, judges and contexts could be collected and analysed. This resulted in new insight into the problematisation of recognition, its components, its relationship to legitimacy and the role of non-conformity. It also provided an understanding of how employees use contextualised knowledge to make sense of ill-defined situations and develop social strategies to promote their creative response.

8.2.1. Problematisation of the recognition of creativity

Chapter Two identified that the principal issue inherent in the study of the recognition of creativity is the number of assumptions within current definitions which are problematic and yet, for the most part, remain unchallenged. Primarily, earlier conceptualisations of recognition suggest that it is self-evident and many tests of creativity are dependent on the judgement of "appropriate observers" (Amabile, 1982, pp.1001) such as experts. The thesis critiques current assumptions and instead argues that recognition is highly dependent on context, temporal and social factors. Furthermore, Chapters Five and Six demonstrated that managers selected ideas on a wide range of objective and subjective criteria and that notions of what was "novel and appropriate" (Amabile, 1983; 1988) were not fixed, but fluid depending on the challenge, business area and occupation (Dougherty, 1992) of the judges.

It is argued that, as recognised in previous research (Kaufman, Plucker, and Baer, 2008), interrater reliability of judges was present in the empirical setting yet, the analysis in Chapter Six illustrates that the range of criteria employed to make judgements differs between contexts. Thus, even within the bounds of one organisation, there is likely to be multiple interpretations regarding what is recognised as original and apposite, based on the enablers and constraints of the environment and

domain expertise and composition of the judging panel. This contributes to our understanding of the recognition of creativity as dynamic, fluid and subject to interpretation by experts within each context.

8.2.2. Recognition as a 're-cognition' framed by interpretations of validity and propriety

A critical contribution of the thesis is to the understanding of the recognition of creativity as a *'re-cognition';* where managers who judge creativity already have their perception of who and what is creative framed by the validity and propriety of organisational norms. Chapter Two argued that creativity is currently defined as having two primary components – novelty and appropriateness (Amabile, 1983) –recognised by experts deemed appropriate observers (Amabile, 1988; Runco, 2012). Assumptions surrounding this definition and the biases it has introduced into the subsequent analysis of creativity were problematised in section 2.2., noting an over-reliance on static and objective conceptualisations of novelty and appropriateness. Subsequently, research showed that far from being static and objective, such criteria are subjective and highly dependent on social and contextual interpretation. Moreover, far from being independent of previous understanding – a blank slate – decisions were frequently framed by preconceived notions and schemas about considered desirable and proper for the context. Thus, what was already regarded as legitimate was utilised to make sense of new ideas. From the research, it was argued that two particular aspects of this were important: first, the biases inherent in the subjective evaluation of novelty and appropriateness, and second, the conflation of novelty and creativity and its implications for the rejection of original ideas and research design. These are considered in turn, together with their contribution to theory development.

The first point identified was that the subjective recognition of novelty and appropriateness led to biases in evaluation. In Chapter Three, it was argued that legitimacy enhances the stability of the

organisation by acting as a check and balance on the self-interested behaviour of individuals in order to contribute to the greater good of the organisation (Hays and Goldstein, 2015). This has a secondary benefit, however, in that stability in accepted customs and practices within the organisation also make it more comprehensible and help employees to 'make sense' of organisational life more easily. It was argued that normative behaviour surrounding what is considered valid and proper in a particular setting is socially and contextually constructed As such, local schemas and scripts are employed to help individuals make sense of the complexities surrounding the recognition of creativity in the organisation. Manager accounts in Chapter Six demonstrated that, rather than evaluating the creativity of people and ideas in an objective manner, starting afresh each time, managers utilised preconceived notions and criteria to make assessments of originality and suitability to make sense of ideas presented to them in the innovation challenges. As such interpretation is intrinsically subjective, this led to two conclusions: that the recognition of creativity is subject to demographic and systemic bias; and that systemic bias is influenced by social norms.

If it is argued that the recognition of creativity is a subjective process, then it must inevitably be vulnerable to the many demographic biases, such as gender, ethnicity and age, inherent to other subjective evaluations. This has implications for theory as creativity cannot be construed as an outcome which is objective and independent if it is acknowledged that subjective bias is present. This also has consequences for research design and particularly, analyses of criteria used by managers to identify who, and what, is creative.

With regard to systemic bias, the analysis conducted in Chapters Six and Seven highlights individual and collective beliefs around how creativity was enacted and the propriety and validity of the processes by which creative ideas were recognised within the organisation. Propriety is an

individual's belief that the norms and values that govern social interaction in their social group or organisation are appropriate, attractive and encourage the desired behaviour. Validity is the belief that individuals must comply with the rules, norms and beliefs that direct behaviour in their social group, regardless of whether they agree with them. "Propriety is legitimacy at the individual level; validity is legitimacy at the collective level" (Walker and Zelditch, 1993, pp. 369). As such, creativity recognition was demonstrated in the research to conform to local and contextualised interpretations of what was proper and valid, rather than universal notions of what was creative. Thus, it is argued that the recognition of creativity is, in fact, a 're-cognition', where managers and employees already have a clear idea in mind about what is legitimate when making assessments of creative persons and ideas. Manager and employee accounts demonstrated that the behaviour and actions of most individuals conform to social cues about what is legitimate, but in some cases, more often with the employee rather than the manager population, individuals take a contrary stance, positioning themselves as non-conforming. It is argued that this distinction – that recognition is a reconceptualisation of previously establish legitimacy has far-reaching implications for scholars studying the recognition of creativity.

The second point being that the conflation of novelty and creativity by managers has implications for theory and practice. In the analysis in Chapter Six, it was evident that managers did not appear to pay equal attention to both originality and feasibility, but emphasised one, or the other, depending on the actual and perceived constraints presented by that specific challenge. Whereas, the literature tends to present an inclusive approach to creativity recognition, in that, in order to be deemed creative a product needs to be novel and appropriate, in practice the situation was more complex and nuanced. Managers tended to term only radical and disruptive ideation as creative, yet, while such ideas were likely to be acknowledged, it was those which were interpreted as most

appropriate that were more frequently rewarded with resource and implementation. This suggests implications for both theory and practice as manager interpretation of 'creative' was a double-edged sword; it acknowledged on the one hand, that an idea was original, but on the other hand, identified it as not likely to be as feasible as other ideas. It is argued that this conflation of creativity with novelty is problematic from both a theory and practice perspective.

Theoretically, scholars define creativity as 'novel and appropriate', yet, laypeople appear to place more emphasis on novelty when deciding whether to describe an idea or person as creative. Hence, researchers must be sensitive to differences between scholarly understandings of the term creative, in comparison to the lay understanding of the term. In addition, conflation of creativity with novelty influenced conclusions that originality precludes feasibility that in turn, may encourage managers to reject original ideas as unworkable. Yet, at the same time, this frames ideas which offer incremental, rather than radical, innovation as uncreative. In practice, both 'novelty and appropriateness' are subjective measures each likely forming a continuum (such as 'original – mundane' and 'apposite – unfeasible') which managers endeavour to balance, rather than a dichotomy as assumed within the literature. Similarly, novelty and creativity are not synonymous yet, in practice, lay conceptualisations treat them as such. This is an important consideration when designing future research into the recognition of creativity as it offers a more nuanced perspective upon how individual and collective understanding of organisational legitimacy influences the recognition of who, and what, is considered creative.

8.2.3. Non-conformity as a response to legitimacy

It was argued in Chapter Three that this thesis makes a contribution to our understanding of the role of non-conformity within the creativity process, in particular, as a response to legitimised social norms which tend to reinforce the existing status quo. Extant studies of legitimacy REFS

have emphasised its ability to support continuity and stability within the organisation; this thesis extends understanding of how that is operationalised. Continuity of practice is an outcome of legitimacy as those with seniority or authority are most likely to assign resources to people, projects and products that most closely approximate the organisation's definition of desirable, proper and suitable (Parsons, 1960; Suchman, 1995). Accordingly, those persons and practices perceived as legitimate require minimal intervention to maintain their reputation and influence and become embedded in organisational life (Suchman, 1995; Deephouse et al, 2017).

The analysis in Chapters Six and Seven expands existing evidence regarding how legitimacy is established by managers and how employees make sense of it. In particular, it demonstrates that managerial preoccupation with operational, financial and material constraints shapes their preferred ideas, effectively biasing selection towards reinforcing current practice. The empirical evidence illustrates that some employees will, therefore, tailor their response to fit the assumed management judging criteria. In contrast, some deliberately adopt a position of non-conformity, challenging preconceptions of normativity and in some instances, challenging management assumptions of what is possible. Employees who exhibited non – conformity to prevailing norms also demonstrated creativity related skills such as unrestrained curiosity and breaking perceptual sets, together with a weak regard for rules and resilience to social sanctions. These concepts broadly relate to the constructs of propriety and validity in the legitimacy literature (Zelditch, 2001) described in Chapter Three.

In Chapter Three, a degree of defiance relating to prior individual perception and practice, as well as defiance of the collective beliefs of the domain, field and wider culture (Sternberg, 2018) was identified as necessary for creativity and innovation. Overall, the data strengthens and clarifies existing propositions in this body of literature relating to defiance. It suggests that such an

orientation is an important factor in the development of ideas, particularly those which are defiant "of the crowd, of the self, and of the Zeitgeist" (Sternberg, 2018 p. 52) and have an emphasis on novelty and originality.

Explicit and implicit nonconformity was prevalent within contributor accounts; in particular, it shaped strategies for gaining recognition such as socialising ideas with those who had influence (Csikszentmihalyi, 1999) and deepened persistence in the face of conflicting opinion. Consequently, the thesis draws attention to the way in which non-conformity in the creativity process was enacted. Furthermore, our understanding of defiance is enhanced by its examination within a context characterised by normative pressure which results in a tendency to reinforce current behaviour. It is argued that the defiant individual engaging in the creativity process is not a 'rebel without a cause', but is, consciously or unconsciously, positioning themselves in contrast to what they believe to be contextually normative. As such, the thesis not only develops our knowledge of the range of prevalent practices of defiant or non-conforming behaviour, but it also contributes to our understanding of the demographic factors which enable it and situates defiance as a response to conformity inherent in extant legitimised practices. This contribution builds our knowledge surrounding the characteristic of defiance (Sternberg, 2018) and therefore, extends understanding of an important theoretical dimension of the recognition of creativity.

8.2.5. Social strategies for gaining the recognition of creativity

From the outset, the practice of gaining recognition for creativity, whether that of the individual or their ideas, was conceptualised as a socially constructed and contextualised process to allow the analysis of the interpretations and actions of those involved. A social constructivist and interpretive focus, rather than the more prevalent quantitative or experimental analysis (Anderson et al., 2014), facilitated the examination of the behaviour of managers and employees. Notably, this analysed

how the interpretation of validity and propriety influenced the strategies employed to gain recognition.

It was suggested that qualitative accounts of the process of creativity and specifically, the validation stage, have been limited, therefore, in order to contribute to addressing this gap, the thesis has focussed on social and contextual processes which contribute to the process of recognition, rather than on isolating variables relating to recognition. The thesis approached this by recognising the role of key individuals within a case study of innovation challenges, as interpreting and making sense of legitimacy, situated within a context characterised as inherently ambiguous, uncertain and complex. Within that research design, this thesis has developed analyses to remedy the limited focus on social strategies in the recognition of creativity and extend knowledge surrounding employee influence on the promotion of ideas through such approaches. Chapter Seven provided examples of employee persuasion, particularly through individual appeal to those in authority and peers who were deemed to have legitimacy, in an attempt to gain individual support and thus, bolster perceptions of validity and propriety during collective discussion during meetings to discuss or judge ideas. The research has drawn attention to the importance of social interaction as a critical component in the recognition of creativity. This parallels the increasing focus on social aspects of other stages in the creativity process (Perry-Smith and Shalley, 2003; Perry-Smith, 2006) and reinforces calls for further examinations of social and contextual factors in the understanding of creativity (Blomberg, 2014) and specifically, its recognition.

8.3. Empirical Contribution

This thesis provides rich case study material on creativity within a large, multinational company involved in engineering and manufacturing high tech products and delivering complex services to

a diverse range of sectors including energy, marine, aviation and defence. In particular, it has provided interpretive accounts by employee and manager populations surrounding a corporate initiative designed to drive creativity and innovation relating to critical issues and opportunities in the business at a 'grassroots' level. Blomberg (2014, p. 80) has argued that "most measures of creativity actually measure divergent thinking, attitudes, interests, personality traits or creative accomplishments (Walton 2003), which all highlight and assess aspects that are somehow related to creativity but still may not tell us much about actually *being* creative". While qualitative studies in an organisational setting have not been completely ignored in the literature (Bakker et al, 2006; Kerr and Lloyd, 2008; Walton et al., 2016) they remain relatively uncommon. The predominance of psychological research (Anderson et al., 2014) and focus on the specific variables and attributes of creativity has resulted in studies skewed towards laboratory or experimental settings (Choi and Thompson 2005; Fong, 2006; Goncalo and Staw, 2006). These studies have a tendency to identify causal mechanisms and examine relationships between variables in a controlled environment. Correlational studies (Hirst et al., 2011; Shin et al., 2012) also focus on quantitative techniques, albeit operationalised in the field rather than in a controlled setting.

While there are dominant methods in the creativity literature, there are also hegemonic models in the legitimacy literature. Here there is a dominant focus on external legitimacy (Suchman, 1995) and how the organisation establishes its legitimacy within the wider marketplace or domain ((Bitektine, 2011; Tost, 2011; Deephouse, et al. 2017). Moreover those studies which examine the effects of internal legitimacy within organisations, cluster around general themes relating to employee attraction and satisfaction (Bitektine, 2011; Pauwels, 2015) rather than specific processes such as creativity.

The research at TechCorp has confirmed the important role that qualitative approaches have to play in presenting the perspective of those involved in the processes under scrutiny and the experience of creativity, and its recognition, rather than its variables and attributes. It contributes a multi-faceted view of the recognition of creativity and illuminates the manner in which managers, as a critical source of legitimacy, authorise local interpretations of creativity, resulting in a variety of decisions dependent upon individual bias, local context and collective social norms. The case study offers a clearer understanding and conceptualisation of a large, multi-national corporation as a context for creativity as well as the process involved in achieving a large scale innovation initiative. In doing so it extends current understanding of the creativity process in an organisational setting beyond narrow conceptualisations in the quantitative literature. It also reveals the manner in which internal legitimacy is utilised by managers in their recognition of creativity and by employees in their generation of creativity. This is significant, as large organisations are of critical importance as a context in which both legitimacy and creativity influence individual behaviour and action, as well as organisational outcomes.

8.4. Implications for Practice

This section outlines the key implications for practitioners arising from the analysis in preceding chapters. As mentioned in the thesis introduction (Chapter One), this research is intended to extend understanding of the recognition of creativity, not solely for the advancement of scholarly knowledge, but also to support practice. In particular, the thesis addresses the lack of understanding of biases influencing the recognition process, which lead to the loss of ideas early in the creativity process which may prove fruitful, but equally to prevent investment the development of ideas which may subsequently result in failure.

The thesis provides empirical evidence which may assist in the formulation of organisational plans and practices to better support the recognition of creativity, especially at the front-end of the innovation process, with the potential to contribute to increased awareness and understanding of how legitimating forces within organisations affect, and bias, evaluations of creativity. In practice, this involves awareness that creativity recognition is inherently a subjective process. As such, it is prone to social, contextual and temporal influences, alongside demographic and cognitive bias, yet, this is not widely considered within organisational processes for creativity evaluation. Thus, greater awareness and insight, leading to increased transparency in evaluation criteria and process, is likely to reduce the biases which might otherwise be present in formal and everyday creativity recognition. Parallels may be drawn with the transformative change to recruitment practice resulting from an increased appreciation of bias (Van den Brink, 2010) and its impact on individuals and consequences for organisation performance.

Examining how recognition is conducted; how it is observed, acknowledged, rewarded and enacted, has practical insights to offer large, complex organisations. The thesis contextualises recognition and reveals the social, structural and systemic sources of legitimacy which have a fundamental effect on the recognition of creativity. Analysing how multiple sponsors, across different business units and sectors, make sense of creativity and attempt to legitimise judgements based on their interpretation of validity and propriety, illustrates the diverse manner of practices employed. This reflects the diversity of social and contextual influences in the settings in which they operate and proves useful to understand the embedded nature of recognition. Thus, it serves to provide insight into the flexibility necessary when provide practical support and guidance for creativity recognition. Interventions for raising awareness of subjectivity and bias, with

accompanying guidelines for good practice, sensitive to local needs are therefore, preferable to organisational policy enforcing a unilateral standard across all areas.

The thesis suggests that combining original, technical insight with managerial focus and resources has the potential to deliver more innovative results. While further research is called for to examine tensions between the two occupational orientations, it provides an illustration of how these dual areas of expertise can be leveraged to develop novel and apposite products, services and outcomes. The objective should be to combine wisdom from their respected areas of expertise, rather than compromise between them, or subjugate one with the other. In this manner, organisations may facilitate dialogue, incorporate alternative interpretations and build mutual understanding across different occupational groups, with the objective of building individual and organisational capability.

8.5 Thesis Limitations and Opportunities for Future Research

Although this thesis makes important contributions, as with any research there is the recognition that there are limitations: theoretical, methodological and in scope and substance. This section establishes some of these limitation and a guide to other scholars and to facilitate future research.

The thesis contributes to theory development by refining the definition of recognition through the identification of its four stages: observation, acknowledgement, reward and enactment. The thesis suggests these four components add to our knowledge of recognition and provide a useful definition for operationalising the concept in the field. Yet, more work could be done to understand these four stages, including the variables and antecedents which underpin each stage, the relationship between them and the factors which advance an idea through each stage. Research relating to the four stages would contribute to the refinement of this model and aid its applicability.

This thesis explores legitimacy theory for understanding how creativity recognition is enacted in the context of a large, multi-national organisation. It problematises the current conceptualisations of recognition as self-evident, consensual and static (Amabile, 1983; 88) and makes a contribution to our understanding of how context and interpretation is important in making assessments about what is "appropriate" (Amabile, 1988; Zelditch, 2001) and who are "appropriate observers" (Runco, 2012). However, using this problematic descriptor was unavoidable, considering that current definitions of creativity and legitimacy are predicated on being "appropriate" and thus, necessitate its use as a basis for critiquing extant theory.

This study goes some way towards addressing the issue by qualifying the use of "appropriate" by reference to its situated and contextual nuances and by substituting the words apposite, fitting, suitable and apt, where it is deemed more accurate. By problematising the use of appropriateness as a definition, the thesis draws attention to the need for future research into a more embedded and contextual understanding of how ideation and recognition are influenced by local interpretation. Future research is especially relevant for studying the legitimacy of recognition as it too relies heavily on appropriateness as a measure of validity and propriety and thus, compounds the problem.

The thesis employs legitimacy theory to build understanding of how creativity is recognised in an organisational setting. It draws on theory of legitimisation (Johnson et al., 2006) to explore the processual development of legitimacy (Dougherty, 1992; Drazin et al., 1999) as an explanatory mechanism for how legitimacy is used to make sense of uncertain and ambiguous circumstances such as challenges and opportunities in the organisation. This thesis provides an exploratory case study, however, there are limitations to the extent to which these processes are explained, especially at a micro-process level. Further research is needed to full integrate understanding of

legitimacy as applied to the recognition of creativity in order to better understand how legitimisation occurs within specific contexts.

A general limitation with case studies is that while their analysis is generalisable to the theory, it is not always possible to generalise findings beyond the context in which the research was conducted. While it may be reasonable to expect that legitimacy might produce insight into the recognition of creativity might be experienced in other organisational settings, the highly localised nature of interpretation means that results in other contexts cannot be automatically assumed. Similarly, it might be expected that the structural and systemic enablers and constraints on creativity identified, would be common to other large organisational settings, particularly those with a matrix structure like TechCorp. This provides an opportunity for future research into different contexts to extend understanding of the role legitimacy plays in the recognition of creativity.

The thesis utilised a bounded case study of innovation challenges delivered and managed through an online portal as its research methodology. As such, participants in the study were those people who had a particular interest or objective relating to innovation and thus, can be considered to be a population which is not necessarily reflective of the general population within the organisation, Indeed, this was apparent in the research, with many sponsors extrinsically motivated to resolve problems or address opportunities and many employee participants demonstrating intrinsic motivation related to the creativity process. However, it is acknowledged that these 'extreme users' who were specifically chosen for their insight into creativity, do not reflect the whole story. This provides future research opportunities for the use of other samples of participants, such as those engaged in less formalised creativity activity, in other settings such as examining everyday creativity and ideas which arise from more natural settings. Similarly, the case study company

employed a highly skilled and educated workforce, with many employees being educated to Masters or PhD level and with considerable experience, however, this is not the case in other organisations. As the thesis draws upon the use of occupational schemas, future research into the distinction between skilled and non-skilled workers, as opposed to managerial and technical populations would add further clarity to our knowledge of the effect of occupation and skill level on the recognition of creativity.

A further limitation related to respondent diversity – or the lack of it. As has been noted, cognitive biases shape who and what might be deemed legitimate and one such bias relates to gender. Within the respondents, only two women were identified; one sponsor and one contributor. In unrelated conversations one expressed frustration at the gendered nature of the organisation and how that influenced her creative contribution. Lack of gender diversity in the organisation was also mentioned by one male participant in relation to divergent ideas. Given the constraints of space and the dominant focus of the thesis, it was not possible to pursue a gendered critique, but this would certainly be a rich vein of research for a future study.

In qualitative work the intention is to reflect the voice of the participant, yet, this creates a limitation when definitions between scholarly understanding of creativity and that of lay people differ. While care was taken to establish participant understandings of creativity in this thesis, the research identified that laypeople had a tendency to conflate novelty and creativity. This has important implications, especially for the observation and acknowledgement of creativity as it suggests that what researchers might identify as creativity, might be overlooked by research participants. Future research might usefully address this issue and add further clarity to our understanding.

8.6. Reflections and Concluding Remarks

Enabling organisations to develop understanding and improve practice surrounding the recognition of creativity, in a way that honours and respects the experience of the individual is at the heart of this thesis. As a former consultant in industry supporting innovation programmes within large, complex organisations, prior to commencing the Ph.D., it was important to explore a topic which was of importance and relevance to academics as well as practitioners. One of these companies – TechCorp – was the setting for the empirical case study which provides the context for this thesis.

This research refines our understanding of the processes involved in recognition, particularly its reliance on local, constextualised interpretation and subjective judgement. It argues that greater knowledge and awareness of the subjective nature of recognition and the means used to legitimise outcomes, provides the basis for changes in practice within organisations and future scholarly research. This thesis was undertaken while employed by the Haydn Green Institute for Entrepreneurship and Innovation and as such aims to provide a substantive contribution to the understanding of the role of creativity and innovation in business.

As a researcher exploring understanding of how legitimacy was enacted, it was intriguing to find how this unfolded in the course of learning to undertake doctoral research. At each stage, understanding of extant literature, research methods and argument development was subject to the same interpretation and knowledge construction witnessed in the practice of creativity recognition by participants in the field. This presented a useful parallel between personal experience and theoretical understanding.

During the early stages of the thesis, the recognition of creativity was not well established as a topic for investigation in the social psychology literature with the majority of studies focused on psychological factors. Theoretical and empirical research on the topic within the psychology

literature was dominated by experimental and quantitative methodologies. This presented a problem in that conference papers presented early on in the Ph.D. required a case to be made for the validity of the subject as an area of research. Happily, the situation four years on has improved with studies emerging from well-established scholars establishing the topic as a legitimate subject of scholarly inquiry. However, the irony of its initial lack of legitimacy until those with established reputation published on the topic was not lost on the researcher.

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APPENDIX 1: INFORMATION FOR PARTICIPANTS (CHAPTER FOUR)

The recognition and evaluation of employee creative ideas within organisations

I would like to invite you to take part in my research study into the recognition and evaluation of creative ideas within organisation. It is important that you understand the purpose of my research, what it will involve and how the data you provide will be used and protected. The data gathered from you and others will be analysed as part of the fulfilment of my PhD, which is funded by Nottingham University Business School.

Please take time to read the following information carefully:

Research objectives

The research study will use data from semi-structured interviews to examine how individuals tasked with recognising and evaluating creative ideas: a) describe the processes they undertake, b) discuss what this experience means and c) evaluate both the content of a creative idea and the person generating the idea.

Background to the topic

The concept of creativity is defined by academics as 'producing ideas that are recognised as being novel and useful by appropriate observers within that particular organisation or field'. Major theoretical frameworks in the study of creativity define the process of creativity as the series of activities relating to the generation, evaluation and selection of creative ideas.

Creativity performs a vital role in organisational life and brings important benefits, such as improved resilience to changing market situations and the ability to respond better to new opportunities. Creativity is also an antecedent of innovation, the process whereby selected creative ideas are implemented within an organisation. Given its importance, it is unsurprising that organisations invest substantial effort in encouraging employee creativity.

During the last ten years there has been remarkable growth in the quantity of academic research exploring employee creativity. Research has tended to focus on either generating creative ideas or implementing successful ideas, without fully scrutinising the stage in between where creative ideas are recognised and evaluated. As a result, there has been comparatively little research into the way that creativity is observed and received and how, when and why some ideas are recognised and evaluated as being novel and useful while others are not. Herein lies an important inconsistency within the field of creativity: that creative ideas are defined as novel, useful and *recognised* and yet the nature of creative idea recognition itself still remains unclear. By participating in this study you will provide valuable insight into how creative ideas are recognised and evaluated, helping to fill this important gap in academic theory and developing recommendations for business practitioners.

What is involved?

The research study uses semi-structured interviews of around 90 minutes in duration to explore experiences and meanings surrounding creative idea recognition and evaluation. With your permission, interviews will be recorded for the purposes of transcribing and coding the data. With

your permission, some direct quotes may be used within the final written study; however your name and any other information that might identify you will be excluded.

Participants in the study will be people within the organisation such as project sponsors, project managers or internal stakeholders whose job role regularly includes identifying and evaluating creative ideas. The creative ideas that are of interest to this study are those that improve day-to-day operations and processes within the business or solve business issues and problems, rather than creative ideas for new products or services.

Supplementary data/materials such as plans, slides or meeting minutes may also be gathered, with your permission, to provide context to the interview conversation. You are free to withdraw from the study at any time if you so wish.

Data protection and confidentiality

Both the individuals interviewed and the organisation itself will remain anonymous in the published research. Any proprietary or commercially sensitive information discussed during the research will also be excluded. Furthermore, all data (electronic and physical) relating to the interviews plus supporting documentary material will be securely password protected and stored in a locked cupboard or cabinet. A full copy of University's research data security policy can be provided upon request.

Thank you

This research is fundamental to my PhD and will form part of my final thesis. In addition to the publication of my thesis in 2017/18, the research may be presented at academic conferences and published in academic journals. The confidentiality of participants and the organisation is assured in these instances too.

Thank you for taking the time to read this information and for taking part in my research. Please feel free to contact me if there is anything that is not clear, or if you would like more information. The easiest way to contact me is usually by email.

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Thank you once again, kind regards, **Rachael Lamb**

APPENDIX 2: INTERVIEW GUIDE FOR RESEARCHER (CHAPTER FOUR)

The Recognition and Evaluation of Creative Ideas Research Study

The Recognition and Evaluation of Creative Ideas Study (RECI) research study was primarily a qualitative interview study, designed to learn more about how individuals tasked with recognising and evaluating creative ideas recognise and evaluate both the content of a creative idea and the person generating the idea. The research study is being conducted as part of the fulfilment of my PhD, which is funded by Nottingham University Business School.

This overview is designed to translate my overall research questions into a more specific set of interview questions and from there into an interview guide and focuses on the sequence of reasoning and decisions surrounding the rationale for and choice of questions. Broader decisions such as sampling strategy are covered in the more general methodology.

1. Context

The concept of creativity is defined by academics as 'producing ideas that are recognised as being novel and useful by appropriate observers within that particular organisation or field'. Major theoretical frameworks in the study of creativity define the process of creativity as the series of activities relating to the generation, evaluation and selection of creative ideas.

Creativity performs a vital role in organisational life and brings important benefits, such as improved resilience to changing market situations and the ability to respond better to new opportunities. Creativity is also an antecedent of innovation, the process whereby selected creative

ideas are implemented within an organisation. Given its importance, it is unsurprising that organisations invest substantial effort in encouraging employee creativity.

2. Rationale – Academic and Practitioner

During the last ten years there has been remarkable growth in the quantity of academic research exploring employee creativity. Research has tended to focus on either generating creative ideas or implementing successful ideas, without fully scrutinising the stage in between where creative ideas are recognised and evaluated. As a result, there has been comparatively little research into the way that creativity is observed and received and how, when and why some ideas are recognised and evaluated as being novel and useful while others are not. Herein lies an important inconsistency within the field of creativity: that creative ideas are defined as novel, useful and *recognised* and yet the nature of creative idea recognition itself still remains unclear.

Similarly, practitioners are being encouraged to increase employee creativity by providing an environment conducive to creative ideation and through encouraging employees to generate and share increasing numbers of creative ideas. As organisational resources are finite, however and so understanding more about the process of recognising and evaluating ideas and how this may be enhanced or constrained has value for practitioner and organisations as well as for the academic community.

Participants in this study will provide valuable insight into how creative ideas are recognised and evaluated, helping to fill this important gap in academic theory and developing recommendations for business practitioners.

3. Research Questions

The general research questions that will be explored with individuals tasked with recognising and evaluating creative ideas are: a) describe the processes they undertake, b) discuss what this experience means and c) evaluate both the creative idea and the person generating the idea.

4. General Interview Strategy

Ask practitioners for concrete examples about their experience surrounding the recognition and evaluation of creative.

5. Refinement of the Research Questions

a. There are two general aspects of the study: what practitioners know about their own recognition and evaluation of creative ideas and what they know about having their creative ideas recognised and evaluated by others.

b. Practitioners may have conscious processes that they follow as well as unconscious ones. They may also have some biases that they are aware of and others that they are not. Indirect questions will help elicit answers from participants about their processes and practices without the need for self-knowledge or limitation of self-censorship.

c. Creativity and innovation is a strategic goal of the organisation and practitioners may answer questions with examples of what the organisation would value or approve rather than what happens in practice. As a result, questions need to ensure that practitioners draw on concrete and specific examples rather than give general accounts of what they do.

In summary, questions will explore specific, concrete examples of processes surrounding practitioners' recognising and evaluating creative ideas and having their creative ideas recognised and evaluated, probing for conscious and unconscious processes and biases.

6. Translating Research Questions into Interview Questions

a. Premises

a. What people discuss regarding creativity will depend on their current level of knowledge and their values and beliefs. Therefore it is important to ask some initial questions about their understanding and current views about creativity and innovation. This will provide context for how they respond to the later questions.

b. Beliefs and values surrounding creativity are hard and it is important to make questions as concrete as possible to get the participants to talk about specific practice rather than generalisations.

c. When asked about recognition, it is important to learn the entire process employed – who was involved, where did it take place, in person or virtually, was there consensus and how was an agreement achieved etc.

d. When asking about creativity recognition a balance needs to be maintained between two objectives: eliciting the participants experience in their own words, and ensuring they cover particular aspects which are important to the research study to ensure relevant data is collected.

B. Outline of Topics to be addressed in the Interview

Part A - Demographics

1. Age
2. Gender
3. Tenure
4. Nationality

Part B - Understanding of creativity:

1. How would you define creativity?

2. Give a specific example of someone you work with who is creative? And not creative?

3. Describe a creative idea that you have encountered recently at work. What made it creative? Who generated that idea?

4. What factors do you believe contribute to creativity? In the organisation? And in individual creativity?

Part C – The recognition of creativity – Sponsors

1. What are the types of creativity activity in which you are involved?
2. Describe the innovation challenge(s) you sponsored?
    a. Why did you run a challenge?
    b. What was the situation?
    c. What responses did you get?
    d. How did you review the ideas?
    e. What criteria (if any) did you use?
    f. Who evaluated the ideas?
    g. Was there consensus?

3. What has happened to that idea now?
4. Why has that been the outcome?
5. Is there anything else you wish to mention?

Or:

Part D – The recognition of creativity – Contributors

1. What are the types of creativity activity in which you are involved?
2. Describe the innovation challenge(s) to which you contributed?
    a. Why did you engage in the challenge?
    b. What was the challenge?
    c. What was your response?
    d. What was your evaluation of the idea?
    e. Who evaluated your idea(s)?
    f. Do you know what criteria were involved?
    g. What was your opinion of the evaluation? Did you agree?
3. What has happened to that idea now?
4. Why has that been the outcome?
5. Is there anything else you wish to mention?