STRATEGIC INTENT AND CREATIVE OUTCOMES

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Strategic Intent and Creative Outcomes

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Abstract

The aim of this thesis is to examine the impact of strategic intents on a firm's creative outcomes. Strategic intents are understood as overarching ambitions in a firm that directs creativity and innovation. The resultant creation is largely assumed to be positive. However recent studies point out that some firms use innovations to achieve significant pay offs by creating harms for society as a whole. This research conducted an mixed sequential research to study the correlation between strategic intents and creative outcomes.

A randomised control trial (RCT) involving 32 strategic decision makers from four established businesses was conducted through a negotiation simulation. This was followed by a Delphi study with an expert panel comprising of senior leaders in business, academia, and government. The subsequent analysis confirmed that the strategic intent of (a) competitive advantage has a neutral effect on creative outcomes, (b) rent maximisation leads to negative creative outcomes, and (c) problem discovery leads to positive creations.

The novelty of this thesis is the use of experimental and Delphi research that validated the occurrence of negative creativity within strategic management, as well as established the element of problem discovery as a strategic intent to maximise creative output. Furthermore the thesis proposed a dynamic definition of creativity.

This thesis has contributed to the extant literature on creativity, strategic problem formulations, strategic intent, and strategic decision making, by specifically expanding the literature to include negative creativity and provided opportunities for researchers in strategic management to build upon the theories. Furthermore, the thesis has proposed a behavioural framework for strategic-creative connections that practitioners can use to take better strategic decisions.

Keywords: strategic intent; creativity; strategic problem formulation; randomised control trial; Delphi study; negative creativity

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A special gratitude goes for my family for their sacrifice and support throughout my PhD journey. I highly appreciate their support, physically and emotionally as they appraised my work at the time of my continued absence from home duties.

I do not want to close without mentioning those whom inspired me throughout my life, their dedication to knowledge improvement, aiming for better change towards our community and to humanity in general.

Dedication

This is dedicated to late Professor Ashok Ranchhod. He was instrumental in encouraging and persuading me to undertake research as well as in connecting me to my supervisors. Without Professor Ranchhod this study would not have been possible and is hereby dedicated to him.

Declaration

This thesis gives an account of the research undertaken by the author. Some of the material contained herein has been presented in the form of the following publications:

Publications arising out of this thesis

Walia, C. (2019a). Creativity as a Strategic Decision by Top Management Teams. Paper presented at Doctoral Conference 2019, Faculty of Management, Law & Social Sciences, University of Bradford, Bradford, United Kingdom.

Walia, C. (2019b). If it's destructive, it's not creative. Paper presented at *The 2019 Creativity Conference* at Southern Oregon University, Ashland, United States. https://dx.doi.org/10.6084/m9.figshare.11336387.v1.

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Walia, C., & Sharif, A. M. (2020). Indeterminable responsibility, determinable harm- From organized irresponsibility to harmless value creation. *British Academy of Management (BAM) Conference 2020.* BAM Conference in the Cloud 2020.

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Abbreviations

CA	Competitive advantage
PD	Problem discovery
RCT	Randomised control trial
SA	Strategy asset
SDM	Strategic decision making
TMT	Top management team(s)

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Chapter One — Introduction

Strategic intent is mainly expressed in objectives such as growth, market dominance, and supremacy, and understood as an overarching ambitious competitive philosophy in established firms that guides their strategic objectives (Mariadoss et al. 2014; Seepana et al. 2020). This is also believed to guide innovation in firms as it encourages firms to adopt ambitions far in excess of their existing resources (Hamel & Prahalad 1989). Innovation has been considered critical for a firm to build and leverage upon its competitive advantage (CA) (Chirstensen et al. 2004). Creativity, that is generation on novel and useful ideas is seen as critical to subsequent implementation of these ideas, which is referred to as innovation (Amabile 1996; Mumford & Gustafson 1988; Woodman et al. 1993). Strategic intent theories largely seem to consider only the positive aspects of innovation and assume that the intents produce effects which are largely good for the firm and overall economic success (O'Shannassy 2016). Researchers, however, point out to a correlation between a heightened focus on competitive rivalries and unethical behaviour (Kilduff et al. 2016). Moreover, there have been concerns raised to study the balance of strategies that firms adopt to create and capture value (Leepak et al. 2007). Some studies have even reported that in their quest for success firms may be giving rise to creating risks and harms for society as a whole (Moodie et al. 2013; Curran 2015).

When the goal is to exploit individuals, groups, institutions, or organisations, the resultant activity is understood as negative creativity (James et al. 2010). While it is accepted that strategic intent creates conditions for a firm to innovate, it is not known if pursuing strategic intents may lead to negative or harmful creations.

The aim of this thesis therefore is to examine the impact of strategic intents on a firm's creative outcomes.

1.1 Background to the Research

The purpose of strategic intent is largely to create a rhetorical direction by the top management teams (TMT) for the members in the firm to pursue aggressive ambitions (Hamel & Prahalad 1989; Mantere et al. 2007; O'Shannasy 2016). Strategic intent is related to enhancing performance of a firm, i.e. maximising its CA (McGrath & Kim 2015). Furthermore it has been noted that financial metrics for e.g. rent and profit generation is key aspect of measurability of intent (Brown 2015).

CA, however in today's economy of hypercompetition is at best transient, and firms have limited opportunity to exploit the rents of their strategic assets (SA) (McGrath & Kim 2015). Firms face a tension between exploiting rent from existing assets and exploring new SA at the same time (Volberda 2006). SA, once imitated by competition leads to a strategy decay (Lewis & Loebbaka 2008). Thereafter assets get reduced to merely an entry requirement (Williamson 2006).

Strategy innovation is then needed by a firm to create new SA for the development of a renewed CA (Williamson 2006). Creativity and subsequent innovation is crucial for a firm to lead this effort (Teece et al. 2016).

New ideas are needed to be able to innovate (Fischer 2011). Creativity, that is generation on novel and useful ideas is therefore seen as the first step to subsequent implementation of these ideas, which is referred to as innovation (Woodman et al. 1993; Mumford & Gustafson 1988; Amabile 1996). How these ideas combine to shape the strategy of the firm by providing either cost leadership, or differentiation, or market focus - determines the firm's profitability and competitiveness (Porter & Millar 1986).

1.1.1 **Creativity is goal directed**

Creativity is considered to largely be an intent driven or goal directed activity (James et al. 1999). In other words the goal determines the direction of the creative process. The

definitional construct of studies in creativity study the process of creativity as synonymous to the outcome of that process. This basically implies that the end product or the creation interacts with the decision makers who then make decisions on its utility and acceptability (Csikszentmihalyi 1999; 2014). Strategic decision makers however are looking to reduce the uncertainty and risk (West 2002). It has been indicated in studies that this interaction interferes with the creative process, and may have an inverse relationship with creativity, as the focus shifts to implementation or action (innovation) (West 2002). This is further explained in Chapter Two.

1.1.2 **Problem frames that TMT adopts are contextual**

Strategic problems are understood as gaps between a firm's aspirations and actual achievements (Nickerson & Argyres 2018). Strategic intents present ambitious visions and goals to a firm and as such these gaps specify strategic or problem frames that decision makers may aim to solve. The context under which TMTs take strategic decisions are considered to be the most critical aspect that drives content and outcomes of these decisions (Papadakis et al 2010). Majority of the literature on strategy, as reviewed in the subsequent Chapter, places CA and Rent as the problem strategists aims to solve. For e.g., exploration of new sources of revenue and profit are supposed to lead to CA (Williamson 2006); exploitation of existing assets and incremental innovations therein are also supposed to sustain CA (Teece et al. 2016). Over a period of time, however, all assets erode and decay, and a firm needs newer ideas and products (McGrath & Kim 2015). These gaps formulate strategic problems and creativity must provide the ideas that can lead to innovation for newer sources of CA (Christensen et al. 2016).

In directing creativity to the solution of these problems, strategists inadvertently may have restricted the process of creativity from identifying a new problem itself. Of course within the context of CA, newer problems will surface repeatedly (Christensen 2004).

However the problem of CA doesn't seem to be sustainably solvable (McGrath & Kim 2018). In the end it gets reduced to a race that no body really wins (Volberda 2006).

1.1.3 **When all firms are strategically solving the problem of CA**

Game theory explains that innovations of one firm that leads to gaining CA, spirals actions in other firms to counter the act, and it then works to the disadvantage of all players (Jasper 2010). In such a case, it drives firms to exploit advantages before they disappear, and in the process firms tend to overlook negative consequences of their actions (Jasper 2010; Kampylis & Valtanen 2010). This phenomenon is analysed in greater detail in Chapter Two under negative creativity.

The negative consequences are evidenced in a report based on UN high-level meeting on non-communicable diseases (NCDs) in 2011. Companies such as Nestle, Kraft, PepsiCo, Coca-Cola, Diageo, SabMiller, Philp Morris, Unilever, Mars, and many more have been reported as producing products that are leading causes of death and disease (Moodie et al. 2013).

Consciously or unconsciously, when the process of innovation and creativity produces affects that are harmful to some people, it is referred to as negative creativity (Cropley et al. 2008). Some researchers have linked negative creativity as being responsible for global warming, disappearance of the ozone layer, proliferation of arms and weapons, terrorism, uneven income distribution and many more (Stenberg 2010).

There are indications in literature, on production of negative creativity and social harms by firms. Scholars have suggested that firms enjoy a disproportionate pay off while creating harms in society that remain untraceable to their actions (Curran 2015). These have been referred to in detail in Chapter Two, however within the strategy and management literature, this is largely unexplored.

1.1.4 **Dominant strategies may have blind spots**

Research on strategic decision making (SDM) suggests that TMTs take decisions based on their self-interest to maximise their own payoffs versus the competition (Lee 2008). A strategy is dominant if, regardless of what other players do, the strategy earns a player a larger payoff than any other (Dufwenberg 2011).

As an example of making choices within the strategic decision, Nutt & Wilson (2010a), cited the prisoners' dilemma (an example of dominant strategy) and noted that most players experience a significantly reduced pay off than when they collaborate for a better one.

A problem other than that of CA or rent generation, may not even be perceived, because there may not be an incentive to pursue a different strategy (Nutt & Wilson (2010a). Moreover there seems to be a contextual limitation to the way strategic problems are defined and this will be explored further in the next chapter.

1.2 Problem Statement and Overview of the Research Gaps

This section briefly outlines the main research gaps identified in literature which will be discussed in detail in Chapter Two and part of Chapter Three.

Strategic intent is assumed to be positively innovative. Strategic intent theories argue that strategic intents lead to innovation. Examples of companies such as *Samsung (Hitt et al. 1995), Sony (Hamel & Prahalad 2010), and Apple (Mantere & Sillince 2007)* are often cited in literature. However similar companies as Apple (George 2014) and other leading brands of the world (Moodie et al. 2013) are also cited in cases of irresponsible innovations.

Strategic intent is supposed to encourage creativity, however unique problem discovery is not considered as strategic intent. Problem discovery is critical to creative processes. Problem formulation in strategy is fixated on performance feedback (Posen et

al. 2018). Problem discovery is considered a critical creative task that gives direction to the creative process (Walia 2019). While strategic intent is supposed to inspire creative acts it seems to restrict the creative act to discover newer problems.

Negative innovation and negative creativity has not been considered as a creative outcome of pursuing aggressive strategies. BP was regarded as the 'greenest' energy company and then went on to be the most environmentally destructive one within a decade (O'Toole & Vogel 2011). The costs of negative creativity, once ascertained, have been considered to be almost an existential crises for firms (Curran 2018). Yet negative innovations are not considered in strategy management literature as an outcome of decision making. If decision making is supposed to encourage innovation, how can it be assumed that it encourages innovation only on a positive direction? Some examples of negative creativity from literature include damages from the global financial crisis, worsening climate change and plastic waste crisis (Curran 2018). In another example, *Apple, driven by a goal to maximize profit per employee (without an apparent need to do so), contracted over 700,000 workers in places such as Asia and Europe (Duhigg & Bradsher, 2012), resulting in employee layoffs in the 2000s (George, 2014). Working conditions at the Foxconn factory in China, where iPads are manufactured, have been found to be highly questionable—an explosion in 2011 killed and injured workers, and suicide attempts were reported in workers' dormitories (Duhigg & Barboza, 2012). A total of 636,484 employees were laid off in the U.S. between January to May 2012 (George, 2014). CEOs are often rewarded with millions for such strategies (Reich, 2012). Intentionally (or unintentionally), firms justify these acts in the name of organization viability (Kalleberg, 2011).*

Decision making as a unit of analysis is absent in studying the correlation of strategic intents, creative outcomes, and negative creativity. Strategic intent is determined by a unit of analysis that studies a firm's performance. Problem formulations adopt problem as unit

of analysis (Nickerson & Argyres 2018). SDM largely uses the case study approach (Nutt & Wilson 2010), and creativity largely adopts individual as unit of analysis (Runco & Kim 2018). Most strategic activity is however considered to be a factor of SDM (Papaakis et al. 2010) and most creative activity, too, is dependent on how decision makers judge creativity (*Csikszentmihalyi 2014).*

Taking all the previous points into the consideration, the research problem addressed in this thesis is — **Strategic intent and strategy theories largely assume that intents and problem formulations leads to creations that are mostly beneficial as a whole, and ignore the negative aspects that may occur as a result of these intents and creations.**

This research builds upon the extant literature on strategic intents, creativity, strategic problem formulation, strategic decision making, strategy, and negative creativity. However, it is in contrast to the earlier studies as it analyses the extant literature with a much wider perspective of creativity that is constructed in Chapter Two and Three.

The wider understanding can help strategists and management theorists in identifying unknown problems (Vygotsky 2004); recognising and developing ideas that are truly creative than those that seem to be so (Simoton 2015); encouraging creative potential and creative performance (Runco & Kim 2018); building novel and original sources of CA (Amabile 1996); and in holistically perceiving creativity so as to avoid negative creativity (Kamplylis & Valtanen 2010).

1.3 Aims and Objectives of the Study

The research reported in this thesis is based on the rationale that current frameworks do not provide a holistic guidance between strategic intents and resultant creative outcomes. Current research has been unable to integrate the study of creativity into strategy, innovation, and entrepreneurial activities (Hitt et al. 2017). Creativity, for firms, is currently

a tool that can lead to CA (Davila & Ditillo 2017). The intent of CA and resultant pressures seem to drive decision makers to discourage the creative process (West 2002). The drive of being overly competitive results in undesirable innovations as well (McGrath & Kim 2015). As a result, the aim of this study is to: **Examine The Impact of Strategic Intents on Creative Outcomes.**

The *aim of this study t*argets to build an understanding of creativity for firms that can help identify unsolved problems and build solutions holistically after taking negative consequences into consideration. This would be achieved through studying the current links between strategic intent, problem formulations, SDM, creativity, and negative creativity. By studying the links in theory, and in practice, this study will bring forth the cause and effect relationships between strategy intent and creative outcomes. This study has the following objectives:

Objective-1: *To develop an initial conceptual model for examining creativity in context of strategy.*

The model will examine the elements of strategic intents and how they correlate to creative outcomes, i.e. positively or negatively. The model will be based in an attempt to answer the research questions raised in Chapter Two. This model will be built based upon the literature review, in Chapter Three.

Objective-2: *To empirically test the hypothesis of the framework within strategy behaviours of firms.*

The proposed model will define the hypothesis which will be tested through an appropriate research design. Once the *first and second objectives* are fulfilled, this research would provide an understanding of the extent to which creativity can influence and guide strategy and innovation. Therefore, based on the results of *objective 2,*

Objective-3: *To propose a theoretical understanding on how strategic decision makers can understand creativity that enables them to perceive and solve problems, and*

avoid negative innovations. This will be done in the discussion Chapter Six by proposing a behavioural model of the findings.

All objectives are linked to specific research gaps and questions that have been raised in literature review that is presented and discussed in Chapter Two. Addressing the objectives would address the gaps identified in literature. In Chapter Four, the individual objectives will be further discussed with reference to the way in which the research design enabled them to be addressed.

1.4 Significance and Contributions of The Research

The research is significant to both academic researchers and practitioners of strategy formulation and implementation. Firms, specifically established firms, struggle to find a balance between explorative and exploitative strategies (McGrath & Kim 2015; Volberda 2006; Williamson 2006). Context drives strategic decisions (Papadakis et al. 2010; Nutt & Wilson 2010; West 2002). The strategic context is CA (Porter 2008). Creative and innovation efforts are made by firms to address the context of CA (Chirstensen et al. 2004). In then end similar strategies by all firms, at best achieves temporary advantages (McGrath & Kim 2015). In the process and in their efforts to remain relevant, companies produce dangerous effects — on health of its customers, through political lobbying, by influencing legislation, and by shaping public opinion through misleading people (Moodie et al. 2013).

Therefore this study provides practitioners with an understanding of creativity in identifying problems, such that it leads to solutions where problems can be solved, and CA becomes incidental.

This will open a new dimension to the study of creativity in firms, that can be pursued in future studies, and broaden the dimensions of strategy beyond CA. Further

discussion on the research contributions and implications is presented in the conclusions of this study in Chapter Six and Chapter Seven.

The most novel contribution of this research would be the introduction of the study of negative creativity in strategic management. This will expand the academic scope for studying negative creativity within business and management.

The study will also contribute to the extant theories on creativity by analysing previous definitions and proposing an alternate definition for studying creativity itself.

The research would extend the theories on decision making and problem formulations by outlining how goals of rent maximisation can be detrimental to value creation.

1.5 Brief Outline of the Research Methodology

The *research objectives* and *research questions* (Chapter Two) are modelled into a conceptual framework that links creativity and strategy. The framework establishes cause and effect relationships between strategic intents and creative outcomes. The research uses Sekaran & Bougie's (2016) explanation of frameworks as a guide.

To undertake research systematically, a research methodology was planned. A mixed method sequential explanatory design was employed. This is discussed in detail in Chapter Four with reference to both the *research objectives* and *questions*.

A well-conducted randomised experiment (RCT) is considered the "gold standard" in such research (Campbell 1957; Campbell & Stanley 1963; Sackett,et al. 2000; Thompson 2006). Therefore the hypothesis is examined through developing an experiment that adequately measured the variables (Sekaran & Bougie 2016). The experimental design studied TMT behaviour in four large and established firms: a traditional manufacturing business, an information technology company, a retail company, and a creative advertising agency. The research design highlighted clear measurement of

the cause or the independent variable (intent of strategic decision makers) in relation to the effects or the dependent variable (creative or strategic outcome) in firms.

The target sample is drawn from among TMT decision makers in established firms. The experiment correlated the intents of CA, Rent, and problem discovery to the production of neutral, negative, or positive creative outcomes.

The quantitative findings were presented to an expert panel of leaders and decision makers from business, academia, and government. This was to validate the findings and gather data from practice.

Analysis and hypothesis testing between all examined relationships lead to a theoretical understanding, and further theoretical perspectives are considered in Chapter Six and Seven, towards fulfilment of the *third objective*.

1.6 Structure of the Thesis

This PhD thesis structure followed four elements: (a) background theory; (b) focal theory; (c) data theory; and (d) novel contribution (Phillips & Pugh 2010). These structures shall be introduced while discussing the role of each of the seven chapters that reflect the execution of this study.

Chapter One presents a general introduction while exploring and developing the discussion around the research problem, research aims, and objectives.

Chapter Two discusses the *background theory* (literature review), by assessing the field of research and exploring the problem in detail. Strategic intent theories are studied. Reviews on creativity as reflected in interdisciplinary literature on creativity is explored. This is then examined specifically in context of strategic problems and decisions, and elaborated within negative creativity in firms. The nature and scope of strategic challenges of firms is also explored. This chapter considers the gaps identified in the literature review

and extends them to the next chapter. This helps establishing the *focal theory* that generates the conceptual model.

Chapter Three is based on the *research questions* emanating from literature review. With the background theory in focus, a *conceptual framework* is presented. The framework identifies the variables, concepts, and a detailed study hypotheses.

Chapter Four presents the *data theory* addressing the research methods used along with the data analysis approach and procedures. It discusses the development of the experiment, data collection design, measurement scales, research sample identification, and implementation of the research.

Chapter Five presents the findings of the study and the testing the independent and dependent variables for validity and reliability. The hypotheses are tested and hence the model is tested for the relationship between strategic intents and creative outcomes.

Chapter Six — presents a discussion of the findings with reference to the study aim, research questions and the objectives based on the analysis of research.

Chapter Seven — The final chapter presents the main conclusions and the overall evaluation of the study and its novel contributions. This Chapter concludes with implications, relevance, limitations, and recommendations for future research.

Figure (1-1) presents a summary of the structure of the thesis. Furthermore detailed analysis of results, evidences, and research approvals are found of importance, but presented in appendices.

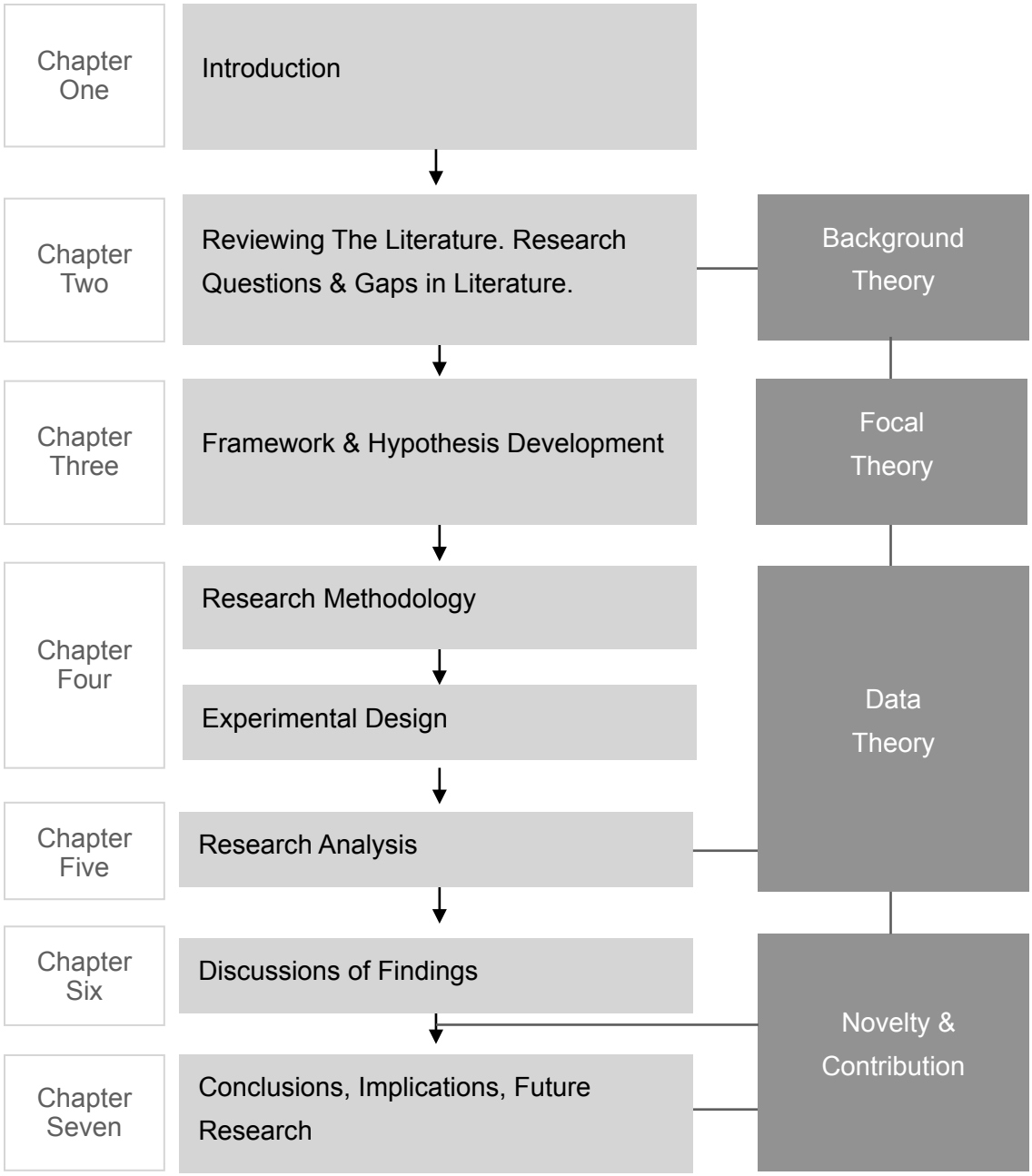


FIGURE 1-1: STRUCTURE OF THE THESIS

1.7 Summary

During the past decade scholars have stressed on a need to study creativity within strategy (Hitt et al. 2017). SDM theorists have pointed to a lack of empirical backing, and ignorance of actual processes, in research on SDM (Nutt & Wilson 2010b). Similarly innovation theorists have stressed on a need for strategy to provide insights to managers where decision making goes beyond just immediate competitive concerns (McGrath & Kim 2015). These situations have raised the needs for a research which can integrate these streams of knowledge and present an understanding of relationships between these distinct but interdependent fields (Nutt et al. 2017).

Strategic intent determine problem frames that guide creative direction and produce innovations. These lead to new SA for firms (Williamson 2006). There are interdependencies between all of these disciplines, however, as observed earlier the some of the effects that strategic intents may produce have not been investigated.

As such this has led to certain gaps in literature. This research will address these gaps by studying and investigating the linkages between these disciplines. The literature review in Chapter Two forms the basis for these linkages, that are drawn into a conceptual framework in Chapter Three.

Chapter Two — Literature Review

As shown in the previous chapter there are relationships between strategic intent and creative outcomes that need to be examined to provide a better understanding of correlation between them.

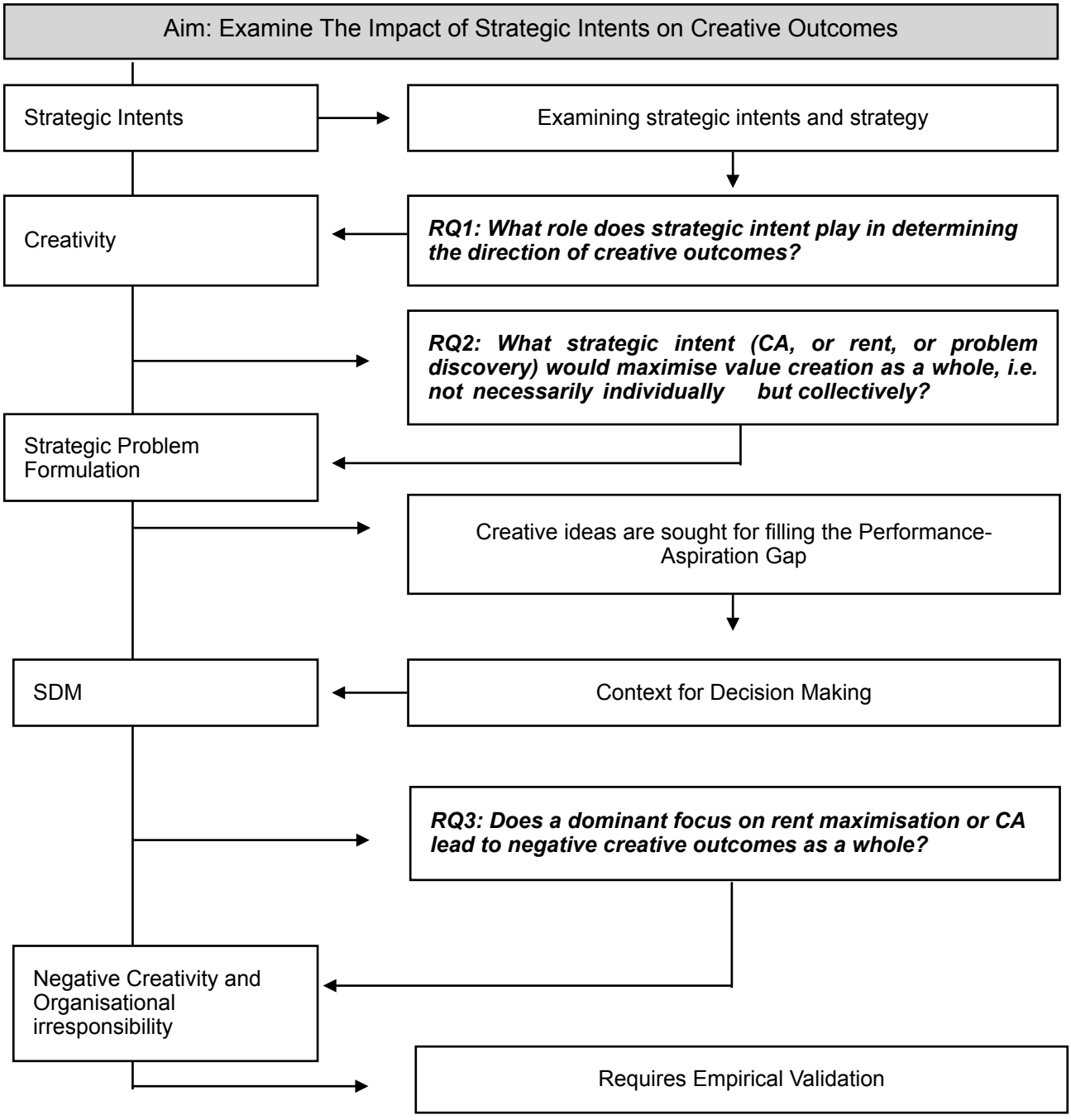


FIGURE 2-1: FRAMEWORK FOR LITERATURE REVIEW

Therefore as shown in Figure 2.1, this chapter examines and critically develops an understanding of the extant literature about strategic intent, in relations to creativity, strategic problem formulation, strategic decision making, and negative creativity. Figure 2.1 represents a framework for literature review that the researcher followed in understanding the relevance of the literature and gaps therein.

2.1 Strategic Intent

More than 50% of economic growth in twenty first century came from products and services that were either in their infancy or did not exist at all in the twentieth century (Dawson & Andriopoulos 2017: 378). In a UNESCO (2015) report, the creative sector is estimated to generate US$ 2,250 billion of revenues and 29.5 million jobs worldwide. 70% of leaders surveyed across a range of industries cited innovation as among their top three priorities for driving growth (Barsh et al. 2007).

Innovate or perish is a belief system that occupies modern day management. The success of many start-ups worldwide, the transformation of industries, and the evolution of newer technologies have all been attributed to innovation. Firms succeed through innovation, or they simply disappear (Amabile 1996). In recent years, both the practice of management and the scholarly debate have recognised that firms make decisions about new products, business ideas, and processes amidst economic strategic pressures. This has led to firms formulating strategic problems based on market feedback (Nickerson & Argyres 2018), and subsequent decisions by the top management teams (TMT) shape the strategic outcomes for the firm. Strategic problems are determined from gaps in actual performance versus desired goals (Posen et al. 2018). Goals and visions in a firm are extrapolated from a firm's strategic intent. Strategic intent was introduced by Hamel and Prahalad (1989) as *'a sustained obsession with winning at all levels of the organisation'*. Since then, various scholars have viewed strategic intent as a *shared obsession to win*

(Hamel & Prahalad, 1989), a *distillation of strategy, a goal, a mission* (Hamel & Prahalad 1994, 2010), a *prophesy by the CEO* (Burgelman 1994), a *top management decision* (Burgelman & Grove 1996), a *rhetorical tool in the hands of top management* (Mantere et al. 2007). Strategic intent is an overarching philosophy that guides TMT in formulating the firm's goals and the direct allocation of resources for its achievement (O'Shannassy 2016). Strategic intent is mainly expressed in objectives such as growth, market dominance, and supremacy (Mariadoss et al. 2014; Seepana et al. 2020).

However, the academic literature have not yet deepened the question of whether strategic intent has an effect on creative and innovative outcomes for a firm. Rather, strategic intent seems to be considered to lead to positive outcomes for companies such as Samsung (Hitt et al. 1995), Sony (Hamel & Prahalad 2010), and Apple (Mantere et al. 2007). Strategic intent is about foreseeing an ambitious future that is much greater than a firm's resources allow in the current moment, to create a heightened competitive focus (Hamel & Prahalad 1989). Authors have cited examples of the Apollo programme, in which the Americans aimed to outdo the Soviet Union by landing an astronaut on the moon, Fujitsu's strategic alliances in Europe aimed at attacking IBM, and Canon's strategies to acquire Xerox's market share. It is argued that these kinds of strategic intents lead the firm to innovation. Innovation in firms is a result of creative ideas (Woodman et al. 1993; Dodgson et al. 2015). Creative ideas or creative processes lead to creative performance or creations (Runco & Kim, 2018). In essence, the innovation is a creative outcome. Strategic intent theories suggest that extreme ambitions force companies to innovate and create (Hamel & Prahalad 2010; Mantere & Sillince 2007).

2.1.1 **Elements of strategic intent**

Strategic intent is related to the vision or mode of strategy making (O'Shannassy 2016; Fitzroy et al. 2012). It is considered to be beyond the articulation of the company's goals

(Mantere & Sillince 2007). Strategic intent provides symbolic direction to workers in an organisation to overcome the uncertainties in the economic environment. Table 2-1 captures the essence of representative studies of strategic intent in strategy theory and research (O'Shannassy 2016)

TABLE 2-1: REPRESENTATIVE STUDIES OF STRATEGIC INTENT IN STRATEGY RESEARCH

Author	Year	Focus	Method	Conclusion
Hamel & Prahalad	1989	Strategic intent	Theoretical	Focus on 'winning' beyond resource capability. Active management process. Encourages creativity.
Prahalad and Hamel	1990	Core competence	Theoretical	Strategic intent is a core competency and therefore a critical resource.
Hart	1992	Strategy-making process	Theoretical	Strategic intent is symbolism and lends a directive focus to organisation members.
Hamel & Prahalad	*1994*	Competing for the future	Literature study	Strategic intent implies a sense of destiny (129)
Hart & Banbury	*1994*	*Strategy-making process*	Questionnaire	Symbolism is a significant predictor of performance
Mintzberg	*1994*	*Strategy making*	Literature study	Vision has an important role in defining strategy
Burgelman	*1994*	*Strategic business*	Case study	Strategic intent is a CEO's superior foresight.
Suchman	*1995*	*Managing legitimacy*	Theoretical	Symbols empower and constrain organisational members.
Noda and Bower	*1996*	*Strategy making*	Two case studies	Resource allocation by top management is guided by strategic intent.
Strati	*1998*	*Organisational symbolism*	Theoretical	Symbolism gives direction to organisation members and legitimacy to organisation leaders.
Liedtka	*1998*	*Strategic thinking*	Theoretical	Strategic intent focuses strategic thinking
Lovas and Ghoshal	*2000*	*Strategy as guided evloution*	Case study	Strategic intent relates to long term goals decided by TMT
Watson	*2003*	*Ideology*	Qualitative content analysis	Symbolism motivates organisational action
Mantere & Sillince	*2007*	*Strategic intent*	Literature study	Strategic intent is about organisations will about the future and binds the members into a collective purpose.
Rui and Yip	*2008*	*Strategic intent*	Case studies	Strategic intent is the proactive strategy-making tool.
Kaplan	*2008*	*Framing in strategy making*	Case study	Strategy making is a political process. All actors are potential creators and use frames to resolve strategic challenges.
Kaplan & Orlilowski	*2013*	*Temporal work in strategy making*	Case studies	Temporal work in strategy making helps deliver favourable future results.
O'Shannassy	*2016*	*Strategic intent*	Literature study	Strength in strategic intent predicts better organization performance.
Seepana et al.	*2020*	*Strategic intent*	Questionnaire	Strategic intent may enable cooptetiion through ambidextrous managers.

Hamel and Prahalad (1989: 64) originally defined strategic intent for firms as

ambitions that are way out of proportion to their resources and capabilities….. obsession with winning….. quest for global leadership…. strategic intent is more than unfettered ambition.

As it emerges from studies in Table 2-1, strategic intent concerns

i. that the firm has ambitious objectives, makes these objectives a priority, and makes choices accordingly (Seepana et al. 2020).

ii. that intents are reflected in decisions made by the TMT (Rui & Yip, 2008).

iii. that intents become a symbolic direction for organisation members (Watson 2003)

iv. that strategic intents are considered to be TMT's or CEO's strategic foresight (Burgelman 1994) and a rhetoric tool (Mantere et al. 2007).

Seepana et al. (2020) cited Hamel and Prahalad (1989) and Hitt et al. (1995) to express examples of strategic intent as

Komatsu sets out to encircle Caterpillar…. Canon wanted to beat Xerox

As emerges from the examples of articulation of strategic intent in firms and studies articulated in Table 2-1, strategic intent's focus on competitive rivalries and strong desire to win highlights two main elements within which strategic intent is usually expressed — competitive advantage (CA) (*see* Venkatraman 1989; Hamel & Prahalad 1989,1994; Brown 2015; Seepana et al. 2020), and rent maximisation in the form of increased market share or dominance (Brown 2015).

2.1.2 **Competitive advantage and rent**

Aggressive posture is equated with strategic intent (Brown 2015). Strategic intent theory suggests that the aggressive pursuit of planning for future rivalries helps firms to enhance performance. Enhancing performance relates to producing CA for the firm, and most theoretical perspectives on strategy take the view that strategy is about producing CA for a firm (McGrath & Kim 2015).

CA is characterised by a simple question: How can one company outperform another (Porter 1996)? There may be no sustainable CA that can be acquired, or, in other words, it is only available for short periods of time (D'Aveni 1994). This is dubbed the 'Red Queen effect' (Volberda 2006) in reference to Alice, who said, 'It takes all the running you can do to keep in the same place' (Carroll, 1946) (Figure 2-2). Other terms that have been used to describe this phenomenon are *hypercompetition* (D'Aveni 1994) and *coevolution* (Lewin & Volberda 1999).

The Red Queen Effect

'Now! Now!' cried the queen. 'Faster! Faster!' And they went so fast at last they seemed to skim through the air, hardly touching the ground with their feet till, suddenly, just as Alice was getting quite exhausted, they stopped, and she found herself sitting on the ground, breathless and giddy.

The queen popped her up against a tree, and said kindly,'You may rest a little now.'

Alice looked round her in great surprise. 'Why, I do believe we've been under this tree the whole time! Everything's just as it was!'

'Of course it is,' said the Queen. 'What would you have it?'

'Well, in our country,' said Alice, still panting a little, 'you'd generally get to somewhere else—if you ran fast for a long time, as we've been doing.'

'A slow sort of country!' said the Queen. 'Now, here, you see, it takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!'

FIGURE 2-2: THE RED QUEEN EFFECT (CARROLL, 1946; VOLBERDA, 2006)

Countering this argument, the belief that CA is temporary is dangerous and leads to companies downsizing, restructuring, and reengineering which may provide operational efficiency but does not lead to any strategic advantages (Porter 1996). Concurring with this view, one study noted that, instead of trying to be better, it makes sense for firms to try to be different (Hamel & Prahalad 1994). Hamel and Prahalad (1994) also note that strategic intents drives creativity needed for such innovation.

In the Red Queen effect, all CA is cancelled out by increasing competition (Volberda 2006). In other words, a firm's strategic assets (SA) that generate rent or revenues for a firm cease to be unique (Amit & Shoemaker, 1993). Rent is commonly defined as profits in excess of those made, on average, by competitors (Alchian 1991). The Red Queen effect is the erosion of a firm's strategic capacity through increased competition which leads to a decay in strategy (Lewis & Loebbaka 2008).

In a survey of over 500 CEOs, the majority expressed a concern that strategies of competing firms have become more alike than different from one another (Williamson 2006). This implies that firms tend to follow identical business models over time, resulting in them coming across as identical to customers (Cortimiglia et al. 2016).

Strategic innovation has been defined as an antidote to strategy decay; in fact, it is considered to be an innovation in the strategy of the firm itself, that is, the development of new CA that results in a significant change in the way a firm earns revenue (Williamson 2006). Strategic intents are understood to encourage such innovation (Seepana et al. 2020)

Bowman (2006) noted attributes that drive revenue for a firm, including competences (Hamel & Prahalad, 1994), strategic assets (Amit & Shoemaker 1993), or simply resources (Barney 1991). Researchers have suggested that firms must use accounting and financial measures to approximate strategic intent and competitive action (see Nair & Selover 2012; Hamilton et al. 1998). Strategic intent theories

conceptualise that firms create competitive ambitions that will help them to build capabilities to eventually achieve returns in the marketplace in the form of increased market share or dominance (Brown 2015). These will be reflected in profit or rent. Rent generation or profit maximisation then appears to be an important mechanism for realising strategic intent.

Nevertheless, established firms face the challenge of developing new business strategies to produce novelty and to innovate ways of generating profit (Baer et al. 2013). SA are assets particular to a firm that help it to either gain new business or lower its costs compared to competing firms. If these assets and capabilities are also found in competing firms, they are no longer strategic assets but entry assets (Bowman 2006). A SA must translate to a resource that is valuable, rare, inimitable, and non-substitutable (Bowman 2006).

Innovation occurs when a firm can generate rent from new value creation or from new SA development. Strategy decay occurs when assets cease to be new or unique (Williamson 2006). To quantify that strategy decay is an occurring reality, Williamson (2006) quoted a statistic that only nine out of 500 companies in the S&P 500 managed to consistently deliver total shareholder returns (TSR) in the top quartile for more than five years.

Firms seem to take an incremental view towards developing CA. They try to maximise their exploitation of existing SA. Given that other competing firms imitate and also do the same, exploitation may eventually threaten survival in a Red Queen race (Volberda 2006).

Exploitation is predictable, and the associated returns are more certain (Volberda 2006), in comparison with exploration, which can be risky and uncertain (Teece et al. 2016). Exploitation often ends in rigidity, as it focuses on operational excellence and, in turn, eliminates strategic choices (Volberda 2006).

If fewer strategic alternatives are available to a firm than the change occurring in the environment, the business strategy will decay and open the firm up to a risk of turbulence (Hamel & Välikangas 2003). This can be summarised as shown below: When SA are less than the speed of change (C), it leads to strategic decay, and when SA leads to change, it implies strategy innovation.

SA < C = Strategy Decay

SA >C = Strategy Innovation

The successful development of the SA of one firm in an industry will lead to change, whereas a purely exploitative firm will experience a strategy decay. Over time, other firms develop similar assets, leading to tension between exploration and exploitation (Volberda 2006). A firm can, on the one hand, be exploitatively rooted in existing SA and become rigid, or, on the other hand, be over-explorative and chaotic (Volberda 2006). The pull between exploitation and exploration presents a conflict that some researchers even label as the greatest innovation risk which is that a company can become so highly efficient that it risks its entire future by not being creative (Christensen et al. 2018). Therefore, firms aim for the duality of success, balancing rent earned from existing SA to develop the capabilities for innovating new SA (Volberda 2006). For example, Apple needed to exploit the iPhone through incremental innovations while continuing to create explorative products such as wearable technology (Pisano 2015). This strategic flexibility or agility is considered an important dynamic capability. The ability of a firm to address the two opposite objectives and activities of exploration and exploitation is referred to as its ambidexterity (Santoro et al. 2019). Firms that successfully organise themselves to address the conflict or exploration and exploitation are ambidextrous (O'Reilly & Tushman 2004).

The literature on ambidextrous organisations is complementary to that on strategy, in the sense that it also advocates a duality of objectives and the building up of

dynamic capabilities to achieve those objectives, to ultimately create competitive capital (Santoro et al. 2019).

An important insight that emerges from the study of ambidextrous firms is that the role of the TMT, specifically the CEO (strategic decision maker), is critical in creating an ambidextrous firm (Tushman & Euchner 2015). The greatest challenge of creating an ambidextrous firm is managing the conflict between creativity and discipline, and, without the leadership's intensity, this is unachievable (Wang & Rafiq 2014; Tushman & Euchner 2015).

When strategic decision makers of a firm resist the ability to manage the *explore crowd* and the *exploit crowd,* new entrants displace incumbents (Tushman & Euchner 2015). For example, IBM lost the software business to Microsoft, Microsoft lost the internet business to Google, Eastman Kodak resisted the digital wave, General Motors failed in the automobile industry, and Kmart lost out in retail (Probst et al. 2011).

As vital as it may appear that firms must become ambidextrous, it is important to highlight certain statistics from the literature that point out the non-sustainability of the strategy paradigms, regardless of whether they are explorative, exploitative, or ambidextrous.

2.1.3 **Erosion of competitive advantages**

Schumpeter (1942) drew attention to creative destruction, in which one actor's creation meant another's destruction. Sustainable CA was challenged by research in the 1990s, showing that there are many environments in hypercompetition and that hypercompetition, rather than competitive equilibrium, was the norm (D'Aveni 1994). Positions of advantage are temporary and are doomed to be eroded by emergent innovation elsewhere (D'Aveni 1994; Christensen & Bower 1996).

McGrath and Kim (2015) analysed the top 100 firms in the *Fortune 500* as of 1955 and found that all except one of the firms either made or handled physical things. A comparative of that with the corresponding *Fortune 500* list of 2012 indicated that only 39 of the top 100 were involved in making things.

They point out that retailers like Walmart, banks and financial services like Citigroup, have replaced manufacturers. Even the manufacturers on the list were high-technology companies such as Apple, Google, and Cisco, companies with shorter product cycles that represent industries with fewer entry barriers (McGrath & Kim 2015).

Yet another analysis points out that the lifespan of companies in Standard & Poors 500 has shrunk from around 60 years in 1960 to 16 years in 2010, meaning that a new firm is added and removed about every two weeks (Foster 2012; McGrath & Kim 2015). Similarly, the FTSE 100 in London churns 15% index each year.

The evidence is clear on the aggressiveness of competition, which is also concurrent with ideas on disruptive innovation that an entrant with considerably fewer resources can outsmart an established firm (Christensen et al. 2018).

Four temporary competitive waves emerge during exploitation and then disappear again (MacMillan 1988; McGrath & Kim 2015). The first occurs during the launch period, when the firm invests in a new strategic asset (T0–T1). The second occurs during the ramp-up period, when the firm takes the asset to market (T1–T2). The third occurs when the firm enjoys a period of exploitation (T2–T3). Finally, there is a period of erosion of the asset as competition attacks and technological changes emerge (T3–T4). This is depicted in Figure 2-3.

Hypercompetitive environments dictate that firms must repeat the cycle, between TG and T3 or repurpose their resources for new innovations or business. However, few firms accomplish this (McGrath 2012).

Nokia, Eastman Kodak, and Woolworth are prominent examples in the literature of companies that could not manage the transient waves. At the opposite end, Apple, Google, and Walmart are prominent examples of companies that developed dynamic capabilities to manage transitions. In the transient advantage context, exploitation periods are very short (McGrath & Kim 2015), which is perhaps why researchers emphasise building on a process of dynamic capabilities to continuously create SA (Teece et al. 2016). The statistics noted above, however, do suggest that few companies, even at the peak of their available resources, are able to do that. This does not suggest that all such companies erode, but it certainly suggests their SA do.

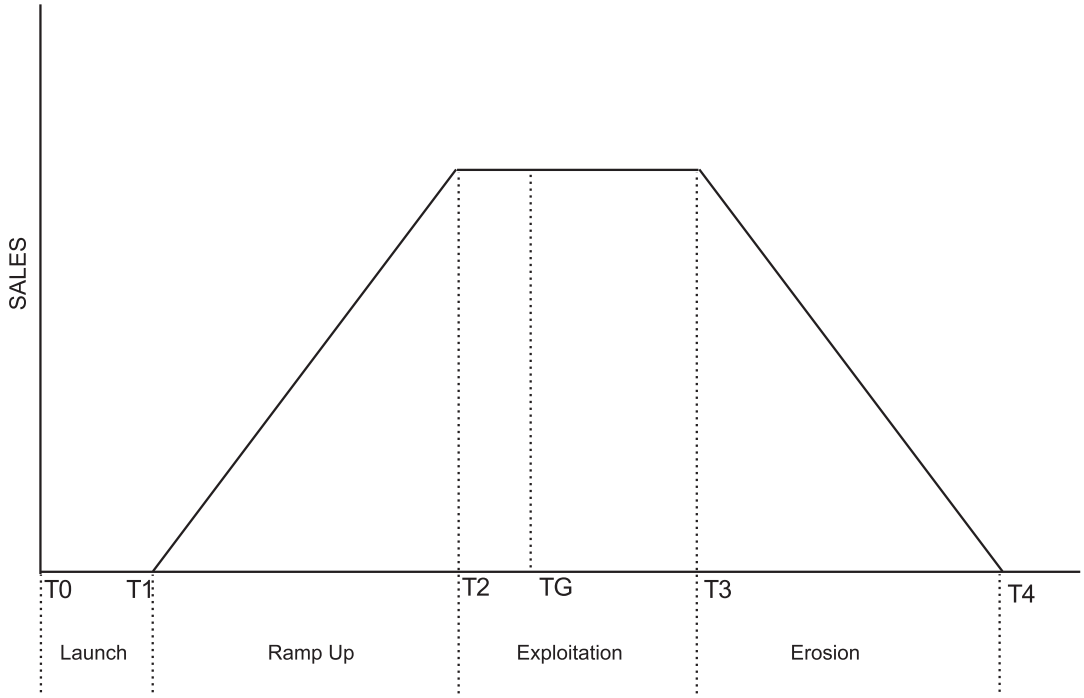


FIGURE 2-3: TEMPORAL AND TRANSIENT ADVANTAGE (ADAPTED FROM MCGRATH & KIM 2015)

The general philosophy of strategic intent to drive aggressive competitive ambitions is believed to drive ideas and innovations in that direction. Developing dynamic capabilities involves creating a process for doing this recurrently (Teece et al. 2016).

Strategic intent theories largely assume that regardless of the temporary nature of CA and challenges therein, the symbolic and rhetorical direction that strategic intent provides, is a positive one for the organisation, their employees, and therefore for the economy at large. There is however evidence available to suggest that this may not always be the case.

2.1.4 **Competitive instincts and unethical behaviour**

‘I want them on their knees. Begging for mercy’. (Strategic intent by Oracle CEO in the early1980s) (Kilduff et al. 2016).

Anecdotal evidence suggests that competitive rivalries can push the boundaries of ethical behaviour. Consider the admission by executives of British Airways that they engaged in dirty tricks against Virgin Atlantic which included stealing Virgin’s confidential data, misleading Virgin’s customers with flight cancellation calls, and spreading rumours that Virgin’s CEO, Richard Branson, had contracted HIV (Gregory 1994). Donald Trump did not spare his rival for the 2016 Republican nomination. He spoke about Carly Fiorina, crying, ‘Look at that face! Would anyone vote for that? Can you imagine that, the face of our next president?!’ (Yip et al. 2018).

Such examples suggest that competition (a positive result for one at the expense of a negative result for another) relates to unethical behaviour. Competitive forces (Porter 2008) invoke greater psychological stakes (see Crocker & Wolfe 2001), increased status concerns (Blader & Chen 2011), and provide heightened motivation (Kilduff 2014) for TMT. The TMT’s focus is on organisational performance which is measured based on profit achievement. The route to those profits involves strategic decisions that guide the firm towards the objective (Alhawamdeh & Alsmairat 2019). Strategic decisions and their subsequent implementation are key to an organisation’s

achievement of its goals (Harrison 1996) and can also lead to the demise of a firm (Mueller et al. 2007).

There is evidence to suggest that decision makers' primary guiding force is an economic mindset (Mueller et al., 2018). Research has suggested that decision makers are guided by budgetary concerns (Mollick 2012), profit goals (Ford et al. 2008), and the need to ensure that their chosen paths succeed within these (Stevens & Burley 1997).

These driving forces coupled with competitive instincts may lead to unethical behaviour and organisational misconduct (Kilduff et al. 2016), particularly when competitive rivalries are intense as is propagated by strategic intent. Whether in business, politics, or other fields, actors are observed to cheat for profit and power, make and interpret laws ambiguously to use loopholes, and create moral violations (Meshkova & Enikolopov 2020). These rivalries and mechanisms adopted by organisations create negative effects and social risk for the society (Curran 2018).

Decision makers can be deliberately malicious in their intent to outdo competition and the resultant innovations have been termed malevolent creativity (Cropley 2010). Creativity is a motivated task (Amabile & Pratt 2016), and motivation for this behaviour is available from the strategic intents as explained above. In some cases, however, the task by itself could be legitimate or legal, but the result could still be harmful, e.g. adverse effects on the environment, global warming, or health harms as a result of products. These are considered to be negative aspects of creativity. The leaders of a firm play an important role in malicious or negative creations (Meshkova & Enikolopov, 2020). Unethical behaviour, even when not intentional, is nevertheless the result of ignorance, or a lack of holistic thinking (Kampylis & Valtenen 2010). The decision-making role activates an economic mindset that promotes prioritisation of accuracy, rationality, and self-interest (Molinsky et al. 2012). The competitive forces within an economic mindset establish the framework for unethical motivations (Kilduff et al. 2016).

Research has suggested that this excessive focus on profits and competitive rivalries leads people to a stronger performance orientation; however, it also leads them to focus more on winning and less on the means of achieving the goals (Kilduff et al. 2016).

Strategically, firms have been observed to use hard power (financial and institutional) and soft power (influencing ideas through advocates and scientists) to shift legislation and regulation in their favour (Moodie et al., 2013). This is a 'corporate political activity' (CPA), defined as *'corporate attempts to shape government policy in ways favorable to the firm'* (Mialon et al. 2015). For instance, tobacco companies promote women's safety, and food and drink corporations emphasise physical activity (Moodie et al. 2013). These often result in interpretations of expanding value to multiple stakeholders and have been featured as popular case studies (e.g. Nestlé and Coca-Cola) for 'creating shared value' (see Crane et al. 2014; Porter & Kramer 2011).

Screening, evaluating, and authorising options or ideas available to a firm is part of the selection process of strategic decision makers (Mintzberg et al., 1976). There is immense pressure on decision makers, as it takes more than 3,000 ideas to achieve one economic success (Stevens & Burley 1997). Strategic intent is meant to encourage creativity, as it is about creating and innovating a future for the firm that does not exist and is disproportionate to the available resources (Hamel & Prahalad 1989). However as Kilduff et al. (2016) suggest these motivations could also result in unethical outcomes.

These contrasting perspectives raises a pertinent research question:

RQ1: What role does strategic intent play in determining the direction of creative outcomes?

Strategic intent theories (see Table 2-1) assume that the role played is largely a positive one. The firm's performance, in terms of economic success, is attributed to the TMT who are driving it through strategic intents. Intent is however a psychological reality

held by a conscious actor (Searle 1983) and possessed by a member or members within an organisation, usually a TMT member, in the case of *strategic intent* (Mantere et al. 2007). The intent is believed to trigger a creative process (Hamel & Prahalad 1989), that is assumed to have significant positive affects as believed by researchers across different studies (see Table 2-1). However studies do suggest that highly ambitious motivations can lead to unethical behaviours that may even produce harm for societies while incurring huge payoffs for firms (Curran 2015; Kilduff et al. 2016). Therefore it is not entirely clear that what roles does strategic intent play in driving the direction of creative outcomes, either positively or negatively. More specifically how do the elements of strategic intent, i.e. CA and rent, relate to producing creativity and innovation.

To be able to examine RQ1, it is important to first develop an understanding of the creative process.

2.2 Creativity

Novelty and usefulness (Amabile & Pratt 2016) have traditionally been understood to provide the standard definition of creativity (Runco & Jaeger 2012). Novel and useful ideas that are implemented effectively and generate value for the firm are synonymous with success. Established firms can be doing almost everything right in terms of management strategy, production, marketing, and even R&D, and yet appear to suddenly fail. The management literature includes many studies about the failure of large companies at the emergence of innovation. The felling of the computer giant IBM, the decline of Kodak and its inability to embrace digital photography despite inventing and patenting it, and the ending by Apple of Nokia's dominance are some of the popular stories that appear in the literature (Ney & Meinel 2019:22).

In the context of firm, an idea is the end product of the creative process, and the subsequent implementation of that idea is intended to produce CA (Christensen et al.

2004). Creativity is understood in the context of its end result (e.g. idea), and the result determines whether the process was creative or not. This is explained by studies that argue the creative process is largely unobservable (Stuhlfaut & Bergh 2014). Research has therefore relied on using creation to decipher creativity.

Creativity was initially articulated around four main constructs known as the 4Ps (Rhodes 1961): *the person*, *process, press*(ures), and *product* or outcome. Different levels of creativity, such as the mini-c (everyday creativity), little-c (smaller creative breakthroughs), Pro-c (professional-or-expert-led breakthroughs), and Big-C (transformative creative acts), have also been identified to capture different expressions of creative outcomes (Kaufman & Beghetto 2009). These models judge creativity based on its outcomes or creations. Therefore, the recognition of creativity is important for an act to be considered creative (Nakamura & Csikszentmihalyi 2001).

The systems model of creativity explains that an individual (or group of people) may generate an idea, but the idea must persuade the field (decision makers) for it to be included in the domain (Csikszentmihalyi 1999; 2014). Csikszentmihalyi (2014) also drew our attention to the situation in which ideas that are perceived to be too novel by the field may be rejected, as decision makers may not consider such ideas to be appropriate, or they may not have the competence to judge them. The decision premise, or the problem to be solved, determines the strategic options to be explored, i.e. the creative ideas (Nickerson & Argyres 2018). This implies that the field or decision makers could reject ideas based on a predetermined context; however, does this mean the rejected ideas were not creative?

Ideas are surely outcomes of creativity, but can creativity be defined in terms of ideas? An act may be creative, yet the creation could be disregarded by the field or domain (Nakamura & Csikszentmihalyi 2001); therefore, translating creativity into an acceptable creation might require more skills, and creation does not always define

creativity itself. Csikszentmihalyi, in his interview with Beard (Beard & Csikszentmihalyi 2014), pointed out that creators are not interested in the finished product as much as they are in the process of being creative. He noted in his observation of artists that they would hang the finished product on the wall and move on to the next creation.

To further complicate things, most current definitions of creativity ignore the actual process and simply describe the end results or creation. Examples of this phenomenon are illustrated in Table 2-2.

TABLE 2-2: ILLUSTRATIONS OF DEFINITIONS OF CREATIVITY

Criteria for Creativity	Author
Novel & Useful	Amabile 1983
High-quality	Sternberg & Lubart 1995
Surprising	Boden 2004
Original & Effective	Runco & Jaeger 2012
Non-obvious	Simonton 2012
Intentional novelty	Weisberg 2015

As shown in Table 2-2, most definitions of creativity describe the result and not the act itself. Whereas an act may be creative, the creation might be disregarded by the field or the domain, which is an area of concern. The creative process is separate from the creative outcome (Runco & Kim 2018). In other words, creativity and creation are two distinct skills, and creativity may not always lead to creation. This distinction is important because even when creativity does not lead to creation, it still brings problems to the fore that must be solved.

This view is consistent with the systems perspective on creativity (Csikszentmihalyi 1999). The systems perspective explains creativity as an interaction between (a) the innovating *person* (initiator of the creative process); (b) the symbolic *domain (*existing

knowledge and tools that guide performance), and (c) the societal *field* (that judges whether the act was creative).

Therefore, researchers often combine three distinct elements and use them interchangeably to define creativity (Walia 2019): creativity (the process), creation (the performance), and creative (the judgement).

Take the classic example of the Polaroid story (Berger 2014). Back in the 1940s, Edwin Land was on vacation with his three-year-old daughter. He took a photograph of her, using a traditional film camera. His daughter wanted to see the results right away, not comprehending that the film must be sent off for processing. She asked, 'Why do we have to wait for the picture?' His daughter's question caused Land to wonder if it would be possible to develop film inside a camera, and he began to grapple with the notion of producing a 'darkroom' into the camera. That one 'why' question led Land to develop the Polaroid instant camera.

Judged by the standard definition of creativity, the Polaroid camera would be considered creative because it proved to be novel and useful. This conclusion, however, provides little insight into what aspects of producing the invention were creative, or what was involved in the process of creative thinking. The fact that a question inspired Land to develop the Polaroid instant camera would go unnoticed because firms are not usually concerned with the creative process; they are mainly interested in the creative product. This is a problem because the probable success percentages in the initial stages of the creative process are very low (Simonton 2015). The creative process interacts with decision makers who are mainly seeking to minimise uncertainty. As a result, the creative process may be abandoned altogether without ever solving the perceived problem. The naive problem perception, 'Why do we have to wait for the picture?' was the genesis of the Polaroid camera's creation.

In contrast to the management studies, psychometric studies of geniuses indicated that a critical component of scientific creativity, according to eminent achievers, was the perception and resolution of problems (Feist 2014). In other words, the creative process does not terminate with the generation or selection of ideas but, rather, goes much further. The root of this mismatch of perception in the two fields is probably the definition of creativity itself that currently regards the process (of creating) to be synonymous with the product (creation). The creative product in the management literature is considered to be the *idea*; therefore, the creative process must end once the idea is selected. By contrast, in the creativity or genius literature, it is problem perception itself that is considered a highly creative task (Vygotsky 2004). A question arises concerning whether problem perception is a creative perception or whether it is born of the expertise of the perceiver?

2.2.1 **Creativity and expertise**

Creativity requires an element of expertise (Baer 2015). Creation tends to be domain-specific, a view that is largely undisputed across all theories of creativity (Amabile 1983; Vygotsky 2004; Baer 2015). Knowledge and domain skills play an important role in the creative process (Weisberg 2015; Amabile 1996). Ten years of preparation in a domain are required for prominent creators to reach an expert or Pro-c level of creation (Kaufman & Beghetto 2009). This situation may differ by field; however, expertise does not guarantee creation at a Big-C (eminence) level, as that process is out of one's control (Kaufman & Beghetto 2009).

Specifically, in solving problems, expert knowledge and skills are better suited to generating solutions than amateur knowledge (Runco 2014). Moreover, in the context of a firm, most innovations will require the blending of different sources of expertise to craft a final solution. Experience helps actors acquire the skills they need to eventually make creative contributions (Ericsson 1998). Creativity is different from expertise, but expertise

within a domain makes creativity likely. However, too much knowledge can inhibit discovery (Baer 2015).

Experts tend to solve well-defined problems quickly, with fewer errors than novices (Reilly 2008). This situation may prompt the former to devote much of their time to quantitatively analysing problems and retrieving solutions as part of the comprehension of the task (Reilly 2008). Problem perception may also stem from a ‘reliability bias’ (Martin 2009a). Large organisations tend to have a bias towards reliability, that is, towards producing consistent and predictable outcomes (Martin 2009b). Decision makers have a preference for evidenced-based problems over those that are interpretive (Ney & Meinel 2019). This situation is characteristic of Christensen’s (2016) Innovators Dilemma, that is, the question of whether to pursue incremental innovation in existing products and services or to chase breakthroughs and disruptive opportunities. Expert performance has been observed to be superior to that of novices in well-defined problems; however, Johnson (1988) demonstrated that experts failed to do significantly better than novices in problems of uncertainty. It is no surprise, then, that it is the much smaller players that disrupt the established firms (Christensen 2016).

Specialised ‘overtraining’ prevents experts from discovering new ideas (Richard et al. 2017). If problems are perceived as creative products instead of just ideas, it suggests that expertise may prevent the perception of a unique or uncertain problem. Peter Drucker (2007) summarised this situation as the difference between doing things right (efficiency) and doing the right thing (effectiveness). Put differently, in a world of messy problems, one could end up with a precise solution to the wrong problem (Barbara & Mitroff 2014).

Whereas domain-specific expertise is relevant to solving problems creatively, given that creators must also persuade other experts who act as gatekeepers of the domain, it must be recognised that too much expertise can cause functional fixedness. This can

induce individuals to stick with conventional thinking and avoid the productive activity needed to challenge patterned thought processes and norms (Runco 2014).

In management, strategic problems determine strategic choices or creative ideas. Unless the perceived problems are themselves unique and have no ‘reliability bias’, the strategies are unlikely to be creative. They are more likely to reflect the ideas fed into a problem than a problem that inspires novel solutions. Problem discovery, rather than problem presentation, has been found to produce greater divergent thinking and creative solutions (Runco & Okuda 1987).

Therefore, it is important to examine the three elements of creativity, creation, and creative separately, to understand creativity.

2.2.2 **Creativity (the process)**

Based on a critical evaluation of 42 definitions (see Kampylis & Valtanen 2010) of creativity, this thesis, proposed a dynamic definition of creativity (Walia 2019).

> *Creativity is an act arising out of a perception of the environment that acknowledges a certain disequilibrium, resulting in productive activity that challenges patterned thought processes and norms and gives rise to something new in the form of a physical object or even a mental or an emotional construct*.

There are two main constructs in this definition that together may form the creative process: problem perception and productive activity. As depicted in Figure 2-4, an individual’s knowledge and experience interacts with the social environment (Vygotsky 2004) and perceives the environment in certain ways. There are two main constructs in this definition that together may form the creative process: problem perception and productive activity. As depicted in Figure 2-4, an individual’s knowledge and experience

interacts with the social environment (Vygotsky 2004) and perceives the environment in certain ways (Bridges & Schendan 2018), which gives rise to disequilibrium (Vygotsky 2004) in the person's environment or domain.

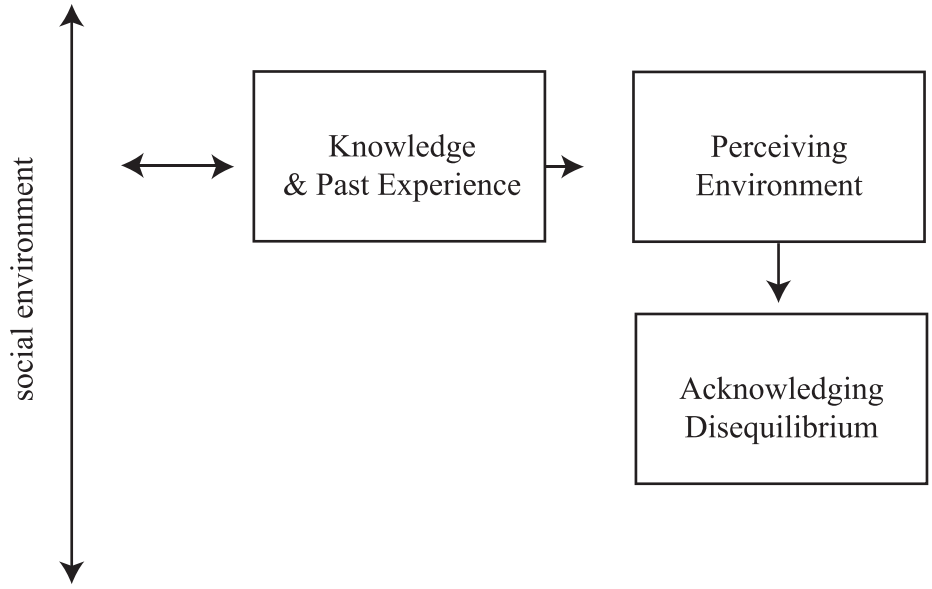


FIGURE-2-4: TRIGGERING THE CREATIVE PROCESS

This disequilibrium or problem perception is essential for triggering the imagination or a creative search, or, in other words, for providing the need for creation (Vygotsky 2004). Creativity begins with perception of a problem; however, perception may not be an entirely cognitive process. In fact, eminent scientists studied as geniuses were recorded stating as much by Carson (2014). Henri Poincaré, the eminent French mathematician wrote, 'logic has very little to do with discovery' (Beveridge 1957: 85). Karl Popper, the renowned Austrian scientific philosopher, wrote that 'every discovery contains a creative intuition' (Popper, 1959: 8). Einstein wrote about aspects of scientific creativity: 'there is no logical way to discovery of these elemental laws. There is only the way of

intuition' (Einstein, 1952: 10). Finally, Nobel Prize-winning mathematician John Nash said 'rational thought imposes limitations'. He believed the periods of 'enforced rationality' imposed by the medical treatments he received to be detrimental to his creativity (Samels 2002; Carson 2014).

Discovering opportunities (or unsolved problems) has been related to solving problems (Hsieh et al. 2007). The analysis of discovery and creativity theories has shown that discovery is a part of general creativity (Martin & Wilson 2016). Discovery refers to finding something, rather than producing something (Martin & Wilson 2017). Discovering the right problem to solve has been considered more important than the solution (Einstein & Infeld 1938).

Therefore, whether it emerges out of expertise or experience, or out of an insight or perception, problem discovery or disequilibrium appears to establish a creative direction for the thinker. In other words, the considered problem would guide the search for creative solutions in the form of triggering productive activity.

Productive activity, also referred to as creative activity, is when new images are produced in the brain by combining previous experiences and projecting them onto a future imagination (Vygotsky 2004). Productive activity in a creative context is essentially combinatorial (Simonton 2015). The combinatorial view has historical relevance too. Schumpeter, considered the father of the study of innovation, defined it as *new combinations* (Schumpeter 1942). The sociologist William Ogburn (1922) defined innovation as 'the combination of existing and known elements in culture to produce a new element.' Usher (1929) referred to it as creating *new configurations* out of existing elements.

Innovation has been conceived of as a combinatorial association (Dodgson et al., 2015). The difference is that creativity studies still pursue such an argument, whereas management studies have come to accept innovation as an implementation process

(Baregheh et al. 2009). Considerable insights have been derived from the Actor Network Theory (ANT) regarding this process (Hargadon 2015). ANT recognises that individuals, artefacts, and ideas all have agency and are therefore part of a larger network (Law & Hassard, 1999). Therefore, within the understanding of ANT, institutions represent networks, and ideas, people, and artefacts are individual elements. When these elements are assembled or re-assembled, or, in other words, combined or recombined, they become raw materials for innovation (Hargadon 2015).

The combinatorial aspect of the creative process is observed across domains, as represented in Table 2-3 below.

TABLE 2-3: EXISTENCE OF COMBINATORIAL CREATIVITY IN DIFFERENT DOMAINS

Domain	Quote	Author
Introspective Reports	*'Combinatory play seems to be the essential feature in productive thought'.*	Einstein, 1954
Introspective Reports	*'Ideas rose in crowds; I felt them collide until pairs interlocked, so to speak, making a stable combination'.*	Poincaré (in Simonton, 2012)
Psychological Theories	*'... the forming of associative elements into new combinations which either meet specified requirements or are in some way useful. The more mutually remote the elements of the new combination, the more creative the process or solution'*	Mednick, 1962
AI / Computer Simulations	*'evolutionary algorithms'*	Simonton, 2013
Cognitive Science	*'ways of combining philosophical, historical, psychological, computational, and neuroscientific approaches to explain scientific development'*	Thagard et al., 2012

Simonton's (2015) *General Combinatorial Model (GCM)* is particularly useful for understanding productive activity and separating it from reproductive activity. Simonton refers to the *Blind Variation Selective Retention* (BVSR) model (Campbell, 1960) to develop a mathematical representation of combinatorial associations. GCM identifies three criteria qualifying an act as productive: *originality*, *utility*, and *surprise.* Creativity (productive activity) is the multiplicative effect of the three criteria (Simonton 2015).

At the very onset of problem solving, combinatorial associations are triggered. *Originality* (denoted as *p)* refers to the initial probability or response strength of the idea, at the time of the idea's conception.

Utility (denoted as u) refers to the final utility of the creative idea. The solution's value can only determine the actual utility when the problem is solved. However, at the productive activity stage, the final utility is simply a determination of whether the potential solution works (u=1) or not (u=0).

Surprise (denoted as v) is determined by prior knowledge of the utility. Greater knowledge would imply a higher probability of success and, of course, minimal surprise.

In the initial stages of productive activity, GCM defines creativity as a multiplicative effect of the three criteria, where each of the criteria are necessary but may not be sufficient.

Creativity (the process) entails identification of a problem that leads to productive activity in the form of making combinatorial associations (Simonton 2015; Walia 2019). The ideas during the initial stages have low probability of success. As explained by BVSR, in the initial stages of ideation, there is greater blindness. The creator indulges in divergent thought processes to generate multiple ideational combinations. As the journey of the creator progresses, the thoughts converge through selective retention and selection of ideas. This is done based on thinking through four areas of operational BVSR: the usefulness, the interaction of the internal selection with the external world, the elimination of options, and the testing of ideas to eliminate trial and error (Simonton 2015).

This is also explained by Wallas's (1926) popular four-stage model of the creative process which included preparation, incubation, illumination, and verification. Preparation refers to information gathering, incubation is the stage of idea exploration and development, illumination is the stage of developing ideas into insights to solve the

problem, and verification is the stage of testing and applying the insights (Runco & Kim 2018).

In contrast to the GCM, Weisberg (2015) suggested the exclusion of value in the study of creativity. He suggested that value judgements cannot provide assessments of personal creativity. Although the inference is logical, the assertion is made at the time the product is finished or created. Therefore, once the creative process is separated from the creative performance, the concern is addressed anyhow.

Moreover, the creator is domain-specific, and available knowledge of the domain plays a significant role in the process of creation (Amabile 1983; Vygotsky 2004). Therefore, once the product interacts with existing solutions or knowledge, judgement is inevitable (Csikszentmihalyi 1999; Kahl & Hansen 2015).

In summary, the creative process involves problem perception that triggers productive activity. Productive ideas generate ideas through combinatorial associations. These ideas are creative when the initial probability is low, the final utility is high, and the prior knowledge of the utility is low. If the ideas selected for implementation beyond this activity are the ones that have high probability or high expertise (on utility), then these ideas are not creative, even though they may produce value as a result.

2.2.3 **Creation (the performance)**

The creative process entails the generation of product(s) (tangible or intangible). Creative product(s) must be novel (original, unconventional) and appropriate (valuable, useful) to some extent, at least for the creative individual(s) (Kampylis & Valtanen 2010).

Modern-day theories of creativity (Amabile & Pratt 2016) are grounded in a definition of the construct as the production of ideas or outcomes that are both novel and appropriate to some goal. In the context of creativity, a creation is viewed as something that is (a) tangible, (b) observable, and (c) original. Further, it is (d) a medium of change,

and (e), for it to be regarded as creative, people, such as experts or society, must view it as creative (novel and useful) (Walia 2019).

Runco and Kim (2018) differentiated creativity and creation by outlining creative potential and creative performance. They studied this difference with reference to the 4Ps model (*person, process, product, press*) of creativity (Rhodes 1961). Notably, Runco and Kim (2018) expanded the model to include person, process, and press (as creative potential) and product, persuasion, and interaction (as creative performance).

Person refers to an individual's personality, traits, characteristics, and idiosyncrasies.

Process refers to the creative process, as outlined above.

Press, in the original model (Rhodes 1961) was an abbreviation of 'pressure', referring to environmental influences and the person's interpretation of them. They may be pressures of time and deadlines, or social factors, such as support for new ideas, challenges, trust, and permissiveness and latitude that support risk taking (Runco & Kim 2018).

Product refers to the resulting creation, such as paintings, poems, novels, inventions, designs, patents, and the like (Runco & Kim 2018).

Persuasion refers to the interaction of the creative process with social processes of judgements and attributions to the idea or product. The creative achievement is the result of successfully persuading others to change the way they think (Runco & Kim 2018).

Interaction refers to the interplay between a person's personality or traits and their environment. The actual behaviour is an outcome of this interaction (Runco & Kim 2018).

To understand how the creative process may eventually lead to creation, it is important to understand the factors that decide whether a product is creative or not.

2.2.4 **Creative (the judgement)**

The creator's journey (*person, process, press, product, persuasion, interaction*) through a creative process to creative achievement is depicted in the systems model of creativity (Csikszentmihalyi 1999). This model represents three elements interacting in a system (Figure 2-5): the culture (and domains), the field (and gatekeepers), and the creator (individual and environment) (Csikszentmihalyi 2014).

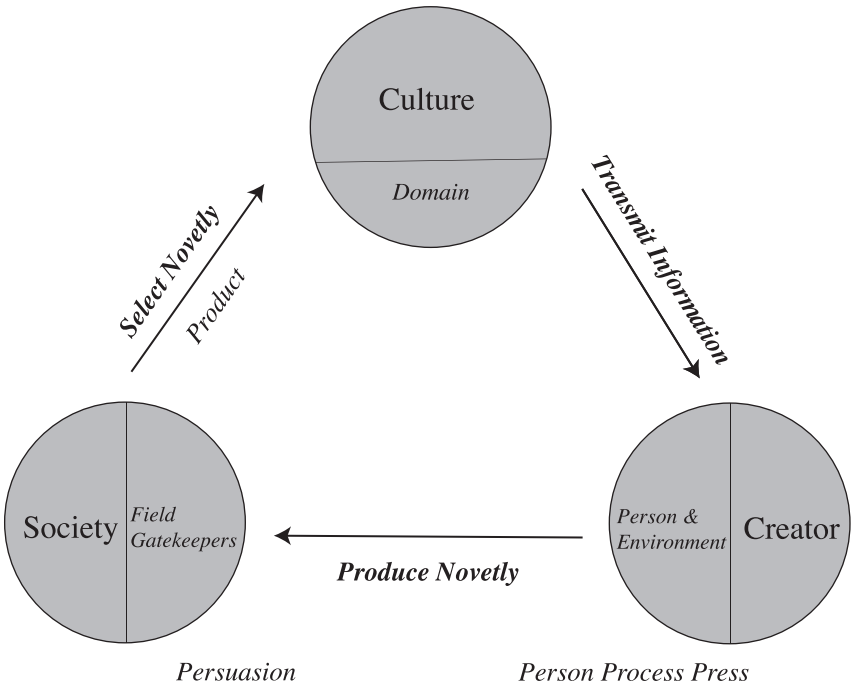


FIGURE 2-5: SYSTEMS MODEL OF CREATIVITY AND THE INTEGRATED 4P MODEL; ADAPTED FROM CSIKSZENTMIHALYI, 2014; RUNCO & KIM, 2018

Culture refers to rules that a person learns through interactions with other people in society (i.e. thoughts, emotions, beliefs, and products or acts – various things developed or adopted within the culture). The rules of the culture are organised into various *domains* (Csikszentmihalyi 2014).

Domain refers to a set of rules and practices that apply to a certain discipline. Hundreds of domains exist in any culture, e.g. religion, education, industry, medicine, and so on, and each domain is further divided into sub-domains. Unless individual have access to a domain, they are unlikely to contribute to them (Csikszentmihalyi 2014).

The society comprises *fields* that act as gatekeepers to the domain. The field scrutinises the incoming creations and attempts to reject or neutralise any that might threaten it. The field can make two mistakes: It can be overly strict and eliminate novelty that could be beneficial to the domain, or it can be too lax and introduce novelty that may be of harm. The field may sometimes encounter novelty that represents ideas it not competent enough to judge. In such cases, it may not be able to help the creations along (Csikszentmihalyi 2014).

Creator refers to the individual within the environment who produces the variation or idea (Csikszentmihalyi 2014).

A practical explanation of this model can be observed in academia, where a researcher or scholar (the *person*, their *process* within their *press*) generates an idea. The idea must then persuade and interact with the *field* (e.g. the publications). The field reviews the idea and decides whether or not it is novel and useful enough for inclusion in the domain and then transmits its feedback to the creator.

Similarly, in the context of the firm, an individual might generate a domain-specific novelty. The solution will need to interact with the gatekeepers or decision makers, who will decide whether to allocate resources to develop the solution.

Within the explanation of the systems model of creativity, Csikszentmihalyi (2014) accepts that the field is often wrong in its assessment. Intrinsic motivation, however, drives the creator to continue the creative process (Amabile, 1983). Perseverance is a key determinant of eventual success (Vygotsky 2004).

2.2.5 **Implications for RQ1**

A research question was earlier raised (RQ1): What role does strategic intent play in determining the direction of creative outcomes?

Creativity, as represented in the review above, is itself an entire journey, from perceiving a distinct problem to solving it, but the management literature views creativity only as a subset of innovation (Woodman et al., 1993). Strategic intent is about ambitious achievements. However firms, are often unable to generate novel strategic options (Hamel & Välikangas 2003). Strategy is supposed to be an inherently creative process (Thompson, 2003). Strategy is also supposed to produce sustained CA (Porter 2008). However, trend in the financial indexes suggests that strategy itself lacks imagination (Tucker 2001).

Moreover elements of strategic intent as was discussed earlier, i.e. CA and rent, may direct creativity to fit into those constructs alone. Creativity is considered to be a goal directed activity (James et al. 1999, 2010). The goals of CA and rent may well be producing creativity within that context, however, would an independent problem discovery outside of these contexts, present a greater creative possibility and outcome? Problem discovery independent of the problems determined from strategic intents has not previously been considered as a probable strategic intent in itself. This, however poses another research question:

RQ2: What strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively?

As was reviewed earlier the process and practice of strategic intent aims to maximise returns for a firm. Some studies suggested that this may be at the cost of adverse affects to other player or society as a whole. Studies on creativity have suggested that problem discovery triggers the creative process. Individual is the source of the creative process (Mumford & Simonton 1997) as well as the holder of intent (Searle 1983). The goals of strategic intent may guide the creative process to an outcome that may be different than if the perceived problems were within a different context. RQ2 therefore raises a question on which process would have a greater impact on value creation.

To be able to examine this in detail the next section reviews problem formulation within strategy management.

2.3 Strategic Problem Formulation and Framing

Creative individuals may be perceived as offbeat, risky thinkers; however, when risks are low, and outcomes are certain, the act is potentially not creative (Simonton, 2015). Creativity, in many ways, is a journey from *what is* to *what can be*. This has, at times, been termed the 'realm of potentiality' (Gabora & Aerts 2005). Kaufman (2008) preferred to call it the 'adjacent possible'. This thesis refers to the concept as creative possibility. The journey from *what is* to *what can be* is often the focus of strategic intent as well (O'Shannassy 2016).

Creativity also involves defocusing from the consensus reality of the majoritarian view because the focus is on novelty (Gabora & Holmes 2010), which places the creative individual in a minority, where only a few individuals in a society or firm are creative. Others may simply reap the benefits of creativity by taking the creators' ideas and applying them to their situations, without having to face the drawbacks of being creative (Gabora & Holmes 2014). There are, of course, drawbacks to being creative. Creative individuals have been evidenced to be more prone to drug and alcohol abuse (Goodwin & Jamison 1990), depression, bipolar disorders, and greater schizophrenic tendencies (Flaherty 2005).

Is the creative possibility then compromised in favour of strategic goals? It was noted that problem discovery, rather than problem presentation, produces greater divergent thinking and creative solutions (Runco & Okuda 1987). Within management, however, strategic problems determine strategic choices or creative ideas. Unless the perceived problems themselves are unique, the strategies are unlikely to be creative and more likely to reflect ideas fed into a problem than a problem that inspires novel solutions.

Considering problems trigger a creative search for solutions, it is important to examine the process of problem formulation that firms may adopt.

2.3.1 **Strategic problem formulation**

Developing new business strategies to produce novelty and innovating ways to generate profit are some of the challenges that organisations face (Baer et al. 2013). However, firms struggle to consistently generate novel strategic options. Therefore, competitive advantages are transient or temporary (McGrath & Kim 2015). Discovering the right problem to solve has been considered more important than the solution (Einstein & Infeld 1938; Baer et al. 2013). However, managers often tend to reduce the problem to a technical dimension, resulting in the *error of the third kind*, or precisely solving the wrong problem (Mitroff 1998). The controversial World Bank case illustrated in Table 2-4 presents an insightful picture of this effect (Ims & Zsolnai 2009).

TABLE 2-4: THE WORLD BANK ENVIRONMENTAL POLICY PROPOSAL

In the early 1990s, some economic advisors of the World Bank proposed that the organization should encourage the migration of polluting industries to less developed countries. Their argument was, “The measurement of the costs of health-impairing pollution depends on the foregone earnings from increased morbidity and mortality. From this point of view, a given amount of health-impairing pollution should be done in the country with the lowest cost, which will be [the] country with the lowest wages (…) The costs of pollution are likely to be non-linear as the initial increments of pollution probably have very low cost (. . .) The demand for a clean environment for aesthetic and health reasons is likely to have very high income-elasticity. The concern over an agent [with odds of] one-in-a-million [regarding] prostate cancer is obviously going to be much higher in a country where people survive to get prostate cancer than in a country where under-5 mortality is 200 per thousand. Also, much of the concern over industrial atmospheric discharge is about visibility-impairing particulates. These discharges may have [a] very little health impact. Clearly, trade in goods that embody aesthetic pollution concerns could be welfare enhancing.”
(The Economist 1992, p. 66; Ims & Zsolnai 2009)

The bias towards technical (or expert) formulation and solution of problems may well be the result of expertise and past training that tend to colour the values of decision makers (Ims and Zsolnai 2009).

A strategic problem has been defined as a deviation from acceptable conditions that results in symptoms recognised as problems to be addressed (Cyert & March 1963; Newell & Simon 1972; Cowan 1986; Nickerson et al. 2012; Baer et al. 2013). Problem formulations are well defined and encourage symptomatic resolution of the problem (Baer et al. 2013).

Thus, within problemistic search theory, firms derive problems from performance feedback (Posen et al. 2018). Aspirations are therefore considered key to triggering a problemistic search. Hence, three triggers for recognising symptoms have been identified as performance below aspirations, historical performance (the firm's past performance), and social comparison (performance of other comparable firms), which makes poor performance a necessity for a problem to exist (Posen et al. 2018).

Considering that, within this view, problems reflect the gap between aspirations and performance, the problem finding and problem solving approaches are combined with the three perspectives generally used in management science to explain superior performance: capabilities, or the resource-based view (Barney 1991; Winter 1988), the dynamic capabilities perspective (Teece et al. 2016), and the governance perspective in organisational economics (Williamson 1985). Using problems as a unit of analysis to integrate the theories on superior performance, Nickerson et al. (2012) outlined four steps in the problem finding and problem solving approach: *problem finding and framing*, *searching for solutions*, *implementing the solutions*, *and capturing value from the solutions.*

Firms are compelled to act to achieve their goals; therefore, it is believed that they will adjust their behaviour following feedback received on performance (Lant & Shapira 2008; Posen et al. 2018). The focus of management, therefore, tends to be to solve problems (formulate strategies), rather than to formulate strategic problems (Nickerson & Argyres 2018). The whole process is most often plagued by politicking, polarisation, group biases, personal payoffs, and precedence (Nickerson & Argyres 2018; Posen et al. 2018).

The process of strategising involves group decision making (Nickerson & Argyres 2018) and is limited by bounded rationality (decision makers are limited by the information they have, their cognitive abilities, and time) (Argote & Greve 2007; Gavetti et al. 2012). Therefore, the search for a problem and subsequent solutions tends to be: (a) local (a search within familiar knowledge), (b) exploitative (the intent of decision makers is more often to exploit the problem, rather than to explore it), and (c) risk-avoiding (the decision makers would avoid personal risk and, therefore, may conceal information, reject responsibility, or pursue initial ideas (Posen et al. 2018). Consequently, researchers have proposed that strategic problem formulation needs to be both comprehensive and relevant (Baer et al. 2013).

Decision makers tend to satisfice, rather than maximise, because decision makers lack perfect knowledge and must search for information; their actions are usually inconsistent with maximisation (Gavetti et al. 2012). This situation is usually caused by (a) making temporary compromises, resulting in quasi-resolution of conflicts as outcomes of politicking in organisations, (b) avoiding uncertainty in exploring problems and taking a short-term orientation to solving them, (c) following simple methods of causality and developing biases of experience and individual goals, and (d) seeking to overcome a performance shortfall through quick fixes, such as imitating others' innovations (Reinmoller 2013).

Researchers have attempted to address these challenges by proposing a structured process of problematic inquiry and employing search approaches such as the collaborative structured inquiry approach. The latter is a technique that aims to capture all possible symptoms and focuses on the unanimity of decisions (Baer et al. 2013). This technique is a modified version of the nominal group technique (mNGT) (Van de Van & Delbecq 1971). A strategising process that addresses the concerns of group thinking has also been proposed (Nickerson & Argyres 2018). Summarising these discussions, Figure 2-6,

explains that firms acknowledge problems where there is a gap between their aspirations and actual performance.

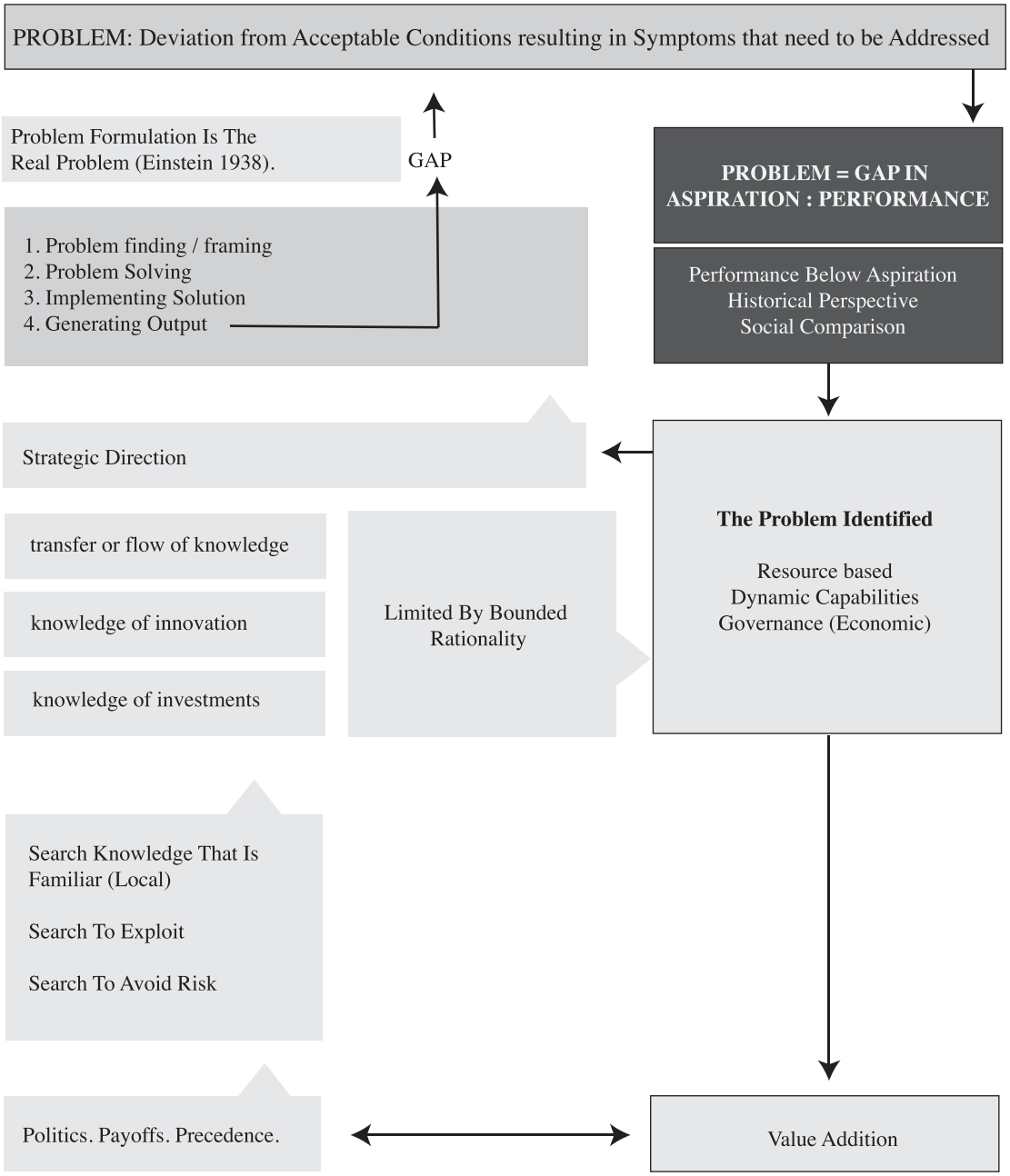


FIGURE 2-6: STRATEGIC PROBLEM FORMULATION

*As shown in Figure 2-6, i*dentified problems are associated with resources, capabilities, governance, or economic needs. The process of identification is limited by the availability of knowledge and information. The group decision making process tends to be

political and searches for knowledge that is familiar. The process is focused on exploiting the problem and avoids personal risk taking. The problem identified defines the strategic direction for the entire firm and is therefore itself considered a problem.

2.3.2 **Problemistic Search is evaluative and not creative**

One of the serious weaknesses of a problemistic search is the need to wait for things to take a downturn (Ims & Zsolnai 2009). As noted above, within this construct, the problem is identified based on the gap between aspirations and performance. Therefore, the problemistic search is an evaluative process, and the problem is solved once the gap disappears. *Big hairy audacious goals* or towering ambitions have been advocated as directions for a firm to build their vision, much like the research on strategic intents (Collins & Poras 1997), and lofty ambitions always present an aspirational gap. The gap can also be closed by lowering the aspirations, but does that make the problem disappear? Does it not, instead, produce another problem? Do aspirations solve the problem? In other words, the reasons why a business should be allowed to achieve the level it desires may be more pertinent than the gap between what is and what ought to be. Drucker (2007) noticed this anomaly and mentioned that the purpose of a business is not to produce profits but to create and serve customers. Therefore, the gap between customer aspirations and a business's product or service may not even reflect as a problem in an inside-out problem–aspirations approach.

If the discovery of a problem is itself believed to be a creative outcome, as discussed in reviewing creativity, then, for the problem to be a creative one, it must be novel and appropriate. In the case of a problemistic search, however, the search is motivated by a shortfall in aspirations, which implies that the search is reactive and not proactive. Researchers have pointed out that this motivated search tends to simplify or restrict problems in a manageable context that can be satisfied by the expertise of

available solutions (Gavetti et al. 2012). It appears therefore that expertise is detrimental to perceiving a unique problem. The uncertainty of problem exploration is often avoided by decision makers. In such a situation, how will a unique problem appear? Creativity or, more specifically, productive activity, in its initial stages of problem conception, is a task that is high on uncertainty, low on probability, and low on knowledge availability to comprehend a solution (Simonton 2015). This situation is the reason the resultant outcome is likely to be creative.

The logic of strategic thinking is based on assumptions of cause and effect (Terra & Passador 2016). Problemistic search-oriented feedback is likely to raise issues of inefficiencies and develop subsequent corrective actions; however, it does not appear to deal with the issues of future effectiveness, which are messy and may not be a matter of root cause analysis (Camillus 2008, 2016).

Aspiration shortfalls govern the perception of the problem, which raises a question: *Are aspirations the problem the business is trying to solve, or does it need to solve a problem in the external environment to achieve its aspirations?* As observed by Rittel and Webber (1973), in their definition of a wicked problem, a unique external problem may nevertheless have innumerable causes, may not have a right answer, and may not even be solvable within a predictable period.

Within cause and effect relationships, people often fall into the trap of circular reasoning (Goldratt 2008) for e.g. a statement like ‘employees aren’t motivated’ is circular reasoning because the answer to the question, ‘how do you know’ is most likely, ‘sales is down, isn’t it?” (Goldratt 2008). Similarly a statement like ‘change isn’t happening because people resist change’ is circular reasoning as it implies that people resist change regardless of whether it may be good or bad for them (Goldratt 2008). Barbara and Mitroff’s (2014) analysis explains this by pointing out that managers may be conditioned to view a problem as an exercise. In an exercise much like a mathematical formulation, the

authors observe that there will be a single correct answer, however in a problem the answer is a reflection of the way the problem is perceived.

Problemisitc search theory as summarised above acknowledges that decision makers minimise uncertainty (Reinmoller 2013; McMillan & Overall 2016) during problem formulation to be able to generate solutions that can manage the problem. As such the performance-aspiration-gap analysis may not identify a ‘unique’ problem or a problem that is significantly different from that of other firms.

2.3.3 Limitations of strategic problem formulation

On one side the definitional construct of the ‘problem’ seems to be inhibiting problem perception and leading to a linear analysis that may in turn lead to *circular logic* (Goldratt 2008) or a *self-made-box (*Dorst 2015 :16), and on the other side the definitional construct of creativity as *novel and useful ideas* (as synonymous with creation) doesn’t allow for an insight into the process that leads to creation. In other words it may be recognised that a novel and useful problem is a creative outcome, but it is not known on how to arrive at one. It is accepted in literature that wicked problems are novel (Hornett & Lee 2017) and examples ranging from terrorism to cyber crime are suggested as existing wicked problems (McMillan & Overall 2016). It is not completely clear on how to arrive at one from the symptoms that are presented to decision makers.

How problems are defined is closely related to the types of solution that will be proposed to solve them (Bacchi 2009; Peters 2015; Head 2019). Head (2019) argued that if one defines poverty as an *individualistic* problem, likely solutions will be proposed around improving individual skills or employability, whereas if one defines poverty as a *societal* problem, likely solutions may be oriented towards social security or income safety nets. Problem framing then appears to be a perceptual interpretation that depends on whom decision makers consider to be their stakeholders and their value (Head 2019; Ims

& Zsolnai 2009). For example, decision makers may be analysing a symptom with a gap of 10% between sales aspirations and actual performance (sales). Traditional analysis or evaluative strategies may deduce that the problem lies in a specific geography and recommend solutions, such as training of salespeople, marketing reinforcements, motivational training, or increased manpower within the region. The problem is analysed as a 'gap' and, therefore, may not be able to account for effects of globalisation (increased choices for the customer) or disruptive emergent solutions, as these are largely untraceable initially (Christensen 2000; Yu & Hang 2010). Within this problem, if decision makers expand the perception from an *aspirational value gap (the shareholder's value perspective)* to a *customer value gap (the customer's perspective*), the required actions may be totally different. Similarly, if the stakeholder perception is further expanded to a *societal* one*,* then decision makers may be forced to consider factors, such as perceptions, changes, or emerging awareness in people that may have caused a decrease in demand (versus an inability to sell). Assuming that the problem has been solved by extinguishing the fire is an indication that the problem has not yet even been identified (Ims & Zsolnai 2009).

Complex or wicked problems have many causes that feedback mechanisms might be unable to uncover or solve (Camillus 2008). This situation is because wicked problems are novel (Hornett & Lee 2017), unanticipated, uncertain, and unprecedented (Camillus 2008). Wicked problems have been recognised as key strategic problems that decision makers must formulate and consider (Lyles & Thomas 1988). Strategic uncertainty stems from the presence of multiple actors, their differing perspectives, and the unpredictable interaction between these perspectives (Head 2014). However, the definitional understanding of a problem as simply a gap as well as the evaluative nature of the problemistic search may often result in an *error of the third kind* (Mitroff 1998). The dissolution of Westinghouse, the demise of Polaroid, and the decline of Kodak and Atari

are examples of this error and the failure to recognise the strategic uncertainty of a messy problem (Fahey 2016).

2.3.4 **Implications for the research questions**

The elements of CA and rent expressed as strategic intents, tend to be symbolic factors that determines a firm's vision and goals (O'Shannassy 2016). These become proactive strategy making tools (Rui and Yip 2008), and serve as frames to resolve strategic challenges (Kaplan 2008). The problem frames that emanate from probemistic search theories suggest that problems would largely be ambition-reality gaps in CA and profit and that creativity and innovation are tools that must operate within them (McGrath & Kim 2015). Problems of CA and rent maximisation are not unique but rather, a shared problem across industries, firms, and nations.

The strategy process concerns a future that is unknown and unknowable (Faulkner & Campbell 2006). In this respect, strategy itself is a highly creative process (Christensen et al. 1982). The context of creativity in a firm is the exploitation of ideas to achieve CA and the subsequent rent generation. Firms may find unique problems within these areas; however, at the macro level, the problem of gaining CA is not unique to any one firm. This suggests two elements that are pertinent to limitations of problem formulations in firms:

i. The understanding of creativity is usually not applied in the context of determining the problem itself, and
ii. In the context of strategy, the problem perception lens towards obtaining CA.

If the predominant nature of strategic intent is CA then the ideas that flow will be those that can generate CA (Porter 2008). In creativity literature this is also referred to as the situational activation of creative goals (James & Taylor 2010). The triggering of the creative process, therefore, may be limited to the confines of CA or rent

maximisation. This reinforces RQ2 that hat whether these intents lead to a greater or lesser value creation as opposed to a problem discovery outside of these contexts.

Research has also suggested that competitive goals increase extrinsic motivation and harm intrinsic motivation (James & Taylor 2010). Intrinsic motivation is the prime driver of creativity (Hennessey & Amabile 1998). This would suggest that intrinsically motivated creativity ideas interact with extrinsically motivated decision makers.

Within a problemistic search, specifically in the problem finding and problem solving approach (Nickerson et al. 2012), the problem is considered as a unit of analysis that sub-consumes the resource-based view, the dynamic capabilities view, and the governance view. Problemistic search theories view problem formulation as a result of the collective decision. Within creativity theories, the unit of analysis is generally the individual. However creativity theories also acknowledge that the recognition of an act as creative depends on a judge or gatekeepers who will decide on the usefulness of the acts (Nakamura & Csikszentmihalyi 2001). Decision making, rather than problems or individuals, appears to be the unit that can clarify RQ1 i.e. the way strategic intents shape creative outcomes, and RQ2 i.e. how specific intents translate into value creation. Therefore the subsequent section examines the role and process of strategic decision making as for a firm, strategic problem formulation sets the context for strategic decisions.

2.4 Strategic Decision Making

Decision making is understood as either a rational or emergent process (Wilson 2010). The rational model of decision making is sequential, involving problem identification, alternative generation, and implementation. Each phase of the decision gains knowledge from the previous phases and builds on the decision. The emergent perspective categorises a decision as separate units of activities that evolve over time as more

knowledge is gathered about each of the activities (Wilson 2010). As such, many models of strategic decision making (SDM) have been conceived (Ahmed et al. 2014). *The classical decision-making process* is based on rationality and scientific reasoning (Li, 2008). *The military model* attributed to the U.S. army is a variation of the classical model, guided by the mission of the organisation (Ahmed et al. 2014). *Mintzberg's General Model of the Strategic Decision Process* involves the identification, development, and selection phases and stresses the analysis of all three to select feasibility (Mintzberg et al. 1976). *The Cynefin Framework* incorporates sensemaking and psychology to explain SDM (Kurtz & Snowden 2003).

Organisation theorists point out that the firm does not have a separate mechanism from individuals to perceive or decide on the environment: People are central to this (Eden & Ackermann 2010). Most SDM research tends to be descriptive; researchers study an end result and link it back to a decision (Nutt 2011), which presents a problem because there is no way of knowing what really happened (Papadakis et al. 2010). This is relevant to this thesis which is concerned with how strategists actually deal with creativity and problems and not how they ought to. As such, it may be important to develop a situational understanding of major strategic elements addressed by SDM.

Most reported research has been reduced to generalisations about the process, but not about actual action, because researchers may not be privy to the actual process of decision making in a firm (Nutt 2011). Within strategy literature, SDM research is lost in arguments about strategy formulation. This has led researchers to conclude that SDM is about resource allocation toward a strategy, than about problem solving (Bower 1997). This is reflected in the view that organisations take action without a decision, and make decisions that may never be acted upon. Therefore what appears to a researcher as a process, may have been a very random occurrence for the actor (Papadakis et al. 2010).

How do actors behave in a strategic process? What guides that behaviour? And how to they make strategic choices? Answers to these questions become relevant in examining how decision makers may be interpreting and deciding on creativity and innovation. To be able to answer this question, the sections below examine two areas; firstly what really is a strategic decision, and secondly how does it unfold in a firm.

2.4.1 **What is a strategic decision, and how is it different from other decisions?**

SDM is generally understood to comprise the key decisions made by top management members in an organisation. The term ‘organisation’ is understood here as the plurality of human effort in any collective social, economic, or political activity (Nutt & Wilson 2010a).

Mintzberg (1987) provided a useful way to categorise decisions with the 5Ps model: *Plan*: a decision carried out with a clear purpose and plan. *Ploy*: decisions that are a set of actions taken to outwit the competition. The plan and ploy may have similar characteristics. *Pattern*: Situations in which decision makers do not have the requisite knowledge to make decisions but where decisions emerge over time from a pattern. This resembles an emergent strategy. *Position*: These are decisions about positioning the firm in the context of its environment, which is less about planning and gamesmanship and more about developing an intelligent context. *Perspective*: Here, decisions are reflections of how strategists perceive the world and their firm.

Strategic decisions are more likely to be patterns, positions, or perspectives than plans or ploys (Nutt & Wilson 2010a), which can be understood by categorising decisions across dimensions of control and performance (Rosenweig 2013). Control considers the extent to which decision makers can influence the outcome, and performance addresses the way success is measured, that is, whether the performance is absolute or relative to other players (Rosenzweig 2013).

Based on this, Rosenzweig (2013) categorised decisions into four types, as represented in Figure 2-7. The 5Ps are integrated into the four-type model.

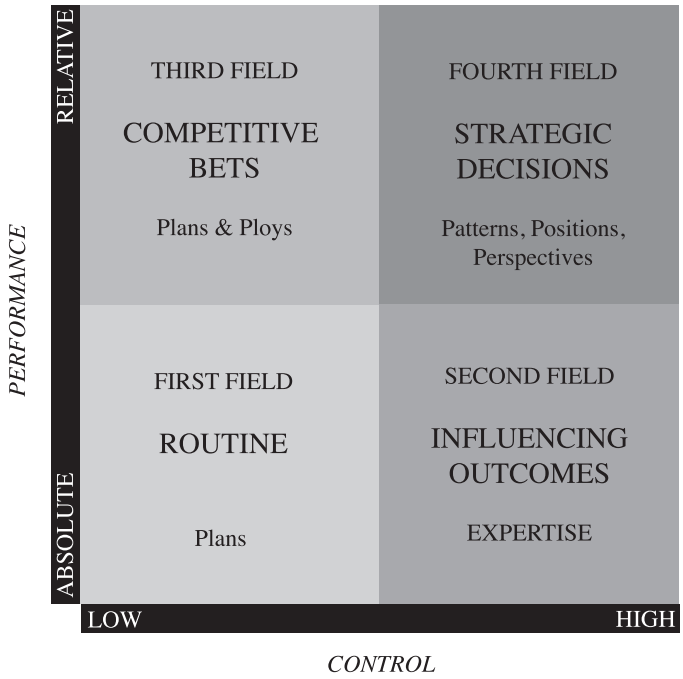


FIGURE 2-7: FOUR TYPES OF DECISIONS

Field 1: Routine: When performance is absolute (i.e. it does not matter what the competition is doing) and when control is low (i.e. one does not have the ability to improve). Examples of these can be certain routine purchasing decisions in a firm.

Field 2: Influencing outcomes: Decisions in which the person has high control, e.g. an expert may identify better stocks for investment. However, performance here is absolute and does not affect other players.

Field 3: Competitive bets: Success here depends on how well the firm performs relative to other firms. Decisions must be made in accordance with what the competition is doing. This resembles the game theory arena, in which the rules of the game are somewhat defined, and players find an equilibrium of sorts, e.g. pricing decisions in competitive industries. Performance is relative; however, control is low, as a single player cannot be a game changer in an equilibrated industry.

Field 4: Strategic decision: Success here means doing better than rivals, and the control is from within. This field concerns strategic decisions whereby strategists aim to define the future of the firm, such as decisions to enter new markets, release new products, or acquire other firms. These decisions are taken by the top managers and shape the strategic direction of the firm. Decisions related to strategic elements of arenas, vehicles, differentiators, staging, and economic logic involve a creative–innovative process to gain or sustain competitive advantage and form part of SDM.

2.4.2 **How does a decision unfold**

Research on SDM has traditionally been divided into 'content research and process research' (Papadakis et al. 2010). Content deals with the *what* of the decision, and process deals with the *how* (Pettigrew 2003). Some researchers have urged a deeper exploration of the two, whereas others have argued that process cannot be understood without the context in which it occurs (Papadakis et al. 2010). Pettigrew (2003) stated a need to study both implementation and formulation. As such, three dimensions of strategy in real-life strategic situations are strategy context, strategy content, and strategy process (De Wit & Meyer 2005: 5). Based on these arguments, Papadakis et al. (2010) conducted a content analysis of peer-reviewed papers in top-tier academic and practitioner journals and recommended an SDM framework organised into context, content, process, and outcome. This is represented in Figure 2-8.

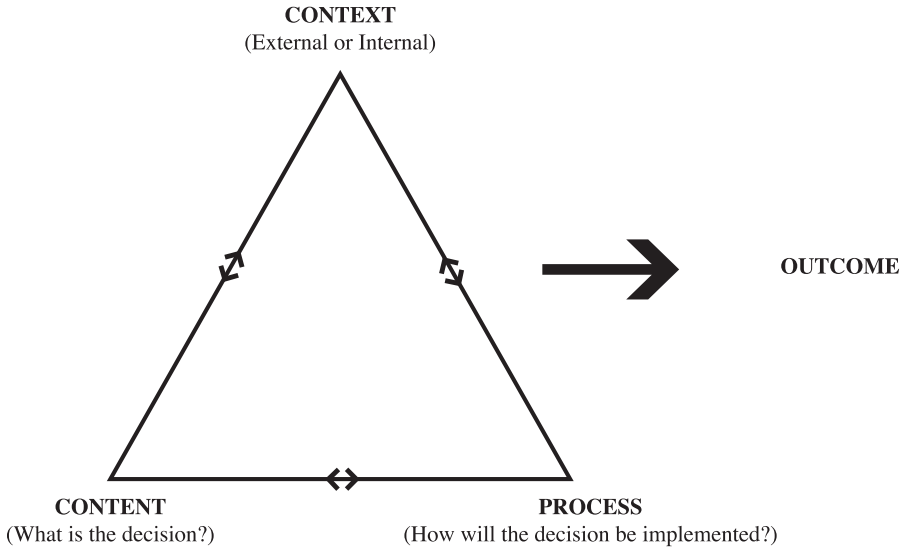


FIGURE 2-8: SDM PROCESS

Context: Context identifies the decision-making environment which can be internal or external to the firm (Nutt & Wilson 2010a). Internal factors may be culture, resistance to change, complexities, appetite for risk, intelligence, decision making styles, need for control or power, politics within a firm, or even education backgrounds and personal values of decision makers (Nutt & Wilson 2010a). External factors include the prevailing economic conditions or competitiveness (Nutt & Wilson 2010a). The context can be broadly understood in terms of the environment (competitive environment), organisation (internal structures), nature of the decision (impact), and top management characteristics (CEO and top management team personalities and backgrounds) (Papadakis et al. 2010).

Content: Content is the content of the decision, or the specific decisions taken in the fourth field (Figure 2-7) (Rosenweig 2013), e.g. the strategies to create new products, to diversify, or to differentiate or achieve cost leadership at the business level (Porter 2008).

Process: Process concerns how the decision will translate into action, through the selection of ideas, management of politics, evolution of consensus, communication, allocation of resources, monitoring, control, and evaluation (Papadakis et al. 2010).

Outcome: Outcome refers to the outcome of the decision, in terms of the decision's effectiveness (speed and quality), or measured in terms of financial performance (growth in profits or sales), or even in terms of public image and goodwill generated (Papadakis et al. 2010).

2.4.3 **Triangulation of the SDM process**

The outcome of a strategic process is a gain in CA (McGrath & Kim 2015). The context sets the boundary conditions for SDM, that is, the economic, social, and competitive landscape (Papakadis et al. 2010). Context influences the content, or gives direction to what the decision should explore (e.g. new assets, acquisitions) as well as the process, or how the decision is to be implemented (e.g. time, speed, metrics) (Nutt & Wilson 2010a; Papakadis et al. 2010; Shepherd & Rudd 2014). Similarly, the content is dependent on the context as well as on the process, or what is achievable by the firm, and the process is dependent on the content (the goal) and the context (external and internal realities).

For the exploration of this thesis, with respect to creation or strategic outcomes of creativity and innovation, it implies that a firm's external realities and internal structures determine the context. The content, or the decision to implement new ideas, is driven by these realities and guided by the process through which the outcome of CA can be achieved. There are strategic tensions at play within each dimension of context, content, process, and outcome that place demands on strategic decision makers to make choices (DeWit & Myer 2004). These are depicted in Table 2-5.

As Table 2-5 reveals, SDM is a trade-off between tensions, e.g. between logic and creativity, or control and chaos, or profit and responsibility, etc. How does this trade-off happen between different decision makers and opinions?

TABLE 2-5: STRATEGIC TENSIONS

SDM Process	Topics	Tensions	
Process	Strategic Thinking	Logic	Creativity
	Strategic Formulation	Deliberateness	Emergence
	Strategic Change	Revolution	Evolution
Content	Business Level Strategy	Markets	Resources
	Corporate Level Strategy	Responsiveness	Synergy
	Network Level Strategy	Cooperation	Cooperation
Context	Industry Content	Compliance	Choice
	Organisational Content	Control	Chaos
	International Content	Globalisation	Localisation
Outcome	Organisational Goal or Purpose	Profitability	Responsibility

2.4.4 **Who is the strategic decision maker**

Consistent with the upper echelons theory (Hambrick & Mason 1984), the SDM literature has generally viewed top management teams (TMTs) and CEOs as strategic decision makers (Ridge et al. 2017; Shepherd & Rudd 2014, Nutt & Wilson 2010a; Li et al. 2013; Agle et al., 1999). Detection, development, and deployment of strategies are largely considered to be the role of TMTs (Li et al. 2013). Within ambidextrous firms, however, the role of the CEO is more critical in building explorative firms (Tushman & Euchner 2015).

The CEO and TMT are also guided by stakeholders, i.e. any individual or group that can affect or is affected by the firm's achievements (Freeman 1984: 46). The TMT and, more specifically, the CEO, are compelled to align the interests of different stakeholders while making strategic decisions and allocating strategic resources (Agle et al. 1999). The degree to which managers prioritise competing stakeholder claims is stakeholder salience (Mitchell et al., 1997). The government, the community, and the firm's shareholders, employees, and customers are its predominant stakeholders (Agle et al. 1999). The salience of the CEO and TMT to stakeholders who are part of the firm (shareholders, employees, and customers) is higher than that of external stakeholders (government and communities).

In a study exploring the influence of the CEO and TMT on the SDM process, it was noted that (a) CEOs had more influence on the process, and (b) the context of strategic decisions had a greater influence than the CEO or TMT (Papadakis & Barwise 2002).

From the above, it can be concluded that the strategic decision makers are the CEO and TMT. Collectively or individually, they provide salience to the external stakeholders and are guided by the context in which SDM occurs.

2.4.5 **How do strategic decision makers decide**

Within a single organisation, multiple thought worlds may exist, all of which are required to innovate successfully (Dougherty 1992). The four thought worlds prevalent within leadership teams may be the *technical thought world (specialist)*, *field thought world (client facing)*, *planning thought world (marketing)*, *and manufacturing thought world (implementers) (*Ridge et al. 2017*).*

These different thought worlds are likely to lead to differences in creative suggestions made by each person, which generally means an occurrence of conflicting frames (Drazin et al. 1999). In the interest of larger organisational goals, a negotiated order is likely to emerge. The individual or collective perception of external context has a significant influence on such negotiations (West 2002). Often, the dominant creative idea that emerges is dependent on which frame or individual had more power (Drazin et al. 1999).

The presence of creative people within TMT does not necessarily result in innovation (Ridge et al. 2017). This is because players fit together different versions and decisions within an SDM process while simultaneously constructing them and evolving a negotiated order (Bolander & Sandberg 2013). The common motivating factor guiding a negotiated order is context or a reduction of the pressures of external demands (Drazin et al., 1999).

External demands in the *innovation and creativity* context take the form of *uncertainty* (potentially threatening situations), *time constraints*, *competition*, and *challenge severity* (West 2002). Emerging decisions related to innovation and creativity, within these contexts, are aimed at CA and are largely a game of effective negotiation (Drazin et al. 1999).

The negotiated content, that is, the strategic decision, then guides the implementation process in terms of deciding goals, resource allocation, further activities, execution methods, distribution of tasks within a group or team, and tactics related to individual tasks (West 2002). This is depicted in Figure: 2-9.

It was mentioned earlier that creativity, in the case of the firm, is the process of *idea generation*, whereas innovation is the process of *implementation*. Creativity requires an undemanding environment (Dabila & Ditillo 2017). Therefore, external demands inhibit the creative process and performance yet facilitate effective implementation (West 2002).

As noted in the previous chapter, the creative product, for a firm, is the idea. The idea during the development stage is associated with low probability and low expertise for execution (Simonton 2015). This idea as a product of creativity interacts with the SDM (the gatekeeper or field). Within scientific creativity, this is the stage of *productive activity* (Walia 2019). West (2002) suggested that the external demands or CA context creates uncertainty, time pressures, and challenges that decision makers are bound to aim to reduce, indicating that they would not be able to pursue low probability, high risk ideas (Simonton 2015). Therefore, it appears that the productive activity, as it interacts with SDM in this manner, must end. West (2002) elaborated that it does end, and the focus shifts to implementation to tackle external demands.

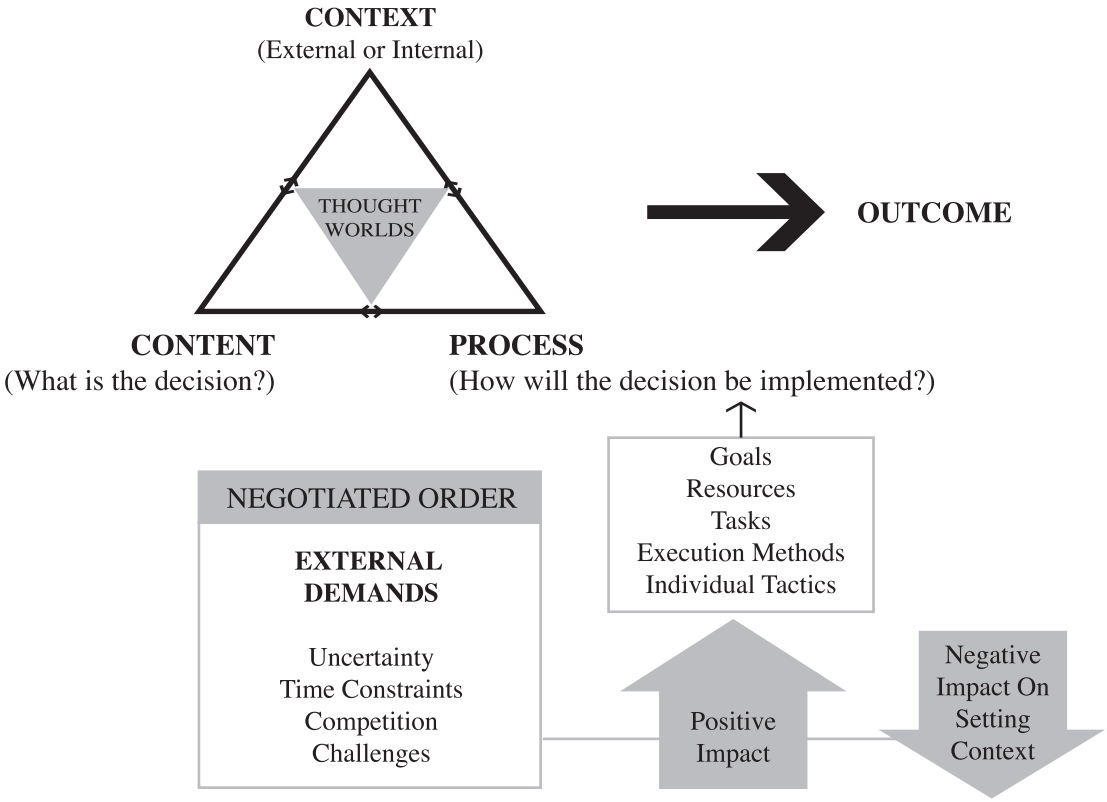


FIGURE 2-9: SDM PROCESS, NEGOTIATED ORDER, AND IMPACT ON CREATIVITY

The victim of competitive posturing is always speculation (Prince 1975; West 2002). Speculation, blind variation, or productive activity is a part of the initial creative process, as was articulated in the review of creativity earlier, suggesting that the creative process may remain vulnerable within SDM (Prince 1975: 260).

2.4.6 **Do strategic decision makers undermine the creative process?**

West's (2002) research suggested that SDM favours implementation to ideation. A study of creativity, in the context of sensemaking in organisations, was also suggestive that decision makers rush to reduce uncertainty (Drazin et al. 1999). Within the literature on strategy implementation, there are suggestions about how management control systems can be modified to encourage creativity; however, even there, the understanding of creativity is limited to producing ideas (Dabila & Ditillo 2017). Their study ends with a call

for research on the role of creativity in situations in which there are tensions between freedom and boundaries.

The fourth decision field in Figure 2-7 requires creativity and innovation to create new products. Decision makers, however, have a need to reduce uncertainty and risk. Creative ideas will, more often than not, be full of risk and low probability. It would be natural, then, for decision makers, to view the idea as the end of the process and judge it as such. The external demands lead them to put an end to productive activity and push the implementation of ideas that fit the strategic intents. It does appear that SDM undermines the creative process; however, this has not been investigated as such.

The central questions that SDM considers are. ‘Where will the firm be active?’, ‘How will the firm get there?’, ‘How will the firm win?’, ‘What will be the firm’s speed and sequence of moves?’, and ‘How will the firm capture value?’ (Hambrick & Frederickson 2001). As was noted earlier, the SDM’s strategic intents are extrinsically motivated, whereas, the creative process is intrinsically guided. The lens of CA may drive decision makers to ignore the negative consequences of their innovations, as it is quite possible for firms to achieve CA through these means (Rogers 1983; Greve 2011). Customers may view innovations such as airline baggage fees, automated phone chains, and poor service levels in a negative light (McGrath & Kim 2015). In the 1980s, Miniscribe shipped bricks to customers instead of disks to meet their targets; in 1993, Bausch and Laumb falsified financial statements to achieve their goals; and lawyers and consultants fudge their billable hours (Ordóñez et al. 2009).

A study of entrepreneurship throughout different periods of history revealed that rent seeking may push entrepreneurship into unproductive activities and even organised crime (Baumol 1990). Companies such as Coca-Cola, Diageo, Kraft, Mars, Nestlé, PepsiCo, Philip Morris, SABMiller, and Unilever are market leaders producing products that are leading causes of death and disease (Moodie et al. 2013). Some of the products

manufactured by these companies were identified as leading causes of non-communicable diseases (NCDs) at the 2011 UN high-level meeting on NCDs (Moodie et al. 2013). Similarly studies on the collapse of Lehman Brothers suggested that managers at Lehman pursued over leveraged strategies (Greenfield 2009), however no one working with the CEO ever acknowledged that their positions ver over-leveraged as anyone who strategically disagreed was scared to communicate to the decision makers (Stevens & Buechler 2013).

What constitutes value creation for one firm may sometimes be a result of creating high risks for the society at large (Curran 2015). Would this then constitute as value creation? These argument raise another research question.

RQ3: Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole?

The question is relevant because the strategic intent literature largely assumes positivity associated with resultant innovation. The question is also connected with RQ1 in exploring the role that strategic intent has on creative outcome, as it is exploring creation of potential negative value. The question also raises possibilities to be explored for RQ2 with respect to their effects on collective outcomes. However to examine RQ3 further, it is necessary to examine the creation of negative outcomes and how they come about.

2.5 Negative Creativity and Organised Irresponsibility

When the goal is to exploit individuals, groups, institutions, or organisations, the resultant activity is negative creativity (James et al. 2010). In competitive situations, most strategic creativity is intended to disadvantage others (Jasper 2010). Competitive aggressiveness is the most powerful driver of the SDM process, and it influences both rationality and communication (Papadakis & Barwise 2002). That the goals of the firm supersede its creative and innovative intent was noted way back in 1969:

It is often assumed that an economy of private enterprise has an automatic bias towards innovation, but this is not so. It has a bias only towards profit (Hobsbawm, 1969: 40).

The known health defects produced by consumption of products manufactured or distributed by some of the leading multinational companies have been termed *industrial epidemics* (Jahiel & Babor 2007). Some of their products were identified as leading causes of non-communicable diseases (NCDs) at the 2011 UN high-level meeting on NCDs (Moodie et al., 2013). NCDs accounted for 63% of the 57 million global deaths in 2008 (World Health Organization 2011). These epidemics are related to the consumption of ultra-processed foods representing a high dietary share (of total energy) in many countries: United States (58%), UK (53.1%), Canada (48%), and France (35.9%) (Rauber et al. 2018). Similar consumption patterns are rising in developing countries (Moodie et al. 2013). This is alarming because studies have found that a 10% increase in the proportion of ultra-processed foods in the diet corresponded to a 12% increase in the risk of cancer (Fiolet et al. 2018).

2.5.1 **What is negative creativity**

The standard definition of creativity includes novelty and utility as key elements (Runco & Jaeger 2012); however, utility is considered to be subjective. In other words, what is useful to one person could be harmful to another, e.g. tax evasion, theft, stealing industrial secrets from competitors, and the like (James & Taylor 2010). Perceptions of injustice lead individuals to create ideas directed towards harmful goals (Clark & James 1999). This was later termed *negative creativity,* as it reduces creativity directed towards a positive outcome (James & Taylor 2010).

Therefore, even attempts at *sustainability, social responsibility*, and *shared value,* though well intended, can be misleading (O'Toole & Vogel 2011). The products and processes of the firms practising these may not always be harmless. BP was regarded as

the ‘greenest’ energy company and then as the most environmentally destructive one within a decade (O’Toole & Vogel 2011). At Apple, 636,484 employees were laid off in the United States between January and May 2012 to maximise profitability (George 2014). Working conditions at its Chinese Foxconn factory have also been questioned: An explosion in 2011 killed and injured workers, and suicide attempts were reported in workers’ dormitories (Duhigg & Barboza 2012). Leaders of firms are often rewarded for profit maximisation and shareholder returns.

Regardless of the players’ intent, the world is facing their negative creations, as reflected in issues such as global warming, disappearance of the ozone layer, proliferation of nuclear weapons, terrorism, unequal income distribution, and other such problems (Sternberg 2010). Two factors are relevant for understanding the negative side of creativity: utility and intent (Cropley 2010). Cropley (2010) noted that utility could be positive or negative, and intent could be malevolent or benevolent. It is not necessary for a malevolent intent to exist to create a negative outcome.

Developing on the studies of increasing risks (Beck 1992, 1999; Giddens 1990, 1999) and inequalities (Atkinson et al. 2011; Piketty 2014), Curran (2015; 2018) coined the term ‘organisational irresponsibility’ (OI). OI is defined as a relationship between agents (individuals, organisations, or nation-states), in which their actions commutatively generate risks and damages for others; however, distinct agents can minimise or avoid culpability (or responsibility) because of complications in tracing the harm to any one agent’s harmful action (see Curran, 2015, 2018). In other words, organisations contribute to societal risk, but the harm they cause remains indeterminable due to the complexities in tracing the harm to the agent. Large organisations, especially, benefit from this by accruing profits, spreading risk, and avoiding consequences, even though society as a whole may be worse off. The profits accruing from the global financial crisis, worsening climate change, and plastic waste crisis are greater than any selective punishments imposed on

corporations (Curran 2018). The harm or the negative creations are visible; however, no particular firm can be held responsible, as the responsibility remains indeterminable.

Competitive pressures may drive decision makers towards a negative outlook or state of mind. This provides a situation trigger to use creative ability and expertise negatively or to at least ignore or overlook the negative aspects of innovation. As such, the resulting outcomes can be conscious malevolence, failed malevolence, or even failed benevolence (Cropley 2010).

Gascón and Kaufman (2010) pointed to the work of Yochelson and Samenow (1976) and Walters (1990) to explain this behaviour. These authors viewed deviant behaviour as distorted thinking patterns which they outline as thinking errors, or mental processes that are indispensable to achieving certain outcomes. They suggested that deviance is influenced by situations, and situations create belief systems that justify negative creativity.

However, considering these acts of negativity, studies have emerged within strategic management on *virtuous* or *conscious capitalism* (O'Toole & Vogel 2011) and *shared value creation* (Porter & Kramer 2011). Crane et al. (2014) traced their emergence from *corporate social responsibility* or *non-market strategy* (Baron & Diermeier 2007), *social entrepreneurship* (Mair et al. 2012), *social innovation* (Hanleybrown et al. 2012) and *bottom of the pyramid* (Prahalad & Hammond 2002) ideologies. There are also studies on *wicked problems* (Head 2008, 2019) that were reviewed briefly in Chapter 3, or *responsible innovations* (Guston 2015).

Whereas most of these studies are well intended and aim to solve the problem by advocating a different approach, a question does arise. Why do firms need to advocate 'responsibility' in innovation? Does it imply that innovation is irresponsible or that value creation is not a shared activity? These questions need to be examined in the context of capitalism to understand the mindset in which the firm operates.

2.5.2 **Capitalism perpetuates self-interest**

Capitalism perpetuates achievement of goals by employing capital for fulfilment of the employer's self-interest (Kasser et al. 2007). Adam Smith, often regarded as the grandfather of capitalist thought, concluded the following:

> It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity, but to their self-love, and never talk to them of our own necessities, but of their advantages.

Capitalism encourages the pursuit of self-interest amidst competition and engenders a 'winner-takes-all' mindset (Frank & Cook 1995). For example, the richest 1% of Americans own 40% of the country's wealth, whereas the bottom 80% own only 7% (George 2014). Capitalism encourages the values and beliefs of achievement through hard work, individualism, and even greed (Wang & Murnighan 2011). Legal systems, governments, stock markets, media, trade organisations, and other institutions form the system supporting this ideology (George 2014). Despite the advantages, capitalism does not always consider environmental costs and may lead to exceptionally high-level inequitable wealth distribution between nations and capitalist countries' populations (O'Toole & Vogel 2011). Nevertheless, capitalism has many strong points: Technological advancements, provision of valuable goods and services, newer and more effective means of communication, simplification of access to travel, and medical treatments and advancements lead many to conclude that capitalism is the only way to successfully organise economic life and that 'there is no alternative' (TINA; Kasser et al. 2007).

Firms within capitalist economies pursue extrinsic goals of achievement of wealth, power, and financial dominance (George 2014; Kasser et al. 2007). Arguments that these goals are the primary reason for technological and other innovations can be contested, as theories on creativity indicate that people creating novel and useful creations are intrinsically motivated (Hennessey & Amabile 1998). Drucker (1954) noted that profit is

essential for firms to survive, invest in innovation, and expand their business. Innovation is the key to competitive advantage (CA); however, as discussed earlier, the advantages are transient, at best, and erode over time. Firms tend to overlook the negative consequences of their actions in their drive to exploit profits before they disappear (Jasper, 2010; Kampylis & Valtanen 2010). In economic terms, firms experience unanticipated relationships between individual decision making and collective outcomes (Schelling, 1978). These strategies that produce undesirable or harmful outcomes are examined in different studies as *negative creativity* (James & Taylor, 2010; Jasper 2010), *negative innovations* (McGrath & Kim, 2015), *irresponsible innovation* (Guston, 2015), *adverse psychological effects* (Kasser et al., 2007), *OI* (Curran, 2015, 2018), and *wicked problems* (Head, 2019).

Guston (2015) highlighted that many scholars are tempted to *stay above the fray* and not point to irresponsibility when observed, which may explain why acts are described as *negative* (creativity or innovations), instead of destructive. What is the reason for creating a false positive?

2.5.3 **The innovation dilemma**

Not all creative behaviour is negative, and not all negative behaviour is linked to creativity (Gascon & Kaufman 2010). Certain views have suggested there is no need to identify creativity as either positive or negative (Runco 2010). McLaren (1993) argued that a significant amount of creative effort has existed in the service of meeting negative ends. Even researchers who argued that creativity need not be labelled have agreed that it does and reflected that creativity depends on intentions and decision making (Runco, 2010).

Strategy is central to numerous social situations, and, in firms, it represents an innovation dilemma (Jasper 2010). CA is transient or temporary (McGrath & Kim 2015). Once CA begins to erode, the pressure is on the firm to take advantage of the innovation,

rather than worry about the negative consequences, and this is the dilemma that is characterised in the whole of game theory (Jasper 2010). Strategic creativity backfires in this manner because, as game theory explains, it spirals into a series of events that work to the disadvantage of all players (Jasper 2010). In economic terms, firms experience an unanticipated relationship between individual decision making and collective outcomes (Schelling 1978). Game theory can help us understand the way decision makers interact and pursue their objectives in context with the expected behaviours of other decision makers (competition) (Osborne & Rubinstein 1994). The firm must gain irreversible gains in the short run, because in the long run, the player is bound to lose (Piven 2006)

2.5.4 **Explaining the TINA mindset**

Competitive pressures and the resultant performance leads to a strategic problematic search within firms— a gap between performance and aspirations (as explored earlier). Thereafter, it drives the strategic decision-making process for formulating strategies. Firms tend to overlook their actions' negative consequences, given their drive to exploit advantages before they disappear (Jasper 2010). Curran (2018) dismissed the notion that the negative effects are 'ordinary harms' and suggested they were highly technical and siloed expert actions that commutatively cost the economy trillions of dollars (Walia & Sharif 2020). The causes and conditions resulting in significant harm are distributed in ways that prevent the attribution of legal responsibility. *Organisational irresponsibility* avoids systemic consequences (Curran 2018) and creates the possibility of treating this as a 'runaway world' that is uncontrollable, given the complexities of determining risk causation (Beck 2004; Curran 2018; Giddens 1990).

The TINA mindset perpetuates the helplessness expressed in alleviating harm (George 2014; Kalleberg 2011). Agents' actions within the *principle of OI*, intentionally or unintentionally, are 'destructive' and yet unattributable to them (Curran 2018). Innovation

within the neoliberalism modernisation paradigm (Grossman & Krueger 1995) is understood to be economically profitable and inherently good (Blok & Lemmens 2015). Creativity and innovation are considered essential for meeting the challenges of the 21st century. Buzan (2007; vii) stated that

it is a globally accepted awareness that right now any individual, company, or country wishing to survive in the twenty-first century must develop the brain's seemingly infinite capacity to create and innovate.

Florida (2004) directly related progress in the United States to creativity by attributing the country's success to its openness to ideas and its efforts to attract creative people to work in the country. The positive effects of creativity and innovation are therefore entrenched in our minds (Cropley 2010). These may even be strong arguments to support the TINA narrative that negative creativity cannot be attributed to agents (OI) but may just be a small capitalist price to pay. Moreover, no one can be against values such as responsible innovation (Guston 2015), social sustainability (Jackson & Nelson 2004), moral capitalism (Young 2003), humanistic management (Pirson & Lawrence 2009), conscious capitalism (O'Toole & Vogel 2011), shared value (Porter & Kramer 2011), and social entrepreneurship (Dacin et al. 2010). These theories generally accept that businesses are not solely created and cannot solve all global problems. While they are important in elevating social goals to a strategic level, three concerns emerge (see Walia & Sharif 2020):

1. The circumflex model of values (Grouzet et al. 2005) shows that benevolence, universalism, and self-direction are psychologically opposed to capitalism's goals of achievement and power. The first concern is therefore the concern of mindset.

2. George (2014) observed that members within firms with the most resources to act with compassion—defined as being responsive to suffering—may be the least likely to do so. The second concern is of primary intent.

3. The *OI principle* states that increasing the number of legal agents further increases the complexity of attributing responsibility following the generation of social harm or risk. The third concern is the complexity associated with tracing negative creativity.

Furthermore, modern-day solutions are leaning towards a 'higher form of profit' (Driver & Porter 2012) by creating shared economic value. This distracts attention from the negative acts and increases the complexities of OI. For example, Coca-Cola and Nestlé are said to have created shared societal value (Crane et al. 2014) but are also included in a list of the top companies that may be responsible for spreading NCDs (Moodie et al. 2013).

At the firm level, firms may capture economic value by selling goods or services and expanding value to multiple stakeholders for further value creation (Porter & Kramer 2011). However, if goods and services are harmful to society in general, it may be that OI as responsibility is not only indeterminable but also expanded to multiple legal agents (Curran 2018). In such a scenario, regardless of the intent, if the outcome is a negative creation, could it have occurred without the gatekeeper (decision maker) allowing it into the creative field? The integrative creative framework (Chapter 1) evaluates the decision maker as being a critical aspect of judging and directing the creative potential. The decision maker may well be compelled by economic–competitive realities. Does that mean the TINA effect takes over in the interest of perpetuating economic growth (Kasser et al. 2007) and becomes an accepted form for overlooking negative consequences?

2.5.5 **What may trigger a negative outcome**

Concluding that some form of creativity may be positive or negative may appear to require a value judgement which may remove the occurrence from scientific relevance (James & Taylor, 2010). However, this approach considers a negative creation be one in which the harm is established: It does not attribute harm to the creative process, as it is

unobservable. The following points (see James & Taylor 2010) demonstrate the constructs that may lead to positive or negative creations and also have scientific utility.

The decision-making intent: Runco et al. (1997) reviewed a significant amount of research to conclude that creative thinking depends on judgement. Much of what is studied as negative creativity is related to the intent, to determine whether the creativity was positive or negative (Cropley 2010).

The creative process is largely unobservable. Creativity may be 'intent neutral'; i.e. the productive activity itself moves in the direction of the intent and may not be visible as negative or positive. However, the creative outcome is visible. The creative outcome, as judged or influenced by the decision maker's intent, influences the creative process itself.

Murray (2003) discussed how Einstein did not aid the development of nuclear weapons with his work that summarised the $e = mc^2$ equation, but he did facilitate it. Similarly, Murray (2003) suggested that the inventors of the internal combustion engine were not trying to achieve air pollution, but their creation did substantially contribute to that end. The creative process, as can be seen in these two examples, is independent of the end result. The result, in terms of usability, functionality, or profitability (or the lack thereof) remains with the decision makers who decide such outcomes. As Murray stated

> *What belongs in the hall of fame of unintended consequences … are otherwise wonderful accomplishments that inadvertently contributed to some truly awful outcomes.*

Creativity is goal-directed: Some aspects of negative creations may well be intentional. Positive goals such as solving problems or improving processes or products lead to positive creative efforts, whereas negative goals such as intent to do harm or exploit individuals or institutions lead to negative creative efforts (James et al. 1999). Clark and James (1999) also found that perceptions of injustice may trigger a creative process in

individuals that will lead to harmful outcomes. This is relevant because it indicates that a negative act within an industry might trigger that perception in competing firms.

Perceptions of autonomy: James and Taylor (2010) concluded that perceptions of autonomy influence creative outcomes. They suggested that processes that give autonomy (or control) to the creators enhance positive creative processes, while authoritarian styles may facilitate the opposite. The lack of perceived control may lead to emotions of anger and distress (Cooper et al. 2001), and negatives states usually trigger a negative creative process.

In management terms, there is rarely complete autonomy available to managers at large to formulate strategic problems and goals, as these are mainly the functions of TMT. Does this imply that the lack of autonomy coupled with the pressures to deliver on the strategic objectives could lead to negative outcomes? Studies have shown: (a): that negative thinking activates negative goals (Goodhart 1985), (b): that time pressures inhibit (positive) creativity (Amabile et al. 1996), and (c) that uncertainty puts an end to the creative process (West 2002).

Fairness: Studies have found that people who were treated fairly showed creativity towards positive outcomes, and people who were treated unfairly showed creativity towards negative ends (James & Taylor 2010).

Pseudo-transformational leadership: Certain types of transformational leader, who Bass & Steidlmeier (1999) termed pseudo-transformational leaders, use their charisma towards selfish, corrupt, and criminal purposes. Transformational leadership could then influence individuals and groups to pursue negatively creative goals.

Past successes: When people become successful through a particular strategy, they often become focused on implementing that strategy to solve future problems (Goncalo et al. 2010). This will constrain people's abilities to come up with newer perspectives to generate ideas. For example, if a firm has experienced success by being

negatively creative, the framing might prevent the decision makers from questioning their organised irresponsibility. Rather, it may encourage them to pursue the same strategies for further gains.

2.5.6 **Strategic intent and negative creativity**

There is evidence to suggest that decision makers cannot be guided by creative potential or even by the creative process. Their primary guiding force is an economic mindset (Mueller et al. 2018). Boudreau et al. (2016) elaborated that even domains such as academia, which prize theoretical novelty, reject ideas that are too novel. Akerlof's paper, 'Market for Lemons', which won the Noble Prize in economics, was initially rejected by the editors, who suggested it was trivial (Mueller et al. 2018). Research has suggested that decision makers are guided by suitability over novelty (Csikzentmihalyi 2014), budgetary concerns (Mollick 2012), profit goals (Ford et al. 2008), and the need to ensure that their chosen ideas succeed (Stevens & Burley 1997).

Whether in business, politics, or other fields, actors are observed to cheat for profit and power, make and interpret laws ambiguously to use loopholes, and create moral violations (Meshkova & Enikolopov 2020). However, within the principles of OI, negative effects and social risk (Curran 2018) may have a pattern of production, but one cannot link them to an agency owing to the nature of the available information.

Creativity is a motivated task (Amabile & Pratt 2016), and motivation for this behaviour is available from the profit payoffs as explained above. The leaders of a firm play an important role in malicious or negative creations (Meshkova & Enikolopov 2020). The decision-making role activates an economic mindset that promotes prioritisation of accuracy, rationality, and self-interest (Molinsky et al. 2012). The competitive forces within an economic mindset establish the framework for unethical motivations (Kilduff et al.

2016). The principles of organised irresponsibility that ensure responsibility for negative creations remains illusive provide a legitimate cover to these occurrences.

Screening, evaluating, and authorising ideas is part of the selection process of strategic decision makers (Mintzberg et al. 1976). There is immense pressure on decision makers, as it takes more than 3,000 ideas to achieve one economic success (Stevens & Burley 1997). The organisation's performance, in terms of economic success, is attributed to the decision makers. As such, the decision maker will be at the centre of performance, whether it is attributed to a creative outcome that is negatively or positively creative.

2.5.6 **Negative creativity in context to research questions**

The decision-making process follows seven steps: defining the problem, identifying the factors, developing solutions, analysing alternatives, selecting the best alternative, implementing the solution, and evaluating the result (Panpatte & Takale 2019). Strategic problem formulation as discussed earlier pointed out that strategic problems are largely considered a gap between performance and aspirations. Here, too, the research has pointed to an economic mindset guiding the decision-making process, again indicating that the problem perception that provides a trigger for the creative process is predetermined by the strategic intents of competitive advantage and profits. This further indicates that the conditions under which creativity is guided within a firm are mainly fixated on the economic domains of competitive bets and rent generation. This would provide the foundation for problem formulation and creative direction, as shown in Figure 2-10.

The model in Figure (2-10) explains that the conditions lead to a strategic problem formulation that will direct the flow of creative thinking to generate ideas. The ideas will determine (a) the goals (malicious or legitimate) and (b) the implementation, and the implementation will determine the means to achieving the goals which could be legitimate or malicious. Based on these, the resulting outcomes (in the negative case) can be

classified as malicious or negative creativity. The present analysis of negative creativity and the model for understanding negative creativity allows for the following conclusions to be drawn: (i) creativity outcomes can be both positive and negative, (ii) the creative outcomes need not be designed to be negative, (iii) the responsibility for negative creations may remain unattributable to an agency. (iv) creative potential is not decision makers' primary concern, and (v) strategic objectives determine problem formulation, and problem formulation determines the direction of creation.

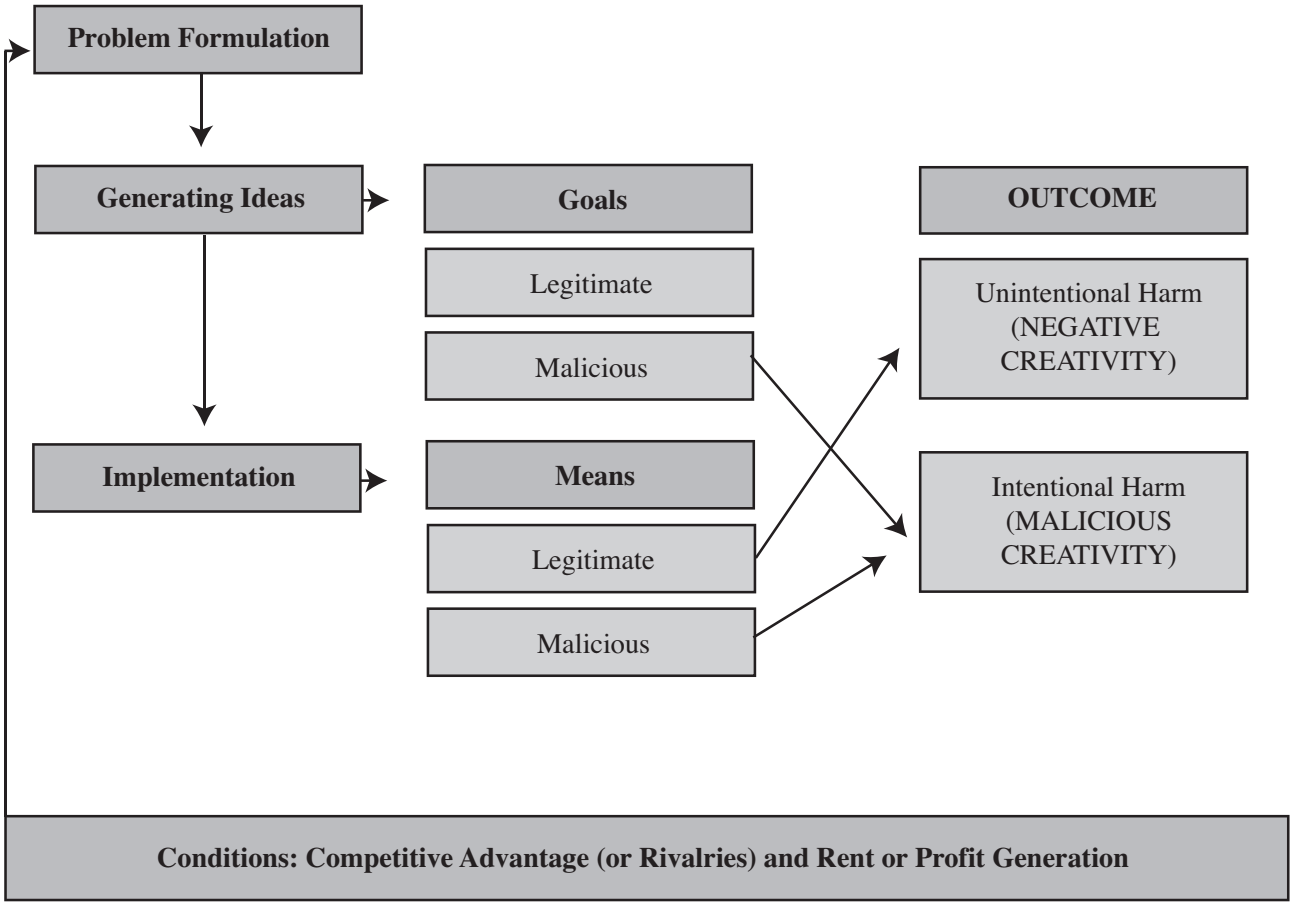


FIGURE 2-10: MODEL FOR NEGATIVE CREATIVITY (ADAPTED FROM MESHKOVA & ENIKOLOPOV 2020)

In context to the research question, (*RQ3: Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole?),* that negative creations exist has been evidenced above. It has also been observed that strategic intent provides direction for inducing ideas for the future. However it is not specifically known if

the intent of being competitively advantageous or rent maximisation itself induces negative creativity. That firms may resort to competitive battles is established (Jasper 2010), but whether the decision makers resort to negative innovations as a result is not yet established.

2.6 Synthesis of the Literature and Body of Knowledge Gaps

Based on the literature review documented here, Tables (2-6) is developed to show the development of the literature review and body of knowledge gap. More than 150 important references were reviewed and referred to in this thesis. Each sub section of the literature review referred to key theory that described the headers, supported with other evidence, critique and supplementary theories. Therefore instead of synthesising the entire literary references which are mentioned in the reference section of this thesis, Table 2-6 represents the key theories that helps in understanding the development of this literature review and also identifies the gaps in the body of knowledge reviewed herein.

An examination of the work shown in Table (2-6) indicates that the literature has shown an interest in creativity and innovation, as independent disciplines as well as in business strategy and decision making. However, the literature fails to address how strategic intent drives creative outcomes, in what direction, and what is its impact on total value creation. The four gaps in Table 2-6 highlight the need for exploring further the correlations between strategic intent and creative outcomes. In particular to explore whether strategic intent can lead to negative outcomes, what is the impact of problem discovery as a primary strategic intent, and if negative outcomes are an effect of strategic decisions.

TABLE 2-6: KEY THEORIES IN LITERATURE REVIEW AND KNOWLEDGE GAPS

Chapter	Reference	Description	Gaps
Strategic Intent			
2.1 Strategic intent	Hamel & Prahalad 1989	Focus of strategic intent.	
2.1.1 Strategic intent and elements	O'Shannassy 2016	Literature reviews on strategic intent.	
	Mantere & Sillince 2007	Strategic intent and its effect on organisational members.	
2.1.2 Competitive advantage and rent	Williamson (2006)	Strategic assets and decay.	G1: Strategic intent is assumed to be positively innovative
	Volberda (2006)	Rent and exploitation.	
2.1.3 Erosion of competitive advantages	McGrath & Kim 2015	Transient competitive advantages	
2.1.4 Competitive instinct and unethical behaviour	Kilduff et al. 2016	Heightened competitive forces and unethical behaviour.	
Creativity			
2.2 Creativity	Amabile 1983; Sternberg & Lubart 1995; Boden 2004; Runco & Jaeger 2012; Simonton 2012; Weisberg 2015	Definitions of creativity and creativity as understood by firms.	
2.2.1 Creativity and expertise	Baer 2015	Creativity requires an element of expertise.	
	Runco 2014	Too much expertise can cause functional fixedness.	
2.2.2 Creativity (the process)	Simonton 2012, 2015	The process involves ideation through productive activity.	
2.2.3 Creation (the performance)	Runco & Kim 2018	Creativity is different from creation. Creative potential may not equate to creative performance.	
2.2.4 Creative (the judgement)	Csikszentmihalyi 2014	Acts are considered creative once decision makers acknowledge that they are.	
Strategic Problem Formulation and Framing			
2.3.1 Strategic problem formulation	Nickerson et al. 2012; Nickerson & Argyres 2018; Posen et al. 2018	Probelimistic search theories: problems are considered as gaps between aspiration and performance.	G2: Strategic intent is supposed to encourage creativity, however unique problem discovery is not considered as strategic intent. Problem discovery is critical to creative processes.
2.3.2 Problemistic search is evaluative and not creative	Ims & Zsolnai 2009	Weaknesses of problemistic search is the need to wait for things to take a downturn.	
2.3.3 Limitations of strategic problem formulation	Mitroff 1998	Errors of the third kind: businesses may end up precisely solving the wrong problem.	

Chapter	Reference	Description	Gaps
Strategic Decision Making			
2.4.1 What is strategic decision making and how is it different from other decisions?	Rosenzweig (2013)	Four types of decisions	G3: Decision making as a unit of analysis is largely absent in studying the correlation of strategic intents, creative outcomes, and negative creativity.
	Mintzberg (1987)	5Ps: Plan, ploy, pattern, position perspective.	
2.4.2 How does a decision unfold	Papadakis et al. 2010	Strategic decision making process.	
2.4.3 Triangulation of the SDM process	DeWit & Myer 2004	Strategic tensions at play within each dimension of context, content, process, and outcome	
2.4.4 Who is the strategic decision maker	Ridge et al. 2017	CEO and TMTs as decision makers.	
2.4.5 How do strategic decision makers decide	Drazin et. al. 1999	Negotiated order and sensemaking in decisions.	
	Ridge et al. 2017	Collision between thought worlds.	
2.4.6 Do strategic decision makers undermine the creative process	Moodie et al. 2013	Suggestion on production of harmful effects as a strategic pursuit.	
	Greve 2011	Firms may ignore negative consequences of their innovations.	
Negative Creativity and Organised Irresponsibility			
2.5.1 What is negative creativity	James et al. 2010	Definition of negative creativity as exploitation.	G4: Negative innovation and negative creativity has not been considered as a creative outcome of pursuing aggressive strategies
	Curran 2015,2018	Concept of organised irresponsibility i.e. production of harm without associated culpability.	
2.5.2 Capitalism perpetuates self interest	Kasser et al. 2007	Capitalism perpetuates achievement of goals by employing capital for fulfilment of the employer's self-interest.	
2.5.3 The innovation dilemma	Jasper 2010	Innovators dilemma and negative innovation	
2.5.4 Explaining the TINA mindset	George 2014; Kalleberg 2011	The TINA mindset perpetuates the helplessness expressed in alleviating harm.	
	Walia & Sharif 2020	Three strategic concerns: capitalist goals are opposed to benevolence, member within firms may be opposed to behave compassionately, and tracing negative creativity is complex.	
2.5.5 What may trigger a negative outcome	Cropley 2010	Malevolent and benevolent creativity	
	James & Taylor 2010	Constructs that lead to negative creativity	
2.5.6 Strategic intent and negative creativity	Meshkova & Enikolopov 2020	Whether in business, politics, or other fields, actors are observed to cheat for profit and power, make and interpret laws ambiguously to use loopholes, and create moral violations	

Various peer-reviewed publications have been reviewed to develop an understanding of strategy and creativity. Creativity literature is inter-disciplinary. The literature on strategic intent, SDM, strategic problem formulations, organised irresponsibility and negative creativity have also been reviewed, with a specific focus on publications that study creativity. Other supporting literature such as the one on sensemaking, ambidextrous organisations, organisation behaviour, ethics and alike have also been referred to wherever the literature was studying creativity or innovation. The synthesis shows that creativity is a topic gaining relevance in management and strategy. However, as the literature review has pointed out, the understanding of creativity within management, hasn't evolved to consider all of its aspects. That is a considerable gap. Moreover, a recent stream of literature on negative creativity has hardly been analysed in strategy making or in decision making.

The synthesis of the literature also points to CA being a central focus of strategic intent. Therefore studies of creativity within management have also related creativity to be a source of CA. Whereas in scientific discoveries creativity is considered first a source of problem perception. This is another example of a knowledge gap, the consequences of which have not been explored yet. Literature has explored building dynamic capabilities, cultures, and environments, that support or encourage creativity within firms. However, as mentioned many times before, that creativity is merely equated to ideation towards building CA. It can be agreed that CA, itself is a dynamic field and requires constant flow of ideas, but it can't be ignored that studies of creativity have shown that perception of an unknown problem has led to transformative works.

The learning from literature review has been that most research on creativity has focused on individual as a unit of analysis; most research on strategy and innovation has focused on CA as a measure; research on SDM has focused on relating outcomes to the decision; research on strategic problem formulation studies the gap between performance

and aspirations by using problems as a unit of analysis. Within each of these creativity is considered a sub element; and negative creativity is largely unstudied in management.

2.7 Summary

This chapter reviewed the current literature and identified research issues that determine the literature gaps and points to a need for investigating the impacts of strategic intents on creative outcomes. The review has outlined the background theory and narrated research questions that need further investigation. The critical review of literature has emphasised that strategic problem formulations and subsequent decision making in firms emanating from strategic intents may have serious consequences on creative outcomes that haven't been previously analysed.

As presented in Figure 2-1 at the beginning of this chapter, review of representative studies of strategic intent in strategy theory and research (Table 2-1) arose RQ1 (What role does strategic intent play in determining the direction of creative outcomes?). This led to an interdisciplinary review to study creativity and differentiate between the creative process, creation and the judgement of creative acts. Creativity studies indicated discovery of problems as a trigger to activity that leads to realisation of creative potential. This gave rise to RQ2 (What strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively? This led to examining the literature on strategic problem formulations that indicated that problem perception is am outcome of a gap between desired and actual performance. Creative ideas are sought mostly to fill these gaps. The literature on problem formulation indicated that strategic problems set the context for SDM. SDM literature was then examined to understand the process for strategic decisions in firms. It was discovered that outcomes of strategic decisions need not always be positive. This raised RQ3 (Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole?). To

understand the implications of RQ3, literature on organised irresponsibility and negative creativity were studied. These indicated that though negative creations exist, they haven't been attributed to firms because of the principles of organised irresponsibility. Therefore the correlation of strategic intent and decisions to creative outcomes, positive or negative, needed further investigation.

The detailed and focused literature review also helped address the basic need for the three research objectives. The first objective could be clarified through understating the elements of strategic intents and by breaking down the understanding of creativity into three dimensions i.e. process, creation, and judgement. The specific testing of the hypothesis that is developed using this background theory will help address the *second objective* and establish a basis for future research. The outcome of the research would create a creative-strategic model towards completion of the third objective.

The next chapter develops a conceptual framework that hypothesises the impact of a firm's strategic intent on its creative outcomes.

Chapter Three — Conceptual Framework and Hypothesis

The possible linkages between strategic intents, problem frames, decisions, and resultant creative possibilities were presented in the previous chapter along with the research questions. In this chapter the hypothesis are established in order to study the impact of proposed relationships.

The problem statement, research questions, and the gaps identified in literature review in Chapter Two are summarised within the framework, and considered in developing the hypothesis. Reflecting on the previous two chapters, the outcome of this chapter forms the basis of the appropriate research design needed for the study. A novel framework is established here describing relationships between strategic intents and creative outcomes. A conceptual or theoretical framework must represent how variables are related in the model, and explain how variables combine together to form a theory (Sekaran & Bougie 2016).

The research framework presented here would be a graphical illustration of how the phenomenon (concepts and variables) is interdependent (model), and explain why the variables are associated with each other (theory) (Sekaran & Bougie 2016).

Specifically focusing on research in business, three steps are essential in establishing a conceptual frame work (Sekaran & Bougie 2016). These are:

1. Defining concepts and variables in the model.
2. Developing a conceptual model that represents proposed theory (i.e. the hypothesis).
3. Explaining the theory through relationships between variables in the model (i.e. the theoretical framework).

This chapter is therefore organised within these three steps. However before expanding on the concepts, variables, and theory, it is essential to arrive at an integrated framework for understanding creativity itself. This is because the literature review (2.2)

pointed out that the current understanding of creativity is synonymous with creation, specifically within firms. As a result it becomes difficult to study creativity independent of the outcome. Moreover it was discussed that the process of being creative is largely unobservable, and is derived in hindsight based on whether the creation was novel and useful. Furthermore the process of creativity is neutral to being positive or negative, and this study proposes that the journey from intent to outcome is judged based on the decisions taken, based on which the direction of creative efforts could be ascertained as negative or positive. Figure 3-1 depicts an integrated framework for creativity that is based on literature review in Chapter Two (2.2). The integrated framework will then be used to form the conceptual framework and hypothesis for research.

3.1 Building the Integrated Framework for Creativity

As noted in Chapter Two (2.2), creative outcomes emanate from combinatorial associations that are then converged to construct original and novel solutions (Simonton, 2015). From the theoretical frameworks explained therein, an integrated framework for creativity can be structured as depicted in Figure 3-1.

The integrated framework explains that the person and press (environment) (Rhodes 1960; Runco & Kim 2018) leads to an identification of a problem (Walia 2019). This triggers productive activity (Vygotsky, 2004) which is a combinatorial association of ideas (Simonton, 2015). The process of *blind variation selective retention i.e. divergence-convergence* ((Simonton, 2015) or Wallas's creative process (Eugene, 2015)) determines idea selection. The selected idea, presuming it has high utility, could still be high or low in creativity, depending on the creator's environment and pressures. Once the idea is selected, it must be implemented and translated into a tangible product or solution. The product then interacts with the field or gatekeepers, and the field decides whether or not to introduce the creation to the culture.

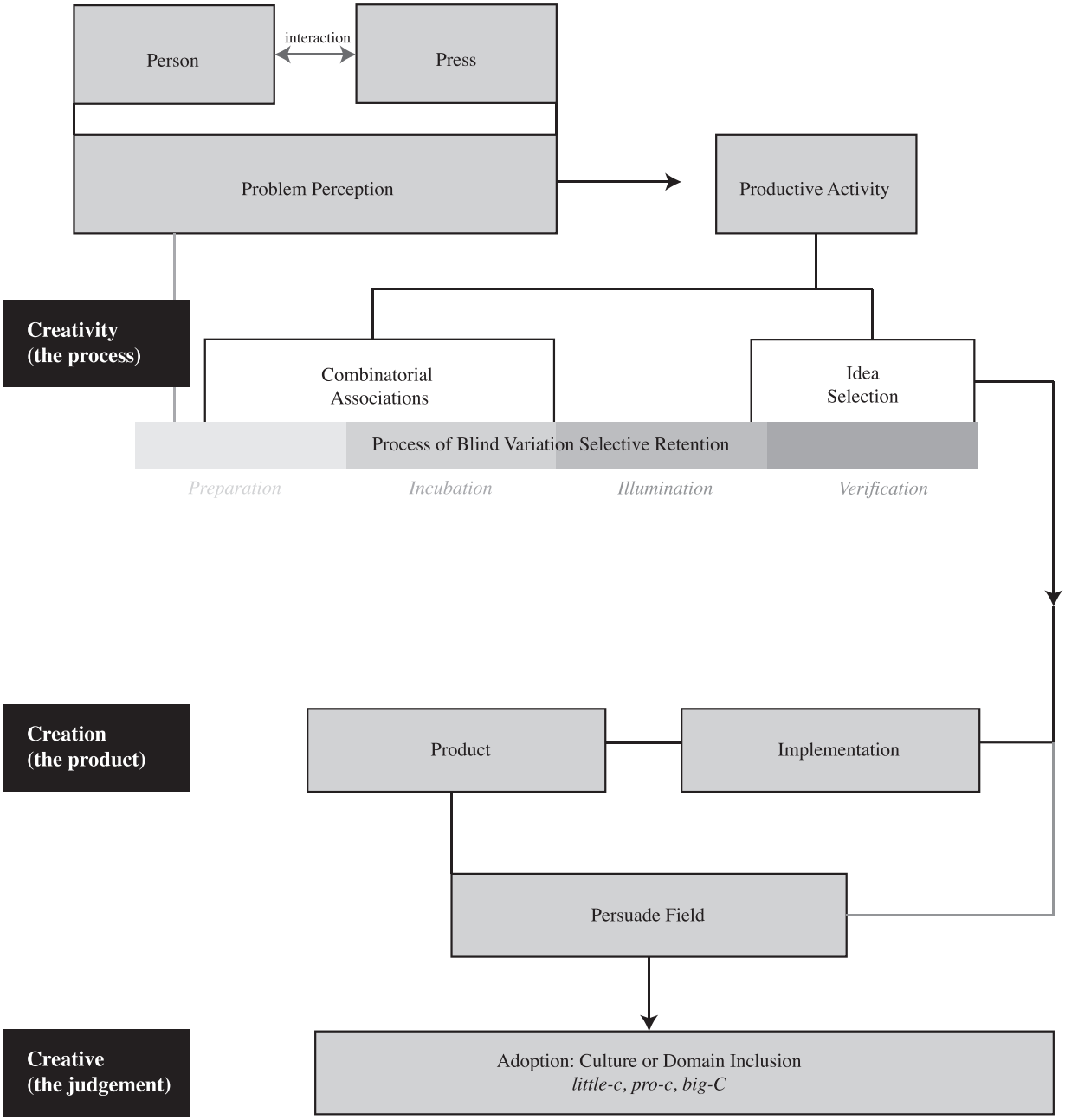


FIGURE 3-1: INTEGRATED FRAMEWORK FOR CREATIVITY

Based on whether the result was a little-c or Big-C outcome, the creation can be either contributive or creative (includes contribution), where each is high on utility. It must be noted that even expertise can produce high utility, and that may be considered by the field for inclusion. At the stage of idea selection, probability and knowledge would have increased for the creator, relative to the initial stages of combinatorial association.

However, at the perception level, if the idea was to interact with the field at this stage, probability and knowledge remain low, as the increase is still mainly an internal reality of the creator. Through implementation, the non-obvious is made obvious, and the creative work then appears to be deliberate expertise within the domain (Simonton 2015).

It was noted earlier that the firm views an idea as a creative product. Within the integrated framework for creativity (Figure 3-1), this effectively indicates that the idea itself interacts with the field or gatekeepers as a creative product. The field, in the case of a firm, means strategic decision makers within top management teams, who decide whether to implement or adopt the idea.

Creativity, as represented in the integrated framework, however, is itself an entire journey, from perceiving a distinct problem to solving it, but the management literature views creativity only as a subset of innovation (Woodman et al., 1993).

The integrated framework for creativity illustrates three interconnected but distinct elements. These are (i) the process of being creative, (ii) the creation itself, and (iii) the judgement of the creation. The first element is largely unobservable in individuals and usually decision makers pass judgement based on the second element based on their strategic intents.

Different perceptions of creativity and its relation to innovation exist. These were discussed in Chapter Two, and are shown in Table 3-1. These are depicted alongside the discoveries of the integrated framework for creativity.

As can be observed in Table 3-1, the objective of innovation is to produce strategic competitive advantages for a firm. Strategic decision makers in a firm influence that process by selecting creative ideas that fit predetermined goals (or problems). This is different from the integrated framework for creativity, in which problem perception itself is a trigger for productive activity, rather than a pre-defined problem.

TABLE 3-1: CREATIVITY PERSPECTIVES IN FIRMS AND ELSEWHERE

	Innovation	**Creativity (as understood by firms)**	**Integrated framework for creativity**
Objective	*CA* *Christensen et al. 2004*	Ideas for innovation *Amabile, 1996*	Problem perception and solutions *Vygotsky, 2004*
Method	Systemic process *Salerno et al., 2015*	Part of ideas generation in innovation *Woodman et al., 1993*	Combinatorial associations *Simonton, 2015*
Nature of activity	Strategic exploration *McGrath & Kim 2015*	Directional *Damanpour et al., 2009*	Blind variation, selective retention *Campbell 1960*
Problem being solved	Business success and survival *McGrath & Kim, 2015 Christensen et al., 2004*	Ideas for future business success *Amabile, 1996* *Woodman et al., 1993*	Problem perception is part of creativity *Vygotsky, 2004* *Walia, 2019*
Influencing field	Strategic decision makers *Li et al., 2013*	Strategic decision makers *Li et al., 2013*	Domain or gatekeepers *Li et al.,. 2013*
Role of the field	Selection based on exploitation potential *Volberda, 2006*	Selection based on goal fit *Li et al., 2013*	Selection based on relevance to the field *Li et al., 2013*

Within the integrated framework of creativity, once the creative process, creative performance, and creative judgement are separated, it becomes evident that creative judgement (decision makers or gatekeepers) knowingly or unknowingly play a significant role in shaping creations and guiding the creative process.

3.1.1 **The criticality of problem perception**

The integrated framework for creativity (Figure 3-1) highlight the critical role of problem perception in shaping the creative process and outcomes. A perception of disequilibria (Walia 2019) or perception of problem triggers productive activity. The entire creative process thereafter is in search of a solution to the problem or to redefine the problem based on discoveries.

Within strategic problem formulation literature as was reviewed in Chapter-2.3, it was noted that problems form the basis for context for SDM. The nature of the problem for

e.g. a gap in performance and aspirations, or exploration and exploitation of strategic assets, or maximisation of rent generation may well determine the process that sets in, and eventually the way decision makers will judge the outcome.

Once a distinction is made between the process and outcome, it emerges that problem perception is at the heart of triggering productive activity.

3.2 Defining Concepts and Variables in the Model.

The background theory discussed in the previous two chapters led to identification of research problem, research questions, and gaps in literature. These are summarised in the Table (3-2), as the concepts and variable emanate from these.

TABLE 3-2: RESEARCH PROBLEM, RESEARCH QUESTIONS, AND CONCEPTS

	DESCRIPTION	CONCEPTS
PROBLEM	Strategic intent and strategy theories largely assume that intents and problem formulations leads to creations that are mostly beneficial as a whole, and ignore the negative aspects that may occur as a result of these intents and creations.	1. Strategic intent 2. Creative outcomes
RQ-1	What role does strategic intent play in determining the direction of creative outcomes?	3. Direction of outcomes
RQ-2	What strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively?	4. CA 5. Rent 6. Problem discovery
RQ-3	Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole?	7. Negative creative outcomes

As reflected in Table (3-2), the research problem and research questions have identified concepts. As such the following sections will first define these concepts, and then construct a conceptual framework.

3.3.1 **Definitions of concepts**

1. Strategic intent: Strategic intent was defined in Chapter 2.1 as an overarching philosophy that guides TMT in formulating the firm's goals and the direct allocation of resources for its achievement (O'Shannassy, 2016). Strategic intent is often symbolic, rhetorical, and directional for members in the firm.
2. Creative outcomes: The strategic management literature reviewed had explained outcomes as exploration of new SA or exploitation of existing assets through rent generation (Volberda 2006). The end result is aimed at an outcome, i.e., a product or service or process, that can lead to transient CA (McGrath & Kim 2015). Similarly, within the SDM literature the model reviewed suggested context, content, and process, that drives a strategic outcome. Within the creativity literature reviewed, the creative process too leads to an outcome or creation, which goes on to interact with the field and the domain (Csikszentmihalyi 2014). Therefore the end result of these activities: strategic, creative, or decision making, is considered as an outcome or creation or innovation, hereinafter referred to as creative outcome.
3. Direction of outcomes: Strategic intents guide problem frames. The integrated framework of creative (Figure 3-1) depicts that problem frames trigger the creative process. The dominant problem frames are referred to as direction of outcomes. Two main elements of strategic intent highlighted in Chapter 2.1.1 were CA and rent maximisation. A third explorative element that was considered relevant based on integrated framework of creativity is problem discovery which is not guided by the intents of CA and rent. As such three directional outcomes emerge:

i. From CA: The strategic intent of CA is to outdo the competitive forces (Seepana et al. 2020) and therefore the resultant direction of outcome is likely to be solutions that are reacting or responding to competitive pressures.

ii. From Rent: The strategic intent of rent maximisation is to maximise ones self interest in the form of increased market share or profits (see Brown 2015). The resultant direction of outcome is likely to be solutions that can exploit opportunities.

iii. From Problem Discovery (PD): A problem discovery other than the problems of CA and rent (Chapter 2.3.4), is likely to be a unique problem as it is not commonly shared between firms. The resultant direction of creative outcomes therefore is likely to lead to unique solutions.

4. CA: The leverage that a business has over its competitors, whether in the form of a cost advantage or differentiation advantage is referred to as CA (Porter 2008). CA is the prime problem that strategy aims to solve because eventually a firm needs to exploit its assets (McGrath & Kim 2015; Volberda 2006).
5. Rent: Rent was defined in Chapter 2.1.2 as as profits in excess of those made, on average, by competitors (Alchian, 1991).
6. Problem discovery: Problem discovery is defined as perception of a unique problem beyond the shared strategic intents of CA and rent maximisation.
7. Negative creative outcomes: These are being referred to as a firm's *exploitative assets,* that is assets designed to exploit or maximise rent by perpetuating negative value creation for another stakeholder (Alchian 1991; Volberda 2006).

3.2.2 **Defining the variables**

Anything that takes on differing or varying values is known as a variable (Sekaran & Bougie 2016). The four concepts defined in the previous sections are interrelated through the variations they cause in each other. This is depicted in Table 3-3.

Dependent variable is the main variable that lends itself for investigation. Independent variable is the one that influences the dependent variable (Sekaran & Bougie 2016). Based on this the concepts are categorised into variables as follows:

TABLE 3-3: DEPENDENT AND INDEPENDENT VARIABLES

CONCEPTS	VARIABLES
1. Strategic intent	Independent Variable
2. Creative outcomes	Dependent Variable
3. Direction of outcomes	Dependent Variable
4. CA	Independent Variable
5. Rent	Independent Variable
6. PD	Independent Variable
7. Negative creative outcomes	Dependent Variable

1. *Strategic intent*: It has been observed in Chapter Two that strategic intents are guiding forces for vision, strategy, goals, decisions and provides motivation and direction for members in a firm. The outcomes therefore are dependent on the intent, and strategic intent by itself would be an independent variable.
2. Creative outcomes: Outcomes can be negative or positive. Creation is dependent on that actions of the actors taking strategic decisions. This may be dependant on strategic intents and problem frames. The *creative outcomes*, therefore is a dependent variable.
3. Direction of outcomes: The direction of outcomes namely receive solutions, exploitative solutions, or unique solutions, are dependent on the strategic intents that are guiding the direction of creative efforts. These are therefore dependent variables.
4. CA: CA here is considered as a strategic intent and influences the direction of solution finding, and is therefore an independent variable.
5. Rent: Similarly rent here is also considered as a strategic intent and influences the direction of solution finding, and is therefore an independent variable.

6. Problem discovery: Problem discovery though is not a strategic intent as described in the theories in Chapter Two, however it was found to be a creative intent that guides creative solution finding and in that is influences the direction of solutions, and is therefore an independent variable.
7. Negative creative outcomes: Similar to creative outcomes, negative outcomes too are a result of decision making. It is therefore considered as a dependent variable.

Based on the relationships between these variables, this research lays down its hypothesis in the following section.

3.3 Conceptual Framework

The conceptual framework lays down the foundation for the deductive research project (Sekaran & Bougie 2016). Literature review in Chapter Two, identified the research questions, and variables. Based on the relationships between the variables, three hypothesis were developed as noted above. These provide the logical connections that are needed to form the theoretical model. The theoretical framework as depicted in Figure (3-2), represents the relationships between the variables, explains the theory underlying these relations, and describes the direction of the relationships. The framework provides the logical base for testing the hypothesis.

The conceptual framework is drawn from the connections made and questions raised in the literature review. The framework will direct the hypothesis framing, as can be seen in Figure 3-2.

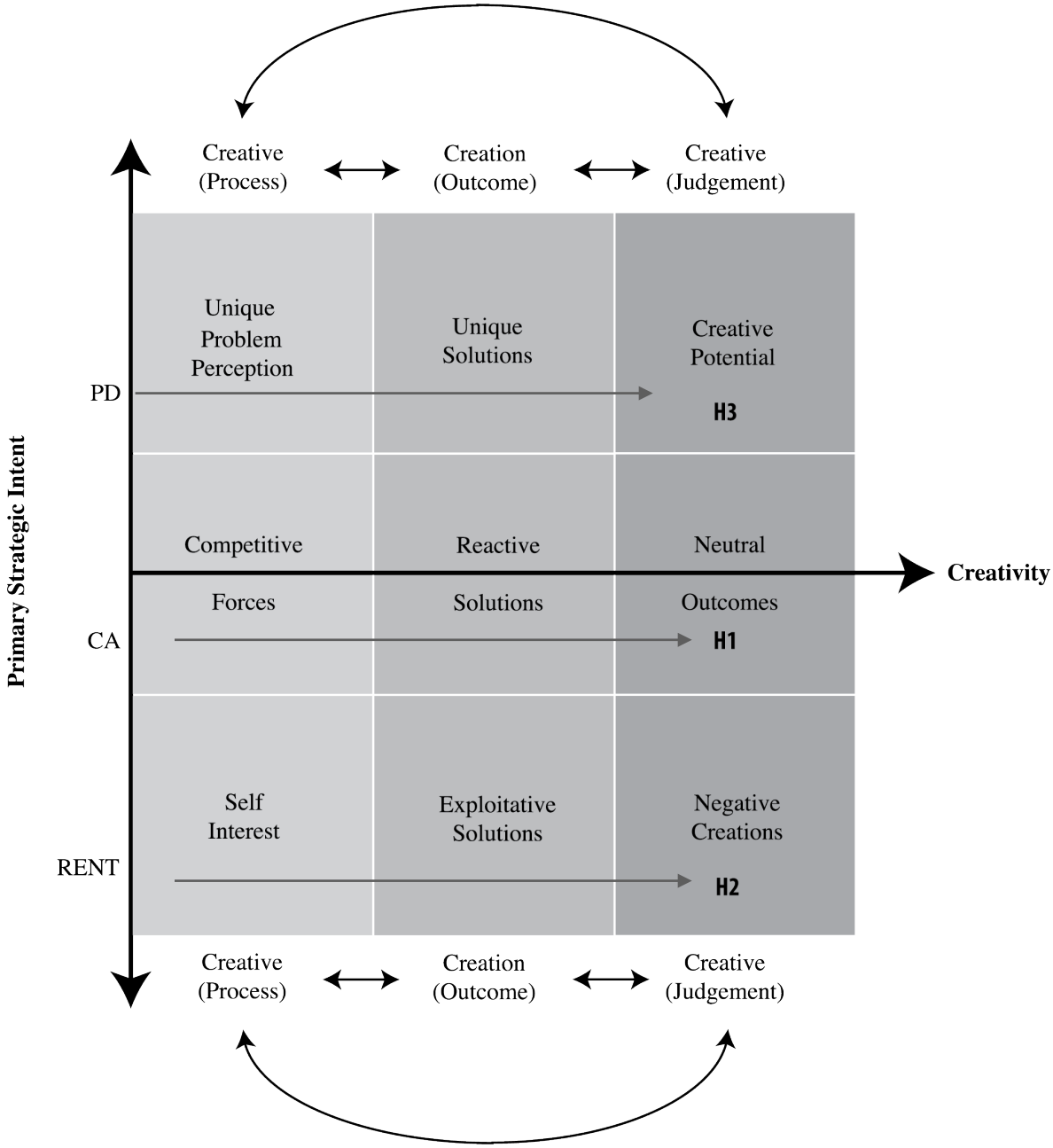


FIGURE 3-2: CONCEPTUAL FRAMEWORK

The framework analyses strategic intent and its relationship to creative outcomes. The Y-axis represents the strategic intent. Strategic intent was defined as *shared obsession to win* (Hamel & Prahalad 1989) and is mainly expressed in objectives such as growth, market dominance, and supremacy (Mariadoss et al.,2014; Seepana et al. 2020). The theoretical perspective captured here represents three possible primary intents, including the intent of rent maximisation and the intent of competitive advantage, which

have been documented (in Chapter Two) as primary strategic objectives. The third intent of problem discovery has been derived from creativity studies which document problem perception as a key driver of the creative process (Walia, 2019; Vyogtsky, 2004). The X-axis represents creativity, as depicted in the integrated framework for understanding creativity (Figure 3-1).

In the integrated model for creativity, creativity that is the production of novel and useful outcomes was considered as creative process, creative outcome, and creative judgement. Creative process (problem perception and productive activity) can be influenced by the judgement of what decision makers consider useful or not. The process leads to creation and, even at this stage, the decision makers can influence the creation process by either asking the creators to rework the creation or rejecting it altogether. Lastly, the decision makers decide whether or not embrace the creation in the firm's domain.

The intersection of the X and Y axes creates a nine-grid model for understanding the creative–strategic framework. The model is explained below in nine parts represented by the creative process, creation, and judgement induced by the strategic intents.

1. Creative Process: PD initiates the creative process in the form of productive activity. The creative process is triggered in the form of imagination (Vygotsky, 2004), or combinatorial associations (Simonton, 2015) (see Chapter 2.2). Creativity is goal-directed, and, as a result, the outcomes can be both positive and negative, depending on the intents of the creator (James & Taylor, 2010). In other words, the creative process is initiated by a perception of the problem. In strategic terms, the quest for solutions related to CA or profit maximisation or gaps therein (see Chapter Two) trigger a solutions search. As such, Figure 3-5 depicts the creative processes that primary strategic intents may lead to. Creative process it must be noted is largely unobservable for the purposes of research.

i. *Unique problem perception*: PD occurs when the creator senses disequilibrium in the environment (Walia, 2019) independent of the strategic objectives. PD initiates the creative process in the form of productive activity. The initial stages of perceiving disequilibrium are about perceiving a problem that is itself unique or novel (Walia, 2019). A problem perception, therefore, which is unrelated to competitive intents is a situation unique to the creator, as competitive intent by itself is not a novel problem. A unique problem perception, in strategic terms, is outside the bounds of the elements of CA and rent. Unique problem perception is therefore itself a creative formulation of a problem which is novel, presents disequilibrium, and has high utility (to eliminating the problem) if it were to be solved. If this problem perception were related to CA or self-interest, it falls out of this construct, and moves to the boxes (Figure 3-2) below the *unique problem perception* box.

ii. *Competitive forces*: A strategic predominant intent of CA may lead to problem formulation based on competitive forces (Porter 2008; Chapter 2.3). The major competitive forces have been widely studied and observed to be a firm's competitive rivals, potential new market entrants, suppliers, customers, and substitute products (Porter, 2008). The intent of creating or sustaining CA may force firm to analyse performance and identify gaps in actual and desired performance, thereby leading to the formulation of strategic problems (Posen at al., 2018). These strategic problems do not lead to a unique problem perception, as discussed above. Within the context of CA, the description of the problem itself could be differentiated within firms, depending on the forces being addressed or identified as focus areas.

iii. *Self-interest*: A strategic predominant intent of rent or profit maximisation is the maximisation of one's self-interest or gain. This is largely an exploitative strategic area (Volberda, 2006), whereby the firm may be focused on exploiting the gains of existing strategic assets. These objectives may lead decision makers to formulate

problems in terms of economic gains and explore creative solutions that fit the definitions. This is different from a unique problem perception, in which the contours of the problem explored are undefined, and different from competitive forces, where the focus is outward differentiation. Here, the focus is exploitation.

2. Creation (outcome): Creative process will lead to realisation of creative potential (Runco & Kim, 2018). The direction of creativity is influenced by the problems identified during the creative process, and this will lead to creation. The creative (judgement) state can also play a part in influencing both these stages. As depicted in Figure 3-2, depending on the strategic intent and subsequent problem perceptions (creative process), three solution grids present themselves: these were earlier referred to as direction of outcomes.

i. Unique solutions: A unique problem perception will direct creativity to searching for solutions that solve the problem, which are called unique solutions. The creator may not have precedents available for unique problems and, therefore, the solutions themselves may have to be unique. However, during the stage of examining solutions, the decision makers could interfere and change the contexts to competitive advantages or profits, and that would change the trajectory from the exploration of unique solutions to the lower grids (Figure 3-2).

ii. Reactive solutions: In response to the problems of competitive forces, the creators will have to react to the actions of the competitors and formulate solutions as responses. These are reactive solutions. The reactive solutions can also be unique and useful outcomes and, thus, be creative. In this sense, it may be easy to classify them as unique as well. However, the difference between unique and reactive solutions in the creative–strategic model is that the unique solutions are a creative response to a uniquely perceived problem, whereas the reactive solution is a response to a problem perceived within the domain of competitive contexts.

iii. Exploitative solutions: These are responses to formulations of maximisation of self-gains represented by profit or rent. The solutions, again, could themselves be novel and useful responses towards the objectives of maximisation and thus be creative; however, they are within the design of exploitation. Exploitative solutions differ from unique and reactive solutions, as exploration solutions are purely a response to economic objectives of gain maximisation. Gain maximisation could happen through competitive advantages and also through unique problem perceptions; however, when the prime strategic driver is maximisation of rent, it is considered to be an exploitative solution, rather than the former.

3. Creative (Judgement): The theoretical framework relies on the outcome of the decisions or intents. This study argues that decision makers influence and control the creative process, much like the systems model of creativity that states that the decision makers or gatekeepers decide whether the creation is worthwhile or not (Csikszentmihalyi, 1999; 2014). Creative judgement refers to the decision makers, particularly the TMT's influence on creative solutions, whether or not they approve and give the go ahead to the solutions and ideas. Creative judgement is often determined from the strategic intents of the firm and whether the proposed solutions represent its fulfilment. As such, the predominant strategic intents again lead to three probable scenarios, as depicted in Figure 3-2.

i. Creative potential: Based on the 'realm of potentiality' (Gabora & Aerts 2005) creative potential was earlier described as a journey from *what is* to *what can* be (Chapter-2). Strategic intents determines problems as those of CA or of maximising rents. This determines the generation of solutions. *Problem discovery* represents freedom to discover problems than limiting them by the strategic intent. The decision makers may turn down creative potential, as shown in Table 3-5. This does not mean the creations were not creative; it simply means that they were not judged as such. This would imply

that the creator may have reached the creative potential by solving the problem, however the decision makers control whether that potential will be recognised or not. It is theorised that problem discovery maximises creative possibilities overall (H3).

ii. Neutral outcomes: The predominant intents of CA lead to reactionary solutions. The context of CA is comparative and fixated on being *better than*. The framework suggests that with CA it may be possible for firms to move to a unique problem discovery and hence realise the creative potential, as it may also be possible for decision makers to move to the contexts of rent maximisation and be negatively creative. However, in the context of CA, the firms are creativity neutral (H1). Neutral outcomes are defined as those in which the returns associated are predictable in comparison to other players, as they are reactions to the strategies adopted by competing firms. This is still a creative outcome because the firms driven by competitive intent are able to come up with novel and useful ways of outdoing the competition but within the context of competing forces.

iii. Negative creations: The predominant intent of rent maximisation and the resultant exploitative solutions lead to negative creations (H2). Negative creations are those that minimise the joint benefits of different stakeholders and produce negative outcomes for any of them. Negative creations are also creative outcomes because the firms are again able to come up with novel and useful ways of exploiting their strategic assets.

3.4 Hypothesis and Research Questions

Once variables have been identified, and relationships among them is established, it must lead to a hypothesis that can be scientifically tested (Sekaran & Bougie 2016). The construct of the hypothesis is presented here in reference to the work reviewed in Chapter Two.

The goals emanating from strategic intent are those of dominance and winning beyond existing capabilities (Hamel & Prahalad 1989). The dominant elements of strategic intents emerged as CA and rent maximisation (see Chapter 2.1).

RQ1 inquired that what role does strategic intent play in determining the direction of creative outcomes? Elements of strategic intents have been discussed to be CA and rent.

CA is a predominant strategic objective of most firms within an industry (Porter 2008). These intents would then lead to problem frames that are derived from a gap in firm's results and their aspirations (Chapter 2.3). These methods are not unique to a firm and are rather shared across firms. The resultant problems may represent opportunities for being creative and innovative, however the problems themselves are not unique to a firm.

This research therefore hypothesises that:

H1: The intent of CA has no effect on creativity or creative outcomes (Figure 3-3)

Chapter Two observed that CA is transient and shifts between firms based on reactions to competitors. Unique SA are imitated and become entry requirements. Newer SA that are created give unique rents only for certain periods of time. This indicates that strategies emanating from intents CA would neutralise in a competitive environments between the players and not lead to sustained advantages (McGrath & Kim 2015).

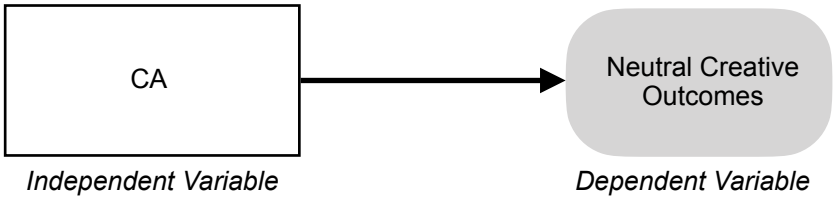


FIGURE 3-3: HYPOTHESIS -1

Neutral creative outcomes does not imply that the firms pursuing the strategic intent will not be better off. They might well be and research on strategic intent suggests that they are. Neutral creative outcomes imply that even though the firm pursuing the intent may be better off the value creation in the industry as a whole may not be better off as these values come at the cost of another. For e.g. if there were two players in an industry and player A was pursuing a strategic competitive intent, then Player A may be better off at the cost of Player B and the total creation would largely be neutral or marginally be better than or marginally be worse than neutral.

Financial metrics are important in gauging the direction of strategic intents (Brown 2015). CA would usually lead to rent generation for firms. Rent was captured in Chapter Two as an additional element of strategic intent. The firm could have a predominant focus on rent generation (Bowman 2006). This is different from focusing on CA. While in CA a firm is trying to create conditions for being better than others, in *rent,* the firm is attempting to exploit maximum value out of its strategic assets (Bowman 2006).

RQ3 inquired whether a dominant focus on rent maximisation or CA would lead to negative creative outcomes as a whole? This study in response hypothesises that:

H2: The intent of Rent leads to negative creative outcomes

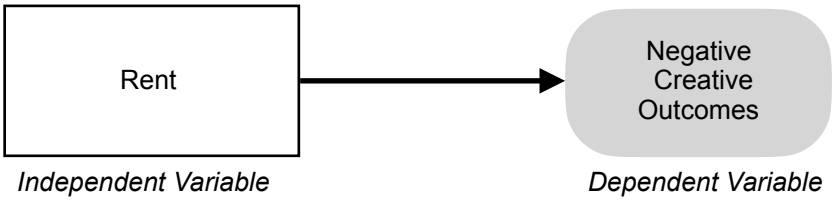


FIGURE 3-4: HYPOTHESIS -2

Unique rent for a firm could be generated by focusing on creation of unique SA. The integrated framework of creativity (Figure 3-1) argues that in this case the predominant focus should be on PD. Chapter 2.5 reviewed theories on negative creation and organised irresponsibility. It was discovered that negative creations do exist and because of the

principles of organised irresponsibility they are to attributable to any particular firm. A predominant focus on rent is suggestive that the firm intends to maximise its gains and perpetuate objectives of self interest. While the firm pursuing the intent may be able to gain large pay offs, these may come at the cost of another stakeholder or society at large and therefore be considered a negative outcome (Curran 2015). This was depicted in the hypothesis in Figure 3-4.

Discovery of a new problem is supposed to initiate productive activity (Walia 2019). This initiates the creative process as depicted in Figure 3-1. While this process is documented in the literature on creativity reviewed in Chapter Two, within management literature creativity is studied only in context to ideas that can lead to CA through innovation. This means that usually ideas are sought for developing innovations that can lead to CA, where CA is a predefined problem. A unique problem discovery would probably trigger a search for solutions that may be unique and useful for solving the problem. This research therefore hypothesises that

H3: Intent of problem discovery maximises creative outcomes

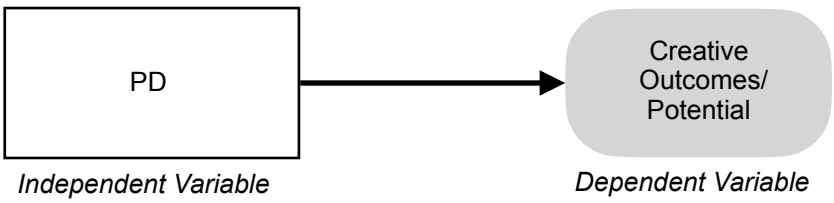


FIGURE 3-5: HYPOTHESIS -3

Creative potential was earlier defined as a journey from *what is to what could be.* A positive impact on creative outcome would create an impact toward realisation of the creative potential. RQ2 had raised that what strategic intent (CA, or rent, or problem

discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively? The hypothesis in Figure 3-4 responds directly to this question.

Having examined the variables and relationships among these, in context to the research questions, it is now possible to develop the theoretical framework for this research.

3.4 Summary

A conceptual framework has been established by integrating multiple theories that were reviewed in Chapter Two. Since the body of knowledge lacks studies that have studied the linkages between the variables and concepts mentioned in the framework, there is a need to empirically test the conceptual framework in Figure (3-2) for statistical validity.

The *research questions* were developed based on review of literature and gaps identified in Chapter Two. The conceptual framework and hypothesis have also been developed based on the study of extant research. The three hypothesis together address the research questions that are discussed in Chapter Two as presented in Table (3-2). The three hypothesis, once tested would also address the aim of this research which is to *examine the impact of strategic intents on creative outcomes*.

Having developed the conceptual framework and hypothesised theory, Chapter Four discusses the research methodology to study the hypothesis and answer the three research questions.

Chapter Four — Research Methodology

This chapter presents the *research methodology* based on the *aim* of the study, the *research questions,* and the *conceptual framework* discussed in previous chapter. The *research objectives, research questions, the hypotheses* along with the *research problem* and *aim;* shaped the planning stages for the research methodology. An explanation of various *research methods* is presented showing the basis of research design, data collection, and analysis.

The context of this research is laid down by Figure 3-2, which conceptualises the framework based on literature review, and identifies hypothesis to be tested. The three hypothesis are studying cause and effect relationships between intent and creative outcomes. The literature is grounded in analysing established organisations and strategic decision makers therein. The hypothesis predict creative outcomes in the organisations based on decisions taken by strategic decision makers. Scholars have suggested using experience,tal quantitative techniques to study causality (Campbell 1957; Campbell & Stanley 1963; Sackett et al. 2000; Thompson 2006). Therefore this research plans an experimental design to test the hypothesis. However it is deemed to be most relevant if the sampling can be purposive, ie., of strategic decision makers in established organisations, to be able to mirror the conditions of the hypothesis. Primarily this is a quantitative research to test the hypothesis through a randomised control trial. However, this research also proposes to present the findings to a group of experts, to lend their inputs and to validate the theory in practice.

4.1 Mixed Method Sequential Explanatory Design

The mixed method research design was used in this research to study hypothesis summarised in Figure (3-2) of the previous chapter. The hypothesis is examining the cause and effect relationships between CA, Rent, PD and creative outcomes. The mixed

method sequential explanatory design (Teddlie & Tashakkori 2009) was considered the most appropriate method to achieve the objectives and answer the research questions. The mixed method sequential explanatory design consists of two phases, quantitative followed by qualitative validation (Creswell et al. 2003). In this design, first the quantitive data is collected and analysed. Thereafter the qualitative data is collected and analysed to explain or elaborate on the results analysed in the first phase. The first quantitative phase would analyse the cause and effect relationships established as hypothesis. The second qualitative phase would build upon the first phase and the two phases are connected in the later stage to interpret the results. The rationale behind using this design is that the quantitative data and analysis provide a general understanding of the research questions. The qualitative data thereafter uses the quantitative analysis to explore participant's views and understanding in greater depth.

Though the objectives of the research could be met by quantitive analysis alone, this study is opting for mixed method to gain further insights into practice, once the theory is tested. This would help in understanding the behaviours or reasons behind the event, rather than just understanding the occurrence of the event.

4.2 Ontological Positions

The four ontological positions and their essence is summarised in Table (4-2) (Easterby-Smith et al. 2018).

TABLE 4-2: FOUR ONTOLOGIES (EASTERBY-SMITH ET AL. 2018)

	Realism	**Internal realism**	**Relativism**	**Nominalism**
What is it?	Ontological position assumes that physical and social world exists independently of observations made about them	Ontological position assumes that reality is independent of the observer, and scientists can access that reality indirectly	Ontological position assumes that phenomena depend on the perspectives from which one observes	Ontological position assumes that reality is created by people and cannot exist independent of their perceptions

	Realism	Internal realism	Relativism	Nominalism
Truth	Single truth	Truth exists but is obscure	There are many truths	There is no truth
Facts	Facts exist and can be unearthed	Facts are concrete by cannot be directly accessed	Facts depend on the observer's perspective	Facts are creations of the human mind

The hypothesis summarised in Figure (3-2) of the previous chapter are largely studying cause and effect relationships between CA, Rent, PD and creative outcomes. The hypothesis assumes that these realities exist, can be observed, and empirically studied. Therefore the ontological position that this research adopted has been *realism*.

4.2 Epistemological choices

Epistemology is the study of the nature of knowledge and the ways of enquiry in the physical and social world, i.e., how do we know what we know (Easterby-Smith et al. 2018). There are two contrasting paradigms: positivism and social constructionism (constructivism and interpretivism). The two approaches are compared in Table (4-3).

Easterby-Smith et al. (2018) made distinctions between a *strong positivist* position and a *less strong* position. They noted that in a *strong* position reality exists independent of the observer and the job of the researcher is to discover the laws and theories to explain the reality. The *less strong* version accepts that reality cannot be accessed directly and may need to be inferred.

TABLE 4-3: COMPARISONS BETWEEN POSITIVISM AND SOCIAL CONSTRUCTIONISM (EASTERBY-SMITH ET AL. 2018)

	Positivism	Social constructionism
Key idea	Social worlds exists externally and its properties can be measured through objective methods.	Reality is determined by people rather than by objective or external factors, and hence it is more important how people make sense of their experiences.
Researchers	independent	participant

	Positivism	Social constructionism
Human interests	irrelevant	main drivers of science
Research progresses through	hypothesis and deductions	gathering data from which ideas are induced
Concepts	are defined and measured	should incorporate stakeholder perspectives
Units of analysis	should be simplified	may include complexities of the 'whole' situations
Generalisation through	statistical probabilities	theoretical abstractions
Sampling rehires	large numbers selected ramdomly	small numbers chosen for specific reasons

Similarly the *strong social constructionist* position is different because it assumes no pre-existing reality and the aim of the researcher is to understand how people invent structures to make sense of, and influence the events occurring in front of them.

TABLE 4-4: STRENGTHS AND WEAKNESSES OF DIFFERENT EPISTEMOLOGIES (EASTERBY-SMITH ET AL. 2018)

	Strong positivism	Positivism	Constructionsim	Strong constructionism
Strengths	Highly compelling conclusions	Wide coverage, economical, and easier to justify policies	Accepts multiple forms of data, enables generalisations, efficient, and includes outsourcing potential	Good for meanings; flexible for theory generation, data collection is not artificial
Weaknesses	Hard to implement experiments, and to control alternate explanations	Can be artificial, not good for making meanings or generalisations	Access can be difficult, does not accommodate cultural differences.	Time consuming, interpretations are difficult, and may not have credibility with policy-makers

Based on these views Table (4-4) summarises the strengths and weaknesses of different epistemologies.

Even though researchers do not consistently adhere to one epistemological position or the other (Easterby-Smith et al. 2018), epistemologically the requirements of this research demanded a *strong positivism* approach. This research therefore begins from

strong positivism in the quantitative phase and shifts to constructivism for the qualitative phase.

4.3 Research Design

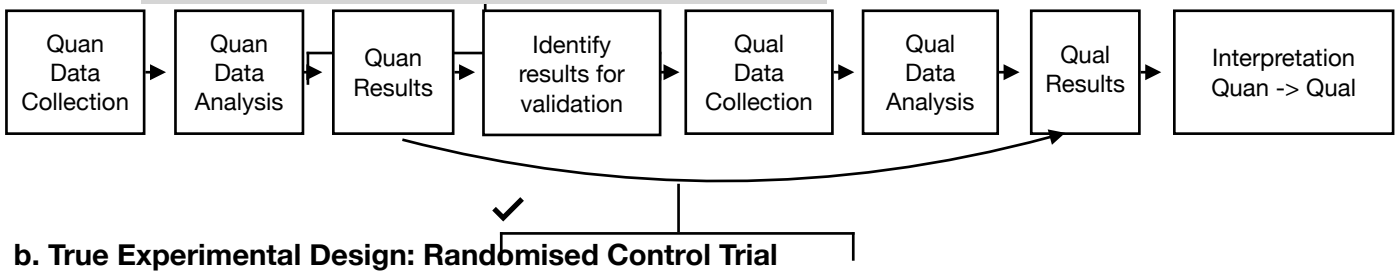
There are four types of mixed method research designs namely triangulation, embedded, explanatory and exploratory (Teddlie & Tashakkori 2009). As explained above this study employed the explanatory method which analyses the quantitative data in the first phase followed by validation in the qualitative phase. Cresswell and Clark (2007) consider three factors that are critical in mixed method design, i.e., timing, weighting, and mixing. The authors created a decision tree to facilitate decision making within these areas. *Timing* answers the question: What will be the timing of the quantitative and qualitative methods? *Weighting* answers the question: What weightage will be assigned to quantitative and qualitative methods? *Mixing* answers the question: How will the two methods be mixed?

Timing decision: As shown in Figure 4-1, the timing can be concurrent or sequential (Morse 1991), and either the quantitative or qualitative study can be done sequentially or simultaneously. This study employs the mixed method sequential design by first conducting the quantitative study and analysis, and thereafter the qualitative validation.

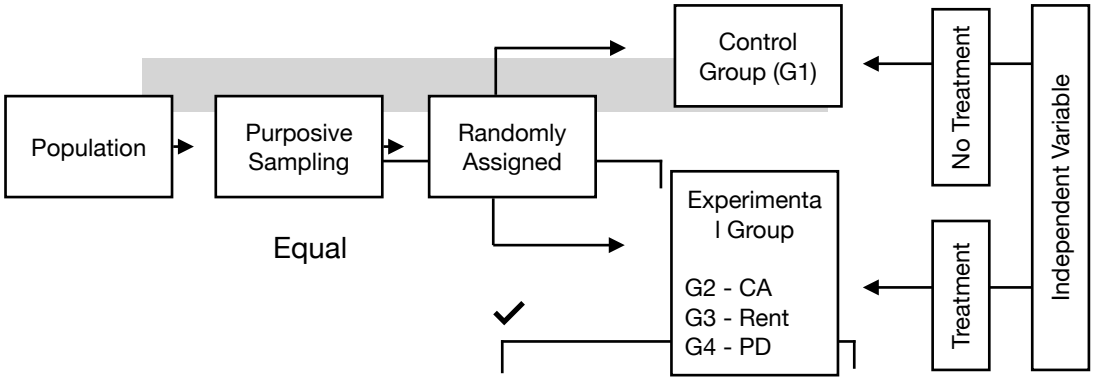
Weighting decision: Mixed method research can be categorised as qualitative dominant, quantitative dominant, or qualitative-quantitative continuum (equal weightage) (Schoonenboom & Johnson 2017). This study is quantitative dominant I.e., it relies on quantitative data to guide qualitative discovery. In other words the study relies on the positivist view of the research process, while concurrently using the qualitative data to validate the quantitative findings.

Mixing Decision: Cresswell and Clark (2007) explained that data can me merged, embedded or connected (Figure 4-1). This study is primarily about connecting, where the quantitative data leads to qualitative data.

a. Sequential Explanatory Design: Follow-up Explanations Model



b. True Experimental Design: Randomised Control Trial



c. Qualitative Validation: Delphi Process

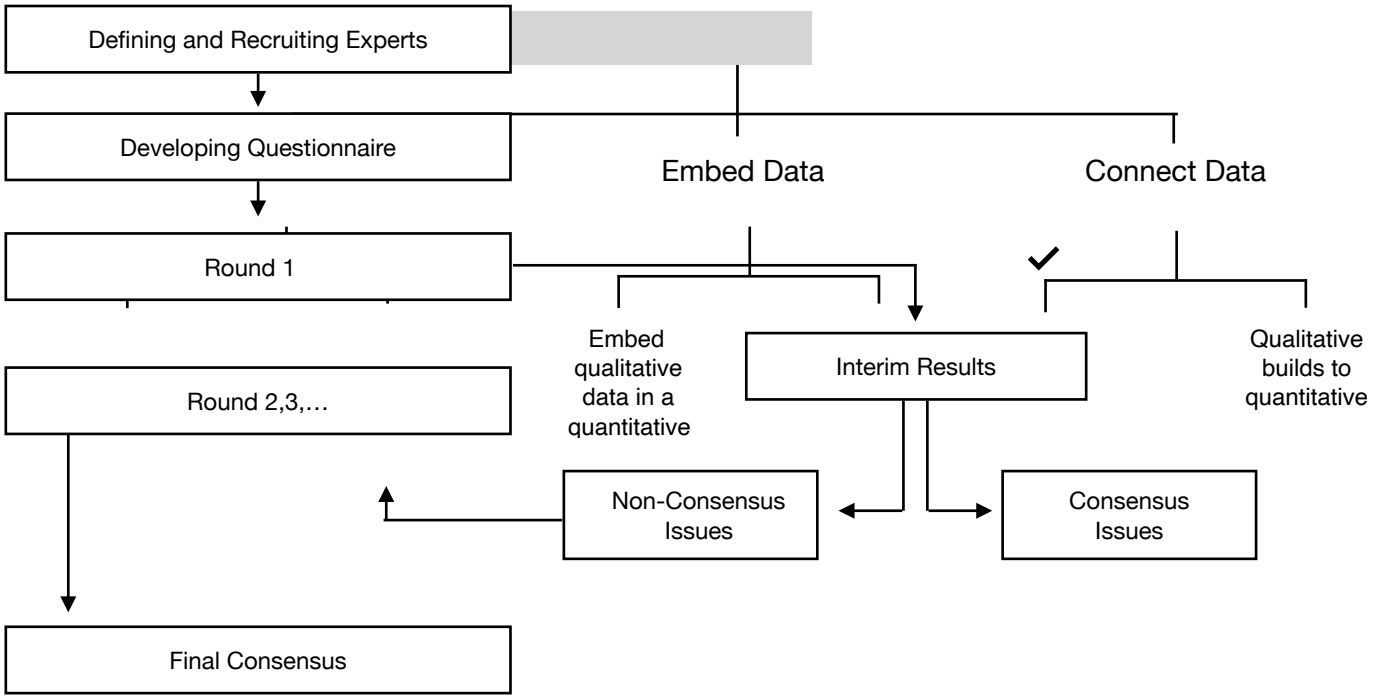


FIGURE 4-1: DECISION TREE: CRESSWELL AND CLARK (2007)

4.3.1 Sequential Explanatory Research Design

Figure 4-2 depicts the mixed method research design employed in this study.

FIGURE 4-2: RESEARCH DESIGN

Morse and Niehaus (2009) listed eight mixed methods designs in their book. This study follows the QUAN → qual (deductive-sequential design, where the core component is quantitative and the supplemental component is qualitative) as can be seen in Figure 4-2a. This necessitated the quantitative data collection and analysis in the first part. Subsequently the researcher would summarise the findings and initiate qualitative data collection for validation. Bryman (2006) summarised a list of rationale for conducting this type of mixed method research. He suggested that this method leads to the following aspects.

(a) Credibility through enhancing the integrity of findings.

(b) Context achieved through coupling the findings of quantitative and qualitative data.

(c) Illustration of qualitative data to illustrate or explain quantitative findings.

(d) Utility or improving the usefulness of findings achieved through combining two approached which are likely to be more useful to practitioners.

(e) Confirm and discover through both approaches within a single study.

(f) Diversity of views in capturing differing perspectives as well as in studying variables.

The sequential explanatory design requires the choice of quantitative and qualitative methods to be made such that the design can be implemented. The main methodologies used with a positivist paradigm are experimental studies, surveys, cross-sectional studies, and longitudinal studies (Collis & Hussey 2014).

Experimental study: An experimental study is a methodology used to investigate the relationship between variables, where the independent variable (IV) is deliberately used manipulated to study the effect on the dependent variable (DV) (Collis & Hussey 2014).

Surveys: A survey is a methodology deigned to collect data from a sample with a view to generalise the results to a population (Collis & Hussey 2014).

Cross-sectional study: A cross-sectional study is a methodology used to investigate variables in different contexts over the same period of time cross-sectional studies (Collis & Hussey 2014).

Longitudinal study: A longitudinal study is a methodology used to investigate variables in different contexts over a long period of time (Collis & Hussey 2014).

Based on evaluation of different methodologies, *true experimental study (Figure 4-2b)* was found to be most suitable to the quantitative design of this study. An experiment is "that portion of research in which variables are manipulated and their effects upon other variables observed" (Campbell & Stanley 1963 :171).

In other words, experiments are concerned with an IV that causes or predicts the outcome DV. Variables are eliminated, distributed, or controlled in a manner that a conclusion that IV caused DV holds valid. Figure (4-3) is a visual representation of an experimental design (Srinagesh 2006).

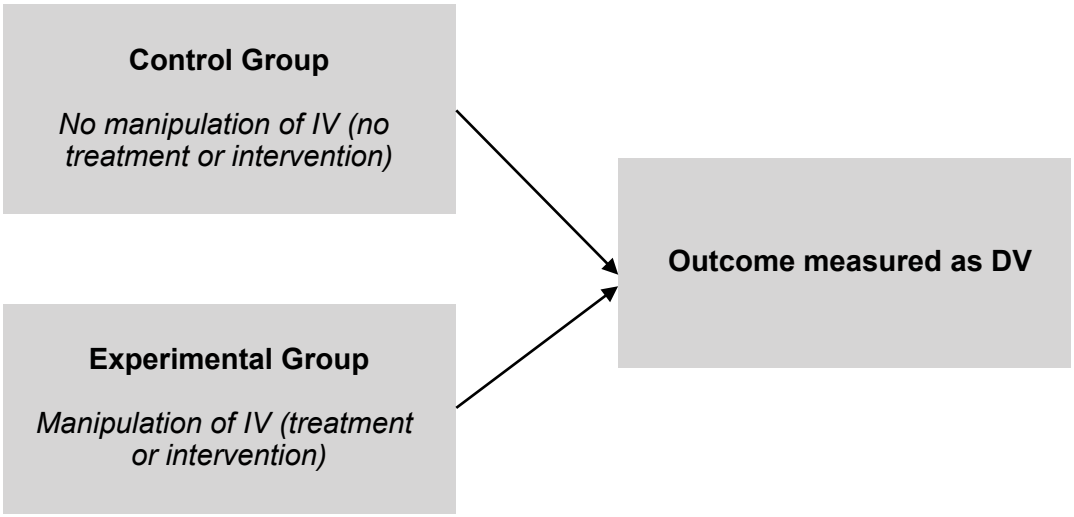


FIGURE 4-3: DIAGRAM OF AN EXPERIMENT

Once the data is analysed the research design proposes validation through qualitative research. This research will test the quantitative findings using the Delphi technique in qualitative settings. Delphi is a questionnaire technique that uses multiple iterations designed to develop a consensus of opinion concerning a specific topic. The broad steps are summarised in Figure-2c (Okoli & Pawlowski 2004).

Within this method, the findings of the quantitative analyse will be presented to an expert group individually. The researcher would prepare a questionnaire that seeks the views of experts on the findings. The experts then will be presented with aggregated responses from all experts. In the subsequent round of questioning the experts would be allowed to adjust their answers based on the group responses. Following this process the Delphi method seeks to reach the right consensus (Belton et al. 2019; Fink-Hafner et al. 2019).

4.4 True Experimental Design: Randomised Control Trial

The two main types of experimental designs are *true experimental design* and *quasi experimental design*. In true experiments subjects are randomly assigned, and that maximises its reliability, whereas a quasi experimental design are field experiments where it is not possible to randomly assign the subjects.

A well-conducted randomised experiment is considered the “gold standard” in causal research (Campbell 1957; Campbell & Stanley 1963; Sackett et al. 2000; Thompson 2006).

This research therefore applied a positivist methodology in which a true experiment design was used to obtain quantitative data to test *hypotheses* documented in Chapter Three.

1. Pretest-Posttest Control-Group Design: In this design the participants or subjects are randomly assigned to control or the experiment group. This is denoted by R. The

treatment is given to the experimental group. This is denoted by X. No treatment is given to the control group. Post intervention measurement is denoted by O. There is also a pretest administered to both groups to ensure the equality of groups. This is also denoted by O. The designs are read left to right to comprehend the different stages.

Experimental Group	R	O	X	O
Control Group	R	O		O

2. Posttest Only Control-Group Design: When the groups are randomly assigned there may not be a need to pretest them (Campbell & Stanley 1963 : 25). All other characteristics of the previous design remain common to this design.

Experimental Group	R	X	O
Control Group	R		O

3. Solomon Four Group Design: This design uses two experiment groups, one pretested and the other one not. It also uses two control groups, one pretested and the other one not. Using the same symbols the design look like this (Campbell & Stanley 1963 : 24).

Experimental Group (with pretest)	R	O	X	O
Control Group (with pretest)	R	O		O
Experimental Group (without pretest)	R		X	O
Control Group (without pretest)	R			O

In all the designs additional treatment groups can be added depending upon the study. Solomon four group design is the strongest of the three, however it needs a much larger sample size and also needs more resources.

Considering the sample population will be drawn from actual firms to reflect external validity, the increased sample size is an impracticality. Therefore this research used the *Pretest-Posttest Control-Group Design.*

In recent management studies these types of experiments have been referred to as Randomized Control Trails (RCT) (Camuffo et al. 2020), and for the purpose of this study, this will be referred to RCT.

4.5 Creativity and the Choice of Negotiations as the Experiment for RCT

The nature of research questions and resultant hypothesis (Chapter Three) study the effects of intents on outcomes. Specifically the intent of the decision maker (CA, Rent, and PD) are considered the IV that are affecting the DV or creative outcomes.

The integrated framework for creativity (Chapter Three) separated creativity into three activities: the creative process or productive activity, creation or creative performance, and creative judgement. It was noted that the creative process is largely unobservable (Stuhlfaut & Bergh 2014). However, PD is an essential element for triggering creativity (Vygotsky 2004; Walia 2019). Creativity eventually leads to novel and useful creations. James and Taylor (2010) stated that problems or intents lead to situational activation of creative outcomes. When the goal is to exploit individuals, groups, institutions, or organisations, the resultant activity, if harmful to another, whether intentional or not, is negatively creative (James et al. 2010). Yet, because they will still achieve CA, firms can accept and adopt innovations with negative consequences (Greve 2011).

Negotiation scholars have used creative puzzles to help conceptualise negotiations (Wilson & Thompson 2014). Negotiations are mixed-motive tasks that simultaneously

require both competition and cooperation (Mannix et al. 1989; Lax & Sebenius 1986; Adair & Brett 2005). A classic analogy that has been used to convey the distributive and integrative negotiating aspects is the sisters and orange problem by Follett (1940). Two sisters have a conflict over a single orange. An obvious (and non-creative) solution might be to cut the orange in half which is what the sisters decide to do. The solution was considered suboptimal because a win–win solution actually existed. The sisters failed to realise that one of them wanted the rind to bake a pie, and the other needed the pulp to make orange juice. A far superior solution would have been to divide the orange such that one sister received the entire peel and the other the entire pulp.

Such problems in negotiations require thinking about non-obvious solutions (Wilson & Thompson 2014). Non-obvious solutions are known as creative solutions with low probability (Simonton 2015). Wilson and Thompson (2014) suggested that non-obvious, low-probability solutions require actors to set aside their assumptions and rely on creative ideas generation, but negotiators often settle for suboptimal outcomes instead. The authors further hypothesised, based on creativity and negotiation theories, that negotiators who are more creative are likely to produce more integrative outcomes. However, if problem framing drives the direction of creative efforts, then the intents of competitiveness and profit (for the self) may undermine the integrative outcomes.

De Pauw et al. (2011) also reached the conclusion that creativity will jointly influence the economic gains for negotiating parties because they are more likely make value-added trade-offs. The correlation between creativity and negotiated outcomes is not straightforward (Wilson & Thompson 2014). However, this experimental study argued that creativity in these studies was observed as a *trait* and not as a derivative of problem frames.

The optimal solution in the case of the quarrelling sisters is an example of integrative value creation that lies on the Pareto optimal frontier (Nash 1950), meaning that

no other agreement would benefit one party without hurting the other party. Often, if negotiators discover the optimum, it is through fluke or trial and error (Pruitt & Lewis, 1975), as optimal outcomes are not obvious but creative (Wilson & Thompson 2014). However, research on negotiation experiments has suggested that negotiators may be hesitant to share information for fear of losing a strategic advantage (Weingart et al.,1993). This is similar to strategic situations of competitive advantages in which 'novelty' and 'utility' determine strategic advantages. The strategic intent to dominate may not allow to identify the non-obvious (or creative – Simonton, 2015) solutions.

Lax and Sibenius (1986) suggested that negotiation centres on competing desires to simultaneously maximise self-interest and reach a mutual agreement. The payoff possibility even leads to the temptation for negotiators to deceive (Robinson et al., 2000) the other party or misrepresent facts (O'Connor & Carnevale 1997). These unethical actions are the ethical dilemmas represented by creativity (Gino & Ariely 2012). Negotiations, therefore, represent situations in which there are possibilities to be creative (through being integrative), negatively creative (through deception), or neutral and settle on a suboptimal outcome. However, strategic intent has been guided by competitive ambition and linked to coopetition as well, specifically during exploration of new strategies (Seepana et al. 2020). Nevertheless, the explorations must eventually lead to exploitation, and that is a competitive domain (Seepana et al. 2020).

The process of being creative or being negatively creative is not always directly observable, as the situation triggers imagination in the creator's mind (Vygotsky 2004). The creation or end result, however, is visible. This directed the choice of experiment in RCT, where the creation – (a) is observable and quantifiable, (b) has non-obvious (creative) outcomes that are possible to reach, (c) has negative value creation as a possibility, (d) allows for strategic intents to operate, (e) can be framed as problem frames, and (f) falls within a domain familiarity that is common to the diverse company sample size

(see Chapter Two: *most strategic decision making entails negotiations* (Bolander & Sandberg 2013; Drazin et al. 1999). The past experiment used by researchers as is in the RCT (see Kelley 1966; Pruitt & Lewis 1975; Cronin 1994) satisfied these conditions.

4.6 Research Setting

Threats to external validity of an experimental design come from setting and history (Easterby-Smith et al. 2018 : 101). The following was considered before determining the research setting:

1. This research is studying the cause and effect relationships between strategic intent and creativity (Chapter Three), and specifically within competing companies.
2. The literature review in Chapter Two in the context of strategy, innovation, and negative creativity, revealed examples and case studies of large organisations.
3. Economies such as China and India are emerging as global economic forces, and therefore may represent greater competition (Easterby-Smith et al. 2018 : 101).
4. The sample size required for the research needs a population of 32 participants that are senior enough in an organisation, and yet are similar in designation and experience to facilitate a viable random allocation to different test groups.

Considering the above scenario the research setting that was chosen for the experiment was:

Type of Organisation: Established companies in a competitive industry. Established was defined a publicly traded corporation or one that has a significant market share within the industry such that it qualifies as a large organisation.

Geography: The research was carried out in an emerging economy that is India.

Population: The sample was drawn from TMT in established companies so as to represent knowledge of strategy and strategic decision making.

4.6.1 **Sampling**

In an RCT it is important that samples are randomly similar to each other, and the sample must be similar to the population (Shadish et al. 2002 : 248).

The population that this research needed to study was the TMT as the hypothesis in Chapter Three has been built on the intent of that population. The study is specifically hypothesising how decision intent of the TMT influences the creative direction of the firm. Therefore the study needs the subjects to have a similar understanding of working of an organisation and to appreciate the criticality and sanctity of top management decisions. If the population does not have TMT characteristics, the results may not be reliable as the behaviours depicted may not come from a TMT understanding. Therefore the sampling strategy followed is to recruit TMT with prior experience in SDM.

The sampling technique of choosing a four companies is considered representative of the entire sector is that of convenience (Thietrat, 2014). Focus on TMT as a sample is purposive. Yin (2003) suggested that it is reasonable to rely even on one sample as long as it is representative of the population. In the case of this research four such companies are chosen: (i) a large manufacturing business group (Firm A) in India with around 10,000 employees, revenues in excess of two billion USD, diversified businesses, publicly traded corporation, and offices around the country is considered representative of the industry. (ii) A modern day information technology company with offices in Asia and Africa and United States, market leadership in the category of software it produces. (iii) An multinational advertising agency which is one of the worlds largest and is positioned with the third highest market share in India. (iv) A retail organisation with operations spread all over the country and one of the biggest consumer brands in India. The sampling choice was made because Firm ABCD offers a large breadth and depth of products and services in multiple businesses, that allows a significant available population of strategic decision makers.

Babbie and Benaquisto (2002: 165) suggested that it is appropriate to select a sample based on ones knowledge and purpose of the research. Such sampling is purposive. This research being experimental in nature, the sampling technique of choosing these firms is justified.

4.6.2 **Access to the sample**

An access request was made to the *CEO* and *Chief People officer,* of the firm A,B,C,D, explaining the purpose of the study, the kind of data collection to be done, background of the researcher, and assuring confidentiality of participants and data collection. The firms were also assured that the researcher will add value to the company through the debrief sessions that will be conducted by the researcher for the participants post the experiment.

An official consent was issued by the *human resources* department of the Firm A,B,C,D post which the researcher and the designated human resources coordinator identified the purposive sample explained above. The sample represented that subjects were — part of the TMT, 39-44 years old, with about six years of TMT experience, and had no formal negotiation training.

Once the population was identified, a mail was sent to the population by the human resources department that informed them about the purpose of the experiment, confidentiality, and the benefits of the research. The participants were encouraged to participate but were free to decline as well.

45 confirmations were secured to allow for dropouts and the experiments were scheduled. This led to over recruitment. The requires ample size is 32, ie., 8 subjects from each company. Therefore the companies were requested to send only 8 people for the experiment.

4.6.3 **Random allocation**

The 32 subjects, eight from each firm were first administered pretests to ensure equitable participation in all groups. Therefore eight people from each company were presented with four closed chits which were marked as ‘buyers’ and ‘seller’. They randomly picked one each and were therefor categorised roles as buyers or sellers. Thereafter they were given eight further closed chits to choose from. These were marked as S1, S2, S3, S4, B1, B2, B3, B4. Their selection determined the group and the role. For example the person with sheet S1 meant seller in group-1 and a person with selection B2 meant buyer in group two.

This determined their selection to the four groups (Control group (G1), and treatment groups: CA(G2), Rent (G3), and PD (G4) using the double blind technique, where neither the researcher, nor the participant has control over the group they are allocated to (Schulz & Grimes 2002). The random allocation is important because “randomised controlled experiments represent a more stringent way to evaluate treatment efficacy because they are the most effective way to rule out threats to internal validity in a single experiment” (American Psychological Association 2002 :1054). Within each group the subjects were randomly assigned as sellers and buyers.

4.6.4 **Eliminating alternate explanations**

Sampling in experimental research is aimed at eliminating alternate explanations (Easterby-Smith et al. 2018 : 135). A credible sample is one that represents a low bias and high precision (Easterby-Smith et al. 2018 : 106). A biased sample is one that is not representative of the population (Easterby-Smith et al. 2018 : 105), for e.g., choosing university students as subjects for inferring results about executive decision making in organisations. However, in this study, purposive sampling ensured that the sample is representative of the population i.e., the strategic decision makers.

Precision reflects the credibility of the sample (Easterby-Smith et al. 2018 : 105). The purposive sampling of the chosen firm, and purposive sampling of decision makers within the firm ensures that the sample can be considered credible representation of the industry.

By purposively choosing a sample with a low bias and high precision, this research created a credible sample. Thereafter each participant had an equal probability to be a part of any group or sub group, and this was not in researcher's control. Random assignment equated the groups on all factors except for the intervention that was introduced in experiment groups. This ensured that the experiment produced "unbiased estimates of the average treatment effect" (Rosenbaum 1995 : 37). Furthermore within each group the data was collected from eight interactions per person and not a single one.

4.7 Subjects

Each block that is a control group (no treatment) and three experimental groups (CA, Rent, and PD) consisted of four buyers and four sellers. Thirty-two executives with strategic roles from four companies were selected to participate in this study based on two criteria: similarity in years of experience with senior management roles and similarity in age to minimise the role that these variables may play. All participants were 39–44 years old, with approximately six years of top management experience.

The study opted for block randomisation with balance tests, rather than stratified randomisation. Since multiple variables may emerge as strata—educational backgrounds, previous job exposure, conflict management styles, or urban or rural upbringing—selecting the appropriate strata among these variables to allocate 32 decision makers into the treatment groups (CA, Rent, Problem discovery) and the control group (CG) was impractical from a theoretical perspective. The CG and three treatment groups were each randomly allocated eight participants, such that each group had two people from each

company. Each of the two people were randomly selected as a buyer or seller, such that each group had four buyers and four sellers (one from each of the companies). These roles remain unchanged throughout the experiment.

4.8 The Simulation

This study's RCT relied on a negotiation simulation to study the relationship between strategic intent and value creation. A familiar part of executives' working lives, negotiation represents a form of decision making whereby two or more parties attempt to resolve differences and to arrive at collective outcomes that impact all parties (Pruitt 1981). Negotiators' goals direct their tactics (Grover 1993), and, in the context of the present research, the goals could be driven by CA, Rent, or PD. Moreover, deception has an influence on negotiations, and actors may even falsify information to influence outcomes (Prater & Kiser 2002). Within negotiations therefore deception by the way of lies, or falsification of information represents malevolent intent, or negative creativity (Cropley et al. 2008). Much of strategic decision making is a negotiated order among top management executives (see Chapter 2; Bolander & Sandberg 2013). Top management teams are guided by their own agendas, and there are factions within teams (Sull et al. 2018). A negotiated order in the interest of the organisation's goals usually emerges as a trade-off between differing concerns (Drazin et al. 1999). Decisions emerging out of top management teams produce strategic outcomes (Kahneman et al. 2019), and negotiations are a key element of arriving at these decisions.

The simulation selected is a negotiation interaction adapted from the ones used by other researchers previously (Kelley 1966; Pruitt & Lewis 1975; Cronin 1994). The briefs given to the buyers and sellers are enclosed in Appendix One.

In each of the groups, the buyers and sellers were given their respective lookup tables (Table 4-5). The respective tables were the same across groups. The task—adapted

from those used by Pruitt and Lewis (1975) and Cronin (1994)—required that dyads (pairs) of subjects (buyers and sellers) agree on the commodity prices of iron, sulphur, and coal. In each group, each seller met with each buyer, followed by a second round (4X4X2 block design) of interactions, such that a total of 32 negotiations were recorded in each group. The roles remained constant, so there was no exchange of people. There was no communications between sellers, or between buyers among themselves in the groups. There was also no inter group communication.

TABLE 4-5: PROFIT SCHEDULES AND COMMUTATIVE VALUE CREATION.

Note: Prices are referred to by the letters. The figures under each commodity represent the profit to be made on that commodity at the corresponding letter or price.

	Buyer			Seller			Commutative Profits		
Price	**Iron**	**Sulphur**	**Coal**	**Iron**	**Sulphur**	**Coal**	**Iron**	**Sulphur**	**Coal**
A	$2000	$1200	$800	$000	$000	$000	$2000	$1200	$800
B	$1750	$1050	$700	$100	$150	$250	$1850	$1200	$950
C	$1500	$900	$600	$200	$300	$500	$1700	$1200	$1100
D	$1250	$750	$500	$300	$450	$750	$1550	$1200	$1250
E	$1000	$600	$400	$400	$600	$1000	$1400	$1200	$1400
F	$750	$450	$300	$500	$750	$1250	$1250	$1200	$1550
G	$500	$300	$200	$600	$900	$1500	$1100	$1200	$1700
H	$250	$150	$100	$700	$1050	$1750	$950	$1200	$1850
I	$000	$000	$000	$800	$1200	$2000	$800	$1200	$2000

Task: The task requires buyers and sellers to agree on the prices for three commodities — iron, sulphur, and coal. The buyer could gain the highest profit from iron, and the seller could gain the highest profit from coal. This makes mutually profitable trade-offs a realistic possibility if the buyer made concessions on coal and the seller on iron. The

profit schedules in Table 4-5 lists nine possible prices, denoted by the letter A-I. Next to each price is the profit to be made— in the seller's sheet by selling each commodity and in the buyer's sheet for buying each commodity.

The subjects would be informed that any combination if letters was permissible. However, past experiments (Pruitt & Lewis 1975*)* inform that dyads usually agreed on the same prices for all three commodities. All horizontal price options yield a joint profit of $4,000. The diagonal options (e.g. at A) represent the highest profit for the buyer on iron but the lowest for the seller. Similarly, the option I represents the highest profit for seller on coal but the lowest for the buyer on coal. A joint profit in excess of $4,000 can only be achieved by the diagonal options. The greater the difference in profits between iron and coal for the two parties, the greater the commutative profit. For example, D-E-F totals $4,400, B-C-H totals $4,900, and A-E-I totals $5,200 (the price of sulphur is immaterial to the joint profit). Most of the integrative options lie on the diagonal.

4.8.1 **Calculating creative outcomes**

One of the reasons behind choosing this particular simulation was that the data allows for calculations of probability (Pruitt & Lewis 1975; Cronin 1994). Probability has been considered by Simonton (2015) as an appropriate indicator for creative or non creative outcomes. Figure 4-4 represents the distribution of decision outcomes in this simulation. The number of available decision options corresponding to joint profits are depicted. The highest probability is for a joint profit of $4,000 represented by the nine decision-making horizontal options (Table 6.1). The lowest probability (one decision option) is for a joint profit of $5,200. This is the most non-obvious solution representing the Pareto optimal frontier (Nash 1950), where no other agreement would benefit one party without hurting the other party. The non-obvious outcome would be the most creative one (Simonton 2015).

Similar options are also present on the lower side of $4,000; however, these are unlikely to be explored, as the goal of negotiation is to make profits, and the options on the lower end defeat the rationale of earning profits for both sides, individually or collectively

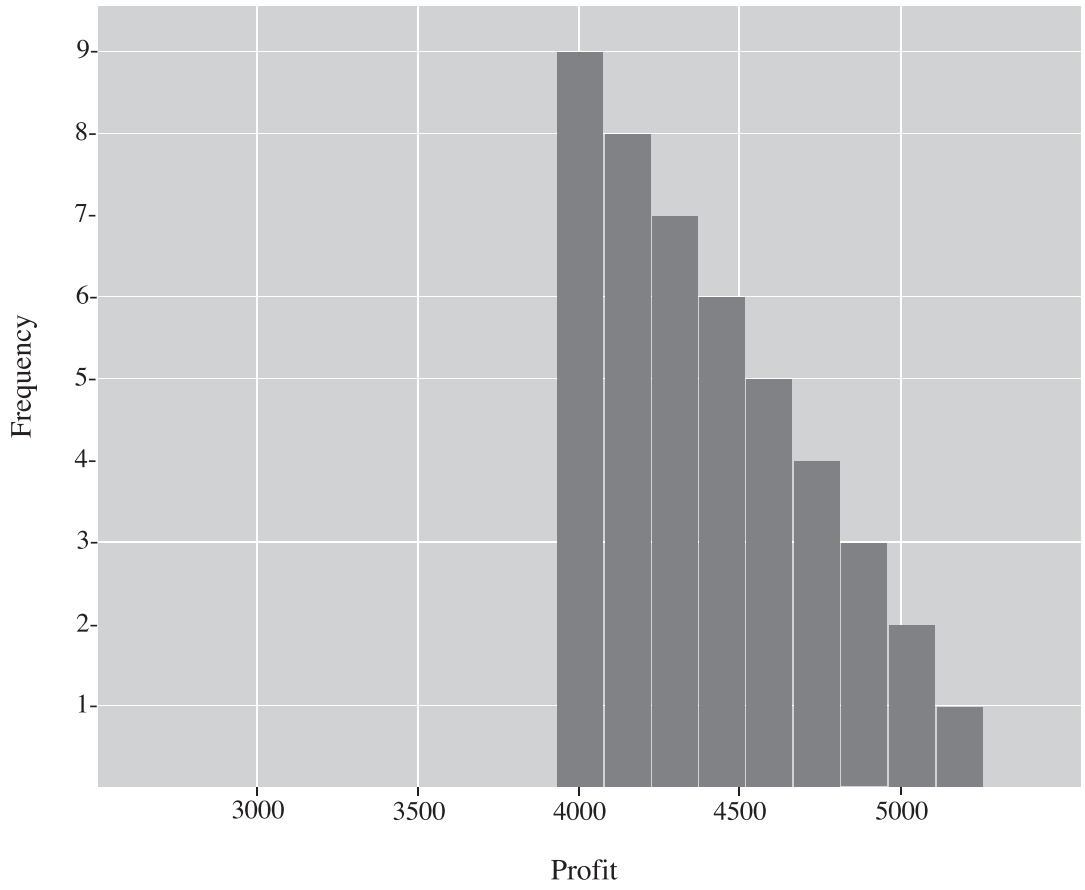


FIGURE 4-4: DISTRIBUTION OF DECISION OUTCOMES

The most obvious solution is considered non-creative, and the least obvious solution is considered the most creative (Simonton 2015), and this applies even to negotiating outcomes where the integrative solution is considered the least obvious (Wilson & Thompson, 2014). A total of 45 decision options are therefore represented by the simulation between the joint profit possibilities from $4,000 (most probable or obvious) to $5,200 (least probable or obvious). The middle point of these decision options generates a joint profit of $4,400; i.e. there are an equal number of decision options that will generate a joint profit between $4,000 and $4,400 and those that will generate a joint

profit between $4,400 and $5,200. In terms of creative or ideation potential, $4,400 would therefore be creativity neutral as a means of collective profits. The estimation of creativity based on probabilities was suggested by General Computational Model (Simonton 2015). The simulation being a symmetric one, the creative neutral profits for buyers and sellers individually will be $2,200. Any profit accumulation below $2,000 for either the buyer or seller would be deemed a negative creation, as it would be the result of exploitation by the other party and show acceptance of a solution that was below even the most obvious one and therefore indicate creative activity in the opposite direction.

In previous uses of the experimental study (see Pruitt & Lewis 1975; Cronin 1994), it has been narrated that as depicted in Figure 4-4, highest number of price connections that exist are to achiever a joint profit of $4000 and the lowest number of price connections that exist are to achieve a joint profit of $5200. It has been suggested in earlier experiments through randomisation techniques that $4400 is the mean of probabilities because an equal number of profit possibilities exist before and after that number. The general computational model for creative possibilities also validates this calculation (Simonton 2015).

4.8.2 **Data Collection**

The data collection followed the following process:

1. Each sample of 32 participants was randomly divided into four groups: one control group (no intervention) and three experimental groups (for intervention).
2. A pretest was administered to all four groups for equitable distribution, and to ensure that each group had two people from each company.
3. Each of the four groups was then randomly divided into two sub groups: 4 buyers and 4 sellers. They were randomly assigned numbers to determine the sequence of interactions.

4. Each member of the sub group, buyer or seller, was issued a brief (Appendix One) about their role in the experiment. The sub groups were not permitted to interact with each other.
5. Each group was given 30 minutes to study the note and prepare their individual negotiation strategies. After 30 minutes the dyadic discussions were carried out. After one round of discussions a break was taken. The second round of discussions between the same pairs happened after the break. The second round of discussions was done to study the variance of relationship affect (Cronin 1994).
6. The negotiated deals between the buyers and sellers (in absolute terms) was documented.
7. No treatment was administered to the control group. The treatment was administered to the three experiment groups.
8. The treatment of experimental groups was administered through the brief in writing about their intent, and also through verbal reiteration that they should stay true to their intent. For example CA intent group was told one on one by the researcher, “Your condition in your brief is to focus on maximising your CA. Please stay true to that during the experiment.”
9. Within CA, sellers were given the treatment, and within Rent buyers were given the treatment. Only one side had to be given the treatment as this was needed to study the effects of exploitation, if any. The choice of sellers in CA, and buyers in Rent was randomly determined, again by chit selection. Two chits named *sellers* and *buyers* were kept for each group ie. CA and Rent. This was randomly picked before the experiment and it determined the choices.
10. Both sellers and buyers were given the treatment for PD. This was by design, because the condition of problem discovery in this experiment aimed to study

the effects of PD as a whole. The experiment could also have studied this as a treatment to one side, however that would be at the cost of the joint study, and needed even a greater sample size. The tradeoff was made in favour of joint discovery.

11. The group was debriefed and their questions specific to the case study and negotiations were answered.

In the *RCT*, experiments require a control group and an experimental group.

The three experimental groups studied for this research were based on the research questions and hypothesis.

The first group, G1, was the control group. No intervention was administered.

The second group, G2, was the experiment group. The treatment was administered only to the *seller* sub group for the study of *H1: The intent of CA has no effect on creativity or creative outcomes.* The seller group's brief was altered and instructed to adopt an approach that would give them a competitive advantage (Appendix 1b).

The third group, G3, was the experiment group. The treatment was administered only to the buyer sub group for the study of *H2: The intent of Rent leads to negative creative outcomes.* The *buyer* group's brief was altered and instructed to adopt an approach that would simply maximise their returns (Appendix 1c).

The fourth group, G4, was the experiment group. The treatment was administered only to both sub groups for the study of *H3: The intent of PD has a positive relationship with creative outcomes.* The group's brief was altered and instructed to adopt an approach that would discover unknown problems and approach the negotiation creatively (Appendix 1d).

The data collected from each of the four groups was dyadic. Each subject, over two rounds, generated 8 dyadic decisions, such that each group generated N=32 dyadic

decisions. This implied, N=32 buyer and N=32 seller decisions. Across the groups total observations were N=128 dyadic outcomes.

Table (4-6) represents the variables with respect to the hypothesis and the measures that the data aims to reflect.

TABLE 4-6: VARIABLES AND MEASURES

	IV (Cause)	DV (Effect)	Measure
H1	CA	Neutral Creative Outcomes	Comparison of deal with neutral, positive or negative creativity levels
H2	Rent	Negative Creative Outcomes	
H3	PD	Positive creative outcomes	

4.9 Ethics

Bell and Bryman (2007) identified ten principles of ethical practices. These are summarised in Table (4-7) (Easterby-Smith et al. 2018 : 157).

TABLE 4-7: KEY PRINCIPLES IN RESEARCH ETHICS (BELL & BRYMAN 2007).

1	Ensure that no harm is caused to the participants.	Protection of research participants
2	Respect the dignity of the research participants.	
3	Ensure a fully informed consent of research participants.	
4	Protect the privacy of the research participants.	
5	Ensure confidentiality of research data.	
6	Protect the anonymity of individuals or organisations.	
7	Avoid deception about the nature or aims of the research.	Protection of integrity of the research community
8	Declaration of affiliations, funding sources and conflicts of interest.	
9	Honest and transparency about communicating about the research.	
10	Avoidance of any misleading or false reporting of research findings.	

With respect to the above principles, this research protected the participants, the organisation that participants belong to, and the research community in the following manner.

1. Ensure that no harm is caused to the participants: The participants were encouraged to participate from their free will. The managers or the researchers didn't put any pressure on the participant to take part in the experiment. During the experiment, the participants were debriefed, and all their concerns and questions were handled.
2. Respect the dignity of the research participants: The dignity of the participants was protected. There were no judgements, or prejudices that the participants were subjected to.
3. Ensure a fully informed consent of research participants: All participants signed a consent form.
4. Protect the privacy of the research participants: The privacy of the participants was protected by keeping their anonymity in the research process. Also no participant specific experiment data was shared with the participant's firm.
5. Ensure confidentiality of research data: The research data was secured confidentially. The data was recorded by the researcher during the experiment, and filed securely in the researchers laptop, which is secured by a password.
6. Protect the anonymity of individuals or organisations: The research process has held both of these anonymous.
7. Avoid deception about the nature or aims of the research: The nature, and aims of the research were fully disclosed to the participants as well as the firm.
8. Declaration of affiliations, funding sources and conflicts of interest: The firm and the participants were made aware of the researcher's affiliations. The funding sources (self) were reported, and no conflict of interests were identified.

9. Honest and transparency about communicating about the research: The objectives, aims, and purpose of research were communicated to in writing to the firm's leadership, human resources department, and to the participants.
10. Avoidance of any misleading or false reporting of research findings: The raw data generated was converted into a non editable pdf file on the day of the experiment. This ensures that the original data is accessible and verifiable at any given time.

4.10 Unit of Analysis

This research is about strategic intent as reflected in TMT. The literature review in Chapter Two and hypothesis in Chapter Three identified three strategic intents: Rent, CA, and PD. Therefore the unit of analysis is the decision taken by strategists in large competitive firms. This is reflected in the performance of sellers and buyers in the experiment as a negotiated deal number i.e. the dyad. It is advised that the unit of analysis in such experiments be the dyad (Kenny et al. 2006).

The control group, G1, has not been administered any treatment or intervention, and the decisions recorded from G1 are based on the decision maker's comprehension of the situation and his or her intent therein.

The experiment groups, G2, G3, and G4, were instructed to participate with the intents of CA, Rent, and PD respectively. The decisions recorded therein are a reflection of a decision makers specific intent.

The hypothesis relies upon the different outcomes of these decisions and comparative analysis between the experiment and the control groups.

4.11 Analysis

RCT calls for quantitative analysis. After choosing the quantitative approach, it was appropriate to link the data analysis plan with the main research questions (Neuman, 2003). The analysis to be done was based on the type of data that came from the research questions and hypothesis. The goal is to conduct statistical analyses to test the relationships in the conceptual framework outlined in Chapter Three. According to Back & Kenny (2010), the process most useful in analysing dyadic block design data are:

1. Correlation analysis: Correlation analysis is conducted to ensure independence of all variables.
2. Univariate analysis: univariate analysis refers to the analysis of one variable at a time (Bryman & Bell 2015 : 347). It is the first step in any social relations model such as block design dyad (Back & Kenny 2010).
3. Multivariate regression analysis: To be able to confirm that hypothesis of cause and effect relationships, regression analysis are recommended (Kenny et al. 2006 : 231).

4.11.1 **Correlation analysis**

Pearson's r statistical and Kendall's tau index was used to describe the degree of strength and the direction of association that exists between the strategic intents and resultant outcomes in the RCT. The Pearson product-moment correlation is one of the most commonly used correlations in statistics and is recommended for dyadic analysis (Kenny et al. 2006 :28). Kendall measures the strength of dependence or association between two variables (Puka 2011)

4.11.2 **Univariate analysis**

Once correlations were verified, validation of whether different groups have statistically significant differences in their means was conducted. The objective was to understand what explains the variance within each of the groups and between the different groups. Welch two sample t-test, F-test, and Kolmogorov-Smirnov tests were conducted for this purpose.

Welsch 2 sample t test is conducted to check if the difference between the average (mean) of two groups (populations) is significant (Zimmerman 2010).

An *F-test* (Snedecor & Cochran 1983) is used to test if the variances of two populations are equal.

The *Kolmogorov-Smirnov test* (Chakravarti et al.1967; 392-394) is used to decide if a sample comes from a population with a specific distribution.

The significance and applicability of these tests would be discussed further in the next chapter.

4.11.3 **Multivariate analysis**

For the *hypotheses* testing, regression analysis models have been used. Most of the studies in strategic management have used regression analysis to test the hypothesised relationships. Linear regression models often enter variables in a purely additive way, and thereby the resulting estimates concern effects of a single variable in isolation. The estimated effect may not clearly describe the effect of the variable interacts on other factors, and is therefore context independent.

The researcher attempted to have a holistic understanding of the causal relationships. In addition logistic and quantile regression techniques were employed to test the hypothesis in a robust manner.

4.11.3.1 **Regression**

In order to analyse the relationships between the different variables that constitute the hypothesis, linear, logistic, and quantile regression analyses were conducted, one hypothesis at a time.

A three-stage least regression technique was employed with four models, since this approach reduces the concerns of endogeneity (Menguc et al., 2014). The objective of the regressions made is to test whether the hypothesis on the relationships between different variables are supported or not.

Regressions are conducted in order to test the hypothesis of the study.

For the *aim* of studying the effectiveness of the model employed, an F Test for model restrictions would also be conducted. F test can be used to test hypotheses associated with “nested” regression models. Nested hypotheses are used to reject null hypothesis (Allen 2017)

4.11.2 **Reliability and Validity**

Reliability refers to the consistency of the measure, the probability of obtaining the same results again if the measure was to be replicated (Oppenheim, 1992, p.144).

Two measures of reliability (Price et al. 2015) have been suggested for RCTs. These are *test-retest measures* i.e. to using the measure on a group of people at one time, and using it again on the *same* group of people again. The second suggested measure is to examine test-retest correlation between the two sets of scores. A third measure suggested is to document the RCT in complete detail to allow for repeatability by other researchers. RCT design over two rounds in this simulation accounts for test-retest, the analysis plan covers for testing of correlation, and the research design is documented here in detail.

Experimental validity refers to the manner in which variables that influence both the results of the research and the generalisability to the population at large. It is broken down into two aspects: (1) Internal Validity and (2) External Validity (Tanner 2018).

Internal validity refers to a study's ability to determine if a causal relationship exists between one or more independent variables and one or more dependent variables. Correlation might not imply causation and therefore purpose of an RCT, however, is to show that two variables are statistically related and to do so in a way that supports the conclusion that the independent variable caused any observed differences in the dependent variable.. RCT are considered to be high in internal validity (Tanner 2018) because they can handle the threats to internal validity through randomisation. In particular, there are three primary threats: *contamination* (i.e. occurs when participants in different groups are allowed to interact), *crossovers* (i.e. research subjects assigned to one condition end up in some other experimental condition), and *attrition* (i.e. loss of research subjects during the experiment) (Shadish et al. 2002).

The research design for RCT in this study ensured that subjects were exclusive to their groups, were only tested on one of the conditions, did not interact across groups, and were available throughout the experiment. In this manner the RCT established high internal validity.

However, RCTs are sometimes criticised on the basis that their generalisation of findings to 'the real world' may not be transferable (i.e., they are low in external validity) (Tanner 2018). An empirical study is considered high in external validity if the way it was conducted supports generalising the results to populations and situations beyond those actually studied (Price et al. 2017). This implies that subjects need to be drawn from target populations rather than accessible population, because generalising the research results from the accessible population to the target population threatens validity (Price et al. 2017). This study therefore chose subjects from the target population. The other aspect of

situational validity refers to whether or not the experiment translates to real world situations. To increase the probability of situational validity the RCT chose negotiations as the choice of experiment. As was reviewed earlier, negotiations present links between creativity and strategic issues which decision makers are likely to confront in their roles.

Two other significant validity concerns highlighted by Price et al. (2017) towards RCTs were construct and statistical validity.

Construct validity is achieved when manipulations or treatments clearly speak to the research hypothesis. In the case of this RCT, the treatments were directly correlated to the hypothesis.

Statistical validity is achieved through a combination of inferential statistics (inferential statistics tests (e.g., t-tests, f-tests, regression, correlation) and as such the data analysis plan is conceived to test these factors.

4.12 Qualitative Validation Using The Delphi Method

The research design depicted in Figure 4-2c outlined qualitative analysis using the Delphi method to conclude the mixed method sequential explanatory design.

The Delphi method is a technique used for effective group-based judgement and decision making (Linstone & Turoff 1975). It has been considered to be a more productive process than traditional meetings (Rowe & Wright 2001). The process follows four principles for collection of data and analysis: anonymity of participants, iteration, controlled feedback of responses to the expert panel, and statistical aggregation of individual responses (Belton et al. 2019). The iteration and feedback can consist of several rounds until a pattern emerges or a consensus forms.

Based on various previous publications related to the Delphi method, Belton et al. (2019) proposed six steps for a successful Delphi application. This research follows the process proposed. These six steps are:

Step-1: Setting up the Delphi process by determining the overall goals of the exercise and by choosing relevant panel of experts.

Step-2: Develop question items and response scales by determining the number of issues to explore, creating questions, and defining response formats.

Step-3: Delivery choices i.e., how will the questions be administered.

Step-4: Providing feedback to panelists based on responses received from all panelists.

Step-5: Preventing and dealing with panelist drop out.

Step-6: Analysing and presenting the Delphi data.

4.13 Setting Up The Delphi Process

Belton et al. (2019) suggested formulating the goals of the exercise as the necessary step to setting up the process itself as this would direct the selection of experts. As outlined in the research design the goal of this stage of research is to validate and gather information about the findings of the RCT.

Different theories have suggested different way of conducting a Delphi study. These include open-ended questionnaires (Day & Bobeva 2005), face to face workshops (Frewer et al. 2011), yes or no forecasting questions (Belton et el. 2019), role playing or dialectical inquiries (Bolger & Wright 2011), and rank-ordered or Likert-type scale surveys (Aengenheyster et al. 2017).

Popular approaches to Delphi studies suggest making use of descriptive analysis post collecting survey data (Belton et al. 2019). Within this research the purpose of the Delphi study is to validate quantitative findings. The purpose of the Delphi exercise as such within this research is to collect data and examples that refute or accept the findings and provide reason for it. Therefore this research would focus on yes or no questionnaires expert panel with open ended questions for understanding their reasons. This has been

suggested as mechanism to move from positivism epistemological positioning to a constructivism one (Gray 2009: 374).

This research would incorporate the questionnaire method within the Delphi technique and collect data through response to validate the quantitative findings. Each question however, would have a Yes (agree), No (disagree) or I don't know (neutral) response that would establish the consensus or lack of it.

Selection of experts is also considered part of setting up the process. The expert panelists can be purposive or convenience samples (Devaney & Henchion 2018). An important consideration for selecting a sample must be their likely level of engagement with the questions and topic. This is considered critical to control the dropout rate ((Hasson et al. 2000)

Considering the quantitative analysis was a purposive sample of strategic decision makers in established companies, the Delphi technique would also consider experts who are strategic decision makers, for e.g. CEOs in established companies.

Many ranges have been suggested for numbers related to the adequacy of an expert panel: 5–20 (Rowe & Wright 2001), 15–60 (Hasson et al. 2000), no >50 (Toma & Picioreanu 2016). Recent studies by Belton et al. 2019, suggest that lower end of these numbers may be adequate. The number selection needs to be guided by the objectives and expert sampling. It is further suggested that for expert validity it is better to have a heterogeneous group rather than a homogenous one (Belton 2019). For the purpose of Delphi research within this study, therefore, the expert panel shall be formed with a mix of academic, industry, and government (or public sector companies) decision makers. Nine senior leaders, three each from these sources would form the expert panel. The participants will be categorised as numbers 1-9 based on the above. While the broad identities (as above) shall be known to all panel members, absolute identities will be anonymous. Participants shall be common to all rounds. Specifically the panel consists of

a. Three CEOs: a leading automotive manufacturer in India, a large public listed global IT company in UK, and one of the established healthcare company in USA.
b. Three academicians: a Professor for creativity studies based in a University in United States, Professor for Operations research in a leading business school in India, and a Professor for Economics and Finance based in the United Kingdom.
c. Three leaders from government or public sector undertakings: a senior level director advising innovation at European Union, a United Nations ambassador for environment based out of US, and a Governor of a state in India.

In Delphi studies the participant selection has been recommended to be purposive and such that participant retention is taken into account (McPherson et al. 2018). Given these objectives the participants shall be recruited through known networks of the researcher or through referrals from within the known network. This will ensure that the selected experts are the target panel and have a higher probability of retention. Moreover given the high profile audience, it is unlikely that random selection techniques would reach out to such an audience.

4.14 Setting Up The Questions

While designing the questions it has been emphasised to keep in mind a reasonable time frame that the panelist is likely to devote to the exercise without getting disengaged. This should not exceed thirty minutes of time (Belton et al. 2019). The questions in this study needs to be preceded by the presentation of findings of the quantitative data. Each participant would be given a presentation of quantitative findings on a virtual call prior to sending them the questionnaire (Appendix 6).

While the actual questions will be designed and written post quantitative analyses and based on the findings therein, broadly the theme of the questions will be around the three Hypothesis, i.e. the relationship of CA, Rent and PD to creative outcomes, whether they are neutral, positive, or negative. Each question would invite open responses and examples from the expert panel, as well as lead to choosing a Yes, No, or I don't know response. As suggested in earlier research two questions will be formulated for each hypothesis to check reliability (Belton et al. 2019).

The strategy for developing the questionnaire was influenced by the logic of validating quantitative work (Jacobs 2020; Haven et al. 2016) and by methodology to validate studies by using yes or no questions (Belton et el. 2019). Guidelines for qualitative research submitted to the Journal of the Society for Social Work and Research (Wu et al. 2016) suggest at least one overlap in questions to infer validity. Therefore each hypothesis presented two questions. The first question toward a hypothesis represents yes, no, or I don't know choices. The second question toward a hypothesis presented a positive, negative, and neutral correlation choice. Questions 1 and 4 pertained to to H1, questions 2 and 5 pertained to H2, and questions 3 and 6 pertained to H3. Each question was followed with open comments sections for participants to articulate their reasoning and provide feedback. Each hypothesis would have *n=18* responses in each round.

The results of Round-1 will be captured and feedback will be shared with all participants with quasi anonymity before they answered the same questions for round two.

4.15 Delphi Analysis

Four level of analysis will be conducted to study the data in detail. These will be measurement of consensus using the mean data. (Hasson et al. 2000), content analysis (e.g. Setty et al. 1987; Von der Gracht & Darkow, 2010), thematic analysis (e.g. Collins et

al. 2010; Toma & Picioreanu 2016), and a narrative only description of data (De Loë et al. 2016).

Agreement is defined as 75% or more agreement on *n=18* responses for each hypothesis in each round (Diamond et al. 2014).

4.16 Delivery Choices, Feedback, Rounds, and Dropout

The method of administering questions within this research is through one on one email exchange (Gray 2009: 374). This is guided by the goals of the exercise as also by the seniority of the panel.

Background information to panelists is considered an important and often neglected task (Sinha et al. 2011). This research would therefore provide background information based on analysis of quantitative data. The type of feedback provided to participants between the rounds is a key design issue that determines how panelists may respond in subsequent rounds (Boulkedid et al. 2011). In line with recommendations of previous researchers (Belton et al. 2019; Bolger & Wright 2011; Meijering & Tobi 2016; Rowe & Wright 2001), aggregated numeric feedback on current state of consensus shall be provided as well as qualitative observations made by different member for each question shall be provided to the panelists.

Quasi anonymity technique (Hunter et al. 2022) will be used. This implies that participants will broadly know each other (e.g. CEO of automotive company in India) without knowing actual identities. Participants under this technique will also know specific responses of the panel but not know the origins of qualitative statements.

Previous research suggests that ideal number of rounds can be between two to five. However past research also warns of dropout rates as the rounds increase, as also the possibility of false consensus if multiple rounds of iteration is carried on (Sinha et al. 2009; Humphrey-Murto & de Wit 2016). While feedback from panelists can influence

subsequent decisions, it is also cautioned that excessive rounds may lead to a loss of credibility on account of fatigue and interest (Campbell et al. 1999). Further given the seniority of the panel and likely difficulties in obtaining time for multiple discussions, this particular research would conduct two rounds, i.e round one as the first interview post which feedback shall be collated and shared and a second round administered to collate final results.

Generally peer reviewed publish research considers anything above 51% as consensus. However an analysis by Diamond et al. (2014) that reviewed 89 Delphi studies found that the most common definition for consensus was defined by percentages with 75% being the median to define whether consensus was achieved or not. Therefore this research would also follow the same definition and set 75% of 7 out 9 affirmative responses as an indication of consensus after Round-2.

Dropouts are considered an effect of fatigue as well as lack of interest. The purposive sampling sand restricting the number of rounds should help in overcoming this. Nevertheless should any panel attrition occur, the researcher would aim to substitute the panel with an alternate member. The researcher would also aim to maintain personal communications, constant connection and making participants feel involved as strategies to ensure continuity (Belton et al. 2019)

4.17 Analysing The Delphi Data

Data outputs within a Delphi study can be presented in both qualitative and quantitative methods (Hsu & Sandford 2007). Descriptive analysis is a common practice among Delphi studies (Belton 2019). However this research is mostly concerned with qualitative analysis that can support the quantitative findings. Nevertheless following analysis will be performed to make conclusions.

Measurement of consensus using the mean data. (Hasson et al. 2000)

Content analysis (e.g. Setty et al. 1987; Von der Gracht & Darkow, 2010). Content analysis is categorisation of data based on themes or content.

Thematic analysis (e.g. Collins et al. 2010; Toma & Picioreanu 2016). Thematic analysis are detailed exploration of issues arising from the collected data.

A narrative only description of data is considered a popular source of anlaysing Delphi technique (De Loë et al. 2016). Consequently this study will also focus on a narrative explanation of different responses.

4.18 Reliability and Validity of Delphi Data

Design, facilitation and reporting of Delphi study requires consideration of validity and reliability in order to maximise credibility (Rowe and Wright, 2011). Reliability refers to the extent to which the process delivers similar answers every time a question is asked (Hasson et al., 2000). Validity is defined as the degree to which a test measures what it set out to measure (Coulacoglou & Saklofske 2018).

As a measure of reliability it has been suggested to ask the same question twice in different wordings to measure the reliability of responses. Content validity on the other hand is achieved through a panel that is motivated (or without dropouts). It is also achieved by giving participants adequate opportunity to comment and put forward their arguments (Belton 2019). Therefore this study will incorporate preparation of the questionnaire in the manner suggested as well as identify participants who have an active interest in the research subject.

4.19 Ethical Consideration and Process

Millar et al. (2006) developed the ethical framework for a Delphi study. They noted that the Delphi method is valuable when all or a majority of following conditions are applicable:

1. Requirement of an expert input.

2. Issues are complex controversial.
3. Differing arguments are essential to debate.
4. Diverse communities may have concerns about the issues.
5. Outcomes from the process impacts several issues.
6. Need for a cross-sector scientific debate.

This research satisfies the above conditions as the hypothesis, particularly the one related to negative creative outcomes is a novel consideration. This may be considered complex and controversial, and would need validation through expert input.

The authors further suggested five ethical consideration in the process of conducting a Delphi study.

1. Maintain quasi-anonymity, i.e. broadly the participants may know each other, however individual responses should be protected.
2. The method should allow the group to evolve the agenda through responses in different rounds.
3. The process is egalitarian and prevents domination by the peer group through anonymity.
4. The process encourages a written dialog through series of rounds.
5. Including a broad range of experts that can provide new ideas and perspectives to participants.

The above considerations would be considered while conducting the study through the process outlined in Table 4-8.

TABLE 4-8: ETHICAL PROCESS

1	Selection of a diverse group of participants from academic, industry and government comprises of the expert panel.
2	Seek consent for interview in writing for two rounds.
3	Absolute anonymity of participants is protected.
4	The same questionnaire is shared with everyone in Round-1.
5	Written responses are recorded and read back to individual participants for confirmation.

6 Aggregated feedback from all participants is shared with individual participants in anonymity.

7 Written responses are recorded for Round-2 and read back for confirmation.

8 Final results on consensus are shared with all.

4.20 Summary

This chapter examined the research methodology to be applied within this thesis. The researcher has justified the use mixed method sequential explanatory design by using first the quantitative RCT and narrating why the quantitative approach is the most appropriate. Thereafter the researcher outlined the collection qualitative data using the Delphi method to analyse and validate quantitative findings. This Chapter reflects the types of research strategies and relevant procedures.

The relationships between variables in this study will be analysed using the data from the experiment. Simple and multiple regressions were introduced for testing hypotheses. Regression meant to examine the relationship between variables especially the extent to which a dependent variable is a function of one or more independent variables. These would follow in the next chapter.

In summary, this research seeks to investigate the role of strategic intent in determining creative outcomes. This chapter should help in building the proper investigation for the *hypotheses* thus helps in finishing the final nature of the research. The research methods discussed in this chapter will be used as an important tool that acts as an action plan for the empirical data analysis done subsequently. The next chapter will present the results of data analysis based on the RCT and the Delphi study.

Chapter Five — Quantitative Analysis

The main purpose of this chapter is to examine the relationship between strategic intents (CA, Rent, and PD) and creative outcomes. This should address the research aim through understanding the relations between intents and outcomes in a comprehensive way, through established procedures that ensure the validity and reliability as discussed in Chapter Four. Data would be explored as a result of the applied procedure in order to establish any preliminary relationships or patterns between the decisions and the target variables. Results from Delphi study would further be analysed (in the next chapter) to establish confirmation of quantitative results in the subsequent chapter. This will thus ensure contribution of each of the strategic intents towards establishing the direction of creative outcomes. As such, the objective of the analysis is to test whether the data fit the hypothesised measurement model presented in Chapter Three.

Descriptive data analysis is presented with respect to the results or decisions of the experiment; this is supported by inferential statistics to investigate the model and hypotheses. In many cases, the conclusions from inferential statistics extend beyond the immediate data alone; hence the researcher inferred the data and statistics, through aligning each indicator with the findings supported by the literature. Trying to infer from the RCT, the researcher investigates differential judgements made by the participants in each of the groups i.e. CG, CA, Rent, and PD. The researcher linked each of the inferential analyses to specific research questions that were raised in Chapter Two and Three. Notes were given on the different tests that were used for testing the relations of the proposed study model.

The researcher tried to present enough detail to follow the central line of the results in all planned analysis stages; where extensive analysis results are presented in the appendices, reserving only the most critical analysis summaries for the body of the thesis itself. The tests administered show high internal reliability and a reasonable indication of

validity. The analysis work was done using R software since it is one of the most reliable statistical analysis packages.

5.1 RCT Summary

The RCT was described in detail in the previous chapter, however Table 5-1 summarises and describes the process of carrying out the RCT.

Sample size was drawn out from four companies. Each participant was Vice President or above in their respective companies. Even though more people had expressed keenness in participating, finally the companies were requested to send eight people for the experiment. Each of the eight people from each company, were randomly allocated roles as sellers and buyers (through simple chit selection), and there after each seller and buyer were allocated to the four groups (through chit selection). Therefore each of the groups had people, two from each company, as four buyers and four sellers.

Thereafter the briefs were given to the subjects. The control group was not administered any treatment. Sellers in the CA group were administered CA treatment through writing in their briefs as well through oral reiteration. Similarly Buyers in the Rent group were administered the Rent treatment. This selection was random. Both buyers and sellers were administered the PD treatment in the PD group. This was because the experiment is measuring joint problem discovery as a condition.

Each seller within the group met each buyer in two rounds, i.e. a total of 32 dyadic decisions were recorded per group. After each meeting the pair wrote their decisions (the price agreed) on a piece of paper and handed over to the researcher, who fed it on to his computer, and validated with the pair. There were no inter or intra group discussions held between the participants during the experiment.

TABLE 5-1: RCT FLOW

Sample: 8 Senior Management (VPs and above) from 4 Companies = 32 ↓			
Co. A =8	Co. B=8	Co. C=8	Co. D=8
8 Chits were kept ready. Four named as buyers and Four named as Sellers	8 Chits were kept ready. Four named as buyers and Four named as Sellers	8 Chits were kept ready. Four named as buyers and Four named as Sellers	8 Chits were kept ready. Four named as buyers and Four named as Sellers
Each company subjects, randomly through Chit Selection were allocated as 4 Sellers and 4 Buyers			
Co. A =8 4S + 4B	Co. B=8 4S + 4B	Co. C=8 4S + 4B	Co. D=8 4S + 4B
4 (X2) Chits were kept ready, one for each group - CG, CA, Rent, PD	4 (X2) Chits were kept ready, one for each group - CG, CA, Rent, PD	4 (X2) Chits were kept ready, one for each group - CG, CA, Rent, PD	4 (X2) Chits were kept ready, one for each group - CG, CA, Rent, PD
Sellers and buyers selected their chits randomly and each group had one buyer and one seller from each company. A total of 8 subjects per group			
CG = Control Group No Treatment	CA= Competitive Advantage Treatment = Sellers	Rent = Rent Treatment = Buyers	PD = Problem Discovery Treatment = Both
Base Group	Treatment allocated randomly	Treatment allocated randomly	Treatment allocated to both by design
Briefs given to both buyers and sellers. 30 Minute time given to understand and prepare individually.			
Each Buyers Met Each Seller to Negotiate in 2 Rounds. That is a Toal of 32 Joint Decisions were recorded	Each Buyers Met Each Seller to Negotiate in 2 Rounds. That is a Toal of 32 Joint Decisions were recorded	Each Buyers Met Each Seller to Negotiate in 2 Rounds. That is a Toal of 32 Joint Decisions were recorded	Each Buyers Met Each Seller to Negotiate in 2 Rounds. That is a Toal of 32 Joint Decisions were recorded
At the end of each discussion the pair wrote their decision on a piece of paper and handed over to the researcher, who fed the same on their system			
No Inter or Intra group discussion was allowed during the experiment			

5.1.1 **Analysis of the Research Objectives**

In order to analyse and review the analysis of quantitative data, it needs to be taken in stages (Dooley, 2000). The stages in this study were synchronised with the aims and objectives, and rechecked for its ability to answer the *research questions.* The following analysis stages were conducted to cover each of the *research objectives:*

1) *Preparatory statistics* was established and data entered was checked multiple times to eliminate errors.
2) *Descriptive statistics* was used to describe the main features of the collected data quantitatively and to investigate the specific roles of strategic intents - CA, Rent, and PD on creative outcomes i.e. whether neutral, positive, or negative.
3) *Inferential statistics* using *Welch two sample t-test, F-test,* and *Kolmogorov-Smirnov test* was used to examine and infer statistical significance for variance in the four groups. The inferential test was used to help understand the interactional effects between CA, Rent, PD, and respective creative outcomes.
4) *Pearson's r statistical and Kendall's tau* index was used to describe the degree of strength and the direction of association that exists between the strategic intents and resultant outcomes in the RCT.
5) *Multiple Regression Analysis, and SEM* were used for testing and estimating causal relations using a combination of statistical data. This was to help understand how strategic intents contributed to producing outcomes in the RCT.

5.1.2 **Preparatory stage - Cleaning and organising the data**

The data collected was checked before, during and after logging for the study integrity and reliability of results, hence the data accuracy was triple checked for proper data entry. There were no missing values in the RCT as each dyad recorded their decisions. N=256 decisions were recorded, i.e. N=64 for each of the groups or N=32 as dyadic decisions.

5.2 Descriptive Statistics

Descriptive statistics were used to describe the basic features of the data in the study, to provide simple summaries about the sample and the RCT. The researcher distinguished the descriptive statistics from the inferential statistics since the latter is used to reach to

conclusions about what the effects of variables; while the use of descriptive statistics is simply to describe what's going on in the research data in terms of percentages, frequencies and distribution. Univariate analysis techniques were used across the cases of one variable at a time, where there are four characteristics for each single variable intended to be looked at: the distribution, the central tendency, dispersion characteristics, and normality (Collis & Hussey 2014; 234). The descriptive statistics are presented in Appendix (2). The statistics captured, mean, median, ranges and standard deviations, and skewness and kurtosis. There were two key factors to be observed through the descriptive statistics in relation to the RCT. These were profits in different groups, as profits represented the decision between the buyers and sellers in the RCT, and the dyadic profit as whole and whether it was above or below the neutral creative levels as was calculated in Chapter Four.

The descriptive statistics were used to generate distribution of profit graphs for different groups for buyers and sellers, as is shown in Figure 5-1. Bar charts were also generated for examining distribution of dyadic profits. These are included in Appendix (3).

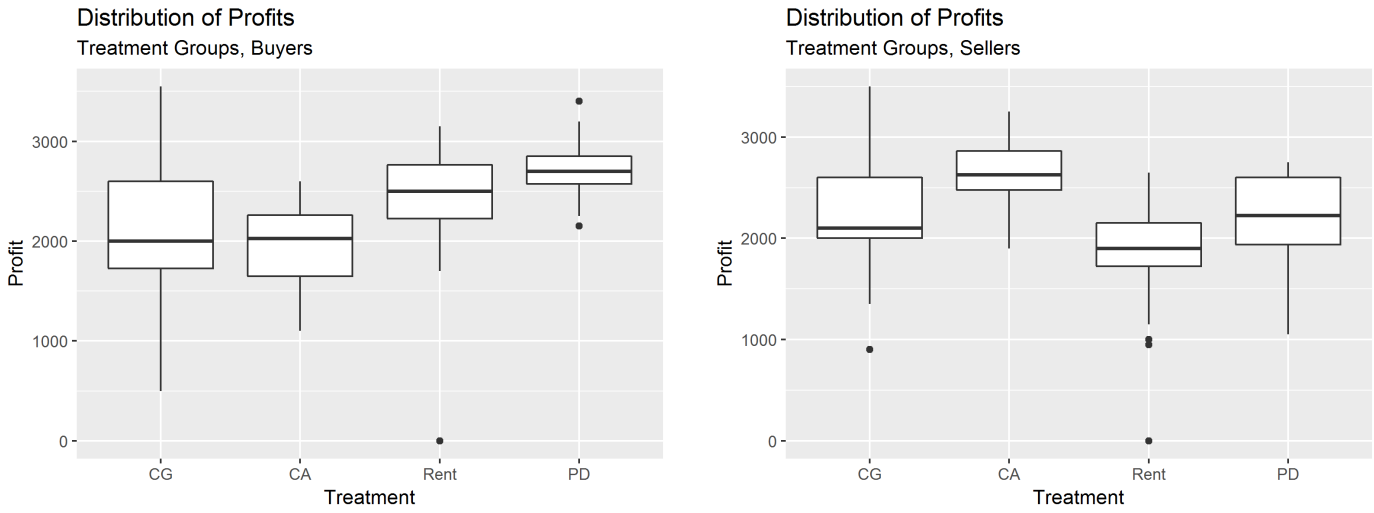


FIGURE 5-1: DISTRIBUTION OF PROFITS

Examination of Figure (5-1) shows that in conditions where treatment was administered, i.e. where strategic intents were provided to subjects, the profit performance was higher. This holds true for sellers in CA, buyers in Rent, and for sellers and buyers in PD. This is relevant as this thesis argues that strategic intents affect creative outcomes. The distributions across companies or ages do not present any significant variances, and this is important in isolating variables and focusing on the decision as the unit of analysis.

Table 5.1 further depicts the joint profits that were captured as dyads in the RCT under different groups. The table also represents the number of dyads that were greater than the creativity neutral levels.

TABLE 5-2: JOINT PROFITS

	CG	CA	Rent	PD
Joint Profits	4309	4581	4259	4891
Number of Dyads > $4400	11/32	17/32	13/32	30/32

The data presented in Table (5-2) indicates that dyadic performance under the conditions of CA was almost a 50% split in under and over neutral levels, in Rent was 40% over and 60% under the neutral levels, and PD was 93% over neutral levels. These initial findings were in accordance with the proposed hypothesis.

Profit discrepancies i.e. difference in distribution of profits between the buyers and sellers were also examined and is presented in Appendix (4). This was essential particularly to examine RQ2 and to determine the effect of the treatment (CA, Rent or PD) on the profit outcome. As can be seen in in Figure 5-1 and in Appendix (4), while the distribution of profits and discrepancies largely support the hypothesis, there are a few outliers visible that may be affecting the mean calculations. These would need to be considered while performing the regression analysis.

5.3 Reliability and Validity Analysis

Measures adopted and statistical analyses across the two rounds were done as part of addressing the reliability and validity across the control and treatment groups. Pearson and Kendall Tau tests were conducted to establish consistency of behaviour. If scores in Pearson are highly correlated across time, then evidence of test-retest reliability is assumed. Pearson's r is used to establish evidence of test-retest reliability. Kendall Tau test is a measure of the strength and direction of association that exists between two variables measured on at least an ordinal scale (see James et al. 2013).

5.3.1 Reliability analysis

The Pearson procedure was calculated for dyadic profits in each of the control and treatment groups across both rounds. The Pearson product-moment correlation is one of the most commonly used correlations in statistics. It's a measure of the strength and the direction of a linear relationship between two variables. However it is suggested that outliers in data, as was observed in descriptive statistics can really throw off a Pearson correlation (Freedman et al. 2014).

The Kendall correlation is non-parametric. It can be used with ordinal or continuous data. It is a statistic of dependence between two variables. Statistically dependance does not imply correlation. Kendall measures the strength of dependence or association between two variables (Puka 2011).

Table 5-3 represents the results for the two tests across total profits, seller's profits, buyer's profits, and profit discrepancies in each of the control and treatment groups.

For the CG and the treatment group CA, both Pearson test and the Kendall test, indicate high correlation and dependance. The outliers in the data in Rent (sellers) (Figure 5-1) could not validate the assumptions of the Pearson test. However the Kendall test establishes reliability. Similarly the outliers in buyers within PD (Figure 5-1) could not

validate assumptions of the Pearson's test. Moreover in PD group, the treatment was given to both buyers and seller, and they were not attempting to compete. The profits were not as dependant on each other or not at the cost of each other. This is reflected in both the tests and in line with the hypothesis on joint profits. Test-retest reliability measures the stability of the scores of a stable construct obtained from the same person on two or more separate occasions. The PD scores indicate, as expected, that collaborative nature of that negotiation ensured that learning happened between the two rounds. The scores on discrepancies that is is difference in profit earnings between buyers and sellers indicate highest reliability across all groups.

TABLE 5-3 PEARSON AND KENDALL TESTS

	CG	CA	RENT	PD
		TOTAL PROFIT		
PEARSON	0.640 *** p= 008	0.652 *** p=0.006	0.292 p=0.272	-0.111 p=0.681
KENDALL	0.442 ** p=0.032	0.586 *** p=0.003	0.604 *** p=0.004	-0.147 p=0.486
		SELLER PROFIT		
PEARSON	0.851 *** p=0.000	0.751 *** p=0.001	0.574 ** p=0.020	0.755 *** p=0.001
KENDALL	0.628 *** p=0.001	0.590 *** p=0.002	0.649 *** p=0.001	0.443 ** p=0.026
		BUYER PROFIT		
PEARSON	0.917 *** p=0.000	0.771 *** p=0.001	0.473 * p=0.064	0.493 * p=0.052
KENDALL	0.765 *** p=0.000	0.597 *** p=0.002	0.748 *** p=0.000	0.299 p=0.128
		DISCREPANCY		
PEARSON	0.918*** p=0.000	0.813 *** p=0.000	0.907 *** p=0.000	0.862 *** p=0.000
KENDALL	0.664 *** p=0.001	0.673 *** p=0.001	0.779 *** p=0.000	0.571 *** p=0.004

*p < 0.1; **p < 0.05; ***p < 0.01.

5.3.2 **Validity analysis**

Validity analysis was carried to measure the effectiveness in measuring what is supposed to be measured according to the *research aim and objectives.* Therefore, the researcher sought to ensure that the model used for analysis fits the data better than a restricted model. It is considered acceptable to use the *F-test* to test whether a proposed model fits the data well. The unrestricted model is the model without any of the restrictions imposed. It contains all the variables present in the study. The restricted model is the model on which the restrictions have been imposed.

F Test for model restrictions was performed by the researcher. The unrestricted model included all variables that could have impacted profits i.e. treatment, age, companies of sellers and buyers. Considering the research is correlating treatment to the outcome, the restricted model restricted the 'treatment' to calculate probabilities for a null hypothesis. It is considered that if the probability is greater than 5% then the null hypothesis can be rejected and the model can be validated (James et al. 2013).

TABLE 5-4: F TEST FOR MODEL RESTRICTIONS

True Model	
Restricted Model	0.5101

As shown in Table 5-4, the restricted model represents a 51% probability which is significantly higher (than 5%) to be able to reject the null hypothesis and strongly validate the model adopted.

5.4 Strategic Intent Variances

As part of the *second* then *third objectives* of the study the researcher wanted to establish that strategic intent variables from CA, Rent, and PD influence the creative outcome. The control and treatment groups were independent and as such not correlated. Within the groups, the negotiations between buyers and sellers in the RCT, resulted in profit

outcomes for each subject. The design of the experiment was such that total dyadic profit was made up of individual profits of sellers and buyers. Therefore the correlation between strategic intent and profits would be determined by comparisons with the CG where no condition or treatment was specified. Three approaches were considered for the purpose. There were (i) Welch 2 sample t test to compare profit variances and profit discrepancies, (ii) F test to compare profit variances and profit discrepancies, and (iii) Kolmogorov - Smirnov test or the equality of two distributions.

Welsch 2 sample t test is conducted to check if the difference between the average (mean) of two groups (populations) is significant. This is the test where it is not assumed that the variance is the same in the two groups, which results in the fractional degrees of freedom. The basic assumptions of this test are as follows, all of which were satisfied with the data: (i) The data are continuous, (ii) the data follow the normal probability distribution, (iii) the variances of the two populations are equal, (iv) the two samples are independent. There is no relationship between the individuals in one sample as compared to the other, and (v) samples are simple random samples from their respective populations. Each individual in the population has an equal probability of being selected in the sample. (Zimmerman 2010).

An *F-test* (Snedecor and Cochran, 1983) is used to test if the variances of two populations are equal. The difference between the t-test and f-test is that t-test is used to test the hypothesis whether the given mean is significantly different from the sample mean or not. On the other hand, an F-test is used to compare the two standard deviations of two samples and check the variability. It is considered that for continuous normally distributed data, summarised using means and standard deviations, if the data is skewed or there are influential outliers, the median (middle value) and interquartile range (Upper quartile – lower quartile) are more appropriate. An “F Test” uses the F-distribution. It uses an F

Statistic to compare two variances, i.e. s1 and s2, by dividing them. A result is always a number greater than zero (as variances are always positive). (Tanner 2018).

The *Kolmogorov-Smirnov test* (Chakravart et al.1967) is used to decide if a sample comes from a population with a specific distribution. The Kolmogorov-Smirnov test examines if scores are likely to follow some distribution in some population. In other words *Kolmogorov-Smirnov* test compares data with a known distribution and discovers if they have the same distribution. This is important to this research in the context of RQ2 to determine which intent is closest to CG where no treatment was given. This will help in determining the default assumptions of the subjects.

Appendix 5 depicts tables for profit variances as reported by Welch 2 sample t test and F test, variances in profit discrepancies as reported by by Welch 2 sample t test and F test, round variances as reported by Welch 2 sample t test and F test, and Kolmogorov - Smirnov test or the test for equality of two distributions.

5.4.1 **Strategic intent and profit variances**

The researcher started with reporting on the overall profit comparison between CG, CA, Rent, and PD. The theme of this study, and in response to RQ1 which inquires whether strategic intent influences creative outcomes, the *Welch 2 sample t test* shows an overall variance between different treatments.

In the Welch 2 sample t test: Profit variance between CG and PD ($P<0.01$) is highly significant. The variance between CG and CA ($p<0.05$) is also statistically significant. The variance between CG and Rent is not significant. Similar significant levels in PD ($p<0.01$) is observed in comparison to all other treatments.

In F test: Profit variance between CG and Rent, CA and Rent, Rent and PD assumes high significance ($p<0.01$).

The variance of profits under differing treatments in comparison to each treatment as well as in comparison to CG indicate the strategic intents played a role in determining creative outcomes for the dyads in the RCT. This seems to suggest in response to RQ1 that strategic intent does influence the direction of creative outcomes, whether positively or negatively.

5.4.2 **Strategic intent and variances in profit discrepancies**

While profit variance was dyadic profit as a whole, profit discrepancy was computed as difference between buyers and sellers profits. The researcher considered this an important aspect to examine to be able to study the effects of treatment on the respective subjects.

In the Welch 2 sample t test: Discrepancy variance between CG and CA ($p<0.01$) is highly significant and is a negative value. Sellers were given the treatment in CA and captured more value than the buyers. The variance between CG and Rent too is highly significant ($p<0.01$) where the buyers were given the treatment and captured more value than the sellers. Significant variance ($P<0.05$) is also noted between CG and PD. PD and Rent, however represented the same degree of inequality. It must be examined though that PD was better off as a whole than any of the other treatments.

In F test: Discrepancy variance between CG and all treatment groups was highly significant ($p<0.01$). There was homogeneity for outcomes in the groups.

The variances in profit discrepancies is a significant indicator of strategic intent. Under the treatment conditions of CA and Rent, the subject that was treated captured greater value than the opposite subject, regardless of being a seller or a buyer. In the PD group where both sellers and buyers were administered the treatment, buyers captured more value, however the sellers too were better in comparison.

5.4.3 **Strategic intent and variances in two rounds**

It was important for the reliability of the study that behaviours across rounds were consistent and not altering.

In the Welch 2 sample t test no significant variance was observed in profits between the two rounds indicating consistency of behaviours.

In the F test a highly significant ($p<0.01$) variance was found in the Rent group between round one and round two. The positive value indicates even grater heightened competitive behaviour in the round two to capture further profits.

5.4.4 **Strategic intent and the equality of distributions**

RQ2 initiated inquiry into determining which strategic intent may have a greater impact on value creation. It was important therefore to examine the distribution of profit across control and treatment groups.

As indicated by Figure 5-1 distribution of collective profits were the lowest in Rent, followed by CA, even though the treated subjects made greater individual profits. The distribution of profits were the highest in PD despite the discrepancy between buyers and sellers.

Kolmogorov - Smirnov test reported highly significant ($p<0.01$) difference in distribution of equality of profits between PD and all other groups i.e. the CG, CA, and Rent.

This suggests that the intent PD has greater impact on total value creation than other groups. CA and Rent were not significantly different from CG as reported by the testing suggesting that CA may have by default adopted either of the two intents.

5.5 Multivariate Analysis

The researcher conducted multivariate analysis techniques which allow more than two variables to be analysed at once. This analysis was carried by having the one (or more) of the dependent variables be explained or predicted by the others through regression analysis. Researcher conducted the Ordinary least squares (OLS) regression, logistic regression and quantile regression analysis. Data reduction through Confirmatory Factor Analysis (FCA) within SEM was performed by the researcher in this study in order to establish the variables relations and model specifications. The following section will discuss in detail each of the mentioned methodological approaches utilised in this research.

5.5.1 **Regression analysis**

This section contains results of the analysis used to test the hypotheses proposed in Chapter Three. Regression analysis were carried to examine the relationship between variables especially the extent to which a dependent variable is a function of one or more independent variable, (Neuman, 2003). Multiple regression analysis was used to examine the proposed research hypotheses and to support the prediction of an outcome from various predictors. Data were examined against the assumptions of the model used in this study. The diagnostic tests of linearity, homoscedasticity, normality and multicollinearity have been conducted in order to confirm that the regression analysis has met the validity requirements (Greene, 1993). The detection of linearity is examined by F-statistic and its associated significant level.

Three different kinds of regression techniques were used by the researcher.

(i) *Ordinary Least Squares regression*, often called linear regression, is used to predict the value of a variable based on the value of another variable (Zdaniuk 2014).

(ii) *Logistic regression* (Wright 1995) is a statistical model that uses a logistic function to model a binary dependent variable, although many more complex extensions

exist. Logistic regression is a binary regression. It was used in this analysis to regress profitability at above creativity neutral levels in comparison to the CG.

(iii) *Quantile regression*. Unlike regular linear regression which uses the method of least squares to calculate the conditional mean of the target across different values of the features, quantile regression estimates the conditional *median* of the target. The quantile regression was performed at fiftieth percentile. The main advantage of quantile regression methodology is that the method allows for understanding relationships between variables outside of the mean of the data, making it useful in understanding outcomes that are non-normally distributed and that have nonlinear relationships with predictor variables. It was mentioned earlier that the data (Figure 5.1) represented a few outliers. As such quantile regression will help in analysing the data regardless of the outliers. (Koenker & Kevin 2001).

5.6 Hypotheis Testing

Through the regression analysis, three hypotheses were tested. The hypotheses went through rigorous tests to examine whether the hypothesised relationships can be confirmed or not.

5.6.1 **H1 - The intent of CA has no effect on creativity or creative outcomes**

The first *hypothesis H1 proposed that CA has a no effect on creativity or creative outcomes*.

In order to establish that the condition of CA had no positive or negative effect on creative outcome, following conditions would need to be satisfied:

- That the total profits were in the vicinity of neutral creative numbers.
- That the P Values on total profit (above or below neutral) are not significant.

- That the seller's gains (on account of treatment) were offset by buyer's losses, thereby indicating neutral value creation as a whole.

This hypothesis has been investigated with variance analysis, linear regression model and quantile regression model.

Table 5-2 indicated that the Toal profit was marginally above the neutral creativity levels (4400), however an equal number of dyads were below and over the neutral levels.

OLS, logistic regression, and Quantile regressions were carried out to test the hypothesis. As can be seen in Table 5-5, logistic regressions for profits (above or below neutral levels) are insignificant values, there by indicating closeness to neutral levels. OLS indicates slightly significant profit values as a whole, indicating that the dyads were better off than the control group.

Similarly it can be observed in Table 5-6 that sellers made significant gains on account of treatment, however that did not benefit the buyers. The gains came at the expense of buyers, thereby dragging the total profits to a neutral level. As a dyad the group was better off than control group, however only marginally.

In treatment group CA, the sellers were given the treatment. The sellers were able to significantly maximise their returns above the neutral levels ($p<0.01$). This came at the expense of buyers who remained below the neutral creativity levels. However, the total value creation was marginally above the neutral value creation level. Nevertheless, 15 out of 32 dyads in CA were below the neutral creativity levels. The profit variance between CA and PD is significant ($p<0.01$), indicating that the subjects become conditioned to the problem of CA and miss identifying a mutual problem that could have produced better outcomes for both the actors and players. All indicators in OLS and Quantile regressions are significant. The results of this simple regression analysis did not find any evidence to reject the hypothesis H1.

TABLE 5-5: PROFIT REGRESSIONS, DEPENDENT VARIABLE = PROFIT.

	Profit OLS		Above or Below Neutral Levels Logistic		Profit (p50) Quantile
CA	271.875** (137.296)		0.772 (0.514)		450.000** (200.507)
RENT	-50.000 (137.296)		0.267 (0.518)		150.000 (108.740)
PD	581.250*** (137.296)		3.355*** (0.820)		900.000*** (145.890)
Round		4,309.375*** (97.389)		0.835** (0.364)	300.000*** (73.686)
Constant	4,309.375*** (97.389)	4,315.625*** (167.397)	-0.647* (0.372)	-1.023* (0.567)	3,700.000*** (151.191)
Observations	128	128	128	128	128
R^2	0.177	0.012			
Adjusted R^2	0.157	0.004			
Log Likelihood			-71.806	-85.263	
Akaike Inf. Crit.			151.612	174.526	
Residual Std. Error	550.918 (df = 124)	598.898 (df = 126)			
F Statistic	8.892*** (df = 3; 124)	1.501 (df = 1; 126)			
Note					*p<0.1; **p<0.05; ***p<0.01

TABLE 5-6: PROFIT REGRESSIONS, DEPENDENT VARIABLE = BUYER AND SELLER PROFIT.

	B Profit OLS	S Profit OLS
CA	-117.188 (138.048)	389.062*** (122.453)
RENT	368.750*** (138.048)	-418.750*** (122.453)
PD	635.937*** (138.048)	-54.688 (122.453)
Round	192.187* (97.614)	-62.500 (86.588)
Constant	1,782.031*** (175.977)	2,332.813*** (156.098)
Observations	128	128
R^2	0.252	0.265
Adjusted R^2	0.227	0.241
Residual Std. Error	552.190 (df = 123)	489.814 (df = 123)
F Statistic	10.341*** (df = 4; 123)	11.065*** (df = 4; 123)
Note	*p<0.1; **p<0.05; ***p<0.01	

5.6.2 **H2 - Intent of *Rent leads to negative creative outcomes***

The second hypothesis *H2 proposed that intent of Rent produces negative creative outcomes*. Same as the steps carried for testing H1, this hypothesis has been investigated with linear and quantile regression model. The framework in Chapter Three predicted that the intent of rent maximisation would lead to negative creativity in the form of exploitation. In the Rent treatment group, the buyers were given the treatment. The buyers were able to significantly increase their profits ($p<0.01$) above the neutral creativity levels, as reported in Table 5.6. The increased profit was at the expense of the sellers ($p<0.01$), who remained below the neutral creativity levels. The mean profit of the sellers was below $2,000 indicating that it was lower than even the most obvious solutions. There was no significant difference in total profits earned. The total profits were below the value creation mean. Significant discrepancy between buyers and sellers was established ($p<0.01$) as can be seen in. Table 5.7.

TABLE 5-7: DEPENDENT VARIABLE = PROFIT DISCREPANCIES (BUYER-SELLER)

	DISC OLS	DISC (p50) Quantile
CA	-506.250** (221.932)	-450.000* (263.295)
RENT	787.500*** (221.932)	650.000*** (202.227)
PD	690.625*** (221.932)	350.000* (202.227)
Round	254.687 (156.930)	250.000 (172.293)
Constant	-550.781* (282.909)	-500.000 (319.204)
Observations	128	128
R^2	0.281	
Adjusted R^2	0.257	
Residual Std. Error	887.728 (df = 123)	
F Statistic	12.000*** (df = 4; 123)	
Note		*p<0.1; **p<0.05; ***p<0.01

The discrepancy is also established through the t-test available in appendix (5). Furthermore, the Kolmogorov-Smirnov test (Appendix 5) reported no significant change in profit distributions between Rent and CG. The mean profits of CG and Rent are both lower than the creative neutral mean. In other words, the value creation of CG and Rent were below the neutral creation levels. Therefore, whereas buyers may have been able to use creativity to find non-obvious solutions and be better off, sellers were exploited, establishing negative creativity. Nineteen out of 32 dyads in Rent were below the neutral creativity levels (Table 5.2). The results of this regression analysis did not find any evidence to reject the hypothesis H2.

5.6.3 **H3 - Intent of problem discovery maximises creative outcomes**

The third hypothesis *H3 proposed that the intent of problem discovery maximises creative outcomes.* In the PD treatment group, treatment was given to both buyers and sellers. This is because, unlike the other treatment groups, in which the goals of the study

dictated that the effects of actor-player be examined, within PD, the researcher had to examine the effect of a system in which problem discovery is occurring. Both the quantile and linear regressions significantly establish a higher value creation in PD ($P<0.01$) (Table 5.5). The variance in profits in Table 5.7 also reports a significant difference in values of PD ($p<0.01$). Even though the buyer's profits and discrepancy are higher within PD, both the buyers and sellers were above the neutral creativity levels. Thirty out of 32 dyads were above the neutral creativity levels of $4,400 (Table 5.2), PD reported the highest commutative profits per dyad which were significantly close to the non-obvious levels ($p<0.01$). The binary or the logistic regression analysed for a single factor of above creativity level, reported only PD as highly significant ($p<0.01$), in table 5.5. The results of this regression analysis did not find any evidence to reject the hypothesis H3.

5.7 Data and Research Questions

Three research questions were raised in this study.

RQ1: What role does strategic intent play in determining the direction of creative outcomes?

RQ2: What strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively?

RQ3: Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole?

TO answer RQ-1, a regression analysis was done to examine the effects of treatment on profits of the treated side (seller or buyer). These are presented in Table 5-8. Significant statistical values ($p<0.01$) were observed for the effect of the treatment condition on both the sides. This implies that the treated party altered the course of negotiations such that the effect was significant on both the treated as well as the

untreated. These regressions also establish a significant correlation between the treated side being able to benefit at the cost of the untreated side.

TABLE 5-8: DEPENDENT VARIABLE = PROFIT (TREATED AND UNTREATED)

	Total Profit	Discrepancy	Treated Side Profit	Untreated Side Profit
T(S)	290.305*** (69.804)	356.072*** (121.556)	468.958*** (67.920)	-178.654*** (67.920)
T(B)	290.305*** (69.804)	356.072*** (121.556)	-178.654*** (67.920)	468.958*** (67.920)
Constant	4,686.421*** (1,637.868)	-7,252.162** (2,852.136)	2,343.210 (1,593.651)	2,343.210 (1,593.651)
Observations	256	256	256	256
R^2	0.167	0.142	0.203	0.203
Adjusted R^2	0.133	0.107	0.171	0.171
Residual Std. Error (df=245)	557.797	971.331	542.738	542.738
F Statistic (df = 10; 245)	4.897***	4.066***	6.257***	6.257***
Note				*p<0.1; **p<0.05; ***p<0.01

In response to RQ-1: What role does strategic intent play in determining the direction of creative outcomes? It can be observed with statistical significance that whenever intent was administered within the RCT, it significantly determined the outcome, positively or negatively. It can therefore be concluded that strategic intent plays a significant role in determining creative outcomes.

In response to RQ2: What strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively? It can be observed from Table 5.5 that PD was the most jointly profitable outcome. Maximum number of dyads, all except one, were positively creative. Between the intents of CA, rent, and PD, statistically PD was the most significant in maximising value creation.

In response to RQ3: Does a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole? It can be observed in Table 5-6, that buyer's gains came at the expense of the seller. The total value of profits lay below the neutral creativity

levels, indicating exploitation by the buyers, and establishing presence of negative creativity insofar as the experiment is concerned. There is enough statistical evidence within the RCT to suggest that focus on rent maximisation led the buyers to dominate and negatively exploit the sellers, whereas there were options for both to be better off as was demonstrated by PD results.

5.9 Summary

In this chapter, first the RCT was analysed in order to answer and evaluate the *research objectives* which were proposed in Chapter One alongside the *research questions* in Chapter Two. The researcher collected the RCT data based on experiment conducted as per the research design in Chapter Four. The descriptive statistics showed that the hypotheses derived from literature review about the strategic intents and their impact on creative outcomes. Elements were correlated with the observed effects and reported in detail.

Regression analysis shows significant relationships between profits in treatments groups and their relationship to strategic intents. SEM findings also determined goodness of fit in the proposed model and the SEM indicates that the hypothesised model is statistically valid based on the data collected.

The three hypothesis therefore can be statistically confirmed for the purposes of this research. The three research questions could also be answered using the data. Core findings have emerged and were presented within this chapter that lay the foundation for discussion of these findings in Chapter Six.

Chapter Six — Discussion of Findings

In previous chapter, the RCT results were presented as per the *analysis plan.* In this chapter findings related to the *research questions* and *research gaps* are shown with reference to the framework extracted from the literature review. The interpretation is discussed against the hypotheses and points of significance to the study highlighted along their implications. Furthermore, the results from previous chapter are discussed for their suitability to be generalised based on the validity of the current research studies on the subject. Moreover research issues are summarised and outlined with reference to the *study objectives.*

The focus of the study was the strategic intent of the strategic decision maker and how it affects the creative value creation. Based on the findings presented, an argument is established around strategic intent's ability to influence creative outcomes. In particular that the study demonstrates a correlation between the intents of CA, Rent, PD and total value creation. The analysis suggested that CA has neutral impact on total value creation, Rent has a negative impact on total value creation, and PD has a positive impact on value creation.

This chapter is systematically organised where the first two sections address the *three research objectives* set at the beginning of the study; while the third section reflects the three previous sections in relevance to the main gaps of earlier studies. The fourth section discusses the findings and their relevance with respect to the theory of planned behaviour. The fifth section prior to the conclusions present recommendations for future research based on the discussions.

6.1 Addressing the Issues of Establishing Conceptual Framework

The study's *first objective* was to discuss the development results of the initial conceptual framework that examine the relationships between strategic intent and creative outcomes,

based on examination of the literature. The proposed framework can be used as *a decision-making tool* that supports the integration of the different concepts under one initiative. The process of developing conceptual framework in the context of established firms, directed the researcher to first establish a clear understanding of creative process as was discussed in Chapter Four. The creative process itself was discovered to be unobservable and is usually deciphered or judged on the basis of creation. Much of the results reported in Chapter Five suggest that the framework may allow decision-makers to appreciate and examine effects of their intents and problem frames in relation to the likely outcomes. The following sub-sections further discuss the *first objective* while illustrating the role of each studied concept.

6.1.1 **Understanding the integration of creativity and strategy research**

The analysis of creativity and strategy in this research highlights that creativity and subsequent creation within a firm occur in the context of achieving CA or maximising rent generation. It is not that firms are not creative in such a context. Coca-Cola for e.g. has been innovative in introducing a variety of products in over 200 countries, servicing over 1.8 billion people a day (Bonsu 2019). The firm has over 3,500 products that include coffee drinks, water, yogurt, energy drinks, and even packaged food (Bonsu 2019). Coca-Cola has been imaginative and creative, yet Moodie et al. (2013) inform us that some of these products are the leading causes of non-communicable diseases. This negative outcome is probably not deliberate. However, the principles of organised irresponsibility which state that the responsibility for harm is unattributable to agents because of complexities of traceability (Curran 2015) ensure that the system can keep functioning in ignorance of the effects. The emergence of these effects and gaps in literature that assumed strategic intents to be largely positive initiated the objective for developing a conceptual framework to explain the effects.

The *integrated framework for creativity* (see Chapter Three) explained that creativity cannot simply be understood within the standard definition of creativity, which defines it as production of something novel and useful (Runco & Jaeger 2012). The elements of novelty and usefulness are, of course, relevant to concur that an act was creative; however, they do not elaborate on the process of creativity. The framework analysed creativity much like the systems model of creativity (Csikszentmihalyi 1999) and presented a model that triangulated the creative journey into creative process, creation, and creative judgement. This indicated that an act of creativity may not be sufficient to lead to creation, and even when it is sufficient to lead to creation, it may still not be sufficient to be regarded as such by decision makers. Until the decision makers regard it as such, the act may not be termed 'creative'. Therefore prior to setting the conceptual framework, a framework for creativity itself was reviewed through literature.

Strategic problem formulation review analysed the literature in strategic problem formulations. Strategic problems are mainly understood by firms as gaps between aspirations and performance. This can often lead to the error of the third kind, where firms become focused on solving the wrong problem precisely (Barbara & Mitroff 2014). This also ignores the context of wicked or messy problems where the problems are usually complex, intractable to a cause, inconvenient, unprecedented, and perceptually unsolvable (see Camillus 2008, 2016; Head 2019). The review suggested that problem formulations may box problems into CA and Rent, and may not discover problems outside of those contexts.

SDM by top management teams examined the decision makers' context, content, and outcome. The review argued that decision making within TMT occurs within a certain context (e.g. external environments) that determines the content of the decision. The creative ideas sought or judged by the decision makers within this dynamic must fit into the context to be considered of utility by TMT. The TMT themselves usually arrive at decisions

through negotiations. The process itself, as some researchers have suggested (West 2002), can have an adverse effect on creativity in favour of the implementation of ideas. SDM largely takes place within a construct of strategic problems to be solved, and problem perception was earlier considered to be a trigger for the creative process.

Negative creativity and organised irresponsibility, an occurrence that strategic management theories have largely overlooked drew a model of negative creativity and demonstrated that heightened competitive intent and rivalries may lead to unethical behaviours in decision makers (Kilduff et al. 2016). Negative creations are those that produce harm for one or more agent(s) in the interest of maximising the actors' self-interests. When the harms produced are intentional, it is often considered malevolent creativity (Cropley 2010) and when the harms are unintentional, it is considered negative creativity (James et al. 1999). It was noted that firms may lack the holistic thinking needed to examine negative creations and that principles of organised irresponsibility ensured that decision makers are rarely associated with harms produced. BP for e.g. went from being the greenest company to the most environmentally destructive one in less than a decade (O'Toole & Vogel 2011). The harm may not have been intentional, but it was a result of decisions taken by the company. The estimated legal costs for BP were over $61 billion (Macalister 2016; Schwartz & Bryan, 2017). Negative creations once attributed can almost become an existential risk.

Strategic intent was defined as *shared obsession to win* (Hamel & Prahalad, 1989) and is mainly expressed in objectives such as growth, market dominance, and supremacy (Mariadoss et al., 2014; Seepana et al., 2020). The theoretical perspective reviewed in Chapter Two represented three possible predominant intents, the intent of rent maximisation and the intent of CA, which have been considered as primary strategic objectives. The third intent of PD has been derived from creativity studies which document problem perception as a key driver of the creative process (Walia, 2019; Vyogtsky, 2004).

The framework suggested that these intents would trigger differential creative processes in individuals and thereby produce different outcomes.

Statistical inferences in Chapter Five confirm the hypothesis of this study which was the *second objective* of this research. Each of the hypothesis are discussed below in the light of analysis conducted in Chapter Five.

6.1.2 **Intents of CA are neutral to creative possibilities**

The results build upon existing evidence that competitive rivalries may produce unethical behaviours (Kilduff et al. 2016) and also on evidence that suggests that competitive pressures force firms to innovate (McGrath & Kim 2015). The RCT provides a new insight into the relationship between CA and creative outcomes. Analysis indicated that the intent of CA may induce creation as well as induce negative creation. Delhpi study too confirmed this dilemma. RCT confirmed that players with the intent of CA may be better off than without the intent of CA. However the analysis also indicated that the intent of CA does not always lead to pareto optimal solutions (Nash 1950), i.e. not everyone is better off. Earlier research had suggested that CA advantages are transient (McGrath & Kim 2015) and that competitive pressures may force firms to not innovate but rather capitalise on existing assets (Jasper 2010). This study explains this occurrence.

The results indicated that in fifty percent of the sample population, CA led to positive creative outcomes, and in other fifty percent it also led to negative creative outcomes. This also explains the duality opinions in the Delphi study. The overall effect produced in RCT was almost neutral, however the panelists in Delphi suggested that the phenomena could be argued both ways, negatively and positively. While CA may lead to innovation, firms pursuing the intent may be blinded to full potential that can be exploited and may even be blinded to the negative creations that may result. Data suggests that firms pursuing the intents of CA may view creative inputs within that context and consider themselves

creative if their results worked in their interests. At the same time this occurrence may cause them to overlook the possibilities of negative creations that their actions may produce. The research therefore contributes to a clearer understanding of the dynamics of CA that over a period of time not only the creation may be neutralised but also that unattributable negative effects may have been produced.

While previous research has focused on either positive or negative aspects of CA, or it has focused on how to maximise CA, this research suggested that the intent of CA itself may not be the most optimal strategy. Most studies rely on a particular firm's performance as a unit of analysis. This research however relied on total value creation as a unit of analysis. This allowed for a more holistic examination of creation as a whole.

Will CA always be creativity neutral? The experimental research observed almost 50% of people above the neutral creativity levels and 50% below. The Delphi study too confirmed this divide. Table 6-1 presents the data and agreements on hypothesis based on questionnaires for both the Delphi rounds. In table 6-1, the +,-, and +/- signs denote the positive, negative, and neutral relationships to the hypothesis, and numeric 1 value represents the response of the panelist. The response indicate the confirmation, or lack thereof to the findings of the RCT and not of the hypothesis itself. As the quantitative results were presented to the panelists, the panelists thereafter answered the questionnaires within that context and not independent of that information.

The Delphi study aims to establish consensus through presenting feedback of precious rounds to the panel who may then change their views or offer alternate explanation. As such Table 6-1 presents the results from both rounds. It can be observed that with respect to H1, even though in round-2, panelists moved towards a broader consensus, ideal agreement was not achieved. For H2, the panelists moved from 61% to 77% agreement. For H3, there was enough agreement in Round-1 itself

TABLE 6-1: DELPHI DATA MEASUREMENTS

PARTICIPANTS								
1 CEO Automotive India	2 CEO Software UK	3 CEO Healthcare USA	4 Professor for Operations Research India	5 Professor Economics and Finance UK	6 Editor of Research Journal USA	7 Governor for a State in India India	8 Senior Mgmt for Innovation at European Commission Belgium	9 UNCCD Ambassador USA
ROUND 1								
H1: The intent of CA has no effect on creativity or creative outcomes								
+ - +/-	+ - +/-	+ - +/-	+ - +/-	+ - +/-	+ - +/-	+ - +/-	+ - +/-	+ - +/-
1	1	1	1	1	1	1	1	
1	1	1	1	1	1	1	1	1
50%			50%			33.3%		
44.4%								
H2: The intent of Rent leads to negative creative outcomes								
1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1
50%			83.3%			50%		
61.1%								
H3: Intent of problem discovery maximises creative outcomes								
1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1
100%			100%			83.3%		
94.4%								
ROUND 2								
H1: The intent of CA has no effect on creativity or creative outcomes								
1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1
66.7			66.7%			33.3%		
55.5%								
H2: The intent of Rent leads to negative creative outcomes								
1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1
83.3%			83.3%			66.7%		
77.7%								
H3: Intent of problem discovery maximises creative outcomes								
1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1
83.3%			100%			83.3%		
88.8%								

CA can therefore lead to the discovery of problems that inspire creative solutions, as it can lead the discovery of problems that inspire negative creations as well. Again, a plausible explanation may be found in secondary intents and individual traits. At an individual or a particular firm level CA therefore may not always be creativity neutral, it could be positive or negative. However, as prior research suggests that innovations spiral a series of industry events by other competitors who begin to imitate the innovations in order to maintain or regain the CA (Jasper 2010). The creation as a whole may then be neutralised within CA as a dominant strategic intent. This was evidenced by the analysis of the RCT in Chapter Five.

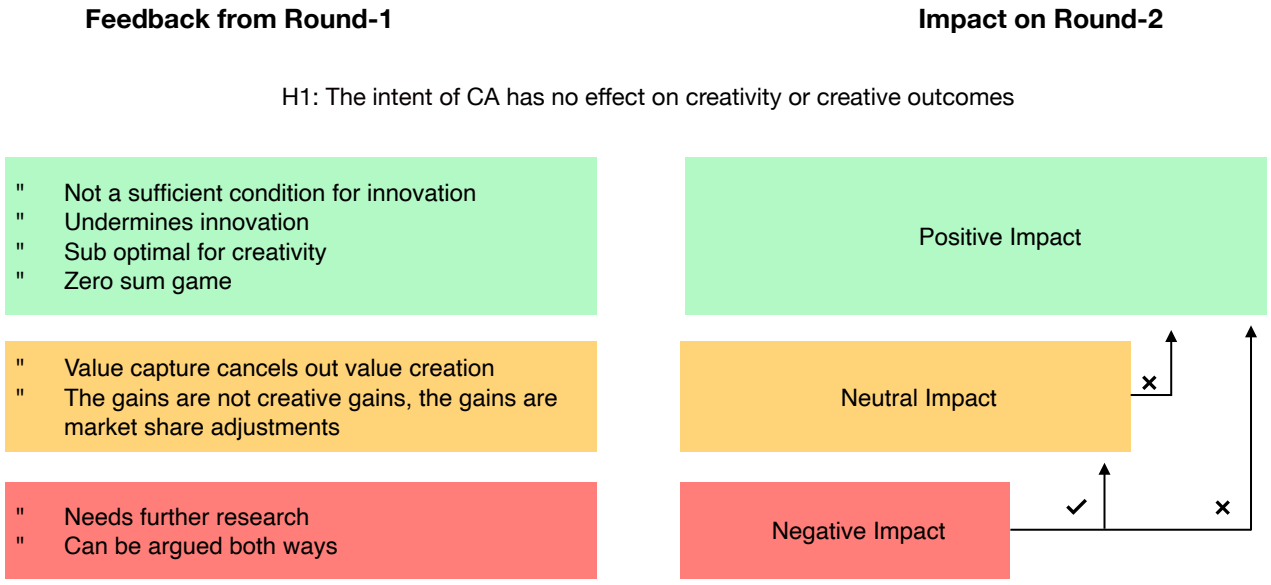


FIGURE 6-1 CONTENT IMPACT ANALYSIS ON CA

The panelists comments on CA in Delphi study as depicted in Figure 6-1, presents insights into why CA may neutralise creativity. The panelists refer to CA as being suboptimal or temporal in nature, and thereby make a case that longterm innovation cannot be a factor of the intent of CA.

6.1.3 **Intents of Rent are positively related to negative creativity**

Perhaps the most novel finding of the experimental analysis was that the very intent of making profits made the least joint profit. Analysis show that the intent of Rent maximised returns for the player pursuing the intent, but it came at the cost of negative creation overall. A large majority (all but one dyad) of the subjects in the experiment were below the neutral creativity levels. The Delphi panelists too formed consensus on intent of rent maximisation causing temporal myopia or temporal discounting, that is ignoring of possible negative effects to maximise short term gains. Figure 6-2, depicts comments such as 'temporal myopia', 'win-lose' mechanisms, 'negative consequences' as a result of intent of rent maximisation. The arguments made by panelists relating to H2 impacted panelists to shift their stand from neutral to positive positions, as well as from negative to neutral positions. Panelists sighted certain examples and introduced some terms like *temporal myopia* that seemed to contextualise the debate and influence other panelists. Feedback influenced consensus for H2 in Round-2.

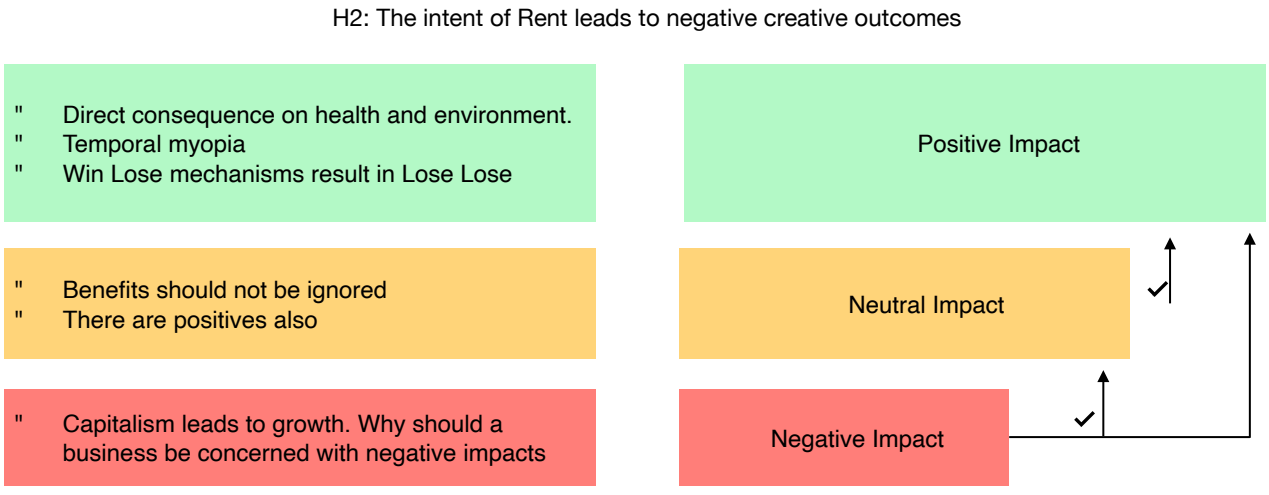


FIGURE 6-2 CONTENT IMPACT ANALYSIS ON RENT

Prior research on negative creativity suggests that negative creativity relates to the intent of individual (Figure 2-9) and based on the intent, creativity could be malicious

(harmful intent) or negative (legitimate intent) (Cropley 2010). Research on ethics too characterises that extreme perception of rivalries give birth to unethical behaviours in individuals (Kilduff et al. 2016). Previous studies have not directly considered negative creativity as an outcome of pursuing strategic intent. This was identified as a gap in literature in Chapter Two. Moreover strategic intent theories have largely assumed and associated strategic intent with positive effects (O'Shannassy 2016). Building on these indicative theories, the analysis in this research points to a cause and effect relationship between strategic intent of Rent maximisation and negative creative outcomes. This was confirmed through the RCT and subsequently by the Delphi panel, in Table 6-1.

The findings also relate to psychological theories on capitalism. Capitalism is viewed as employing capital for fulfilment of one's self-interest (Kasser et al., 2007). The analysis suggests that when self-interest becomes the prime driver, it induces negative creations for another stakeholder. The concern has been echoed by Curran (2018) as organisational irresponsibility, stating that a multitude of harms are produced in society with virtually no culpability for the agents producing them. The author further noted that payoffs for producing these harms are disproportionately higher than the costs incurred by the players. Moodie et al. (2013) gave examples of the most influential firms indulging in the corporate political activity of influencing legislation and science to divert attention away from their creations. The findings suggest that maximisation of self-interest as a primary strategic intent appears to be manipulative enough to ignore the holistic consideration of one's creations. Whether deliberate or not, or traceable or not, it does indicate to produce a negative outcome.

Of course, established firms face pressures on economic measures and need to be profitable. However, as the analysis suggests, profit could be an outcome also of discovering and solving problems, or profit could become the driver of action itself. When it

becomes the driver, it appears to lead to value creation for the player, but it also leads to a negative utility overall, as pointed out by the analysis of the RCT.

Will a primary intent of rent maximisation always lead to negative creations? Based on this particular research, there is no evidence to suggest that it will not. Prior studies suggest that it may not always be traceable or attributable to the agency and, hence, the direct correlation of negative creation to its creator may remain illusive.

6.1.4 **Intents of PD are positively related to creative outcomes**

There is theoretical evidence to support that problem perception initiates the creative process. Problem discovery has also itself been considered a creative act (Walia 2019). Discovering a new problem, rather than being presented with a problem, has been found to increase divergent thinking (Runco & Okuda 1987). The RCT conducted in this research also evidenced that PD led to greater value creation than other conditions. The Delphi panel was near unanimous in arriving at the conclusion. Figure 6-3 captures the comments of panelists who reckoned that PD would be a direct source of creative outcomes.

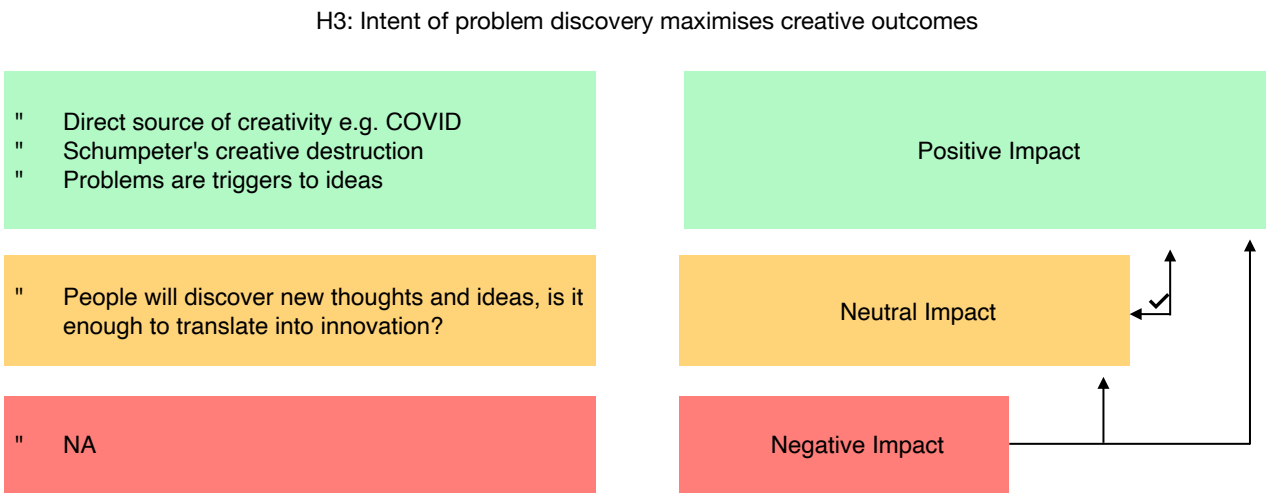


FIGURE 6-3 CONTENT IMPACT ANALYSIS ON PD

However, within the RCT, problem discovery did not always lead to the most creative possibilities. Within the ecosystem of firms, profitability and revenue shall always be strategic intents, although not primary, which may explain why the focus of creators may shift to value capture instead of value creation. Once the intent shifts, the outcomes change, as shown in conceptual framework. The effects of secondary intents have not yet been studied and are an option for future research.

The shaping of a creative life is not a priori gift but a process of self-construction.

(Gruber & Bodeker 2005: 397).

Discovering a problem is not a sufficient condition for creating a solution as was noted in one of the comments within the Delphi study. Solution finding can be a long, tedious process which involves many failures and, therefore needs perseverance. Five different types of creator's roles have been identified as (a) commitment to fulfilling potential, (b) perceiving creative work as a social obligation, (c) creative pursuits as an integral part of life, (d) viewing creativity as a demanding profession, and (e) an additional activity or hobby (Lebuda & Csikszentmihaly, 2017). None of these roles guarantee success (Gruber & Bodeker, 2005).

It cannot yet be concluded that PD will always lead to the realisation of creative potential, though it can be said based on the analysis that PD is a more effective route to realising creative potential than the strategic intents of CA and Rent maximisation. Intents of PD were also found to be the closest to pareto optimal solutions (Nash 1950).

6.2 Expanding the Theoretical Understanding of SDM

In recent times, the need to integrate creativity into strategy has been encouraged and explored (Hitt et al., 2017; Brandenburger 2019). Innovation has been considered a critical element of business success (Christensen et al. 2004). Creativity provides the fuel for innovation (Woodman et al., 1993).

What makes creativity intriguing to strategy? What does it help strategy do? Some researchers are of the opinion that the biggest breakthroughs within strategic management are those born out of creative thinking (Brandenburger 2019), yet as the analysis suggests decision makers can undermine their own creative potential. The analysis of creative outcomes in this study highlights that creativity and subsequent innovation within a firm occur in the context of achieving CA or maximising rent generation.

Creativity then represents complexity that strategy must simplify as strategy is about making choices (Sull et al. 2018). Ultimately these choices must help the firm drive profitability or make money (Porter 2008). Managers are then faced with the task of delivering revenue and profits, higher than those of competing firms, while minimising risk and uncertainty in an environment that can throw up creative surprises at any time. Even within the same firm, top management executives are hardly ever aligned on strategies to pursue. In a study of over 10,000 managers, two-thirds of top executives were found to be aligned in just 27% of the companies (Sull et al. 2018). Strategic decision are noted as *evaluative judgements* on choosing a specific path (Kahneman 2019). These are guided by strategic intents which tend to rhetorical (Mantere et al. 2007). The measures of strategic success are usually financial numbers expressed in terms of revenue or profit or rent. The strategic potential of a firm is usually laid out by the TMT in the form of their ambitions or strategic intents (Hamel & Prahalad 1989). The analysis of the experiment in this research suggests that creative potential is different from strategic potential. The results show that creative potential may not always be a strategic realisation, as decision makers may not always be interested in possibilities as they may more be interested in their own profitabilities. This process as indicated by the treatment conditions of the experiment, is guided through dominant strategic intents. Within the Delphi study too, while decision makers agree that problem discovery is the most efficient route to creativity, at the same time panelists did not say that this was a norm. The findings concur with prior

research that strategic intents become organisational priorities (Seepana et al. 2020) and directives for organisation members (Watson 2003). The analysis provides a new insight into the relationship between strategic intent and outcomes, and that strategic intents can have a cause and effect relationship with negative-creative outcomes.

While strategic studies had called for a deeper understanding of creativity, the business literature had not yet studied negative creativity as an outcome— perhaps in ignorance or in convenience, or simply because of the way strategic problems are formulated. Problem formulation as the gap between aspirations and performance leaves 'wicked problems' (Rittel & Webber 1973) unaddressed. Negative value creation and its intractability may itself be one of the wicked problems.

Negative or harmful creations are evident in the products that are available for consumption. Legally, they are permissible activities, and even when their legality is in question, the harms are largely untraceable to agents. This research suggests that frames that SDM functions within may miss out on critical issues of negative innovations. This was also reflected in thematic observations within Delphi study, as shown in Figure 6-4.

Prior research suggested integrative thinking to counter issues such as dealing with problems of all stakeholders integratively, rather than selectively. (Martin 2009) Design thinkers pose this as the problem of 'thinking', whereas creativity research in this thesis questions perception and the intents themselves. Established firms rely on exploiting innovations to obtain the resources to explore them in the first place (Williamson 2006). Exploitation happens in the form of rent generation (Alchian 1991) and the analysis in Chapter Five discovered that rent generation as an intent that largely produces negative creations.

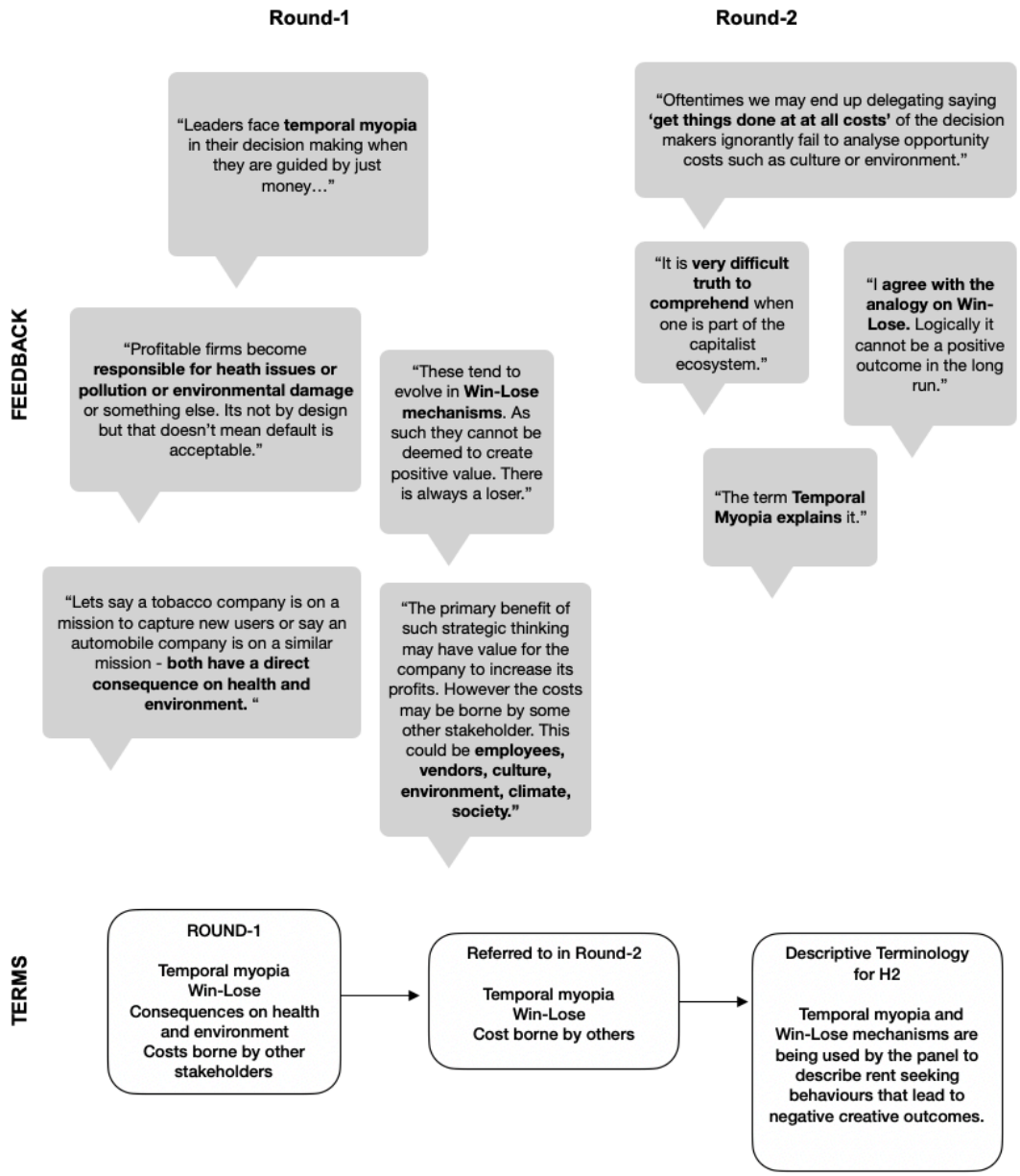


FIGURE 6-4: THEMATIC PERCEPTIONS

As can be observed in Figure 5-5, Round-1 feedback terms such as temporal myopia, win-lose mechanisms, and impact of actions on hidden stakeholders such as societies, environment, or culture, were cited by other panelists in Round-2 as reasons that resonated with them and influenced them to change their positioning. Scientifically, temporal myopia has been defined as the inability to see longterm consequences of short term decision making and action (van der Wal et al. 2018). In an unrelated study authors indicated that under conditions of uncertainty higher levels of temporal discounting (or

excising immediate benefits) is observed. This is in resonance with findings of the RCT that the intent of rent maximisation causes blindness of other creative possibilities.

A possible solution as pointed out by the research analysis may be to adopt PD as a predominant strategic intent and encourage exploration for the same; however, firms must be able to exploit and avoid eroding profits in the process. As much as the focus tends to be on innovation, theoretically and even practically, a firm can be viable without innovating much, but it may not be viable without generating rent. Dynamic capabilities or creating capabilities for both exploration and exploitation have been suggested as a way out (Teece et al. 2016). However, as presented in the analysis, the ultimate intents would still create outcomes that may be negative.

The framework put forward in Chapter Three requires a change in the way problems and intents are framed to change the outcomes. Effectively dealing with the challenges first requires a change in framing and then a change in the way TMT make decisions and as such these research contributes to the SDM research on *contexts (*Papadakis et al. 2010) by suggesting that change in outcomes require change in framing and then a change in the way TMT make decisions by holistically analysing the options before them.

6.2 .1 **Frames**

Chapter Two challenged the framing of creativity as mere ideation that is original and effective. The integrated framework for understanding creativity exposes dimensions of how decision makers influence creative outcomes through its process, outcomes, and judgement. Similarly, in Chapter Two, the decision making frames revealed how the external demands that decision makers place before themselves, in the form of context, influence the creative process itself. Therefore, to be able to change the direction of the

creative process to reach its potential, as pointed out but the analysis, the decision frames need a different context than the one being followed.

Problem frames that guide strategic decision making: The recognition of the frames as they exist with respect to creativity, decision making, and problem formulation begin to determine the outcome of strategic process as revealed by the experimental analysis. This in prior research have often been termed as bounded rationality, which is decision makers' function in an environment in which they are bounded by imperfect information, abilities, and time (Argote & Greve 2007; Gavetti et al. 2012). This analysis contributes to prior studies on strategic problem formulation by accepting its role in determining outcomes, however at the same time by challenging the understanding that problems ought to be a function of result-aspiration gap. The existing theories on strategic problem formulations and strategic decision making as reviewed in Chapter Two can be revisited to accommodate the following:

- Creativity is not merely the production of useful and novel ideas. The creative process and outcomes are influenced by decision makers in the case of established firms, as shown in the analysis.
- The problem constructs normally assumed by TMT ignore integrative formulations that may result in producing negative-creative outcomes..
- The predominant focus on CA and Rent is not a problem that is unique to a particular firm; therefore, it is not a creative problems itself, and may not result in positive creative outcomes, as was evidenced in Chapter Five.

6.2 .2 **Ignorance**

Unintentionally producing harm through a lack of holistic thinking or negative creations was elaborated in Chapter Two. Firms may produce products or follow processes that produce harm in society, but the principles of organised irresponsibility (Curran 2018) indicate that

these are not attributable to the firm. Further studies on capitalism have indicated that benevolent intent is psychologically opposed to capitalist goals of achievement and power (Kasser et al. 2007). While these explain the emergence of negative creations, they do not justify it. This research indicates that creativity is a directional activity that may not be negative or positive itself, but the end results are. This implies that while firms may not deliberately strategise to be negatively innovative, it cannot be said that the strategies pursued are not responsible for their creations. Whether through ignorance or a lack of holistic thinking, the decisions of the firm shape the outcomes, as shown in the analysis.

The decisions themselves are shaped by strategic intents, as was analysed in the previous chapter. CA, rooted in rivalries have already been found to produce unethical behaviours (Kilduff et al. 2016). The results of RCT to test the hypothesis of a correlation between strategic intents and creative outcomes further indicate the decision as unit of analysis led to creative or negatively-creative outcomes.

The existing theories reviewed in Chapter Two can be broadened with the following observations made through this analysis:

- The occurrence of negative creations is not an exception. It is a result of strategic intents.
- Negative creations emerge out of predominant and strong strategic intents to maximise Rent.
- Using decisions as a unit of analysis versus individual traits, signals that the negative outcome, must be a function of the decision by TMT.

6.3 Gaps in Previous Studies

The literature review in Chapter Two identified four gaps that this research and analysis address.

Strategic intent is assumed to be positively innovative. The literature on strategic intents largely review and theorise on effects of strategic intents on achievements of a firm. This research studies the effects of strategic intents on value creation as a whole. While previous research noted that breakthrough successes may appear through powerful strategic intents, it limited the perception of success to the actors' own achievements. However, this research broadened the question of collective value creation, or the realisation of creative potential, and analysed that strategic intent may also produce negative outcomes.

Strategic intent is supposed to encourage creativity, however unique problem discovery is not considered as strategic intent. Problem discovery is critical to creative processes. An assumption that existing literature makes is that strategic intents inspire innovations. This study showed that intents trigger the creative process, and the outcome of that creative process is guided by the intent itself. More specifically the analysis pointed out that the intent of PD, other than the problems of CA and Rent, produce greater value. However the strategic intents theories do not recognise PD as a strategic intent in itself.

Negative innovation and negative creativity has not been considered as a creative outcome of pursuing aggressive strategies. Negative creativity or negative outcomes are largely absent in previous business research. While research acknowledges unethical behaviours, and research on criminology debates organisational irresponsibility, strategic management theories have not paid much attention to negative innovations. This study established a cause and effect relationship between intents of Rent and negative value creation.

Decision making as a unit of analysis is absent in studying the correlation of strategic intents, creative outcomes, and negative creativity. Most studies on creativity that were reviewed in this study relied on individual as unit of analysis. Most studies on decision making rely on case-study methods. The studies on problem formulations rely on

problem as a unit of analysis. Strategic intent studies theorise on the basis of a particular firm's results. This study used decision as a unit of analysis and was therefore able to statistically correlate strategic intents, problem frames, and resultant outcomes.

6.4 Link with the Theory of Planned Behaviour

The Theory of Planned Behaviour predicts the relationship between an individual's intent and resultant behaviour (Kan & Fabrigar 2017; Azjen 1985). Azjen (1985) suggested for e.g. that an individual's decision to engage in a particular activity such as gambling can be predicted by their intention to do so. These intentions were found to be determined by three aspects: (i) attitudes, i.e. the sum of all our knowledge and prejudices about the behaviour under consideration; (ii) subjective norms, i.e. how do people around us consider the idea, and (iii) perceived behavioural control, i.e the extent to which we would be able to control the behaviour.

Theory of planned behaviour is a model used mostly used in health psychology to predict behaviours related to addictions (Hagger et al. 2012). As a critical evaluation of the theory Webb et al. (2006) found that the link between intentions and behaviours is a small and not a significant one. The components of theory of planned behaviour have been analysed using questionnaires and interviews and answers therefore may have been influenced inadvertently.

This research deals directly with an experimental correlation between intents and behaviours. The analysis has indeed confirmed a strong correlation between intent and behaviour. Unlike the analysis conducted by Webb and Sheeran (2006), this study finds that the link between intent and behaviour is a strong correlation and not a weak one. Webn and Sheeran (2006) suggested that there is a significant gap between intentions and behaviours, whereas this research finds that intentions directly guide behaviours. The

research suggests that creative thinking occurs in the direction of intents which then determine the behaviour.

Theory of reasoned action (Fishbein & Ajzen 1975) that formed the basis for theory of planned behaviour assumed that behaviours are under ones control (Kan & Fabrigar 2017). This particular research suggests that this particular phenomenon is not that straight forward, and is not about the dimension of control. How would control explain occurrence of temporal discounting? That is for e.g. a strategic intent of an organisation to make money directs creative thinking on how to do that. From there on unlike health addictions like tobacco etc, it is not about controlling that behaviour as in organisational settings the behaviour is not deemed to be harmful but rather deemed to be useful.

Within strategic and decision making models in established companies, based on this research, it can be said that strategic intents shape the decision making behaviours of the TMT. Within the theory of planned behaviour these strategic intents were observed to shape the (i) attitudes of the subjects and (ii) establish subjective norms. The third aspect of perceived behavioural control is somewhat negated within this experiment as the perception in strategic scenarios is not about doing self harm.

6.5 Research Framework for Strategic Intent and Creative Outcomes

Based on literature review in Chapter Two, Chapter Three proposed a conceptual framework (Figure 3-2) that led to hypothesis and subsequent research and analysis. Based on the results of the RCT and upon comments received during the Delphi study, this thesis proposes a refined research framework that can be applied to correlations between strategic intent and creative outcomes, as also be used for further research and evaluation. Figure 6-5, in addition proposes the behavioural Strategic-Creative framework, based on quantitative and qualitative findings of this research.

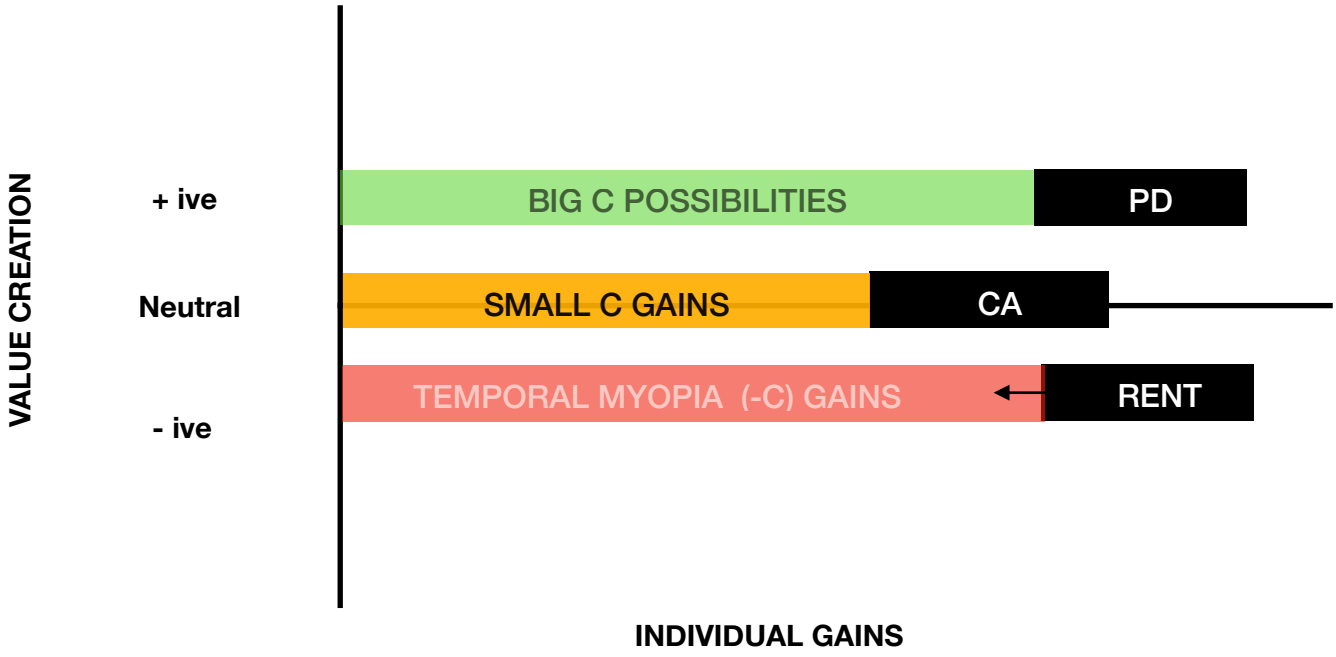


FIGURE 6-5: BEHAVIOURAL STRATEGIC CREATIVE CONNECTIONS

Figure 6-5 indicates that intent has a definite connection with the results, as was discovered in the RCT analysis. The behavioural diagram builds upon the conceptual model (Figure 3-2) and lends explanation and insight into how intents shape creative outcomes. The X-axis represents individual gains, and Y-axis represents total value creation, that is including gains or losses for other stakeholders (external or internal).

Intent of CA. Quantitative analysis showed that CA gains can be above neutral levels, however they were equally below neutral as well. The Delphi panel elaborated that these may be 'shifting' gains and not sustainable ones. In creativity theories this is referred to as Small C, ie. what one creates might not be revolutionary but it is new and meaningful to them, in that situation and time (Kaufman & Beghetto 2009). This means that the intent of CA results in providing immediate focus and ideation, leading to creative efforts that are appropriate with that time frame and may often be Small C in nature, and thereby easily

replicable. This was explained by the Delphi panel as non sustainable and shifting gains in nature. Overall the value creation in this intent may be neutralised as a whole, however for the subject pursuing the intent, there will be gains available.

Intent of Rent maximisation. Quantitative analysis showed that rent maximisation led to gains for the subject pursuing it, however it came at the expense of others, thereby eroding total value creation. Delphi panel described this as temporal myopia ie. An inability to see longterm consequences. Therefore within this intent, the subjects gain individualistically, however the resultant creativity is a negative, ie. The intent may induce malevolent creativity (Cropley 2010) or even inadvertent negativity. This could be even at a Pro C (professional creative level) or Big C (historical achievements) levels, however in the negative direction. For example a tobacco company may go on to become the largest contributor to taxes within a country, but it is at the cost of negative consequences to others.

Intent of PD. Quantitative analysis showed greatest value creation as a whole within the intents of PD. The Delphi panel was unanimous in their opinion that greater ideas are inspired by solving newer problems. Therefore within this intent the gains for self as well as for total value are maximised. PD also presents maximum opportunities for Pro and Big C thinking. However it is not automatic. It may even be time consuming in reality. The reason as was pointed out earlier is that these solutions are non obvious. Nevertheless the intent would allow for considering different perspectives, considerations, and inadvertent consequences.

6.6 Continuation of the Research

The creative-strategic research seems to be of importance to many researchers in the field in the past one decade specially. Recent work of Kaplan & Orlilowski (2013) focuses on how strategic intents deliver future results. O'Shannassy (2016) focused on predicting

performance based on strategic intents. Seepana et al. (2020) most recently debated if strategic intents can promote coopetition. This research has aimed to put a specific framework under which these outcomes are generated. Nickerson & Argyres (2018) and Posen et al. (2018) discussed how problem frames provide strategic direction for subsequent SDM. The analysis in Chapter Five specifically examined the effects of problem contexts on creation of outcomes. Creativity theories have often debated various aspects of creativity and review of these theories led to integrate them into a framework. Cropley (2010) and James and Taylor (2010) stressed on negative creativity as an outcome that is prevalent in society and offered many explanations. Kilduff et al. (2016) related unethical behaviours to competitive rivalries. This research attributed intents of Rent to the production of these outcomes. However this research fails to answer questions raised by Curran (2015; 2018) on how to attribute responsibility for negative creations. The analysis conducted in this study then, present research questions and opportunities that emerge for further study.

How can creative potential be operationalised?

The analysis points towards the value of achieving and realising the creative potential, and the strategic intents needed to do so. However, it does not tell us about organisational structures and changes needed to achieve that direction. It is far from clear whether firms can actually embrace PD as a sustainable mechanism for strategic direction. What kind of organisation structures, processes, leadership, and ecosystems are needed to implement the conceptual framework? What will be the implications of adopting the newer approaches of defining problems and strategic formulations, as emerging in this thesis?

Further research will then need to accomplish two things. First, it could conduct experimental research to differentiate between the effects of examining problems, as proposed by strategic problem formulation theories and in the framework presented in this

research. What differences in managers' approaches does it lead to, in terms of examining the holistic nature of the situation and the potential solutions? Second, such research could also provide indications and measures of problem framing that could indicate to top managers that their problem formulations are within the framework and have greater probabilities for achieving the creative potential.

How to ensure that negative creations can be identified and diffused within and outside firms?

Negative creations do not diffuse by themselves. On the contrary, research has suggested that extraordinary efforts are made by firms to sustain the economic advantages they receive through negative creations (see Moodie et al. 2013).

The researcher is not aware of any studies that exist on the diffusion of negative innovations; however, a recent publication (Walia & Sharif 2020) suggested adopting products as a unit of analysis to determine the negative innovations. Even then, how will these be diffused? Considering that no agency can be held responsible for negative creations, strategists and shareholders are unlikely to be in favour of diffusing innovations that provide lucrative revenues.

For this reason, again, the research could draw on an experimental approach. A comparative design could examine the diffusion of negative creations and initiation of PD in a simulated environment. Can the creative bandwidth of the firm offset the losses of diffusion through the gains of creation? This would require that frameworks and models be developed and tested for different environments and industries. This research would not only benefit academia but also large organisations that may well be able to identify and harness future creative potential.

A key objective of such research would be to devise a non-threatening approach to diffusion and a framework to embrace alternate creation that sustains the firm. How can

the extensive knowledge available on innovation be used to create firms that are responsible and viable?

What leadership and team behaviours will encourage creative–strategic success?

The analyses in Chapters Five highlighted the role of TMT in formulating problems and decisions. The role of a decision maker is particularly critical in determining the final outcomes. While the current research has indicated how the intents of decision makers shape creative outcomes, it has not specified the behaviours and practices that may be adopted by leaders to encourage creative potential.

Here, the research could create an outline of leadership behaviours in different contexts. For example, how does a firm move from a predominant competitive context to a creative one? What barriers and risks will the firm be exposed to, and how can leadership overcome these?

In addition to quantifying the risks and barriers, research will also need to elaborate on how to structure and protect teams. Research across industries could indicate the skills needed to implement creative–strategic models and performance benefit mechanisms that will support such teams. This would then provide a complete bucket of tools that may make the creative–strategic framework a workable solution in established firms.

6.6 Summary

A synopsis of the main findings allowed the researcher to relate the experiences learned in this project. One of the main learning extrapolated from empirical evidence that addresses the *first research objective* indicates that the framework needed careful selection of strategic and creative indicators. The other research learning is that problem statement developed, as based on a cause and effect logic can be used when a relation between what are the possible causes for producing positive or negative outcomes and the variables that are expected to affect it. However, the major motivation for this research

would be the ability to address the lack of a holistic approach that could link the influence strategic intents with negative outcomes. Decision maker's influence on the creative process significantly determines the direction and outcome of the process itself. However, the macro picture that emerges from this research raises an area of interest for a future research that can analyse the micro aspects. This was clear after the conclusions were drawn from the analysis.

The analysis established strategic intent as the cause for producing creative outcomes. This answered RQ1. The analysis determined that PD has the most positive outcome on value creation, and this answered RQ2. The analysis also discovered that intent of Rent produces outcomes that can be categorised as negative. This answered RQ3. This study supports other studies that go further to help organisations develop a theoretical understanding on how SDM contexts determine outcomes and how they undermine creative processes (Papadakis et al. 2010; West 2002). The research advocates that the context is dependent on problem frames and PD is an important frame to adopt while judging creative outcomes. This extends recent work on the subject (Nickerson & Argyres 2018) and supports the *third objective*.

Strategic intent correlations discussed in this research as part of addressing *the second research objective* reflect the ability of decision makers to develop, implement and execute strategies that lead to intended outcomes. The experiment results even argue that the intents can even motivate decision makers to overlook negative consequences and still validate their decisions. This study confirms that the investigated role of each of the strategic intents can be tested from the framework that specified effectual outcomes.

Chapter Seven — Conclusions

This chapter summarises the main findings, contributions and implications reflecting the outcome of all the previous chapters in accordance to the *three research objectives*. The findings of this study presented in Chapter Six contributes to a better understanding of strategic intents and their relationship to creative outcomes. Section 7.1 provides an overview of research and findings, followed by Section 7.2 which is dedicated to discussing the research contribution to the body of knowledge. Section 7.3 presents the contribution of this research to previous research. While section 7.4 discusses the research implications, it is followed by section 7.5 which argues about the research limitations. Finally, this thesis concludes with section 7.6 which presents the proposed future research opportunities.

7.1 Research Overview and Findings

This research aimed to examine the impact of strategic intent on creative outcomes. Based on a RCT and quantitative analysis of the results therein, and followed by the Delphi study, it can be concluded that the intents of CA, Rent, and PD are critical factors in determining the direction of creative outcomes. The results indicate that creative outcomes are dependent on strategic intents and are positive where the intent is to discover and solve unique problems. These outcomes could be negatively creative if the intent is to maximise Rent, whereas CA drove neutral outcomes.

Figure 1-1 in Chapter One laid down the structure of this thesis. Consequently Table 7-1 summarises the learning, findings, and research objectives in context of the structure.

TABLE 7-1: SUMMARY OF THE THESIS

Research Problem:	Objectives	
Strategic intents assume creation to be beneficial and ignore negative outcomes that may occur as a result of decision making.	1: Conceptual model for examining creativity. 2: Empirically test the hypothesis of the framework 3: Theoretical understanding on how SDM can understand creativity that enables them to perceive and solve problems, and avoid negative innovations.	
Phase	**Key Outcomes**	**Novelty**
Background Theory	G1: Strategic intent is assumed to be positively innovative G2: Strategic intent is supposed to encourage creativity, however unique problem discovery is not considered as strategic intent. Problem discovery is critical to creative processes. G3: Decision making as a unit of analysis is largely absent in studying the correlation of strategic intents, creative outcomes, and negative creativity. G4: Negative innovation and negative creativity has not been considered as a creative outcome of pursuing aggressive strategies	Dynamic Definition of Creativity, and Integrated framework for understanding creativity. *Walia, 2019*
Focal Theory	Developing the integrated framework for creativity and the conceptual framework for Strategic Intents and Creative Outcomes.	
Data Theory	The research design for RCT combined with sequential Delphi study for qualitative confirmation.	RCT + Delphi study in management with sample as SDM
Findings and Conclusions	Answers to RQ1: Clarifying the role of strategic intent in creative outcomes. RQ2: PD maximises value creation. RQ3: Rent maximisation intent leads to negative creations.	Rent maximisation leads to negative creativity - introduction of negative creations in strategic management. *Walia, 2021* *Walia & Sharif, 2020*

Firms around the world are challenged to innovate and at the same time face pressures to create profits from their innovations (Volberda 2006). Strategic intent theories have advocated that firms set ambitions much in excess of available resources and

assumed that it would propel them to innovate newer strategic assets to meet these objectives (Chapter Two). These theories largely assume positive aspects of resultant innovations. Researchers over the last three decades, however have cautioned against this. March (1991) urged scholars to understand the balance between value creation and value capture. Lepak et al. (2007) reiterated the necessity to understand the consequences of value creation and value capture by pointing out that society, firms, individuals, and polity may have competing interests regarding value. Kasser et al. (2007) suggested that individuals pay a psychological price for capitalist goals. Jasper (2010) and Cropley (2010) provided many examples of negative creativity that may emerge out of competitive dynamics. Baden & Higgs (2015) challenged the conventional wisdom where profit maximisation is the ultimate goal of business. Kiduff et al. (2016) pointed out unethical behaviours that result out of competitive rivalries. Curran (2015, 2018) argued that firms enjoy huge pay offs while often producing risks in societies without being responsible or accountable towards them. As such this study was addressing the problem that strategic intent theories largely assume that intents and problem formulations lead to creations that are mostly beneficial as a whole, and ignore the negative aspects that may occur as a result of these intents and creations.

By analysing the effects of different strategic intents on the creative process and outcomes, this study concluded that the concerns raised by researchers were indeed valid as strategic intents can drive negative creative outcomes.

Taking into consideration the *three research objectives* (see Table 7-1), the outcome of this research seeks to address the possibility of achieving creative potential, however, at the same time being mindful of achieving strategic objectives at the cost of being negatively creative. Creativity itself in this research was broken down into a framework that studies the *process, creation, and judgement,* as distinct elements which allowed for the *three objectives* of this study to be examined. Since United Nation's (2015) 2030 agenda

and vision also takes cognisance of a lack of balance between economic goals and social effects and highlights a critical need to correct the imbalance, firms are expected even to play a significant role in achieving that vision (Baden & Higgs 2015). The completion of the objectives of this research are therefore providing more insight to theorists and practitioners on the challenges that lie ahead.

The *first research objective* addressed relations between CA, Rent, PD, and resultant positive or negative outcomes. This was addressed based on synthesis from the literature. The results of the *first objective* emphasises that strategic intents of firms may compel decision makers to be ignorant of negative creative possibilities, largely because the firms pursuing these strategies succeed in making profits. Financial success is one of the most important measures of strategic success (Brown 2015), and the *second research objective* that empirically tests the framework, suggested that a dominant focus on financial success would result in negative creative outcomes as a whole. In pursuit of the *third research objective* which was to expand the theoretical understanding of the intent-outcome relationships, this study analysed that discovering problems outside of the constructs of CA and Rent maximises value creation as a whole. While studies on CA (McGrath & Kim 2015; Porter 2008), and strategic intent (Hamel & Prahalad 1989) focus the firms to be 'better than other firms' as a way to strategic success, this study found that while firms may succeed individually with the intent of CA, collectively it neutralises creative outcomes. Furthermore the financial objectives were better met by adopting the intents of PD in this study.

This research supports efforts towards establishing a successful theories that determine organisational outcomes. Nickerson & Argyres (2018) and Posen et al. (2018) (reviewed in Chapter Two) aimed to determine a model for performance through problem formulations. Similarly Papadakis et al (2010) aimed to indicate outcomes based on the context and process of SDM (Figure 2-7). Runco & Kim (2018) suggested the use of

creative process to determine creative potential and outcome. Cropley (2010) suggested examination of individual's intent, malicious or not, to determine negative creativity (Figure 2-9). The research findings in this study integrated these theories and bridged the gaps found in literature on the lack of a cohesive framework that could address and link creativity and strategy (Hitt et al. 2017; Brandenburger 2019).

As shown in Table 7-1, the findings of this study reflect the importance of correlations between strategic intents and creative outcomes. It was suggested in earlier studies that strategic intents would drive innovation (Hamel & Prahalad 1989; O'Shanassy 2016). However it was not clear from these studies exactly how that occurs. Supporting these studies, this research analysed strategic intents in relation to creativity, and determined that strategic intents have a cause and effect relationship with creative outcomes. In doing so the study provided a clear answer to *RQ1*: What role does strategic intent play in determining the direction of creative outcomes? This also integrates with prior research on SDM which indicated that contexts are relevant in determining outcomes (Papadakis 2010). Pettigrew (2003) also stated a need to study both formulation of strategic objectives in line with processes that emanate from them. Furthermore these findings support creativity theories that suggest that creativity is a goal directed activity (James et al. 1999) and the systems theory of creativity that decision makers and not the ability to produce novelty determines the inclusion of creations into the field (Csikszentmihalyi 1999; 2014).

Having validated through analysis that strategic intents play a role in determining creative outcomes, RQ2 raised the question that *what strategic intent (CA, or rent, or problem discovery) would maximise value creation as a whole, i.e. not necessarily individually but collectively?* The analysis answered this question by pointing out that PD has the most positive effect on collective value creation. Creativity theories have often stressed on problems determining creative direction (Walia 2019). Searle (1983)

concluded that individual was the holder of intent. Strategic intent theories reflected that intents were determined by TMT (Rui & Yip 2008), and provided a symbolic direction to other members (Watson 2003). SDM studies too analyse context in the form of external and internal challenges for obtaining or securing CA (Papadakis et al. 2010). Strategic problem formulation theories also define problems as a gap between aspirations and results (Posen et al. 2018). In these studies, however, PD has not been considered a strategic intent (see Chapter Two: Table 2-1). The findings of these studies that indicate PD to be driving better results make a strong case for PD to be considered a predominant strategic intent for the future.

Occurrence of negative innovations were raised by many theorists as was reviewed in Chapter Two (James et al. 1999; Cropley 2010; Moodie et al. 2013; Curran 2015; Kilduff et al. 2106). Strategic management theories however were silent on the aspects of negative creativity and it was not clear if strategic intents drove negative outcomes. There RQ3 was raised to determine if a dominant focus on rent maximisation or CA lead to negative creative outcomes as a whole. The analysis was able to answer that Rent created negative outcomes as a whole while CA could lead to both negative or positive outcomes. The overall effect of CA was neutral. This is a significant conclusion because it challenges the theories of strategic intent that assume only beneficial effects. This also provides a further explanation to research on negative creativity where researchers examine intents in the nature of being malicious or legitimate (Cropley 2010; James & Taylor 2010). This study found the intents need not be categorised as malicious or legitimate, as simply strategic intents expressed in ambitions of maximising profits, can lead to negative creativity.

Furthermore the findings of this study concurs with the view that creativity need not be characterised as positive or negative (Runco 2010) as creativity itself is a goal directed

process that leads to a certain creation. The creation is negative or positive depending upon the intent and influence of decision makers that guided it.

The most important findings relevant to the research objectives can be summarised as follows:

a. Strategic intent has a cause and effect relationship with creative process and outcomes.

b. Intent of Rent maximisation drives negative creative outcomes.

c. Intent of CA drives neutral creative outcomes.

d. Intent of PD drives positive creative outcomes.

e. Firms pursuing strategic intents are better off than those not pursuing one.

f. Creativity or the process of being creative is a directional activity and is not positive or negative. The intent influences the outcome and direction.

The RCT was carried out to measure the impact of strategic intents on creative outcomes. The Delphi study was conducted to confirm the findings of the RCT. The *research objectives* facilitated the development and testing of framework to support these relationships. The scope of this research covered in detail the influence that intents can have on outcomes. The results were analysed with rigorous analysis. Findings helped validate the framework that establishes the conclusions for this research. Therefore this research would be of specific interest for furthering the theories of strategic intent, SDM, and strategic problem formulations. This research would also be on interest to creativity researchers for examining creativity in context to a firm. This research also includes the element of negative creativity to be studied in management theories.

7.2 Research Contributions

The significance of any study is based on theoretical and practical contributions that address the objectives of the study. This study explored and investigated the subject of strategic intents and its influence in determining creative outcomes. The research addressed gaps found in literature by empirically examining how the correlation between the intents of CA, Rent, and PD, on eventual outcomes.

Despite almost three decades of significant research into *strategic intent* literature, and despite the development of a whole body of work in the *creativity* literature, there is still a gap in literature in bringing in a comprehensive framework that links the two streams of research. The linkage is important because the *strategy* literature lays a strong emphasis on innovation. Creativity is the process of making innovation happen (Amabile 1999)

Therefore, the *main theoretical contribution in this study comes from understanding the linkages between strategic intent, creative process, and creative outcomes*. The framework proposed for this study helps close the gaps reflected in the literature that were captured in Table (2-7). This supports latest research where strength in strategic intent was considered a predictor for better organisation performance. (O'Shanassy 2016). Therefore the relationships between critical components of strategic intent and resultant outcomes in this study establish empirical relationships between them. Thus this research should help close the gap of adoption of a holistic framework to examine strategic intents and resultant outcomes which could be negative as well. This is addressed through the following answers which this study provided that were suggested but not addressed in recent publications:

a. How do strategic intents play a role in determining direction of creativity and innovation? (O'Shannassy 2016).

b. How does strategic intent promote coopetition or collaboration between different firms? (Seepana et al.2020)

c. How should researchers study decision making without the case study method such that actual behaviour and not hindsight behaviour can be examined? (Nutt 2011)

d. What kinds of intent determine creation of negative outcomes? (Cropley 2010)

e. Is there a balance available between value capture and value creation, and what would be an optimal strategy for that? (Leepak et al. 2007)

f. Are solutions closely related to the way the problems are defined? (Head 2019)

g. Does a predominant economic mindset in decision makers (Mueller et al. 2018) lead to malicious practices under the cushion of organisational irresponsibility (Curran 2015)?

In response to answering these questions, this thesis provides a novel model for understanding strategic intents and creative outcomes. The hypothesising factors are found to be more critical in considering the dominant focus on rent maximisation leads to a negative creative outcome in the *third research objective.* Testing of the hypotheses revealed that the primary strategic objective of CA (Porter 2008) is restricted in its impact on maximising value creation. The uniqueness of PD, within the research context, determines the progress toward realising the creative potential. Therefore, it can be concluded that the main contributions of this study helps theorists and established firms in better understanding the impacts of their strategic intents and problem formulations. As such this research makes the following *novel* contributions as captured also in Table 7-1:

a. This research proposed creativity and creation to be studied distinctly and not jointly and as such proposed definitions of the two constructs as a dynamic definition of creativity (Walia 2019) and developed an integrated framework for understanding creativity presented in Chapter Three (Walia 2021)

b. This research introduces negative creativity within strategic management studies (Walia 2021; Walia & Sharif 2020).
c. The experimental study plus Delhi validation in this research, unlike other experimental studies is conducted with a sample that realistically mirrors actual TMT in established firms.

Apart from the novel contributions noted above, some other contributions of this research were that:

d. This research quantifiably correlates the effects of CA, Rent, and PD on value creation.
e. This study integrated various streams in literature to derive its hypothesis for e.g. strategic intent, SDM, strategic problem formulation, creativity, negative creativity, and organisational irresponsibility.
f. The regression analysis in this adopted logistic and quantile regressions apart from the linear regressions which most researchers solely rely upon to derive conclusions.
g. This study advocated the use of 'decision' as a unit of analysis to be able to quantifiably examine creativity, unlike most researches in creativity that stress on individual as a unit of analysis.
h. This research presents a quantitative study for strategic intents. Most previous studies (Table 2-1) have been either caste study based or qualitative.

7.3 Contribution of this Research to Previous Work

Further to contributions listed above; this research comes as continuation of the work by many researchers in the field who paved the way for some of the principles being investigated in this thesis. The links between the established works and these research contributions are illustrated in the discussions of Chapter Six and have their roots in the literature review chapter.

The research adds fresh perspective to ongoing debates in strategic intent theories and adds the element of PD to the theory (see Table 2-1). The results of this study also contribute to strategic problem formulation theories (Nickerson & Argyres 2018) by accepting that problem formulations indeed determine strategic direction, however, by adding that problem formulations may not simply be confined to problems of CA and Rent. The results of this study can also help generalise SDM theories on context that examine context to be most relevant in determining strategic outcomes (Papadakis et a. 2010, Nutt 2011). This research further supports Hitt et al.'s (2017) and Brandenburger's (2019) call for studying creativity in context to strategic management. Integration of creativity theories as analysed in Chapter Two into strategic discussions may also help in understanding the process of innovation better. Although it was not the purpose of this research, however, this study furthers the study on similarities between negotiations and creativity as was pointed out by Wilson & Thompson (2014). Finally this research makes way for studying negative creativity in context to strategy. Earlier studies examined negative innovations particularly in context to CA (McGrath & Kim 2015). This research expands on that dimension and presents a full model to be examined both in terms of negative creativity as well as going beyond just CA.

7.4 Research Implications

The characteristics and relationships between strategic intents and creative outcomes add both academic and practical implications that emphasis its uniqueness and originality. Strategic intent is considered critical in determining organisational performance (O'Shannassy 2016). Innovation has been considered an important element of business success (Christensen et al., 2004). Creativity provides the fuel for innovation (Woodman et al., 1993). This study explored the thesis that there is a lot more to creativity than merely fulfilling strategic goals. While strategic studies had called for a deeper understanding of

creativity, the business literature had not yet studied negative creativity as an outcome dependant on strategic intents. The research focused on identified research gaps that would effectively help established firms determine consequences os their strategic intents. This research has both academic and practical implications which are discussed as follows:

7.4.1 **Academic implications**

The academic implications of this study can be summarised as follows:

1. Opens a new line of thought for strategic management to examine negative creativity as a strategic outcome.
2. The research urges theorists to examine problem discovery as a strategic intent and draw further implications of the value of doing so.
3. The study exposes limitations is considering strategic problems as just gaps between aspirations and results, and extend the theory to expand problems beyond the scope of just performance aspirations.
4. The study extends validity to strategic intent theories in determining organisational performance, however cautions that strategic intents could also create negative outcomes as a whole, that haven't yet been examined by theorists.
5. The study adds a dimension to value creation and value capture studies (Leepak et al. 2007) while suggesting that the two may not be about balance. This study demonstrated that capture (strategic intent) guides the creation process, and can do so negatively too. The study also proposed that the intent to create (or solve new problems) could drive the capture goal as an outcome much better that the other way round.
6. This study added dimensions to existing research on negative creativity (Cropley 2010; James & Taylor 2010) by examining it through strategic lenses rather than individual

intents. In other words the study added a perspective that creativity may itself not be a negative or positive process, but rather an outcome of decision making intent that guides it.

7. This study extends calls by Hitt (2011) to examine the process of SDM in actuality or through observation of actual behaviours rather than determining it in hindsight through case studies. This is relevant because further experimental studies can bring forth more cause and effect relationships that may extend the understanding developed here.

7.4.2 **Practical implications**

This research *second and third objectives* offer practical contribution where this research helps practitioners determine the role strategic intents play in performance (O'Shannassy 2016). This provides further understanding of how the elements of CA, Rent, and PD may impact outcomes. Thus, the analysis of this study is of interest not only to academia, but also to TMT in established firms, since it highlights opportunities for improving current practices that influence firm performance.

The literature review within this thesis covered five broad disciplines: strategic intent, creativity, strategic problem formulation, strategic decision making and negative creativity (see Figure 2-1). Subsequent to quantitative and qualitative analysis and in context of these disciplines, the findings have an impact on industry practitioners, in all of these areas. This is summarised in Figure 7-1.

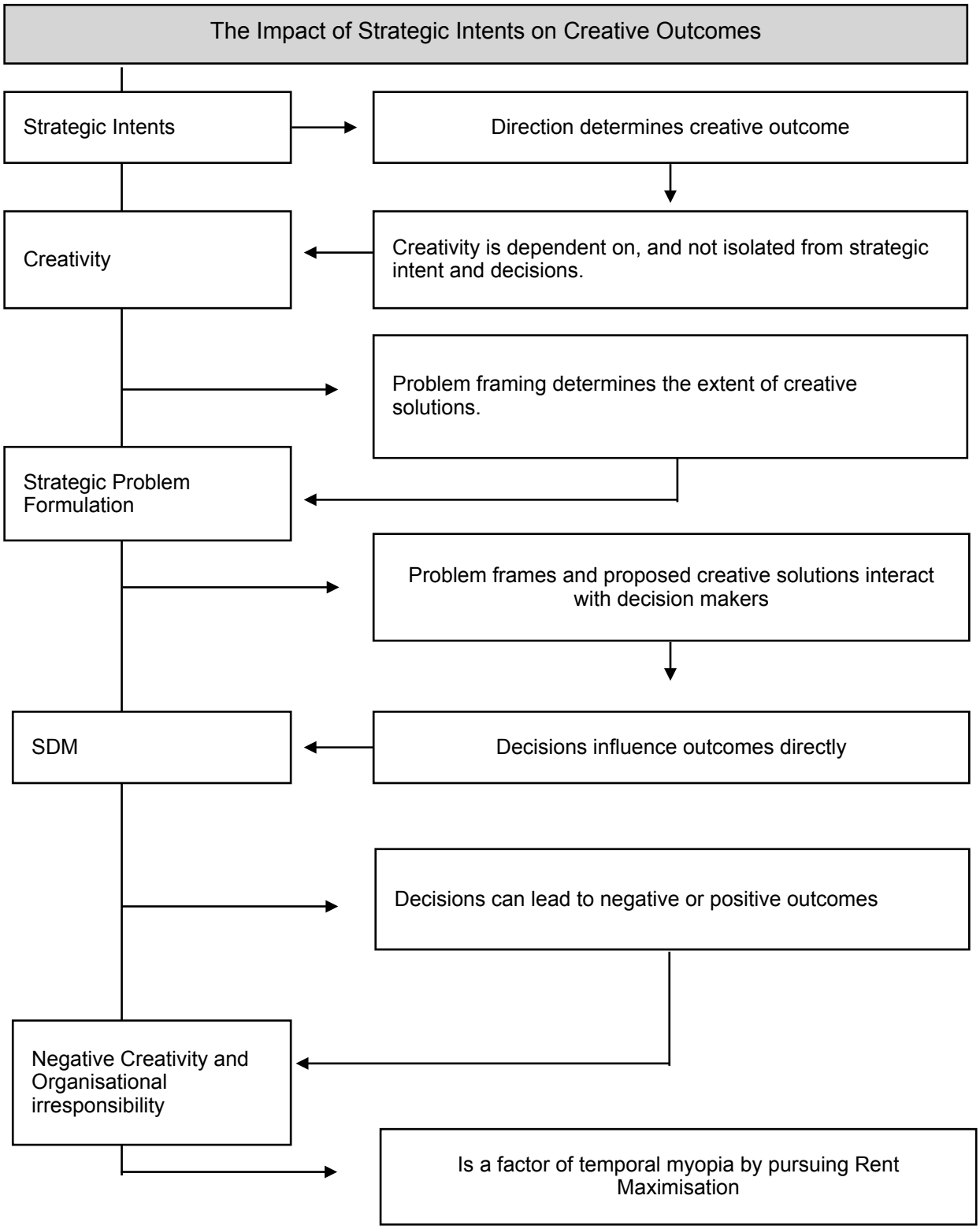


FIGURE 7-1: PRACTICAL IMPLICATIONS

As depicted in Figure 7-1, the practical implications are discussed herein below.

Strategic Direction determines creative outcome: Intents of CA or Rent or PD determine the direction of creative efforts and results therein was evidenced by the quantitative analysis. Practitioners would benefit from the knowledge that having any intent is better than having no intent. However while pursuing the intents of CA or Rent, they may pay attention to temporal myopia, and consider purposefully analysing long term impacts of their decisions to mitigate chances of negative creativity. This may well direct them into problem solving mode and have a greater overall impact on value creation.

Creativity is dependent on, and not isolated from strategic intent and decisions: Creativity has largely been considered and studied from an individual unit of analysis. This research has studies creativity from *decision* as a unit of analysis. It has been found that goal directed nature of creativity in organisations is highly influenced by decision making. Decision makers can take cognisance of findings that their direction determines creativity over and above an individual's discretion. More specifically if decision makers are in need of creative solutions, they would need to emphasise on certain unique problems to be solved, rather than emphasise need for rent or CA.

Problem framing determines the extent of creative solutions: Problem perception emerged as a creative strength in itself, ie., the ability to conceive unique problems is a creative act in itself, and it determines the extent of creative solutions. Framing problems as problems of CA or Rent does not seem to be unique problems as they are shared by every player in the industry. Therefore practitioners would be encouraged to reframe problems by identifying newer or unique problems to be solved, framing them as such, and then presenting them for creative solutions. As results have indicated this would present better scenarios for maximising value creation.

Problem frames and proposed creative solutions interact with decision makers: In between the creative process, proposed solutions to problem framing will interact with decision makers. The theory on creativity suggests that these solutions at the initial stages

would not be high on probability of success but rather be work in progress. Decision makers would then be advised to reiterate problem frames, contribute consciously to solutions, rather than change problem frames at this stage.

Decisions influence outcomes directly: It was well established during this research that decisions such as to pursue CA or Rent have a direct impact on the final outcome. Practitioners could be aware of this and pay attention to how decisions are taken and communicated, as the subsequent execution will use creative skills within that direction and determine the results, as positive or negative.

Decisions can lead to negative or positive outcomes: Decision to focus on rent maximisation in particular, can inadvertently too lead to negative creativity as a whole. Therefore decision makers need to be more holistic to uncover strategic effects before implementing decisions, as negative creations can be very difficult to offset.

Negative creativity is a factor of temporal myopia by pursuing Rent Maximisation: Shorter thinking and gains cause temporal myopia, ie., a temporary inability to see long term effects of actions. This leads to a narrow definition of the problem, which is to pursue rent maximisation. TMT can use the behavioural strategy framework proposed in Figure 6-5, and comprehend that similar or larger gains are available through PD route and that possibly could lead to larger value creation as such.

In summary this research is expected to help decision makers and practitioners since it can help to:

1. Create clarity in formulating strategic intents as strategic intents are primary strategy making tools (Rui and Yip 2008).
2. Support firms in analysing the likely effects of their strategic intents on overall value creation and in determining appropriate intents for creating value (O'Shannassy 2016).
3. Address negative creations that can potentially be existential threats if determined beyond a certain stage (Curran 2018).

4. Use the framework in this research as a possible tool to guide creative process.
5. Adopt relevant strategic frames and problem formulations that maximise value creation as a whole.

7.4.3 **Reducing the gap between strategic-creative research and practice**

This section address how this research tried to reduce the gap between research and practice that remained significant due to failing to address the “how” questions in strategic intent and creativity literature and specifically in the context of established organisations. The research model tries to integrate the macro dimensions that illustrate the effects of CA and Rent strategies on overall outcomes. The researcher moreover considered the existing decision makers in established organisations and included the actual TMT members in the RCT and in. Delphi study. The outcome of this research further emphasises the conditions that produce optimal creative outcomes than merely being prescriptive about the need to innovate. This research even pushes to practically measure the three different intents, and their cause and effect relationship be considered in TMT while decision making. Based on this study, this framework can be further developed towards being practically used for organisational decision making assessments and performance reviews.

7.5 Limitations of this research

Any thesis limitations comes from its scope and method used, this section examines the thesis in light of both methodological and general limitations reported in this study:

A) Methodological Limitations

The most important methodological limitation is the decision to use a quantitative method through an experimental analysis. This was followed by the Delphi study, however the Delphi panel was not to conduct an independent qualitative study but to confirm the

quantitative findings. Even though this method brought lots of advantage, it also raised drawback in having no normative data available for comparison due to the lack of other similar nature studies. Due to the issue faced in this research, the selection of experiment, finding of a requisite sample, and conducting the experiment, can be a complex project. Due to these factors it puts pressure on researcher to be sure as these experiments within the time frame of a research project may become non repeatable. Although this approach and particular experiment has been used earlier in studies, it wasn't used with a sample of high profile management audience. As such comparative data was not available.

The other methodological limitation point is that this research could have produced a more enlightened result by *actual decision making processes* in firms which can be an area for future research.

The research was unable to reflect upon on the participants perceptions of these results post the experiment. Had this research been possible to present the findings and engage in qualitative discussions to determine how it plays out in their respective firms, it would have added more concrete dimensions. Again the sampling, time factors, and availability of resources, could not permit this level of detailing.

Another limitation was the experiment used. The negotiation exercise as was reviewed in Chapter Four, has close relations with creativity, and strategic implications of pricing. The researcher aimed to keep the simulation simple enough for subjects to comprehend and therefore chose an experiment that had been conducted before. An assumption made therefore was that if a simple strategic-negotiation experiment would indicate certain behaviours as reported, then issues of greater strategic value would only amplify them.

B) General Limitations

This research carries general limitations that most research of this nature would go through. The different sizes and variety of the organisations in one country limited the possibility of this research generalisation claim, unless it is empirically tested in other countries and regions (Neuman, 2003). Several constructs have been examined to give a holistic perspective, as per the *third research objective,* but this might have *minimised the chances of focusing on one construct in detail.* Discussion in Chapter Six led to a number of questions as *to what and how extent can these finding be generalised for other contexts.*

This study presented a model that shows how strategic intent impacts value creation but was unable to directly rule out other approaches—such as industry level dynamics, economic conditions, government policies, or company cultures and practices—that may affect value creation. Still, the observations in this study—particularly those regarding the varied implications of Rent and PD on value creation—were evidenced to be consistent with the predicted framework. However, it is not established if it is possible to move from one intent to the other and what the implications of doing so may be. This can be another avenue for future research.

Another factor that presented itself in this research was the firms pursuing a strategic intent for e.g. Rent manages to earn a significant payoff even though the whole is worse off. This research could not determine what would enable decision makers to change intent.

7.6 Proposed future work

This study has opened *different possibilities for future research* and *painted a number of research directions* that would be useful for researchers. These were discussed in Chapter Six, and are further presented here below.

It is highly recommended from this research to continue *investigating salient variables and/or relations that would complement the model proposed* in this study between CA, Rent, PD, and resultant outcomes. This might be approached through running the setting on another set of data or on another country or other kinds of firms. Also it might be suitable to test the model through other research approaches and draw learning from therein. It may also be suitable to examine, either through interviews or through questionnaires on the micro processes that emanate from strategic intents and how exactly they influence the creative process. In other words one of the important areas which can be taken up by researchers in the further course of study is the establishment of the path flow from CA, Rent, PD to creative outcomes. If this directional flow can be established then it would give the organisations a definite path to follow for the suggested outcomes.

Therefore this study can be a source for future studies on the role played by TMT on producing long term industry and economy effects. Further studies of this nature or in line with this research can focus on how the industry models mature and establish certain strategic intents of their own that may make it difficult for firms to change intent even if they wanted to. Due to limitation of the scope of this research these effects were not considered.

It would add more value to the body of knowledge to see how such proposed model contributes to any organisation through empirically studying the development of new products or services and in relevance to increasing or nullifying the overall value creation. It would be worthwhile for the concept of strategic intent to integrate this research more clearly with newly emerging intellectual capital concepts to see how the variables of CA, Rent, and PD lead to more or less effectiveness towards organisational performance, if the intent was to actually shift. The strategic problem formulation theories might also thus be a

good area to be studied and linked further to this research in continuation to work of Nickerson & Argyres (2018) and Posen et al. (2018).

Firms explore the creation of products and services to exploit them (McGrath & Kim, 2015). The source that creates the value may be different from the source that exploits it (Teece et al. 2016). Further research may be needed to examine assumptions that decision-makers hold about factors, such as stakeholders, goals, and value, that may help or hinder their choices of strategic intents. For example, is creation and innovation viewed as a complex activity that, rather than leaning toward PD, decision makers tend to lean on exploitation?

Kasser et al. (2007) suggested that individuals pay a psychological price for capitalist goals. Thus, they may suffer from a lack of self-esteem or even unhappiness, suggesting harms created at an individual level. Research may examine how an organisation system (relying on Rent and CA) affects psychology of employees that they become absent to negative creations.

Even more, such line of study should help gradually answer what tools can be used to assess whether firm's are being positively creative or run the risk of being negatively creative. Finally, future research should continue in line helping trigger thoughts, illustrating the way in which firms can have a greater impact on collective value creation while diffusing negative innovations. The new channels opened by this study might help to shift the current the strategic intent's focus towards the importance of the holistic approach studies or program designs which brings in the measures of success to be of total value rather than exclusive value. Future research is recommended to continue facilitating the optimisation further concepts that can develop strategic-creative perspectives. The researcher is hopeful that this introduction will lead to further debate and development regarding and a broader understanding of multiple perspectives that may help achieve more positively influenced value creation.

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Appendix

Appendix (1a): Buyer & Seller Sheets for Control Group (G1- CG)

Buyer:

Buyer					
Iron		Sulphur		Coal	
A	$2000	A	$1200	A	$800
B	$1750	B	$1050	B	$700
C	$1500	C	$900	C	$600
D	$1250	D	$750	D	$500
E	$1000	E	$600	E	$400
F	$750	F	$450	F	$300
G	$500	G	$300	G	$200
H	$250	H	$150	H	$100
I	$000	I	$000	I	$000

Your role is that of a buyer in this negotiation simulation. You will be negotiating deals with multiple sellers. The table above represents the profits you can make on purchasing iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the seller shortly.

Your goal is to negotiate the best deal possible.

Seller:

Seller					
Iron		Sulphur		Coal	
A	$000	A	$000	A	$000
B	$100	B	$150	B	$250
C	$200	C	$300	C	$500
D	$300	D	$450	D	$750
E	$400	E	$600	E	$1000
F	$500	F	$750	F	$1250
G	$600	G	$900	G	$1500
H	$700	H	$1050	H	$1750
I	$800	I	$1200	I	$2000

Your role is that of a seller in this negotiation simulation. You will be negotiating deals with multiple buyers. The table above represents the profits you can make on selling iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the buyer shortly.

Your goal is to negotiate the best deal possible.

Appendix (1b): Buyer & Seller Sheets for Experimental Group (G2 - CA)

Buyer:

Buyer					
Iron		**Sulphur**		**Coal**	
A	$2000	A	$1200	A	$800
B	$1750	B	$1050	B	$700
C	$1500	C	$900	C	$600
D	$1250	D	$750	D	$500
E	$1000	E	$600	E	$400
F	$750	F	$450	F	$300
G	$500	G	$300	G	$200
H	$250	H	$150	H	$100
I	$000	I	$000	I	$000

Your role is that of a buyer in this negotiation simulation. You will be negotiating deals with multiple sellers. The table above represents the profits you can make on purchasing iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the seller shortly.

Your goal is to negotiate the best deal possible.

Seller:

Seller					
Iron		Sulphur		Coal	
A	$000	A	$000	A	$000
B	$100	B	$150	B	$250
C	$200	C	$300	C	$500
D	$300	D	$450	D	$750
E	$400	E	$600	E	$1000
F	$500	F	$750	F	$1250
G	$600	G	$900	G	$1500
H	$700	H	$1050	H	$1750
I	$800	I	$1200	I	$2000

Your role is that of a seller in this negotiation simulation. You will be negotiating deals with multiple buyers. The table above represents the profits you can make on selling iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the buyer shortly.

Your goal is to ensure that you have the best competitive advantage compared to the other sellers, and negotiate the best deal possible.

Appendix (1c): Buyer & Seller Sheets for Experimental Group (G3 - Rent)

Buyer:

Buyer					
Iron		**Sulphur**		**Coal**	
A	$2000	A	$1200	A	$800
B	$1750	B	$1050	B	$700
C	$1500	C	$900	C	$600
D	$1250	D	$750	D	$500
E	$1000	E	$600	E	$400
F	$750	F	$450	F	$300
G	$500	G	$300	G	$200
H	$250	H	$150	H	$100
I	$000	I	$000	I	$000

Your role is that of a buyer in this negotiation simulation. You will be negotiating deals with multiple sellers. The table above represents the profits you can make on purchasing iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the seller shortly.

Your goal is to maximise your profits, and negotiate the best deal possible.

Seller:

Seller					
Iron		Sulphur		Coal	
A	$000	A	$000	A	$000
B	$100	B	$150	B	$250
C	$200	C	$300	C	$500
D	$300	D	$450	D	$750
E	$400	E	$600	E	$1000
F	$500	F	$750	F	$1250
G	$600	G	$900	G	$1500
H	$700	H	$1050	H	$1750
I	$800	I	$1200	I	$2000

Your role is that of a seller in this negotiation simulation. You will be negotiating deals with multiple buyers. The table above represents the profits you can make on selling iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the buyer shortly.

Your goal is to negotiate the best deal possible.

Appendix (1d): Buyer & Seller Sheets for Experimental Group (G4 - PD)

Buyer:

Buyer					
Iron		**Sulphur**		**Coal**	
A	$2000	A	$1200	A	$800
B	$1750	B	$1050	B	$700
C	$1500	C	$900	C	$600
D	$1250	D	$750	D	$500
E	$1000	E	$600	E	$400
F	$750	F	$450	F	$300
G	$500	G	$300	G	$200
H	$250	H	$150	H	$100
I	$000	I	$000	I	$000

Your role is that of a buyer in this negotiation simulation. You will be negotiating deals with multiple sellers. The table above represents the profits you can make on purchasing iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

You will be meeting the seller shortly.

Your goal is to identify mutually unsolved, and unknown problems, and then solve those problems leading to a negotiated deal.

Seller:

Seller					
Iron		Sulphur		Coal	
A	$000	A	$000	A	$000
B	$100	B	$150	B	$250
C	$200	C	$300	C	$500
D	$300	D	$450	D	$750
E	$400	E	$600	E	$1000
F	$500	F	$750	F	$1250
G	$600	G	$900	G	$1500
H	$700	H	$1050	H	$1750
I	$800	I	$1200	I	$2000

Your role is that of a seller in this negotiation simulation. You will be negotiating deals with multiple buyers. The table above represents the profits you can make on selling iron, sulphur, and coal.

Each negotiation requires you to reach an agreement with the seller on the prices of all three commodities i.e. iron, sulphur, and coal, represented by the letters A - I. Any combination of letters is permissible.

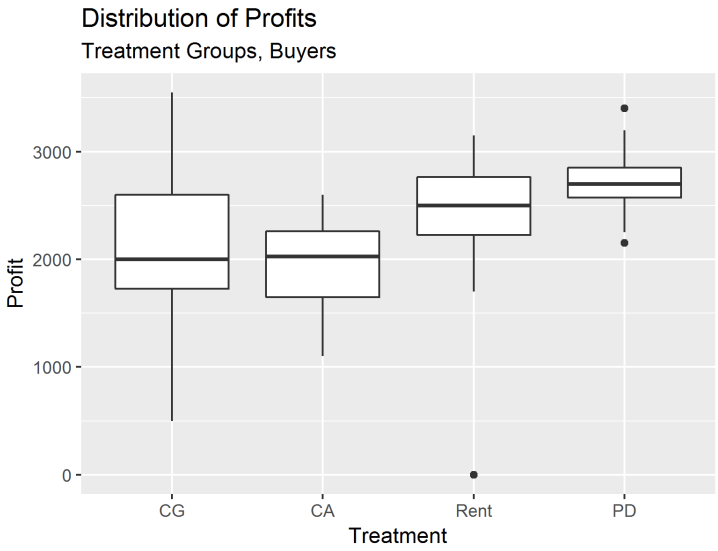
You will be meeting the buyer shortly.

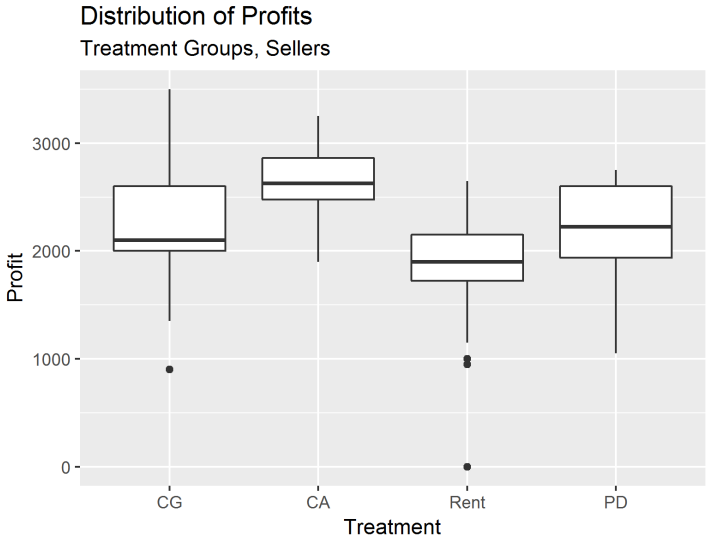
Your goal is to identify mutually unsolved, and unknown problems, and then solve those problems leading to a negotiated deal.

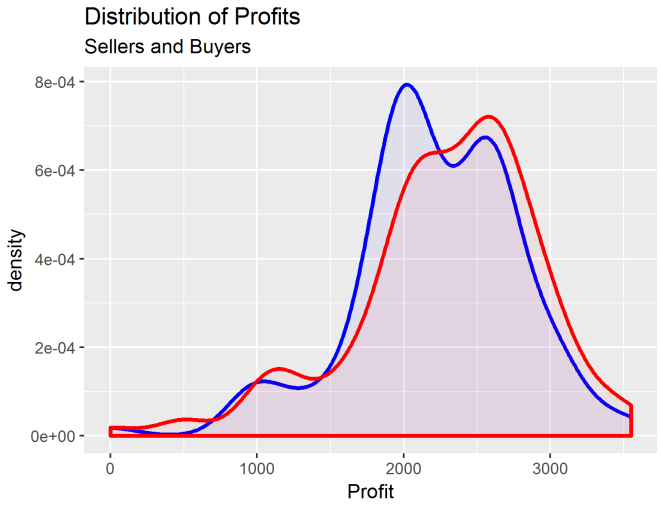
Appendix 2: Descriptive Statistics

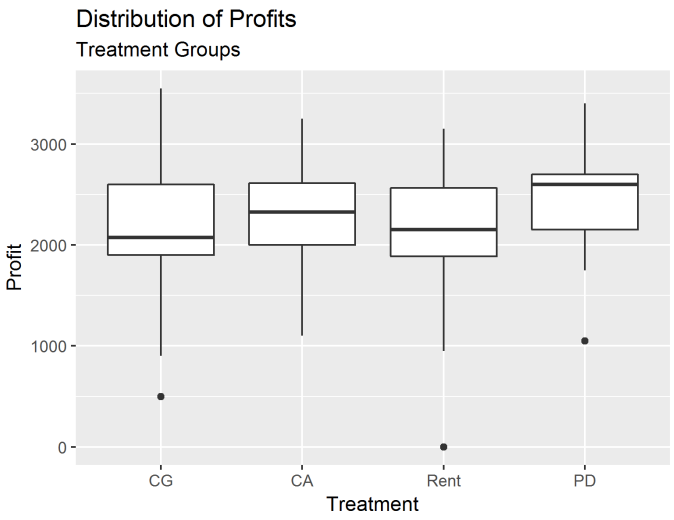
METRIC	CAT	N	MIN	P5	P25	MED	P75	P95	MAX	MEAN	SD	SKEW	EXKURT
Profit	All	256	0	1087.5	2000	2300	2600	3112.5	3550	2255.078125	596.0602629011630	-0.7526225557914740	1.2657936070510500
Profit	Sellers	128	0	1085	1900	2150	2600	3000	3500	2217.96875	562.115463487119	-0.6468867343494070	1.3894985036904200
Profit	Buyers	128	0	1117.5	2000	2400	2700	3150	3550	2292.1875	628.1906745742470	-0.8654697071937870	1.2132372369562000
Profit	Round 1	128	500	1117.5	1900	2250	2600	3032.5000000000000	3550	2222.65625	578.7870623836350	-0.3823704063329720	0.16177709307025
Profit	Round 2	128	0	1085	2000	2400	2612.5	3132.5000000000000	3550	2287.5	613.4002302898860	-1.0855648839082300	2.2910355011404100
Profit	Random	45	4000	4000	4150	4300	4600	5020.000000000000	5200	4400	335.4101966249690	0.5728715546977510	-0.6409090909090910
Profit	CG	64	500	915	1900	2075	2600	3447.5000000000000	3550	2154.6875	707.3154451083960	-0.18432279415381300	-0.04813465355479260
Profit	CA	64	1100	1157.5	2000	2325	2612.5	3042.5	3250	2290.625	534.4389581607990	-0.47470219798991800	-0.3260802801947700
Profit	Rent	64	0	1022.5	1887.5	2150	2562.5	2985.000000000000	3150	2129.6875	622.5726673975310	-1.2531368987749800	2.5257034689002100
Profit	PD	64	1050	1900	2150	2600	2700	3170.000000000000	3400	2445.3125	447.5434491631950	-0.6694617334159830	1.474817313318430
Profit	Seller, Creative	64	500	1095.0000000000000	2050	2250	2612.5	3000	3500	2290.625	573.756419198451	-0.5880815400829820	0.9012873445733340
Profit	Seller, Manufacturing	64	950	1107.5	1900	2450	2700	3042.5	3150	2274.21875	616.6339880337550	-0.6935588375042780	-0.5252657477966060
Profit	Seller, Technology	64	0	1030	1937.5	2350	2600	3085.000000000000	3500	2232.8125	679.4733458920800	-1.272192310325250	2.316448946884130
Profit	Seller, Retail	64	900	1522.5000000000000	2000	2125	2512.5	3170.000000000000	3550	2222.65625	513.5412138991530	0.17250883571192300	1.0386724453545700
Profit	Buyer, Creative	64	1150	1772.5	2000	2400	2600	2892.5	3150	2344.53125	405.1373652506300	-0.533192480874433	0.2395243175155280
Profit	Buyer, Manufacturing	64	0	1057.5	1900	2100	2487.5	3177.500000000000	3400	2120.3125	664.7423865500010	-0.7656009157274200	1.7210717643131400
Profit	Buyer, Technology	64	500	1000	2000	2325	2625	3127.500000000000	3500	2220.3125	699.2466893305130	-0.617367822141712	-0.11700141759817800
Profit	Buyer, Retail	64	900	1365	2000	2400	2600	3142.5	3550	2335.15625	555.6834550196180	-0.37271113313782600	0.31143464324933000
Discrepancy	CG	32	-3000	-2450	-700	0	112.5	2127.5000000000000	2650	-168.75	1347.9225353447900	-0.04006159559112320	0.24253862204444500
Discrepancy	CA	32	-2050	-2000	-962.5	-600	0	0	350	-675	697.3451961407960	-0.6798039036040350	-0.6225670981741380
Discrepancy	Rent	32	-600	-295	0	625	950	1972.5	2000	618.75	680.8142657995120	0.39461929195286300	-0.3554601968705880
Discrepancy	PD	32	-300	-190.00000000000000	0	350	950	1717.5000000000000	2350	521.875	653.518701758708	1.2392456227207600	1.5230147315892200
Discrepancy	CG, Round 1	16	-3000	-2250	-1050	-200	75	1937.5	2650	-278.125	1416.9178698852000	0.12400177828379500	-0.03843896147529420
Discrepancy	CG, Round 2	16	-3000	-2250	-412.5	0	125	1862.5	2650	-59.375	1312.150747183160	-0.20448537552236200	0.7120919135562270
Discrepancy	CA, Round 1	16	-2050	-2012.5	-1437.5	-700	-237.5	0	0	-850	752.1081482517440	-0.42264160946305500	-1.2143343534241300
Discrepancy	CA, Round 2	16	-2000	-1475	-912.5	-325	0	87.5	350	-500	611.5553940568260	-0.876912345078176	0.27402365905039700
Discrepancy	Rent, Round 1	16	-600	-412.5	0	475	962.5	1725	1950	518.75	689.6557112066860	0.4256561444960890	-0.3397480434428500
Discrepancy	Rent, Round 2	16	-250	-250	262.5	675	950	2000	2000	718.75	678.9391234369490	0.4043037754435670	-0.3797391434914080
Discrepancy	PD, Round 1	16	-300	-300	-25	0	950	1300	2350	396.875	700.3496150733100	1.3847909620055600	1.6252877758108800
Discrepancy	PD, Round 2	16	0	0	300	575	950	1487.5	2350	646.875	599.0182941001610	1.4047712681536200	2.0743675439696400

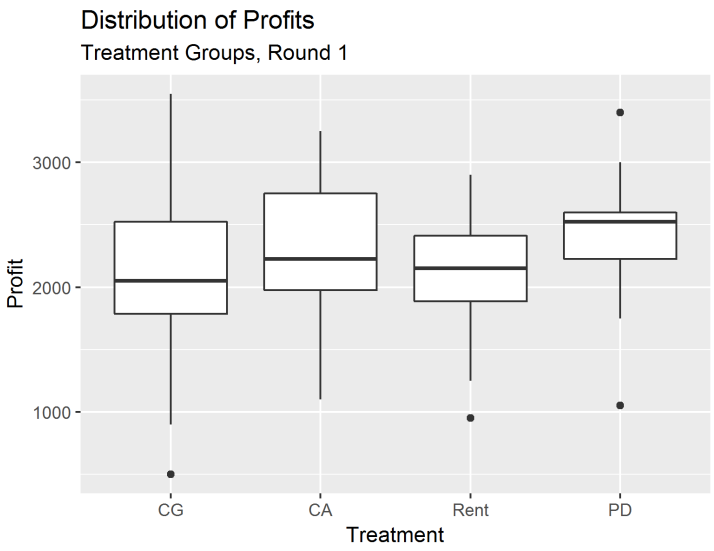
Appendix 3a: Distribution of Profits

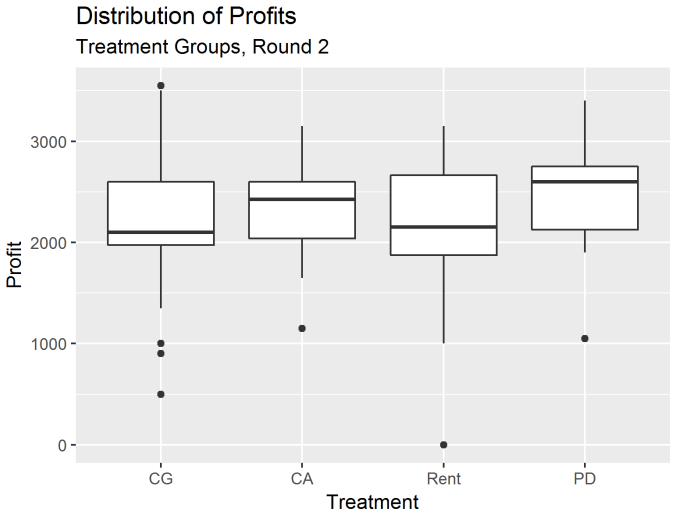




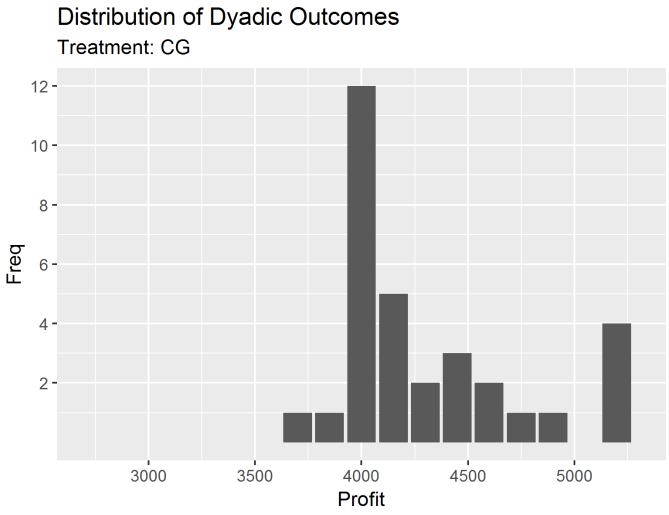


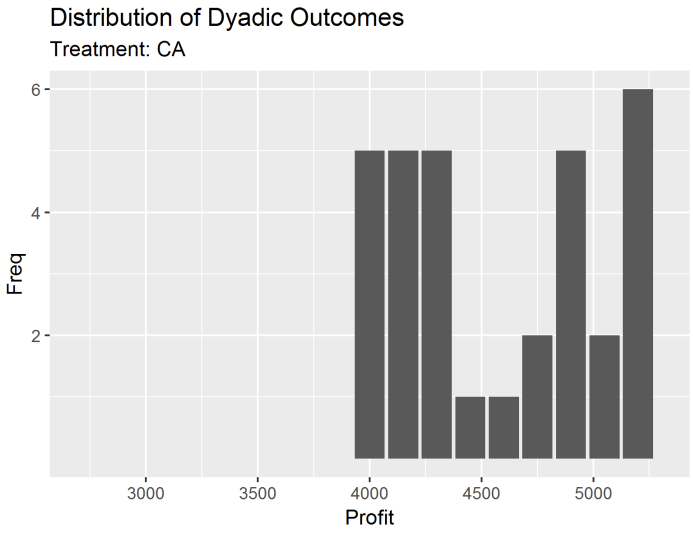

Distribution of Profits
Treatment Groups
Profit
3000
2000
1000
0
CG
CA
Rent
PD
Treatment

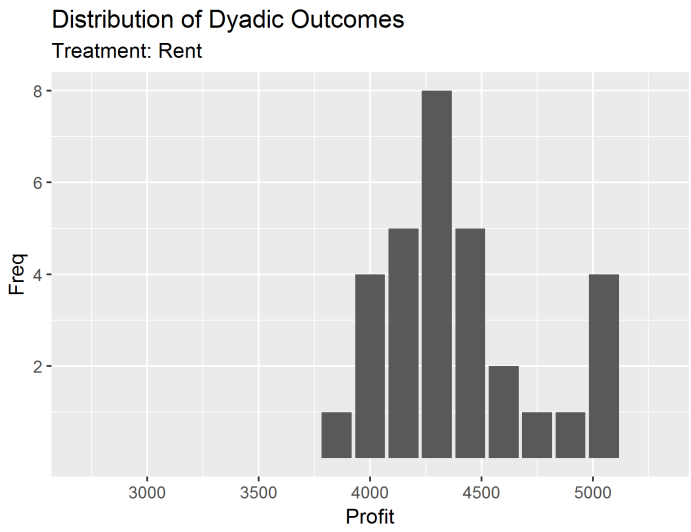

Distribution of Profits
Treatment Groups, Round 1
Profit
3000
2000
1000
CG
CA
Rent
PD
Treatment

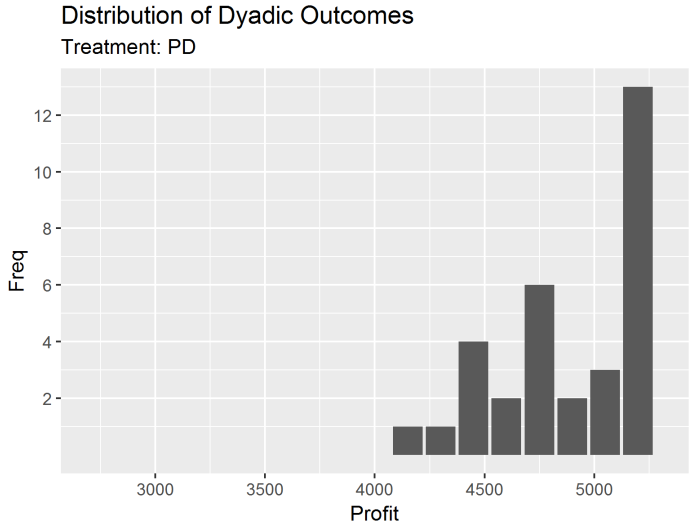

Distribution of Profits
Treatment Groups, Round 2
Profit
3000
2000
1000
0
CG
CA
Rent
PD
Treatment

Appendix 3b: Distribution of Dyadic Outcomes

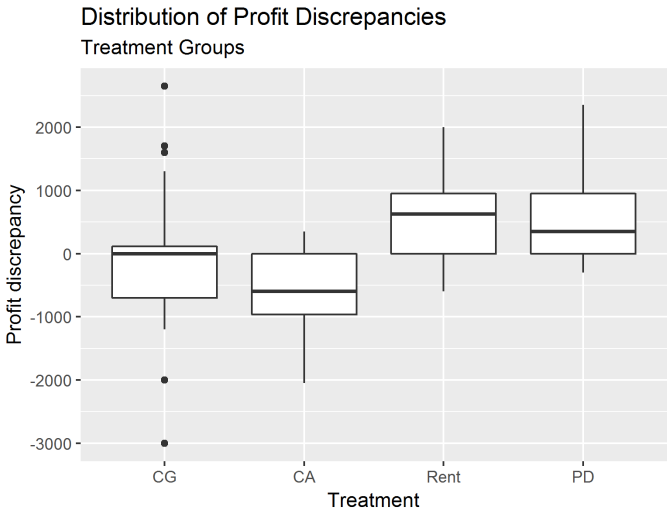


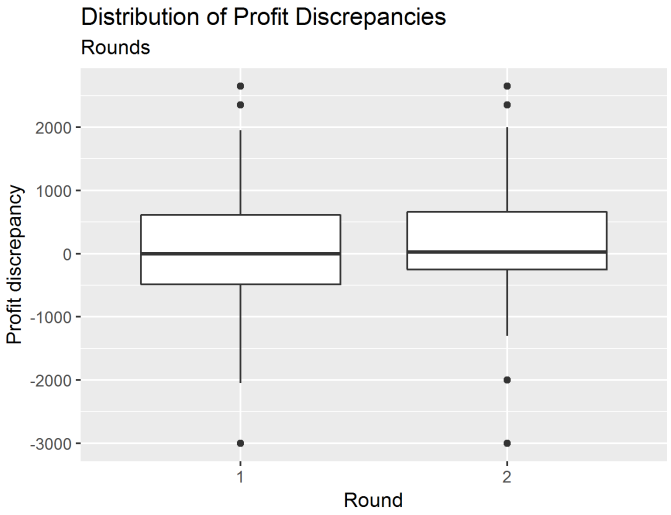



Distribution of Dyadic Outcomes
Treatment: Rent
Freq
8
6
4
2
3000
3500
4000
4500
5000
Profit


Distribution of Dyadic Outcomes
Treatment: PD
Freq
12
10
8
6
4
2
3000
3500
4000
4500
5000
Profit

Appendix 4: Distribution of Profit Discrepancies





Appendix 5a: Tables for Variances (Welch 2 Sample T Test)

WELCH 2 SAMPLE T TEST TO COMPARE PROFIT VARIANCES

	CG	CA	RENT	PD
CG	1	272 ** p=0.017	-50 p=0.767	581*** p=0.000
CA		1	-322 * p=0.064	309*** p=0.003
RENT			1	631 *** 0.000
PD				1

*p < 0.1; **p < 0.05; ***p < 0.01.

WELCH 2 SAMPLE T TEST TO COMPARE PROFIT DISCREPANCIES

	CG	CA	RENT	PD
CG		-506.2 *** p=0.000	788*** p=0.005	691** p=0.012
CA			1294 *** p=0.000	1197 *** p=0.000
RENT				-97 p=0.564
PD				

*p < 0.1; **p < 0.05; ***p < 0.01.

WELCH 2 SAMPLE T TEST TO COMPARE ROUND VARIANCES

	CG	CA	RENT	PD
r1 Vsr 2	186 p=0.226	225 p=0.0163	-6 p=0.984	113 p=0.336

*p < 0.1; **p < 0.05; ***p < 0.01.

Appendix 5b: Tables for Variances (F Test)

F TEST TO COMPARE TWO VARIANCES OF PROFITS

	CG	CA	RENT	PD
CG		1.092 p=0.809	3.829 *** p=0.000	0.566 p=0.118
CA			3.508 *** p=0.000	0.518 * p=0.072
RENT				0.148 *** p=0.000
PD				

*p < 0.1; **p < 0.05; ***p < 0.01.

F TEST TO COMPARE PROFIT DISCREPANCIES

	CG	CA	RENT	PD
CG		0.268 *** p=0.000	0.255 *** p=0.000	0.235 *** p=0.000
CA			0.953 p=0.895	0.878 p=0.720
RENT				0.921 p=0.821
PD				

*p < 0.1; **p < 0.05; ***p < 0.01.

F TEST TO COMPARE ROUND VARIANCES

	CG	CA	RENT	PD
r1 vs r2	1.455 p=0.476	0.913 p=0.862	14.673 *** p=0.000	0.769 p=0.617

*p < 0.1; **p < 0.05; ***p < 0.01.

Appendix 5c: Tables for Distributions (Kolmogorov - Smirnov)

KOLMOGOROV - SMIRNOV OR THE EQUALITY OF TWO DISTRIBUTIONS

	CG	CA	RENT	PD
CG		D=0.281 p=0.159	D=0.250 p=0.270	d=o.594*** p=0.000
CA			d=0.281 p=0.159	d=0.406** p=0.010
RENT				d=0.563 *** p=0.000
PD				

*p < 0.1; **p < 0.05; ***p < 0.01.

Appendix 6: Delphi Questionnaire

Round-1 I Participant
Strategic Intent and Creative Outcomes
Delphi Study Questionnaire

Participants								
1	2	3	4	5	6	7	8	9
CEO Automotive Company,	CEO Software	CEO Healthcare	Professor for Operations Research	Professor Economics and Finance	Editor of Research Journal on Creativity,	Governor for a State in India	Senior Mgmt for Innovation at European Commission	UN Goodwill Ambassador for Climate
India	UK	USA	India	UK	USA	India	Belgium	USA

1. Do you agree with the hypothesis that a primary competitive intent in strategy making does not lead to any significant creative outcomes or innovation?

   (Delete options that are not applicable)

   O Yes
   O No
   O I don't know

   Please elaborate with examples.

2. Do you agree with the hypothesis that a primary profit making or rent seeking intent in strategy making almost always leads to producing certain negative outcomes?

   (Delete options that are not applicable)

   O Yes
   O No
   O I don't know

   Please elaborate with examples.

3. Do you agree with the hypothesis that a intent to discover new problems in strategy making leads to unleashing creativity or innovation?

   (Delete options that are not applicable)

   O Yes
   O No
   O I don't know

   Please elaborate with examples.

4. In my experience cut throat competitive environments within an industry leads to…

   (Delete options that are not applicable)

   O Negative outcomes for players
   O Positive outcomes for players
   O Neutral outcomes

Please elaborate with examples.

5. In my experience highly motivated drives to maximise profits within the firm leads to…

(Delete options that are not applicable)

   O Negative outcomes for players
   O Positive outcomes for players
   O Neutral outcomes

Please elaborate with examples.

6. In my experience people are highly creative within a firm when they seek to…

   (Delete options that are not applicable)

   O Outdo competition
   O Seek more profits
   O Solve new problems

Please elaborate with examples.

Round-2 I Participant
Strategic Intent and Creative Outcomes
Delphi Study Questionnaire

Strategic Intent and Creative Outcomes
Delphi Study Questionnaire

Results from Round-1

PARTICIPANTS								
1	2	3	4	5	6	7	8	9
CEO Automotive Company, India	CEO Software UK	CEO Healthcare USA	Professor for Operations Research India	Professor Economics and Finance UK	Editor of Research Journal on Creativity, USA	Governor for a State in India	Senior Mgmt for Innovation at European Commission Belgium	UNCCD Ambassador USA
ROUND 1								
H1: The intent of CA has no effect on creativity or creative outcomes								

+	-	+/-	+	-	+/-	+	-	+/-	+	-	+/-	+	-	+/-	+	-	+/-	+	-	+/-	+	-	+/-
	1		1				1		1			1					1		1				1	1		
	1		1			1			1				1				1		1						1
50%									50%									33.3%						
44.4%																								
H2: The intent of Rent leads to negative creative outcomes																								
1			1				1		1			1			1				1		1			1		
1					1		1		1					1	1				1		1			1		
50%									83.3%									50%						
61.1%																								
H3: Intent of problem discovery maximises creative outcomes																								
1			1			1			1			1			1					1	1			1		
1			1			1			1			1			1			1			1			1		
100%									100%									83.3%						
94.4%																								

Percentages reflect Agreement with Hypothesis.
+ Positive Response to Hypothesis
- Negative Response to Hypothesis
+/- Neutral Response to Hypothesis

1. **Do you agree with the hypothesis that a primary competitive intent in strategy making does not lead to any significant creative outcomes or innovation?**

Your Round-1 Response —

(Delete options that are not applicable)

O Yes
O No
O I don't know

Please elaborate for reason for change, if any.

Comments where the answer is YES:

The primary intent needed for innovation or creativity is differentiation or solving new problems. Competition is always responsive to differentiation and catches up. So by itself it is not a sufficient condition for innovation.

Research shows that competitive intent may undermine innovation in a mature industry than promote it. Often its people from outside that industry that would disrupt it. Rarely from within.

Game theory has shown it time and again that the equilibrium reached is sub optimal and that means no significant advantages to anyone.

In different forums we have learnt that creative adoptions are driven through collaborations. Competitive lenses are highly detrimental to innovation of any kind.

Comments where the answer is No

Competitive intents help in growth and expansion strategies. They may also help in marginal innovations. Ideas may emerge but largely for catch up in industry. This can lead to significant contributions too.

If a firm's intent is to be better than the rest it will lead to a question - How? And that how may present opportunities for innovation.

There are situations where competition can lead to significant outcomes, both positive and negative. Competitive intent can lead to wars. Competitive intent can also form collaborations as strategic advantages.

Comments where the answer is I DON'T KNOW

I would say this needs to be researched further, as you are doing. I would want to lean more before forming an opinion. Creativity studies do show that stress and anxiety, caused presumably in competitive environments are not conducive for creative thinking.

From your presentation and research data, it appears to be neutral. The competition may lead to initiating debates on a need to do something different. So in that manner it could be a bait to innovate.

2. Do you agree with the hypothesis that a primary profit making or rent seeking intent in strategy making almost always leads to producing certain negative outcomes?

Your Round-1 Response —

(Delete options that are not applicable)

O Yes
O No
O I don't know

Please elaborate with examples.

Comments where the answer is YES:

Profits are an outcome. Oftentimes we may end up delegating saying 'get things done at at all costs' of the decision makers ignorantly fail to analyse opportunity costs such as culture or environment.

Yes economies and entrepreneurs in recent times have seen enough cases for this e.g. Lehaman Brothers etc. Profits are necessary for a company to exist so there is no question about that. And every business must produce profits. Unfortunately stock market reward far outweigh the concerns of negative outcomes within a business ecosystem. That is say a business is harming the environment but reaping disproportionate valuations, will that business say lets shut down? So while this exists - it may not be up to the business's conscience to stop.

The primary benefit of such strategic thinking may have value for the company to increase its profits. However the costs may be borne by some other stakeholder. This could be employees, vendors, culture, environment, climate, society.

Its a classic debate between exploring to create value or exploiting to capture value. Value capture strategies specifically those oriented toward rent seeking are known to come at a cost. Lets say a tobacco company is on a mission to capture new users or say an automobile company is on a similar mission - both have a direct consequence on health and environment.

Based on your presentation, yes it is clear. There is also a study in social sciences on capitalism by Kasser et al that points to exactly this.

Not just profits, any singular minded goal will always be at an expense of something else because we get blinded then by self interest.

I agree with this. To add it also useful to note that the metrics for innovation and creativity need not be economic growth but expansion of possibilities, sectors, choices, etc.

We have seen the impact on climate and environment. I don't believe we need more examples.

Comments where the answer is No

NIL

Comments where the answer is I DON'T KNOW

This can be argued both ways. I am curious to learn other's opinions on this. I have seen it work both ways.

3. Do you agree with the hypothesis that a intent to discover new problems in strategy making leads to unleashing creativity or innovation?

Your Round-1 Response —

(Delete options that are not applicable)

O Yes
O No
O I don't know

Please elaborate with examples.

Comments where the answer is YES:

I would imagine so. Problems unleash opportunities. Whether or not we invest in them is debatable.

Certainly in our business problems are a direct source of innovation.

Yes but it may not always do. It presents an opportunity to do so. Lets say the supply chain crisis during pandemic provided that opportunity. But every player did not innovate. Therefore in line with your research, I presume that players who treated that as a problem to solve, may be better placed to innovate. In that case - Fair enough.

Certainly. We have seen it in our sector — most recently during COVID

Yes it establishes ground for Schumpeter's creative destruction

Many creative studies have suggested unexplored dimensions and problems as catalysts or triggers to ideation.

Our research is always about assimilating problems and presenting them to a diverse set of people to solve and we see ideas emerging that others within the problem framework would not have thought off.

UN Sustainability goals is a great example of how world problems determined a possible solution.

Comments where the answer is No

Comments where the answer is I DON'T KNOW

I think it does but I would want to see others opinions. People will discover new thoughts and ideas, is it enough to translate into innovation?

4. In my experience cut throat competitive environments within an industry leads to…

Your Round-1 Response —

(Delete options that are not applicable)

- O Negative outcomes for players
- O Positive outcomes for players
- O Neutral outcomes

Please elaborate with examples.

Comments where the answer is Negative Outcomes:

In then end it equalises till no one can be better off. From thereon industries become a zero sum game.

I would tend to assume that it turns negative over a period of time. This not just in context of business results but also in context of overall wellbeing and intrinsic motivation factors which are found to more important for innovation and creativity.

Though the data suggests neutral, my experience suggests it tends to be on the minus side.

Comments where the answer is Positive Outcomes

In the end everyone bleeds in high competitive scenarios. However industries grow as a result of this.

It can have positive impacts. Someone will be on the winning side, temporarily.

Comments where the answer is Neutral Outcomes

Market share adjustment until the next differentiation. Differentiation is not a result of competition.

It can be both...

They even out over a period of time. Value capture erodes value creation and its a cycle.

5. In my experience highly motivated drives to maximise profits within the firm leads to…

Your Round-1 Response —

(Delete options that are not applicable)

- O Negative outcomes for players
- O Positive outcomes for players
- O Neutral outcomes

Please elaborate with examples.

Comments where the answer is Negative Outcomes

Leaders face temporal myopia in their decision making when they are guided by just money.
Negative as a whole on the premise that even if it is negative for one stakeholder, then it is still negative as a whole.

Again as stated earlier in the context of your presentation, this appears to be so.

As above we this and tackle it everyday in some sector or the other. Profitable firms become responsible for heath issues or pollution or environmental damage or something else. Its not by design but that doesn't mean default is acceptable.

These tend to evolve in Win-Lose mechanisms. As such they cannot be deemed to create positive value. There is always a loser.

Comments where the answer is Positive Outcomes

It could be the other way. I'll reserve my opinion for later as I am guided by the belief that profits are essential regardless.

Comments where the answer is Neutral Outcomes

I am unclear and unsure.

In a very capitalist way it leads to positive expansion and growth with benefits of increased employment and wages. However from a deeper perspective, of course there would be some harm caused somewhere. The Apple growth story - has it produced negativity? Certainly has. There are studies that reflect on working conditions, on environmental damage. Radiation. Given both the sides I am considering overall neutrality.

Again based on your study, yes. However there are benefits too that cannot be ignored.

I think outcomes as a whole get neutralised as gains set off the losses too.

6. In my experience people are highly creative within a firm when they seek to…

Your Round-1 Response —

(Delete options that are not applicable)

O Outdo competition
O Seek more profits
O Solve new problems

Please elaborate with examples.

Comments where the answer is Outdo Competition:

NIL

Comments where the answer is Seek More Profits

NIL

Comments where the answer is Solve Problems

Collectively or individually creative thinking and engagement is highest when people are solving problems out of their comfort zones.

Explained eg COVID

Needs no explanation

Relationship between problem solving and creativity is undisputed.

This may be contradicting myself but yes if we view creativity in this manner, it will appear that between the three scenarios, problems are likely to trump the source.

As explained earlier.

Not just firms but anywhere I think this would be logical

Appendix 7: Ethics Approval

APPROVAL Ethics Application E781

Ethics Application: E781

Your ethics submission and documents have now been reviewed by the Chair of the Research Ethics Panel.

I am pleased to inform you that the Chair has confirmed approval of this study, with no further ethical scrutiny required.

NOTE that this approval is for this study only.
Should there be any changes to this study, you must inform ethics@bradford.ac.uk.
Once your changes have been reviewed and you have approval to proceed, only then can you recommence the study.
Failure to do so will render your original approval invalid and withdrawn.

Please add a sentence onto any material you share with participants confirming that ethics approval has been granted by the Chair of the Humanities, Social and Health Sciences Research Ethics at the University of Bradford on 13/01/2020.