A study on the role of extrinsic rewards in enhancing employees' creativity in the Kingdom of Bahrain

A thesis submitted for the degree of Doctor of Philosophy

By

Maryam Hashem

Brunel Business School
Brunel University
United Kingdom

2020

Acknowledgments

Bismillah (in the name of god), the most beneficent and the most merciful. My praises and thanks are to Allah, the lord of all existents, for giving me the strength and patience to go through the Ph.D. journey, and peace and blessings are upon his prophet Mohamed.

First I would like to express my deepest appreciation and gratitude to my principal supervisor, Professor David Gallear, for his brilliant supervision throughout my Ph.D. journey; he was supportive in every way possible. I greatly respect his gentle personality; it made me always happy and comfortable to deal with him. Furthermore, I greatly appreciate Dr. Esra Aldhaen, my second supervisor, for being such a caring angel throughout my Ph.D. journey, for her support and encouragement, for making all challenges seem easy and simple to face. She was always there for me.

My deepest thanks go to the hidden warriors, my family. Mama, thank you for your prayers, for cooking me delicious meals, for encouraging me to study, and for taking care of my daughter while I work on my thesis. My beloved husband, thank you for asking me every single day “what was your progress today in your Ph.D.?”, for pushing me to work harder, for listening to me while I talk for hours about my thesis even though it is not in your field, for being the first to attend conferences with me and watch me present my papers. Foremost, thank you for believing in me. My gratitude extends to all other members of my family for being my backbone, for supporting me through this journey, for looking up to me, and waiting for the day I officially become a Ph.D. holder.

Lastly, I would like to thank my country, the Kingdom of Bahrain. My desire to raise my country’s name and to make my country proud of me has inspired me throughout this journey.

Declaration

Some of the material presented herein has been presented in the following publications:

Journal papers (accepted and published):

1. Hashem, M., Gallear, D. and Aldhaen, E., 2020. The Role of Rewards in Enhancing Employees' Creativity: A Literature Review. *International Journal of Innovation, Creativity and Change.*, 13(7), pp.153-163.

Ph.D. symposium papers (accepted, presented, and published):

1. Hashem, M., Gallear, D. and Eldabi, T., 2019. The Role of Motivation in Enhancing Employees' Creativity: A Literature Review. KnE Social Sciences, pp.64-77. **(best paper and best presentation award)**
2. Hashem, M., Gallear, D. and Aldhaen, E., 2020. The Role of Rewards in Enhancing Employees' Creativity: The Moderating Role of Goal Orientations and Locus of Control. Available at SSRN 3659094. **(second best paper award)**

Appreciation and Recognition

1. Winner of the best paper award at the 10th Doctoral Symposium 2019.
2. Winner of the best presentation award at the 10th Doctoral Symposium 2019.
3. Winner of the second-best paper award at 11th Doctoral Symposium 2020.

Abstract

In today's competitive business environment, enhancing employees' creativity has become a major ingredient for the success of organizations and the economic growth of a country. Accordingly, an enormous amount of money and effort was dedicated by practitioners to introduce reward systems aiming to enhance employees' creativity. Nevertheless, there was no consistent pattern of improvement in the global innovation ranking of the Gulf Cooperation Council (GCC) countries, and the Kingdom of Bahrain in particular. Moreover, the findings of the literature were inconsistent regarding the reward-creativity relationship. As such, there is a need to understand the relationship between extrinsic rewards for creativity and employees' creativity. This research empirically investigates the relationship between extrinsic rewards for creativity and employees' creativity, as it sheds light on the mediating role of intrinsic motivation for creativity and the moderating effects of goal orientations and locus of control, aiming to enrich the understanding of the mentioned relationship.

A conceptual model was developed and validated. Data was collected using a survey targeting employees working in primary public schools in the Kingdom of Bahrain. The findings of the research suggest that extrinsic rewards hinder employees' creativity for employees who are mastery goal-oriented. Extrinsic rewards also have a negative effect on the creativity of employees who have an internal locus of control as well as employees who have an external locus of control. Furthermore, this research finds that the mediating effect of intrinsic motivation and the moderating effect of performance orientation are both insignificant. The research offers multiple theoretical contributions and practical implications. It provides a deeper understanding of the reward-creativity relationship by investigating conditions and mechanisms that have not been studied earlier. Moreover, this study is the first of its kind in the Kingdom of Bahrain and the GCC, it therefore provides a novel contribution by understanding the reward-creativity relationship in the identified context for the first time. It establishes the theoretical ground for research in the context of the Kingdom of Bahrain and the GCC, as it provides a conceptual framework, it identifies and tests moderating and mediating conditions. Furthermore, this research provides a validated conceptual model for practitioners of the education sector in the Kingdom of Bahrain and the GCC, who can use it as a guide when planning reward systems. Guiding practitioners in the Kingdom of Bahrain and the GCC towards the conditions that leads to employees' creativity is capable of enhancing creativity and innovation in the Kingdom of Bahrain and the GCC countries.

Table of Content

Tables

Figures

Chapter 1

Introduction

1.1. Research Background

It is evident that enhancing employees' creativity is of growing importance in today's challenging global business environment in order to ensure organizational success and survival (Anderson, Potočnik and Zhou, 2014). According to the Organization for Economic Cooperation and Development, enhancing employees' creativity is critical for the economic growth of a country (OECD, 2010). The increasing recognition of the importance of employees' creativity has led practitioners to dedicate tremendous effort and spend enormous amounts of money to achieve this goal. For example, it has been reported that businesses in the United States spent $90 billion on non-cash rewards in 2015 (out of which 72% were employees' overall non-cash rewards, of which a proportion is for employees' creativity), up from $77 billion in 2013 (Incentive Marketplace Estimate Research Study, 2016).

Not surprisingly, a considerable number of studies in the literature have started to shed the light on the reward-creativity relationship. However, in spite of the enormous practitioner investment to enhance employees' creativity, some studies in the literature have found that offering rewards does not actually lead to enhancing employees' creativity (Kruglanski, Friedman, and Zeevi, 1971; Hennessy and Amabile, 1988; Amabile, 1996; Muraven, Rosman, and Gagné, 2007; Yoon, Sung, Choi, Lee, and Kim, 2015). On the other hand, other studies have found a positive effect of rewards on employees' creativity but under certain conditions (Eisenberger, 1992; Eisenberger and Selbst, 1994; Eisenberger and Armeli, 1997; Eisenberger, Armeli and Pretz, 1998; Eisenberger and Rhoades, 2001; Malik, Butt and Choi, 2015; Yoon, Sung and Choi, 2015; Malik, Choi and Butt, 2019). At present therefore, there is a lack of consensus on the relationship. According to the mixed results found in the literature, there is clearly a

need to investigate further the reward-creativity relationship and to understand the conditions under which rewards lead to enhancing or hindering employees' creativity.

Employee creativity is important for many reasons, not least because according to the literature, creativity (idea generation) is the first step for innovation (idea implementation) (Amabile, 1988). As such, this study addresses the all important first step in innovation, and the context of this research is the Kingdom of Bahrain. According to recent statistics published by the Global Innovation Index (2019), Bahrain's innovation ranking has been declining over the past five years (down from 59th place in 2015 to 78th place in 2019), and has fallen behind all other Gulf Cooperation Council (GCC) countries with the exception of Oman in 2019. Furthermore, as can be seen in table 1.1 below, Bahrain's global innovation ranking in education was 83rd in 2019, falling behind all other GCC countries with the exception of Qatar. Innovation in education is of particular importance due to the important role education has in creating a sustainable future (Serdyukov, 2017).

GCC Country	**Global Innovation Ranking in (Education)**
Oman	10
Saudi Arabia	14
UAE	17
Kuwait	67
Bahrain	*83*
Qatar	105

Table 1.1 GCC's Global Innovation Ranking in Education
Source: Adopted from the Global Innovation Index report, 2019

Moreover, as shown in table 1.2 below, the Kingdom of Bahrain was ranked 83 in creative outputs in 2019, making it fall behind all other GCC countries with the exception of Oman and Saudi Arabia.

GCC Country	Global Innovation Ranking in (Creative Outputs)
UAE	50
Kuwait	59
Qatar	70
Bahrain	*83*
Saudi Arabia	86
Oman	88

Table 1.2 GCC's Global Innovation Ranking in Creative Outputs
Source: Adopted from the Global Innovation Index report, 2019

Against this background, this research has investigated the relationship between rewards and employees' creativity in the Kingdom of Bahrain in the education sector, and specifically relating to employees working in primary public girls' schools.

1.2. Research Gap

Although researchers have made progress over the years to understand the complex relationship between rewards and employees' creativity (George and Zhou, 2002; Baer, Oldham and Cummings, 2003; Eisenberger and Aselage, 2009; Amabile and Pratt, 2016; Malik et al., 2015; Auger and Woodman, 2016; Malik et al., 2019), there remain important unsolved issues in the creativity research (Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017).

A careful review of the literature revealed a number of issues needing attention. The first research gap found was the paradox of rewards and creativity, that is to say, that it is not yet clear whether rewards lead to enhancing or hindering employees' creativity. Scholars appear to be split into two groups, one group of scholars (primarily "social cognitive researchers") arguing that reward leads to diminishing creativity because it undermines intrinsic motivation (Amabile, 1996). This school of thought has stemmed from the cognitive evaluation theory perspective (Deci, 1971). According to this group, employees view extrinsic rewards as controllers of their behavior, such that rewards

signal that employees do not have the competency to perform creatively by themselves, and therefore rewards are bestowed to stimulate their creative behavior. Hence, according to this group of scholars, rewards have a controlling effect on employees' intrinsic motivation and therefore it hinders their creativity (Deci, 1971; Deci and Cascio, 1972; Deci and Ryan, 2000). This view has been demonstrated empirically by a number of studies (Amabile, Hennessy, and Grossman, 1986; Kruglanski et al., 1971). Another group of scholars (primarily "behaviorally oriented researchers") have argued that rewards lead to enhancing employees' creativity when the positive consequences of rewards reinforce the creative behavior (Skinner, 1938). This school of thought has stemmed from the learned industriousness theory perspective (Eisenberger, 1992). According to this group, when a specific performance dimension is rewarded, individuals consciously and subconsciously learn this phenomenon and hence focus on achieving the desired performance dimension (Eisenberger and Armeli, 1997). This view has also been supported empirically, notably by Eisenberger, Armeli, and Pretz (1998) and Eisenberger and Rhoades (2001). Furthermore, there are other studies that show that extrinsic rewards only have some but only negligible effects on creativity (Hennessey, 1989; Joussemet and Koestner, 1999). Considering the above mixed results in the literature, there is a subsequent need to investigate the specific conditions under which extrinsic, contingent rewards may have positive, negative or neutral effects on creativity (Eisenberger and Cameron, 1996; Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017).

The second research gap found was the investigation of important moderators. There are a number of arguably critical moderators that do not appear to have been investigated and therefore warrant research attention such as those associated with various personality traits (Anderson et al., 2014; Malik and Butt, 2017; Malik et al., 2019). The inconsistent findings in the literature of the reward-creativity relationship could be due to the scarcity of studies investigating aspects of personality traits as moderating conditions since individuals have different perceptions of rewards based on their own personality traits (Malik and Butt, 2017). Only a few studies in the literature were located which had considered personality traits as moderators (e.g., Baer et al.,

2003; Malik et al., 2015). This pointed to the need for research that considers personality traits such as goal orientations, core self-evaluations, individual risk propensity, and locus of control amongst others as moderators (Malik and Butt, 2017). In this research study, locus of control and goal orientations where the proposed moderators investigated.

The third research gap that was identified from the review of the literature was a lack of understanding of the mechanisms through which rewards affect employees' creativity. Considering mediators in the reward-creativity relationship appear to have been a research area that has largely been ignored (Zhou and Shalley, 2003; Malik and Butt, 2017). However, identifying important mediators is necessary to enhance the understanding of the reward-creativity relationship. Potential mediators are self-determination, intrinsic motivation, conscious choice, empowering leadership, and process engagement (Malik and Butt, 2017). Although many studies have been consistent in their argument that contextual factors affect creativity via their effects on individuals' intrinsic motivation (Amabile, 1996), only very few studies have actually measured intrinsic motivation and tested whether it empirically mediates the context-creativity relation (Zhou and Shalley, 2003). This lacuna provided the motivation in this study to examine further the mediation effect of intrinsic motivation between extrinsic rewards for creativity and employees' creativity.

The preceding arguments and identification of the three research gaps established the following research questions for the study:

(1) What factors influence the relationship between extrinsic rewards for creativity and employees' creativity;

(2) How do these factors influence the relationship between extrinsic rewards for creativity and employees' creativity based on the existing literature and knowledge base; and

(3) How, empirically, is extrinsic rewards for creativity related to employees' creativity.

1.3. Research Aim and Objectives

The aim of this study is to investigate the impact of extrinsic rewards for creativity on employees' creativity, and the moderating role of goal orientation and locus control, and the mediating role of intrinsic motivation for creativity on the relationship between extrinsic rewards for creativity and employees' creativity, for employees working in primary public schools in the Kingdom of Bahrain. In order to achieve the research aim, the following objectives were set out:

1. To conduct a critical review of the literature on extrinsic rewards and creativity, and identify the factors that influence the relationship between extrinsic rewards for creativity and employees' creativity,
2. To study the current literature to identify the theories that could be used to explain the relationship between the identified constructs, and develop a conceptual framework highlighting the expected role of intrinsic motivation, goal orientation, and locus of control in delivering employee creativity;
3. To define and implement a suitable methodology for collecting the empirical data needed to test the proposed hypotheses;
4. To analyse the research findings and discover the relationship between the proposed constructs of the conceptual model; and
5. To discuss and interpret the research findings according to the literature and the research context, outlining the theoretical contributions and providing a set of practical implications that inform practitioner decision making related to the management of employees' creativity.

1.4. Scope and Limitations

The purpose of this research is to study the impact of extrinsic rewards for creativity on employees' creativity. In doing so, this study investigates the mediating role of intrinsic motivation for creativity and the moderating roles of goal orientations and locus of control. This study adopts a quantitative methodology; it develops a conceptual model

based on the existing literature and then tests the hypotheses using data on employees-supervisor dyads. The data is collected from primary public girls' schools in the Kingdom of Bahrain. This research has duration of only three years.

This study has the following limitations. Firstly, the target audience is limited to primary public girls' schools (which comprise female employees only), male schools are not included, and hence the results cannot be generalized to male employees working in primary public boys' schools. Secondly, this study is limited to employees working in primary education and does not include other educational levels like intermediate or secondary education. Thirdly, this study focuses on the public sector, and hence the results cannot be generalized to the private sector. Fourthly, the data is collected in the Kingdom of Bahrain and does not include other GCC countries. Fifthly, the dependant variable in this study is employees' creativity, which makes this study limited to investigating the impact of extrinsic rewards on the creative performance of employees and does not address any other types of performance like the conventional performance of employees. Finally, this study is limited to investigating the mediating role of intrinsic motivation and the moderating role of goal orientations and locus of control only and does not capture any other mediators or moderators.

1.5. Outline of Research Methodology

To address the research questions, this research adopted a quantitative research methodology for the following main reason. This research was based on investigating an existing theoretical conceptualization rather than developing a new theory, and was therefore concerned with testing and validating a proposed conceptual model and accompanying set of hypotheses. A quantitative methodology was the best fit. The adoption of a quantitative methodology is in line with previous studies in the literature examining the reward-creativity relationship (Amabile, 1996; Baer et al., 2003; Malik et al., 2015; Malik et al., 2019).

The target audience of this research were employees working in primary public schools in the Kingdom of Bahrain. The data was collected through a survey-based approach,

with the researcher physically distributing to and collecting the survey questionnaire from employees with the facilitation of school administrations. A thorough review of the survey design literature was carried out to inform the design and development of a user-friendly survey instrument. The survey comprised of two sets of questionnaires developed for two sets of respondents (employees and their supervisors), it is because supervisors rating is widely used in the literature to measure employees' creativity (Malik et al., 2015; Yoon, Sung, Choi, et al., 2015; Malik et al., 2019). Accordingly, data was collected from 102 employee-supervisor dyads. After data collection, the data was entered, checked for missing values, data entry errors, and outliers. Descriptive statistics were then generated to examine the sample's characteristics including mean, median, standard deviation, skewness, and kusrtosis. Structural equation modelling was implemented to validate the fitness of the conceptual model. Moreover, confirmatory factor analysis (CFA) and path analysis were performed to test the hypotheses.

1.6. Research Contribution

The outcome of this research contributes to the growing literature on employee creativity and the broader literature on employee reward and motivation. It enriches the literature on the relationship between rewards and employees' creativity in several ways. Firstly, it is the first known research to study and to do so simultaneously, the moderating effect of two important personality traits in the reward-creativity relationship, namely goal orientations and locus of control. Secondly, in doing so, it has examined the unique moderating effect of mastery goal orientation and performance goal orientation. Thirdly, the findings of the study add to the limited research that has sought to explain the underlying mechanism of intrinsic motivation as a mediator between extrinsic reward for creativity and employees' creativity. Accordingly, the outcomes of this research help to advance the understanding of how extrinsic rewards affect employees' creativity and under what mediating and moderating conditions. Fourthly, a key contribution is that this is the first known study to investigate the relationship between extrinsic rewards for creativity and employees' creativity for employees working in primary public schools in the Kingdom of Bahrain. The findings of the study

can be used as a reference for future researchers and practitioners to help in better understanding the reward-creativity relationship.

In addition to the theoretical contributions, this research provides practical implications for practitioners to consider. The outcomes of the research can benefit managers working in the public educational sector, by providing them with clearer guidance on how offering extrinsic rewards to employees is likely to affect their creativity when employees having certain differing personal dispositions. For instance, the findings of this research indicate that offering extrinsic rewards to employees does not directly lead to employees' creativity. In fact, it was found to play the opposite role, that is to say, hindering employees' creativity for employees having certain personality traits. Therefore, practitioners can better understand the personal dispositions of the employees in an organization before they offer extrinsic rewards. Moreover, practitioners can consider adopting a selective rewarding approach, such that they can consider avoiding providing extrinsic rewards for employees who have a personal disposition that would result in hindering employees' creativity.

1.7. Structure of the Thesis

This thesis is organized into seven chapters as follows:

Chapter 1 - Introduction. This chapter has provided a thorough idea about this research, it started with the research background, and it then demonstrated the research gap and presented the research aim and objectives. It then highlighted the research scope and limitations. Next, it discussed the adopted research methodology and presented the research contribution. Finally, it outlined the thesis structure.

Chapter 2 - Literature review. This chapter presents a comprehensive review of the literature, it discusses prominent theories in the literature pertaining to rewards and creativity, namely cognitive evaluation theory, self-determination theory, and learned industriousness theory, and it reviews previous studies in the domain of the reward-creativity nexus and explains the gaps observed in the literature to date.

Chapter 3 - Conceptual model. This chapter presents the proposed conceptual model and advances the associated hypotheses. In doing so, it identifies the conceptual model's construct and explains the nature and direction of the proposed relationships.

Chapter 4 - Research methodology. This chapter presents and provides justification for the research design and methodological approach adopted for the study in order to test and verify the conceptual model proposed and developed in the preceding chapter. It sets out the adopted philosophy and the methods and approaches used for selecting the participants, data collection, and data analysis.

Chapter 5 - Data analysis. This chapter presents the results of the data analysis. In doing so, it describes the sample size, response rate, and respondents' profile. It then explains the results of the reliability and validity tests followed by the descriptive statistics. It shows the correlation matrix and the normality of the data. Finally, it presents the results of the structural equation modelling through conducting a confirmatory factor analysis and path analysis.

Chapter 6 - Discussion. This chapter provides a discussion of the main finding from the research undertaken. In doing so, it juxtaposes the results in light of the relevant previous empirical work, and seeks to provide explanations for those results that were unexpected.

Chapter 7 - Conclusion. This final chapter presents the contribution of the research, the theoretical and empirical implications, and acknowledges the limitations. It also sets out recommendations for future research directions that can extend and advance the knowledge on the rewards and employee creativity nexus.

Chapter 2

Literature Review

2.1. Introduction

The previous chapter provided an overview of the study. It highlighted the research aim, objectives, and questions. Also, it highlighted the motivation to conduct the research in the Kingdom of Bahrain and identified the research gap. This chapter provides a comprehensive literature review. It sheds light on prominent theories in the literature, presents the findings of the prior studies that have been conducted in the field of creativity and motivation, and summarizes the gaps found in the existing literature.

There is a growing importance to enhance employees' creativity in today's challenging global business environment, in order to obtain organizational success and economic growth, at local, national and country levels (Anderson et al., 2014). This importance drives the need to enrich the understanding of the determinants of employees' creativity. In spite of the efforts dedicated by practitioners to enhance employees' creativity, the global innovation index of the GCC countries has not shown a steady pattern in the past five years (Global Innovation Index, 2015-2019). Furthermore, the Kingdom of Bahrain's ranking has been consistently declining specially in the area of education and creative outputs. Conducting this study is of particular importance to Bahrain, since the literature lacks studies addressing the relationship between extrinsic rewards and employees creativity in Bahrain.

According to the literature, the body of research on employees' creativity and work motivation has progressed substantially since 1968 when Porter and Lawler first conceptualized work motivation, and since the first creativity model was introduced by Amabile (1988). This field has received much attention from scholars given the importance of work motivation in fostering employees' creativity (Deci and Ryan 1985; Amabile, 1996). Although the scholarly progress and results yielded thus far are significant, the need for further advancement in the subject matter remains very important. There are gaps in the existing literature that have not been addressed yet.

For instance, the relationship between extrinsic rewards and employees' creativity is not well defined, and many of the studies have yielded different results on whether rewarding employees will lead to enhancing or hindering employees' creativity (Eisenberger and Cameron, 1996). Furthermore, there are many important mediators and moderators that could help to enrich the understanding of the reward-creativity relationship that have not yet been investigated.

This chapter is aimed at reviewing the existing literature, it is structured as follows: in section 2.2, the status of creativity and innovation in the Kingdom of Bahrain will be presented. Section 2.3 will provide a theoretical background by presenting the research constructs, explaining prominent theories in the literature and demonstrating the links between the constructs from the perspective of existing studies. Next, the main gaps found in the literature will be discussed in details in section 2.4. Finally, the chapter summary will be presented in section 2.5.

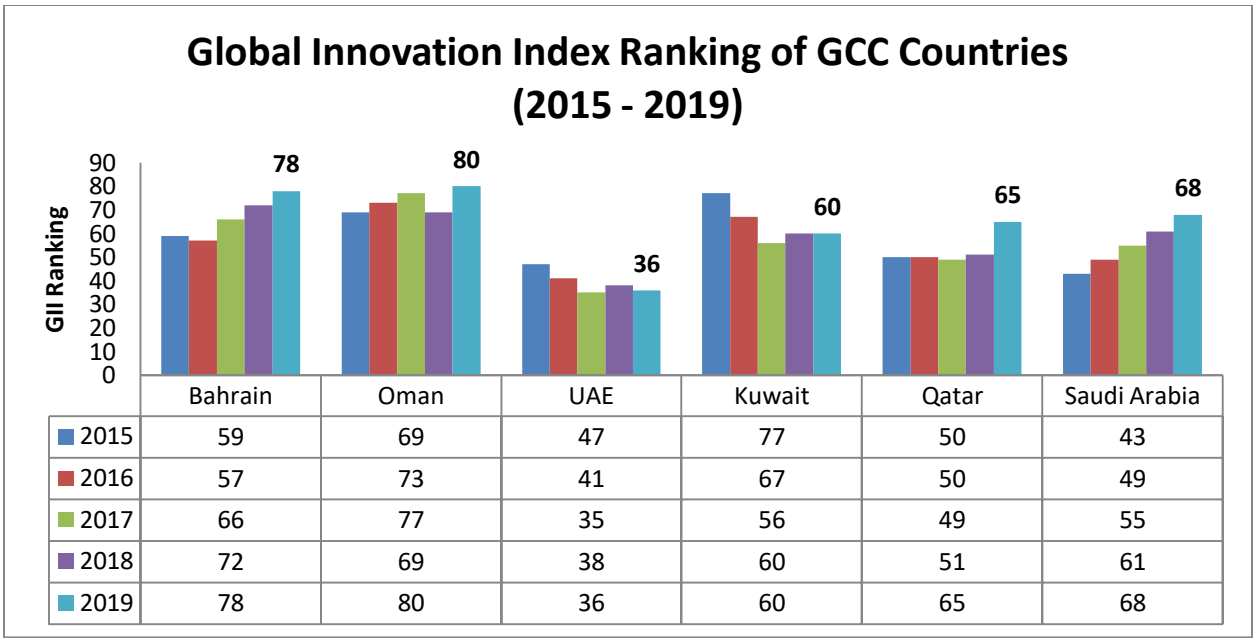
2.2. Research Context: Status of Creativity and Innovation in the Kingdom of Bahrain

This section presents the research context, which is the Kingdom of Bahrain. The following paragraphs demonstrate the important link between creativity and innovation. They present the status of creativity and innovation in the Kingdom of Bahrain compared to other GCC countries and establish the basis for selecting this context in conducting the study.

Amabile and Pratt (2016) defined creativity as *"the production of novel and useful ideas by an individual or small group of individuals working together"*, and defined innovation as *"the successful implementation of creative ideas within an organization".* Creativity and innovation are viewed as different parts of essentially the same process (Amabile and Pratt, 2016). Since creativity centers on idea generation and innovation centers on idea implementation, creativity is often viewed as the first step for innovation (Amabile, 1996; Mumford and Gustafson, 1988; and West, 2002).

The first widely-cited theory to incorporate individual creativity into a model of organizational innovation was the componential model for creativity and innovation (Amabile, 1988). This prominent theory emphasized the strong link between creativity and innovation. The componential model for creativity and innovation rested on two key assumptions, which were also applied in the revised model "the dynamic componential model for creativity and innovation" (Amabile and Pratt, 2016). First, a high level of isomorphism is assumed between what is needed for individual creativity and what is needed for organizational innovation. Since they both produce something new, three components are needed for both creativity and innovation: (1) basic resources or raw materials, (2) a set of processes or skills to combine them in new ways, and (3) a driver. Second, individual creativity and organizational innovation are assumed to be inextricably linked. This is because individuals and teams creativity feed organic innovations within an organization, and hence without creative ideas, there is nothing to implement in an organization (Amabile, 1988; Amabile and Pratt, 2016).

Following the strong link between creativity and innovation identified in the literature, and since enhancing employees' creativity has been identified as the first step to enhance organizational innovation and therefore, it helps to create the economic wealth of a country (Amabile, 1996; OECD, 2010), GCC countries have recently focused on adopting an innovation-driven economy (Gackstatter, Kotzemir, and Meissner, 2014). However, according to the global innovation index, the innovation results of the GCC countries have been inconsistent in the past five years (2015-2019), as shown in figure 2.1 below. The global innovation ranking has been fluctuating for all GCC countries without witnessing a steady pattern of consistent improvement.



	Bahrain	Oman	UAE	Kuwait	Qatar	Saudi Arabia
2015	59	69	47	77	50	43
2016	57	73	41	67	50	49
2017	66	77	35	56	49	55
2018	72	69	38	60	51	61
2019	78	80	36	60	65	68

Figure 2.1 Global Innovation Index Ranking of GCC Countries (2015-2019)
Source: Adopted from Global Innovation Index, 2015- 2019

The Kingdom of Bahrain is no exception from this pattern; in fact, Bahrain's global innovation index has been consistently declining since 2016 as shown in figure 2.2 below, from a ranking of 57th in 2016 to 78th in 2019. This made Bahrain rank the last among other GCC countries in 2018, and the second last among other GCC countries in the year 2019.

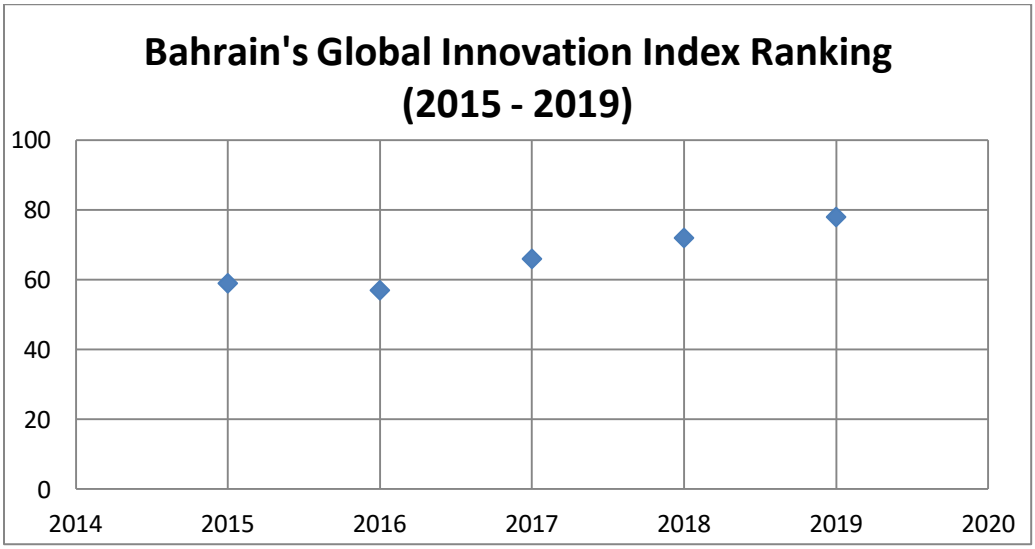


Figure 2.2 Bahrain's Global Innovation Index Ranking (2015-2019)
Source: Adopted from Global Innovation Index, 2015-2019

By taking a closer look at the global innovation index components, it can be seen that Bahrain scored poorly in education in the year 2019, which made Bahrain rank the second last among other GCC countries. Moreover, the Kingdom of Bahrain also occupied a delayed rank among other GCC countries in creative outputs in the year 2019, where it occupied the third last rank among other GCC counties.

Since the global innovation index ranking of the Kingdom of Bahrain has been declining over the years, and it occupied a delayed ranking among its peers in the GCC, where the delay was specifically in education and creative outputs, the Kingdom of Bahrain was considered a suitable choice to conduct this study. For those reasons, this study was conducted on employees working in primary public schools in the Kingdom of Bahrain, in order to investigate the determinants of employees' creativity as the first step for innovation (Amabile, 1988; Amabile, 1996; Mumford and Gustafson, 1988; West, 2002; Amabile and Pratt, 2016). This study is the first of its kind to investigate the relationship between extrinsic rewards and employees' creativity for employees working in primary public schools in the Kingdom of Bahrain. There are no studies found in the literature that are conducted in the Kingdom of Bahrain that investigated this relationship, neither in the educational sector nor in other sectors. Moreover, the literature lacks studies conducted in the GCC countries that investigate the relationship between extrinsic rewards and employees' creativity. The scarcity of studying this relationship in the context of GCC countries and Bahrain adds to the importance of conducting this study. Clarifying the ties of this relationship is capable of guiding practitioners and managers in their selection of the right form of motivation to enhance the creativity of their employees. As explained earlier in this section, due to the strong link between creativity and innovation, enhancing employees' creativity means generating more ideas to implement in an organization. From this standpoint, enhancing employees' creativity consequently leads to enhancing Bahrain's global innovation index ranking. This study will assist in identifying conditions under which extrinsic rewards lead to enhancing or hindering employees' creativity.

The next section will provide a theoretical background from the existing literature on employees' creativity and its relationship with extrinsic rewards, which forms the foundation of this study.

2.3. Theoretical Background

This section provides theoretical background on the constructs adopted in this study. It starts by presenting those constructs (section 2.3.1) then it discusses dominant theories in the literature pertaining to the identified constructs (section 2.3.2), and finally it highlights the links between the constructs from the perspective of existing studies in the literature (2.3.3).

2.3.1. The Research Constructs

The seven study constructs are presented, in turn in the following sections: creativity, intrinsic and extrinsic motivation, mastery and performance goal orientations and internal and external locus of control.

2.3.1.1. Definition of Creativity

Creativity is defined early in the literature as the production of original and useful ideas (Amabile, 1996). It is suggested that creative ideas could be generated from employees at any level of the organization, in any job and not necessarily a job that demands creativity (Madjar, Oldham, and Pratt, 2002; Nonaka, 1991). The literature suggests that creativity can occur at an individual, team and organizational level or more than one of these levels combined (Anderson et al., 2014). Creativity is often viewed as the first step of innovation, since creativity is centred on idea generation whereas innovation is centred on idea implementation (Amabile, 1996; Mumford and Gustafson, 1988). Moreover, it is suggested that creative ideas may be generated by employees in the focal organization or from outside the focal organization (Zhou and Shalley, 2011). The review of the literature indicates that significant research attention has been placed on studying creativity and its determinants. This attention is certainly due to the importance

of employees' creativity in fostering organizational survival and effectiveness, especially that it constitutes the first step for innovation (Amabile 1996; Nonaka 1991).

2.3.1.2. Importance of Creativity

There are many studies in the literature that have established the importance of creativity across a large range of sectors including business, manufacturing, services, education and health sectors across private, public and non-profit organizations as explained in the following lines.

As for the business sector, creativity has been identified as an engine for economic and technical development (Akarakiri, 1998; Amabile, 1998; Robinson and Stern, 1997; Stevens, Burley, and Divine, 1999). An empirical study was conducted over a 10-year time span in a major global chemical company found that creativity leads to increasing the profitability from new product development (Stevens et al., 1999).

The importance of creativity is also endorsed in the manufacturing and services sectors. An empirical study conducted in the manufacturing and service sector in Pakistan found that marketing strategy creativity and marketing strategy implementation effectiveness had a positive and significant impact on organizational performance, hence gaining a dynamic competitive advantage (Hassan, Qureshi, Sharif, and Mukhtar, 2013). Additionally, an empirical study on Canadian customer service technician teams revealed that teams with more creative environments had significantly higher levels of performance (Gilson, Mathieu, Shalley, and Ruddy, 2005).

Moreover, the importance of creativity is emphasized in the education sector. According to the results of an empirical study conducted in Azarbaijan and Ardebil, there is a positive and significant relationship between employee creativity and organizational effectiveness in the educational departments (Rahnama, Mousavian, Alaei, and Maghvan, 2011). This study also found that there is a positive relationship between employees' creativity and the realization of their goals in offices of education (Rahnama et al., 2011).

The important role of creativity includes non-profit organizations as well. It is found that creativity assisted in managerial decision making in non-profit organizations, such that creativity improved planning, implementation, and control (Barret, Balloun, and Weinstein, 2005). According to this study, a creative climate positively impacts organizational performance for non-profit organizations (Barret et al., 2005).

Creativity is also important in the public sector. An empirical study conducted in a Turkish public organization serving the labour market investigated the relationship between organizational creativity and organizational efficiency (Sözbilir, 2018). This study found that organizational creativity had a positive connection with organizational efficiency; it concluded that public organizations need to be creative to improve performance outcomes such as efficiency (Sözbilir, 2018). Furthermore, an empirical study conducted within public sector organizations in the United Arab Emirates, in Health Authority Abu Dhabi, underlined the importance of creativity and innovation to facilitate and enhance the organizations' productivity (Mohamed, Khalifa, Al-Shibami, Alrajawi, and Isaac, 2019). According to this study, creativity had an indirect effect on organizational productivity via innovation. The results of this study revealed that the more creative the employees are, the more optimal quality is achieved, timelines are met, resources are utilized, and the organizations' performance is mastered (Mohamed et al., 2019).

The benefits of creativity are not limited to organizations and workplace; psychologists from diverse specialties have noted that the contributions of creativity extend to other diverse areas (Plucker, Beghetto, and Dow, 2004). For instance, creativity is important in vocational and life success (Torrance, 1972, 1981); for the maintenance of healthy, loving relationships (Livingston, 1999) and for healthy psychological functioning, coping, and emotional growth (Kin and Pope, 1999; Russ, 1998).

2.3.1.3. Definition of Intrinsic and Extrinsic Motivation

Being motivated is defined as being moved to do a certain activity - a person who is energized to do a certain task is considered motivated whereas a person who is not inspired to act is considered unmotivated (Ryan and Deci, 2000). Motivation is not

considered a unitary phenomenon since it has different levels of motivation (i.e., the amount of motivation) and different orientations (i.e., the type of motivation) such as intrinsic and extrinsic motivation which are concerned with the reason behind taking a certain action (i.e., the why) (Ryan and Deci, 2000).

The conceptualization of intrinsic and extrinsic work motivation goes back to Porter and Lawler's proposed model in 1968. Intrinsic motivation is defined as the motivation to do an activity because it is interesting and gives spontaneous satisfaction (Porter and Lawler, 1968). Intrinsic motivation is also defined as doing activities for their own sake, or for their inherent interest and enjoyment (Ryan and Deci, 2000). Intrinsic motivation is an example of autonomous motivation (Gagné and Deci, 2005). According to the self-determination theory (Deci and Ryan, 1985; Ryan and Deci, 2000), there is a distinction between autonomous motivation and controlled motivation. Autonomous motivation refers to acting with a sense of volition and having the choice to act, such that when an activity is found interesting, an individual will do it wholly volitionally. In contrast, controlled motivation refers to acting with a sense of pressure, a sense of having to engage in a certain action. Extrinsic motivation, on the other hand, is defined as the motivation to do an activity because of a separate consequence such as verbal or tangible rewards (Porter and Lawler, 1968). In the case of extrinsic motivation, satisfaction is obtained from the consequences (e.g., rewards) rather than from the activity itself (Porter and Lawler, 1968). According to the self-determination theory (Deci and Ryan, 1985; Ryan and Deci, 2000), extrinsic motivation can vary in the degree to which it is autonomous versus controlled (Gagné and Deci, 2005). Accordingly, self-determination theory proposed breaking down extrinsic motivations into four categories: "external regulation" under which motivation is highly controlled by reward and punishment, "introjected regulation" under which motivation is moderately controlled by self-worth and ego, "identified regulation" under which motivation is moderately autonomous and comprises of the importance of goals and values, and "integrated regulation" under which motivation is autonomous and includes coherence among goals, values, and regulations (Deci and Ryan, 1985; Ryan and Deci, 2000; Deci and Ryan, 2020).

According to early studies, intrinsic and extrinsic motivators were assumed to be additive (Porter and Lawler, 1968). It is assumed that by enlarging jobs to make them more enjoyable and intrinsically rewarding, in addition to making extrinsic rewards (e.g., promotions and higher pay) contingent to effective performance, total job satisfaction will be reached (Porter and Lawler, 1968). However, it was later found that intrinsic and extrinsic motivation can be both negatively and positively interactive rather than additive (Deci, 1971), such that extrinsic motivation can have a negative or a positive effect on intrinsic motivation. For instance, Deci (1971) found that verbal rewards enhanced intrinsic motivation whereas tangible extrinsic rewards undermined intrinsic motivation. In this study, the intrinsic motivation and extrinsic motivation constructs that are adopted are “intrinsic motivation for creativity” and “extrinsic rewards for creativity”. In the context of this study “intrinsic motivation for creativity” is a form of intrinsic motivation, it refers to the inner motivation to perform creatively because the task is found interesting by the individual, and “extrinsic rewards for creativity” is a form of extrinsic motivation, it refers to the motivation to perform creatively because of a tangible or an intangible external reward.

2.3.1.4. Importance of Intrinsic and Extrinsic Motivation

There are many studies in the literature that have established the importance of intrinsic and extrinsic motivation in diverse areas including educational settings across different levels and organizational settings across multiple sectors. The following lines will shed the light on those studies.

Self-determination theory is a prominent theory in the literature that addressed intrinsic and extrinsic motivation in the educational setting (Ryan and Deci, 2000; Ryan and Deci, 2020). This theory is based on two core hypotheses in education: (1) autonomous forms of motivation (i.e., intrinsic motivation) will lead to enhancing students’ engagement, wellness, and learning; and (2) autonomous motivation is facilitated by teachers and parents support of basic psychological needs (Ryan and Deci, 2020). This theory has been widely supported by empirical findings. A number of empirical studies found that autonomous motivation had positive relations with students’ academic outcomes (Howard, Gagné, and Bureau, 2017; Grolnick, Ryan, and Deci, 1991; Guay,

Ratelle, Roy, and Litalien, 2010; Katz, Eilot, and Nevo, 2014; Grolnick and Ryan, 1989; and others). Moreover, an empirical study found that teachers who were autonomously motivated to teach, in turn, had students who were more autonomously motivated to learn (Roth, Assor, Kanat-Maymon, and Kaplan, 2007).

Motivation plays an important role in education for both teachers and students. An empirical study conducted on middle school, college, and university students found that certain motivational beliefs help to promote and sustain self-regulated learning for students (Pintrich, 1999). This is because self-regulated learning (i.e., the use of cognitive, metacognitive, and resource management strategies by students to control their learning) is often more demanding and requires greater engagement from students, and this is achieved by motivation (Pintrich, 1999). Additionally, an empirical study conducted on 3rd grade through 8th grade children found that students' intrinsic motivation was positively correlated with students' test scores, unlike extrinsic motivation which showed a negative correlation with academic outcomes (Lepper, Corpus, and Iyengar, 2005). Furthermore, intrinsic motivation is important in enhancing creativity-related activities for students (Tan, Lau, Kung, and Kailsan, 2019). An empirical study conducted on undergraduates in Malaysia found that students' openness to experience had a positive association with intrinsic motivation and the creative process engagement (Tan et al., 2019). In addition, intrinsic motivation leads to learning effectiveness (i.e., the level of goal attainment and it is a key element to development (Scheerens, 2016)) (Zaccone and Pedrini, 2019). According to an empirical study conducted on students involved in a digital education program in Burundi, Morocco, and India, a positive association was found between students' intrinsic motivation and their learning effectiveness (Zaccone and Pedrini, 2019).

Motivation is also important for teachers. A recent empirical study conducted on vocational teachers in Switzerland investigated the implications of the motivation to become a teacher on teacher's sense of responsibility and classroom management style (Berger and Girardet, 2020). This study found that vocational teachers who were intrinsically motivated to become teachers had a high sense of responsibility for the teaching quality and adopted a beneficial and adaptive classroom management style

(Berger and Girardet, 2020). Furthermore, an empirical study conducted in elementary schools in Germany emphasized the role of teachers motivation in fostering instructional quality (i.e., teaching strategies and practices in organizing the classroom and scaffolding students' engagement (Brophy, 1999; Pianta, and Hamre, 2009)) (Baier, Decker, Voss, Klieckmann, Klusmann, and Kunter, 2019).

Motivation plays a significant role in organizations, as demonstrated in the following empirical studies. An empirical study found that employees' intrinsic motivation is positively associated with employees' pay satisfaction and job satisfaction of front-line employees (Stringer, Didham, and Theivananthampillai, 2011). In addition, both intrinsic and extrinsic motivations were found effective in influencing job satisfaction among direct sales forces in Malaysia (Edrak, Yin-Fah, Gharleghi, and Seng, 2013). Furthermore, employee motivation was found as a significant predictor of employee performance in public middle-level technical training institutions in Kenya, such that motivated employees had a greater job performance (Ek and Mukuru, 2013). Also, according to an empirical study conducted in the telecom sector in Somalia, employee motivation influenced employee performance, such that extrinsic motivation (e.g., monetary rewards) had a significant positive effect on employee performance (Abdi Mohamud, Ibrahim, and Hussein, 2017). In addition, employees' autonomous motivation (i.e., intrinsic motivation) was found positively related to organizational commitment as per the findings of an empirical longitudinal study conducted on school principals in Canada (Fernet, Austin, and Vallerand, 2012). This study also found that employees' autonomous motivation is related to emotional exhaustion, such that employees who were autonomously motivated were less emotionally exhausted (Farnet et al., 2012).

The importance of motivation also extends to other diverse areas. For instance, motivational processes were found essential in initiating and directing human activity, hence they play a critical role in relationships between people and their interaction on a daily basis and in the long run (Weinstein and DeHaan, 2014). Moreover, an individual's intrinsic motivation was found associated with adopting and sustaining a healthy diet, successfully regulating eating habits, maintaining a healthy weight, and an individual's overall health (Teixeira, Patrick, and Mata, 2011).

2.3.1.5. Goal Orientations

Goal orientations were originally defined in the literature as situated orientations for action in an achievement task (Dweck, 1986; Nicholls, 1984). Goal orientation theory focuses on why and how a person attempts to achieve a certain task rather than focusing on what is the content of the tasks being achieved (Anderman and Maehr, 1994). Goal orientations take account of the experience of a person in a situation, which guides to producing behavioural patterns and interpretations (Elliott and Dweck, 1988).

There are different kinds of goal orientations, but previous research has mainly focused on two contrasting kinds of achievement goals that had been alternatively labelled learning goals and performance goals (Dweck, 1986; Dweck and Leggett, 1988; Elliott and Dweck, 1988), task-involvement and ego-involvement goals (e.g., Maehr and Nicholls, 1980; Nicholls, 1984), and mastery and performance goals (Ames and Archer, 1987, 1988). Learning goals, task-involvement, and mastery goals are conceptually different than performance goals and ego-involvement goals (Ames, 1992), this study adopted the labels mastery and performance goals (Ames, 1992). Mastery orientation is defined as an individual's purpose of developing competence (Ames, 1992). People having a mastery orientation are characterized as challenge seekers; they have high and effective persistence in the face of obstacles (Dweck, 1986). Mastery-oriented people focus on learning, understanding, developing skills and mastering information (Kaplan and Maehr, 2007). They view exerting efforts as determinants of performance improvement (Dweck, 1991). On the other hand, performance goal orientation is defined as an individual's purpose of demonstrating competence (Ames, 1992; Dweck, 1986). People having a performance orientation focus on the impression others have of their own ability, they attempt to create an impression of high ability and avoid creating an impression of low ability (Dweck, 1986). It is suggested that people with a performance orientation attempt to create an impression of high ability through comparison with other's abilities (Nicholls, 1984). It is argued that there are two distinctions within mastery and performance goals, namely: "approach" orientation and "avoidance" orientation, which are viewed as two distinct motivational orientations (Elliot and Church, 1997; Elliot, 1999). In a mastery-approach orientation, the person focuses on

the desire to master a skill, whereas in a mastery-avoidance orientation, the focus is on avoiding lack of mastery. Likewise, in a performance-approach orientation, the person engaged in a task focuses on the desired possibility of demonstrating high ability, whereas, in a performance-avoidance orientation, the person engaged in a task focuses on avoiding the undesired possibility of demonstrating low ability (Elliot and Church, 1997).

There are other kinds of goal orientations that have received less attention in the literature, such as extrinsic goal orientations and social goal orientations. In early studies, extrinsic goal orientations were considered as performance orientations but were later separated as a distinct orientation (Pintrich, Smith, Garcia, and McKeachie, 1993). Extrinsic goal orientation is defined as the purpose of achieving an extrinsic incentive (Maehr, 1984), such as attaining a tangible reward or avoiding a tangible punishment. Social goal orientations were identified by Maehr and Nicholls (1980) as the social reasons for engaging in achievement behaviour such as pleasing or gaining the approval of a person or a group (Urdan and Maehr, 1995).

According to the literature, a number of studies provided empirical support for goal orientations. For instance, an empirical study conducted on sixth and fifth-grade students found that mastery-oriented students had a more active cognitive engagement in classroom activities, unlike students who had a social goal orientation (Meece, Blumenfeld, and Hoyle, 1988). Another empirical study conducted on junior high school students found that specific goal orientations were related to students' motivation, cognition, and achievement (Wolters, 2004). This study found that mastery-oriented students procrastinated less frequently in the context of their mathematics class, and were more likely to take additional future mathematics classes (Wolters, 2004). This study also provided support for both approach and avoidance versions of performance goals, it found that students who endorsed performance-approach goals had better student's teacher-assigned grades, and students who endorsed performance-avoidance goals did not tend to receive lower grades than other students (Wolter, 2004). Moreover, according to an empirical study conducted in Malaysia, learning goal orientation was found positively related to the financial performance, survival, and

growth of the service sector (Che-Ha, Mavondo, and Mohd-Said, 2014). Also, performance goal orientation was found positively associated with the achievements of marketing objectives as well as the financial performance of the service sector (Che-Ha et al., 2014). Furthermore, an empirical study conducted on athletes in Germany provided support for both approach and avoidance versions of mastery and performance orientations (Stoeber, Otto, Pescheck, Becker, and Stoll, 2007). This study found that striving for perfection in athletes was positively related to mastery-approach and performance-approach, whereas negative reactions to imperfection were related to mastery-avoidance and performance-avoidance (Stoeber et al., 2007). In this thesis, only the approach versions of mastery and performance orientations were adopted as constructs.

2.3.1.6. Locus of Control

Locus of control is a widely cited motivational theory developed by Rotter (1966). According to the locus of control theory, individuals are classified based on their perceptions of the reward or reinforcement determinants into individuals with an internal locus of control and external locus of control. Individuals who perceive a causal relationship between their behaviour and a reward such that a reward is contingent upon their behaviour or their own relatively permanent characteristics have a belief that is termed (internal locus of control). On the other hand, individuals who feel that rewards are controlled by forces outside themselves such as luck, chance, or fate and not entirely contingent upon their actions, have a belief that is termed (external locus of control) (Rotter, 1966).

Locus of control gained decent empirical support from a number of studies in the literature across various sectors, where the locus of control has been adopted and tested as a construct. For instance, an empirical study conducted on business executives and professionals in Singapore found that locus of control had an effect on working adult's attitudes towards money (Lim, Teo, and Loo, 2003). According to this study, individuals with an internal locus of control were more likely to budget their money more carefully, this is because they believe they have control over their own success and hence have a greater tendency to budget their money hoping that their

personal efforts will put their money to good use (Lim et al., 2003). The same study found that individuals with an external locus of control viewed money as a source of power and were more likely to be non-generous; this is because they believe that things are generally beyond their control and hence attribute power to their wealth (Lim et al., 2003). Individuals with an external locus of control also believe that it is unnecessary to be generous since fortunes are determined by fate (Lim et al., 2003).

Another empirical study provided support to the role of locus of control in determining the performance of higher education lecturers in Indonesia (Kusuma, Rina, and Syam, 2018). According to this study, internal locus of control had a positive and significant influence on lecturers' performance, whereas an external locus of control had no significant influence on lecturers' performance (Kusuma et al., 2018).

Moreover, internal locus of control was found associated with entrepreneurial potential (Mueller and Thomas, 2001; Tentama and Abdussalam, 2020). Also, locus of control had an important role in opportunity recognition among aspiring entrepreneurs (Asante and Affum-Osei, 2019). In an empirical study conducted in Ghana, it was found that internal locus of control had a positive relationship with aspiring entrepreneurs' opportunity recognition, unlike external locus of control which had a negative relationship with opportunity recognition (Asante and Affum-Osei, 2019).

Furthermore, an empirical study conducted on Ethiopian farmers found that locus of control had important implications on farmers' adoption of technology decisions (Abay, Blalock, and Berhane, 2017). According to this study, farmers with an internal locus of control had a higher propensity to adopting agriculture technologies (Abay et al., 2017). In this thesis, both internal locus of control and external locus of control were adopted as constructs.

2.3.2. Prominent Theories in the Literature

A careful review of the literature revealed that both creativity and motivation are associated with various theories. Based on this review, nine theories were found the most prominent theories. This section presents prominent theories in the literature addressing the constructs defined above.

2.3.2.1. Cognitive Evaluation Theory

The cognitive evaluation theory was introduced in 1971 by Deci. According to the cognitive evaluation theory, some tasks are intrinsically rewarding, and hence there is no need for extrinsic rewards to encourage performing such tasks. This theory suggests that in the presence of extrinsic factors such as rewards, competition, and deadlines, the intrinsic motivation of an individual is negatively affected. This is because employees view those extrinsic factors as signs of their incompetency and hence their intrinsic motivation declines leading to undermining their creative performance (Deci, 1971; Deci and Cascio, 1972; Deci, Nezlek, and Sheinman, 1981). Individuals are likely to perceive their behaviour as being motivated by the extrinsic reward contingency rather than by the work itself due to the shift in the perceived locus of causality from intrinsic to extrinsic (Decharms and Carpenter, 1968; Heider, 1958), it is suggested that employees will begin to view their job as a means to an extrinsic end rather than appreciating its challenging qualities. Accordingly, researchers adopting a cognitive evaluation theory perspective argue that extrinsic rewards lead to undermining employees' creativity via its negative effect on employees' intrinsic motivation (Deci, Koestner, and Ryan, 2001). In contrast, cognitive evaluation theory suggests that some external factors such as providing choice and task engagement tend to enhance intrinsic motivation (Zuckerman, Porac, Lathin, and Deci, 1978).

The cognitive evaluation theory however is not without limitations. First, many activities in organizations are not intrinsically interesting, and hence using an external factor such as task engagement to enhance intrinsic motivation is not always feasible (Gagné and Deci, 2005). Second, it assumes that being motivated by extrinsic rewards contingency rather than the work itself is detrimental to intrinsic motivation and hence creativity, without considering that people actually work to earn money and therefore monetary rewards should be an appealing motive (Gagné and Deci, 2005). Moreover, the propositions of this theory seem to imply that managers would have to focus on either promoting intrinsic motivation via participation and empowerment while minimizing extrinsic factors or on promoting extrinsic motivation while ignoring the importance of intrinsic motivation (Gagné and Deci, 2005).

The Cognitive evaluation theory is applicable to both the dependant and the independent variables in this study. The cognitive evaluation theory guided research on creative performance, which constitutes the dependant variable in this study, namely "employees' creativity" (e.g., Amabile, Goldfarb, and Brackfield, 1990; Shalley, 1995; Shalley and Perry-Smith, 2001; Zhou and Oldham, 2001). Moreover, the cognitive evaluation theory is also associated with the independent variable in this study, namely "extrinsic rewards for creativity", since it explains the mechanism under which extrinsic rewards hinder creative performance (i.e., via undermining an individual's intrinsic motivation) (Deci, 1971). The cognitive evaluation theory guided a number of empirical studies on the reward-creativity relationship, where cognitive researchers found an overall negative effect of extrinsic rewards on employees' creativity, especially performance-contingent rewards (Erez, Gopher, and Arzi, 1990; Deci et al., 2001; Muraven et al., 2007; Malik and Butt, 2017).

2.3.2.2. Self-Determination Theory

After the advent of cognitive evaluation theory, some cognitive researchers discovered that not all extrinsic factors are detrimental to an individual's intrinsic motivation. They found that some external factors had a positive effect on intrinsic motivation and employees' creativity (Koestner, Ryan, Bernieri, and Holt, 1984). In view of that, the self-determination theory was introduced as an extension to the cognitive evaluation theory (Deci and Ryan, 1985). According to the self-determination theory, contextual factors such as location, task characteristics, leadership style, and stage of creative endeavour (Malik and Butt, 2017) could have an informational or controlling effect on intrinsic motivation. A contextual factor has an informational effect on intrinsic motivation when it promotes feelings of competency and autonomy, hence causing a positive effect on intrinsic motivation and employees' creativity respectively. On the other hand, a contextual factor has a controlling effect on intrinsic motivation when it undermines the feelings of competency and autonomy, such that contextual factors are perceived as a "carrot" that induces certain behaviour, hence causing a negative effect on intrinsic motivation and employees' creativity respectively (Gagné and Deci, 2005).

Self-determination theory is associated with both the dependant and independent variables of this study. Empirical studies in the literature based their assumptions on self-determination theory in testing the reward-creativity relationship (Selart, Nordström, Kuvaas and Takemura, 2008; Malik et al., 2015). Moreover, it was evidenced that self-determination theory is connected with employees' creativity, such that when employees' feelings of autonomy were met, employees' creativity was achieved (Liu, Chen, and Yao, 2011; Zhou and He, 2020). Furthermore, self-determination theory is associated with the independent variable "extrinsic rewards for creativity", since it constitutes a contextual factor, and based on the theory assumptions, it could have a controlling or informational effect on intrinsic motivation and creativity (Deci and Ryan, 1985). Also, self-determination theory offered four subtypes of extrinsic motivation which were presented in section 2.3.1.3, the independent variable in this study is a form of extrinsic motivation and it could be considered as an "external regulation" since it concerns behaviours driven by externally imposed rewards. External regulation is typically considered as a controlled motivation (Ryan and Deci, 2020).

2.3.2.3. The Interactionist Model of Creative Behaviour

Woodman, Sawyer, and Griffin (1993) developed the interactionist model of creative behaviour to understand creativity in complex social settings. The interactionist model refers to creativity as a complex interaction between the individual and the work situation at different organizational levels. This model stresses the role of contextual factors at the individual, group, and organizational levels (Zhou and Shalley, 2003). For instance, at the individual level, creativity is caused by antecedent conditions (e.g., past reinforcement history), cognitive style and ability (e.g., divergent thinking), personality factors (e.g., self-esteem and locus of control), intrinsic motivation, relevant knowledge, social influences (e.g., social facilitation, social rewards) and contextual influences (e.g., physical environment, task and time constraints) (Woodman et al., 1993). At the group level, creativity is a function of individual creative behaviour, the interaction of the individuals involved (e.g., group composition), group characteristics (e.g., norms, size), group processes (e.g., problem-solving approaches), and contextual influences (e.g., characteristics of group task) (Woodman et al., 1993). At the organizational level,

innovation is caused by both individual and group creativity, and contextual influences such as reward systems and organizational culture (Woodman et al., 1993).

The interactionist model has been one of the most frequently used conceptual models to emphasize the interactions between contextual and individual factors that could enhance or inhibit employees' creativity (Yuan and Woodman, 2010; Zhou and Shalley, 2011; Wu, Parker and De Jong, 2014; Anderson et al., 2014; Amabile and Pratt, 2016). This thesis intends to study employees' creativity at an individual level, and hence from the interactionist model perspective, the independent variable "extrinsic reward for creativity" is a contextual factor, and it interacts with intrinsic motivation and personality (i.e., goal orientations and locus of control) as an individual factor to predict the influence on the dependant variable "employees' creativity".

2.3.2.4. The Componential Model for Creativity and Innovation

The componential model for creativity and innovation was introduced by Amabile (1988), and it is considered as one of the prominent theories in the creativity literature. It is the oldest theory of creativity and innovation in organizations and the only widely-cited theory that comprehensively describes the process of individual creativity and the process of organizational innovation (Amabile and Pratt, 2016).

As the name of the model suggests, there are components that leads to creativity and innovation. According to this model, the creative process is an outcome of three components (skills in creative thinking, intrinsic motivation to do the task, and skills in the task domain). Skills in creative thinking were modified to the term creativity relevant processes (Amabile, 1996); these include cognitive styles, thinking skills that are conducive to taking new perspectives to solve problems, characteristics that lead individuals to take risks, persistent, and energetic work styles. Intrinsic motivation to do the task refers to the interest, enjoyment, satisfaction, and challenge of the task itself. Skills in the task domain refer to expertise, factual knowledge about the domain, technical skills, and domain-relevant talents. The componential model for creativity and innovation also suggests that the work environment influences employees' creativity by influencing its components (Amabile, 1988). Work environment refers to organizational

motivation to innovate, resources (e.g., finances, time, and personal resources), and managerial practices (e.g., supervisory encouragement).

The componential model for creativity and innovation sheds the light on the important role of intrinsic motivation in the creativity process, which was further emphasized in the dynamic componential model for creativity and innovation (Amabile and Pratt, 2016). As can be seen in the literature, the motivation component of the componential model for creativity and innovation, unlike other components, received the most research attention and empirical support (Shalley, Zhou, and Oldham, 2004; Zhou and Shalley, 2011; Anderson et al., 2014; Liu, Jiang, Shalley, Keem, and Zhou, 2016).

Other components of the componential model for creativity and innovation have also received empirical support. Thanh (2019) investigated the role of creativity relevant skills, domain-relevant skills, and intrinsic motivation in predicting employee creativity. The results of this study found that those components mediated the relationship between developmental feedback and employee creativity (Thanh, 2019). Moreover, the componential model for creativity and innovation established the basis for developing new componential models in the literature, such as the componential model of science classroom creativity (Hong and Song, 2020).

2.3.2.5. The Dynamic Componential Model for Creativity and Innovation

The dynamic componential model was introduced by Amabile and Pratt (2016) as advancement to the componential model for creativity and innovation (Amabile, 1988). The dynamic componential model is similar to the interactionist model in terms of providing an integrative framework that integrates creativity and innovation. Also, the interactionist model, as the name suggests, focused on the interaction between a person and a situation to acquire a creative outcome. It considered the influences that are external to the organization in its framework. Likewise, a new linkage is proposed for the work environment in the dynamic componential model, a dual influence is proposed where the work environment influence both individual creativity process and organizational innovation process. However, in contrast to the interactionist model, the dynamic componential model distinguished individual creativity from the group creativity

and it did not have the assumption that individual and small group creativity operates essentially in the same way.

In the dynamic componential model, a significant modification for the role of intrinsic and extrinsic motivation was suggested (Amabile and Pratt, 2016). Amabile and Pratt (2016) incorporated the concept of "motivational synergy" which proposed that some kinds of extrinsic motivations had a harmonious effect with intrinsic motivation to stimulate creativity. They also incorporated self-determination theory (Deci and Ryan, 1985), which suggested that "informational" extrinsic motivators (which give information that allows people to build their competence) were more supportive of intrinsic motivation than "controlling" extrinsic motivators (which make people feel controlled by an external force). Accordingly, Amabile and Pratt (2016) suggested that there are two mechanisms by which extrinsic motivation might have additive effects with intrinsic motivation and hence creativity. In the first mechanism, *extrinsics in service of intrinsics*, informational extrinsic motivators are more supportive of intrinsic motivation than controlling motivators. In this mechanism, extrinsic motivators that provide information and, thus, support the competence or engagement of a person are called *synergistic extrinsic motivators*, and they positively add to intrinsic motivation and creativity (Amabile and Pratt, 2016). In the second mechanism, *the motivation-work cycle match*, synergistic extrinsic motivators have a facilitative function only at certain stages of the creativity process. Synergistic extrinsic motivators might particularly be conducive to stage 2 (preparation) and stage 4 (idea validation and communication) of the creativity process. Whereas intrinsic motivation might be particularly important in stage 1 (task presentation/problem formulation and initial engagement in the creativity process) and stage 3 (idea generation) of the creativity process.

The dynamic componential model has received empirical support in the literature. For instance, Fischer, Malycha, and Schafmann (2019) investigated the synergistic extrinsic motivators that are used to foster the creativity and innovation of intrinsically motivated employees. This study provided support to the dynamic componential model (Amabile and Pratt, 2016); it found that the individual component "intrinsic motivation" is a critical predictor for creativity (Fischer et al., 2019). Also, this study found that relational

rewards (e.g., public recognition, performance feedback, and individual praise) have an essential impact on creativity and innovation (Fischer et al., 2019). Another empirical study implied that through enhancing domain-relevant skills and problem-solving skills, employees may increase their innovative work behaviours through co-workers knowledge sharing (Shah, Afsar, and Shahjehan, 2020).

2.3.2.6. Learned Industriousness Theory

The learned industriousness theory was introduced by Eisenberger (1992). According to the learned industriousness theory, when individuals focus on a certain performance dimension, they tend to ignore other performance dimensions. In other words, if a person were to focus on efficiency as a performance dimension, this person would then tend to ignore other performance dimensions such as creativity (Eisenberger and Armeli, 1997). This theory, therefore, suggests that if a firm does not want to risk employees ignoring performance dimensions that are not part of the learned behaviour, it is necessary to communicate to employees the desired performance dimension when rewards are given. For instance, employees' must be aware that rewards are contingent to creativity and not to efficiency, in order to avoid the negative effects of extrinsic rewards on creative behaviour (Eisenberger and Cameron, 1998). This theory was tested empirically through both experimental and non-experimental studies, and the results showed positive effects of extrinsic rewards on individual creativity and intrinsic motivation when extrinsic rewards were contingent on creative behaviour (Eisenberger et al.,1998; Eisenberger and Aselage, 2009; Malik et al., 2015).

2.3.2.7. Intrinsic Motivation Theory

The intrinsic motivation theory was introduced by Amabile (1996). According to the intrinsic motivation theory, individuals that are intrinsically motivated to perform a task such that they find a task interesting and satisfying are more prone to taking risks and are therefore more likely to experience higher creativity (Amabile, Hill, Hennessey, and Tighe, 1994). Since creativity is often a spontaneous endeavour that can require persistence and risk-taking, the positive relationship between intrinsic motivation and creativity suggested by this theory has gained widespread consensus among scholars

and consistent empirical support. For instance, Zhang and Bartol (2010) studied the link between empowering leadership and creativity via several intervening variables in a sample of professional employees and their supervisors in a large information technology company in China. They found that empowering leadership positively affected psychological empowerment, which in turn influenced intrinsic motivation which had a positive influence on creativity (Zhang and Bartol, 2010). Moreover, a meta-analysis of the studies published between 1990 and 2010 found a significant positive relationship between intrinsic motivation and creativity related to the product (i.e., creative outcomes) (de Jesus, Rus, Lens, and Imaginário, 2013). Another empirical study conducted on research and development engineers and their supervisors at a large high-tech company in Taiwan found that a collaborative team climate had a positive impact on intrinsic motivation, which in turn had a positive influence on creativity (Zhu, Gardner, and Chen, 2018). However, intrinsic motivation theory views extrinsic rewards as detrimental to the cognitive states that facilitate the creative behaviour (i.e., involvement, enjoyment, and indulgence in divergent ideas) (Amabile et al., 1994), detrimental to intrinsic motivation and hence creativity (Malik and Butt, 2017).

2.3.2.8. The Investment Theory

The investment theory was proposed by Sternberg (2006). According to this theory, creativity is about the decision to think in new ways, creativity is viewed as a conscious choice and not just as ability or a skill. This theory, therefore, suggests that creativity is an intentional choice, thus, any factor that helps towards the intention to be creative is considered supportive of creative behaviour.

There is sufficient evidence in the literature that extrinsic rewards that were clearly linked with the creative behaviour, generated an intentional choice to be creative (Eisenberger and Rhoades, 2001; Eisenberger and Shanock, 2003). For instance, Eisenberger, Armeli, and Pretz (1998) asked fifth and sixth grade children to specifically produce novel drawings, they found that the promise of reward increased the novelty of those children's drawings. Moreover, Eisenberger and Rhoades (2001) asked college students to generate creative titles for a short story; they found that students who were promised a reward for creativity generated more creative titles.

2.3.2.9. Achievement Goal Theory

Achievement goal theory (Dweck, 1986) is a prominent theory in the motivation literature. It was developed to understand the adaptive and maladaptive patterns of students in achievement challenges (Dweck, 1986 and Nichols, 1984). This theory suggested two classes of goals that involve competence: (1) learning goals, in which individuals seek to master something new, and (2) performance goals, in which individuals seek to gain favourable judgment. According to this theory, individuals who pursue learning goals (mastery-oriented) are more likely to persist in the face of challenges and respond resiliently to adversity, unlike individuals who pursue performance goals (performance-oriented). Performance-oriented individuals consider ability as a fixed attribute (Dweck, 1986). Moreover, mastery-oriented individuals define success as achieving task-based criteria (e.g., answering 80% of an exam questions correctly), or self-defined criteria (e.g., feeling that he/she learned and improved). However, performance-oriented individuals define success as outperforming their peers (Dweck, 1986). The effects of both mastery and performance goals received considerable empirical evidence from experimental and non-experimental studies (e.g., Butler, 1987; Elliot and Dweck, 1988; Darnon, Butera, and Harackiewicz, 2007; Harackiewicz, Barron, Tauer, Carter, and Elliot, 2000; Karabenick, 2003; Levy, Kaplan and Patrick, 2004; Pekrun, Elliot and Maier, 2006; Wolters, 2004).

Theorists separated mastery and performance orientations into approach and avoidance forms (Elliot, 1999; Pintrich, 2000). In a mastery-approach form, individuals strive to learn, whereas in a mastery-avoidance they strive to avoid skills decline (Elliot, 1999; Pintrich, 2000). In a performance-approach form, individuals strive to outperform others, whereas, in a performance-avoidance, they strive to avoid appearing less talented than others (Elliot, 1999; Pintrich, 2000). All forms of goal orientations have been empirically tested. The empirical research found that avoidance goals (i.e., mastery-avoidance and performance-avoidance) had negative results such that they were associated with high anxiety and low self-efficacy (e.g., Hulleman, Schrager, Bodmann, and Harackiewicz, 2010; Midgley and Urdan, 2001; Wolters, 2004; Van Yperen, Elliot, and Anseel, 2009). Approach goals were also tested empirically (i.e.,

mastery-approach and performance-approach). Hirst, Knippenberg, and Zhou (2009) found that performance-approach orientation was positively related to creativity when team learning behaviour was high. Also, Janssen and Van Yperen (2004) found that mastery-approach orientated employees were more effective on the job as they reported higher in-role job performance, innovative job performance, and job satisfaction. However, performance-approach orientated employees reported lower in-role job performance, innovative job performance, and job satisfaction (Janssen and Van Yperen, 2004). Another empirical study found that intrinsic motivation had a positive effect on radical and incremental creativity for employees who had a higher learning goal orientation and that extrinsic rewards had a positive effect on incremental creativity for employees who had a higher performance goal orientation (Malik et al., 2019).

Table 2.1 below provides a summary of the theories adopted in this research as well as the rationale for selecting those theories.

Theory Name	**Theory summary and rationale for the selection**
Cognitive Evaluation Theory	This theory suggests that offering extrinsic rewards to individuals working in complex tasks that produce high intrinsic motivation, should have a negative effect on intrinsic motivation and employees' creativity. This theory therefore established the ground for proposing a negative relationship between extrinsic rewards and employees creativity for employees' having a mastery goal orientation, since mastery oriented individuals focus on skill mastery which is a complex task (H3a).
Self-Determination Theory	According to this theory, if an individual perceived a contextual factor as informational, such that it conveys information of competence, it will enhance an individual's intrinsic motivation and creativity. This theory established the rationale for proposing a positive relationship between extrinsic rewards and intrinsic motivation (H2a), as well as a positive relationship between extrinsic rewards and employees' creativity for employees having

	an internal locus of control (H4a). It also suggests that when a contextual factor is perceived as controlling, it hinders individuals' intrinsic motivation and creativity. It therefore established the rationale for proposing a negative relationship between extrinsic rewards and employees' creativity for employees' having an external locus of control (H4b).
The Interactionist Model of Creative Behaviour	According to this theory, creativity is a complex interaction between the individual and the work situation. This theory suggests that creativity is achieved at an individual level by the interaction between contextual factors. Since this research focused on employees' creativity at an individual level, the development of the conceptual model was guided by this theory. The independent variable "extrinsic reward for creativity" is a contextual factor, and it interacts with intrinsic motivation and personality (i.e., goal orientations and locus of control) as an individual factor to predict the influence on the dependant variable "employees' creativity".
The Componential Model for Creativity and Innovation	This theory suggests the components of creativity and innovation, which are: factual knowledge, creativity skills and motivation. It guided the development of the conceptual model of this study by emphasizing the role of intrinsic motivation which was proposed as a mediator.
The Dynamic Componential Model for Creativity and Innovation	This theory highlights the role of synergistic extrinsic motivation, it suggests that informational extrinsic rewards lead to higher self determination which increases intrinsic motivation and employees' creativity. Accordingly, a positive relationship was proposed in this research between extrinsic rewards for creativity and intrinsic motivation leading to employees' creativity (H2a) and (H2b).
Learned Industriousness Theory	If the respondents learn by instructions or experience that the desired performance is creative performance, offering extrinsic rewards will enhance creativity. This theory was the base for developing hypothesis (H1) of the proposed conceptual model.
Intrinsic Motivation Theory	This theory suggests that intrinsically motivated individuals enjoy the performed task and therefore they are more likely to take higher

	risks and experience higher creativity. This theory guided the proposition of a positive relationship between intrinsic motivation and employees' creativity in this research (H2b).
The Investment Theory	This theory suggests that creativity is a conscious choice. Individuals decide to be creative or not based on the availability of factors that help towards the intention to be creative. This theory explained the empirical finding of a negative relationship between extrinsic rewards and employees' creativity for employees having an internal locus of control in this research. There could be factors that guided the conscious choice not to be creative, such as the importance of rewards and the ceiling of rewards in the studied context (i.e. rewards ceiling is determined and clear to employees' working in primary public schools in the Kingdom of Bahrain).
Achievement Goal Theory	This theory classifies individuals in achievement tasks to mastery and performance goal oriented. It suggests that mastery-oriented individuals seek to master skills whereby performance oriented individuals seek to demonstrate competence. Based on this theory, this research proposed mastery and performance goal orientation as moderators in the relationship between extrinsic rewards and employees' creativity (H3a and H3b)

Table 2.1: List of prominent theories

2.3.3. Links Between the Constructs

This section aims to highlight the links between the constructs by presenting studies from the literature that have investigated various relationships between them.

2.3.3.1. Intrinsic Motivation and Employees' Creativity

The idea of an existing strong relationship between intrinsic motivation and creativity is considered in the literature as "accepted wisdom". This relationship was highlighted early in the literature since 1988 in the componential model for creativity explained in the previous section (Amabile, 1988). According to the componential model, there are three components of creativity: domain-relevant skills, creativity relevant-processes, and

task motivation. The first component (domain-relevant skills) refers to factual knowledge and expertise, the second component (creativity relevant processes) includes work styles and explicit strategies to produce creative ideas, the third component (task motivation) refers to individuals' attitudes towards certain tasks according to the perceptions of their own motivation (e.g., intrinsic or extrinsic motivation). The componential model for creativity (Amabile, 1988) proposed that intrinsic motivation was vital for creativity, particularly in the stage of defining a problem that requires creative solutions as well as the stage of producing creative ideas. A major implication of this theory is that it set the grounding for researchers to seek to identify contextual factors that positively or negatively affect intrinsic motivation, which consequently would affect an individual's creativity (Zhou and Shalley, 2003). A number of empirical studies identified and tested the effect of contextual factors on intrinsic motivation and creativity. For instance, Zhang and Bartol (2010) studied the effect of empowering leadership as a contextual factor on employees' intrinsic motivation and creativity and found that empowering leadership positively influenced intrinsic motivation which positively affected creativity (Zhang and Bartol, 2010). In another study, Zhu, Gardner, and Chen (2018) found that a collaborative team climate positively affected intrinsic motivation and creativity. However, despite the theoretical and empirical studies in the literature that discussed the importance of intrinsic motivation to foster creativity, a careful review of the literature indicates that research questioning the role of intrinsic motivation as a mediator between contextual factors and creativity remains sparse (Zhou and Shalley, 2003).

In response to the calls for further demonstration, a recent attempt to study the link between intrinsic motivation and creativity was undertaken by Malik, Butt, and Choi (2015). In their study, intrinsic motivation mediated the interaction effect between extrinsic rewards and locus of control on creative performance (Malik et al., 2015). Moreover, Auger and Woodman (2016) used an inductive theory building approach to explore the intrinsic motivation of creative people. They identified four kinds of intrinsic motivation (commitment, expression, passion, and mission) (Auger and Woodman, 2016). Their research studied employees from six different organizations occupying "passion" professions in France, which made the results limited to France and passion

professions only (Auger and Woodman, 2016). Therefore, there is still a need to study intrinsic motivation as a mediator between contextual factors and creativity (Malik and Butt, 2017). Hence this thesis considered intrinsic motivation as a mediator in the relationship between extrinsic rewards for creativity and employees' creativity.

2.3.3.2. Extrinsic Rewards and Employees' Creativity

There are several studies in the literature that have examined the relationship between extrinsic rewards and employees' creativity (George and Zhou, 2002; Baer et al., 2003; Eisenberger and Aselage, 2009; Malik et al., 2015; and Malik, et al., 2019).

George and Zhou (2002) studied the effect of positive and negative moods on creative performance. In their study, the creative performance was a dependent variable and extrinsic reward was one of the moderators, in addition to a second moderator which was the clarity of feelings. This study found that negative moods were positively related to creative performance when rewards for creative performance and clarity of feelings were both high. This study however was not without limitations. This experimental study collected data from an organization that manufactures helicopters, and therefore the result cannot easily be generalized to other contexts. Moreover, since this study found that negative moods lead to creative performance, this study implicitly encourages negative moods in the workplace. Likewise, it implicitly discourages positive moods in the workplace since it inhibits creative performance. By implicitly encouraging negative moods and discouraging positive moods, other related disadvantages could follow should negative moods spread in the work environment.

Baer, Oldham, and Cummings (2003) studied the relationship between extrinsic rewards as an independent variable and creativity as a dependant variable moderated by employee job complexity and cognitive style. This study attracted research attention to a great extent (e.g., Anderson et al., 2014; Yoon, Sung, and Choi, 2015; Malik et al., 2015; Malik and Butt, 2017; Malik et al., 2019; Fischer et al., 2019) as it identified clear conditions under which extrinsic rewards were conducive or detrimental to creativity. In their study, 171 employees were surveyed from two manufacturing organizations. The

moderators of this study were defined as follows: cognitive style which included adaptors (i.e., individuals who had an adaptive cognitive style, such that they tend to operate within given procedures without questioning their validity) and innovators (i.e., individuals who tend to take the risk of violating the procedures and develop new problem solutions), and job complexity which included simple jobs (i.e., routine jobs) and complex jobs (i.e., characterized by a high level of autonomy and significance). This study found that adaptors in simple jobs were more creative when offered extrinsic rewards, whereas innovators in simple jobs, as well as adaptors in complex jobs, were less creative when offered extrinsic rewards. Innovators in complex jobs were neutral when offered extrinsic rewards. This study provided some clarity to the relationship between extrinsic rewards and creativity through identifying specific conditions under which extrinsic rewards lead to creativity. The conditions are: employees' should adopt an adaptive cognitive style and work in a simple routine job, for extrinsic rewards to enhance employees' creativity. However, although this study based its argument on an intrinsic motivation perspective, such that it argued that extrinsic rewards affected creativity through effects on intrinsic motivation; intrinsic motivation was not actually measured directly as a mediator in this study. This study only measured the moderating effect of employee job complexity and cognitive style. It is therefore not possible to be sure based on the results of Baer et al.'s (2003) study if the effects of reward, job complexity, and cognitive style were mediated by intrinsic motivation or not. This is one of the reasons why in the present study it was deemed necessary and important to investigate the mediating role of intrinsic motivation.

Eisenberger and Aselage (2009) studied the relationship between rewards and intrinsic motivation and creativity. In their study, performance pressure and self-determination were used as mediators. All the propositions of the study were found to have positive results. The study found a positive relationship between rewards and performance pressure and self-determination, and a positive relationship between those mediators and intrinsic interest which then leads to creativity. However, the findings of this study may not apply in many other contexts for a number of reasons. Since only financial rewards were used in this study and the pressure (mediator) was created from losing the given money, there was no consideration to other sources of pressure such as the

threat of job loss, promotions, and supervisor's personal approval. Also, the results were generated from two field studies and one laboratory experiment and used university alumni as the participants in the former and college students in the later. The results, therefore, cannot be applied to a specific industry nor can they be generalized. Moreover, this study found that the relationship between intrinsic interest and creativity was only marginally significant, and hence the condition for mediation that requires the mediator to have a significant correlation with the dependant variable was not met (Kenny, Kashy, and Bolger, 1998). Accordingly, this study was not able to test the mediating effect of intrinsic interest in the relationship between reward manipulation (i.e., manipulated for performance pressure and perceived self-determination) and creativity (Eisenberger and Aselage, 2009).

In 2015, a study was conducted by Malik, Butt, and Choi to study the relationship between extrinsic rewards and creative performance. Their study investigated the moderating effect of creative self-efficacy and the importance of rewards in the relationship between extrinsic rewards and creative performance and investigated the moderating role of locus of control in the relationship between extrinsic rewards and intrinsic motivation. It also tested the mediation effect of intrinsic motivation. Their study comprised of 181 employee-supervisors dyads working in different organizations in Pakistan. The results of their study revealed that extrinsic rewards could reduce creative performance when offered to employees who perceive the reward as unimportant and who have low creative self-efficacy. The study also found that extrinsic rewards could enhance the intrinsic motivation of employees having an internal locus of control. Moreover, it found that extrinsic and intrinsic motivations can be synergized to predict creative performance.

2.3.3.3. Goal Orientations and Employees' Creativity

The relationship between goal orientations and innovative job performance has been studied by Janssen and Van Yperen (2004). They defined innovative job performance as the intentional generation, promotion, and realization of new ideas at an individual, team, or organizational level (Janssen and Van Yperen, 2004). In their study, they proposed that a mastery goal orientation is positively related to innovative job

performance and that performance orientation is negatively related to innovative job performance. The propositions were proved to be correct, however, the results of this study cannot be generalized widely for the following reasons. First, the sample used consisted of 170 employees from a Dutch firm. The sample consisted of employees from an industrial organization in the energy supply sector, and therefore the results cannot be easily generalized in other sectors. Second, the dependant variable in this study was innovative job performance and not creativity and as such, this measure included not only idea generation (creativity) but also idea implementation (innovation) (Anderson et al., 2014). Therefore this thesis narrowed the measurement and investigated the moderating effect of goal orientation on employees' creativity as a dependant variable.

In 2019, a more recent study investigated the moderating effect of learning and performance goal orientations (Malik et al., 2019). This study investigated the moderating effect of learning goal orientation in the relationship between intrinsic motivation and radical and incremental creativity, and the moderating role of performance goal orientation in the relationship between extrinsic rewards and incremental creativity. This study consisted of 220 employee-supervisor dyads and found that intrinsic motivation predicted radical creativity and had a positive effect for employees having a higher learning orientation, whereas extrinsic motivation predicted incremental creativity and had a positive effect for employees having a performance goal orientation. Although this study has drawn some clear distinctions, it did not investigate the role of both moderators (mastery and performance goal orientations) in the relationship between extrinsic rewards and employees' creativity, as it only studied the moderating effect of performance goal orientation. Hence, this thesis investigated the moderating effect of both mastery and performance goal orientations in the relationship between extrinsic rewards and employees' creativity.

2.3.3.4. Locus of Control and Employees' Creativity

The relationship between locus of control and employees' creativity was recently studied in the literature (Malik et al., 2015). In their study, internal and external locus of control were studied as moderators of the relationship between extrinsic rewards and

intrinsic motivation of employees. Their study was conducted on 181 employee-supervisor dyads and found that extrinsic rewards positively affected the intrinsic motivation of employees having an internal locus of control, thus enhancing their creative performance. However, this study investigated the moderating effect of locus of control in the relationship between extrinsic rewards and intrinsic motivation and did not investigate the moderating role of locus of control between extrinsic rewards and employees' creativity directly.

2.4. Gap in the Existing Literature

Although several researchers devoted effort towards studying the relationship between the constructs: extrinsic rewards, employees' creativity, intrinsic motivation, mastery goal orientation, performance goal orientation, internal and external locus of control, as illustrated in section 2.3.3, there is a need for further research. As the preceding review of the literature shows, different studies have produced contradictory results pertaining to the reward-creativity relationship. Moreover, the results of those studies cannot be generalized either because of the type and relevance of the samples used or because of the differences in the situation and context. Furthermore, our comprehension of the relationship between extrinsic rewards and employees' creativity is bounded by the type of mediators and moderators used in the prior studies which constitute the 'lenses' of those studies, and therefore inevitably limit the contributions of those studies to certain angles. The following sections set out the gap identified from the review of the existing literature, and which therefore formed the basis for the definition of the focus and purpose of this study.

2.4.1. Contradictory Results

When studying the relationship between extrinsic rewards and employees' creativity, researchers have arrived at different results. The paradox of rewards was highlighted multiple times in the literature as a challenging unanswered question that has entailed and still requires future research attention (Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017).

A group of scholars ("social cognitive researchers") argued that the use of extrinsic rewards leads to diminishing creativity via undermining intrinsic motivation due to lowered self-determination and the over justification effect (Amabile, 1996; Hennessy and Amabile, 1988). This view was demonstrated empirically, for instance, Amabile, Hennessey, and Grossman (1986) in their laboratory study found that when participants agreed to work on a certain task in order to receive a reward (contracted for reward); there was a negative effect on creativity. This is in addition to other empirical studies that demonstrated a negative effect of rewards on creativity (Kruglanski et al., 1971).

On the other hand, another group of scholars ("behaviourally oriented researchers") suggested that the use of extrinsic rewards enhances creative performance (Eisenberger, 1992). Behaviourally oriented researchers found that rewards can have an informational value that can be used to encourage creativity, arguing that extrinsic rewards increased perceived self-determination, thus facilitating intrinsic motivation (Eisenberger and Selbst, 1994; Eisenberger and Armeli, 1997). This position was also supported empirically (Eisenberger et al., 1998; Eisenberger and Rhoades, 2001). Moreover, other studies have shown that extrinsic rewards only have negligible effects on creativity (Hennessey, 1989; Joussemet and Koestner, 1999).

Considering the above mixed results in the literature, there is a subsequent need to investigate specific conditions under which extrinsic, contingent rewards have positive, negative or neutral effects on creativity (Eisenberger and Cameron, 1996; Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017). When such conditions are established, not only previous inconsistency in the literature will be better understood, but also managers will be better equipped with an understanding of the possible strategies that can guide them to the best uses of extrinsic rewards. Therefore, this research aims at investigating such conditions in order to address this gap in the literature; it intends to investigate the role of goal orientations and locus of control in the relationship between extrinsic rewards and employees' creativity.

2.4.2. The Concept of Mediators and Moderators

The use of various mediators and moderators to study the relationship between extrinsic rewards and employees' creativity is not uncommon in the literature (Deci and Ryan, 1985; George and Zhou, 2002; Baer et al., 2003; Janssen and Van Yperen, 2004; Eisenberger and Aselage, 2009). However, there are potentially important mediators and moderators that have not been fully investigated and require future research attention (Anderson et al., 2014; Malik and Butt, 2017).

Mediators are important to understand the mechanisms through which extrinsic rewards affect employees' creativity. Mediators in the reward-creativity relationship currently appear to be a largely ignored area in the literature (Malik and Butt, 2017). There are a number of potentially important mediators that could help to understand the relationship between rewards and employees' creativity such as conscious intention to behave creatively (Sternberg, 2006), empowering leadership (Zhang and Bartol, 2010), enjoyment, engagement, and commitment (Malik and Butt, 2017), and intrinsic motivation (de Jesus et al., 2013). Many studies have been consistent with the argument that contextual factors affect creativity via their effects on individuals' intrinsic motivation (Shalley et al., 2004), yet few studies actually measured intrinsic motivation and tested whether it empirically mediates the context-creativity relation (Zhou and Shalley, 2003). Scholars have called for future researchers to measure and test intrinsic motivation as a mediator in the relationship between the contextual factor and creativity (Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017). In this research, therefore, intrinsic motivation was examined as a mediator in the relationship between extrinsic rewards as a contextual factor and employees' creativity.

With respect to moderators, many studies used different moderators to understand the relationship between creativity and other contextual factors, for instance, perceived recognition for creative performance and clarity of feelings (George and Zhou, 2002), job autonomy, and time pressure (Wu et al., 2014), employee job complexity and cognitive style (Baer et al., 2003), locus of control, the importance of rewards and creative self-efficacy (Malik at al., 2015), learning and performance goal orientations (Malik et al., 2019). This study considered mastery goal orientation, performance goal

orientation, internal locus of control, and external locus of control as moderators in the relationship between extrinsic rewards for creativity and employees' creativity.

The reasons underlying the selection of mastery and performance goal orientations as moderators are as follows. First, there is a scarcity of empirical work studying the moderating effect of personal dispositions in the relationship between extrinsic rewards and employees' creativity (Malik and Butt, 2017). Goal orientations are considered as stable personality characteristics (Dweck, 1986); therefore individuals with different goal orientations may perceive extrinsic rewards differently and hence behave differently when offered extrinsic rewards. Previous attempts have been made to study goal orientation as a moderator, earlier studies investigated its moderating effect which confirms the important moderating role of goal orientations (Janssen and Van Yperen, 2004; Malik et al., 2019). However, this is the first attempt to study goal orientations as moderators in the relationship between extrinsic rewards as an independent variable and employees' creativity as a dependant variable. In previous studies, innovative job performance was a dependant variable but not employees' creativity (Janssen and Van Yperen, 2004), and hence the result did not distinguish between idea generation and idea implementation, unlike this study which focuses on idea generation. Furthermore, in earlier studies, only performance goal orientation was studied as a moderator between extrinsic rewards as an independent variable and incremental creativity (i.e., generating new ideas that offer only minor modifications to existing products and practices) as a dependant variable (Malik et al., 2019). The moderating effect of mastery goal orientation was not studied, also the dependant variable was very specific as it included only one type of creativity (i.e., incremental creativity) (Malik et al., 2019). Studying the moderating effect of goal orientations can help to enrich the understanding of the reward-creativity relationship by providing clear conditions under which extrinsic rewards lead to enhancing or hindering employees' creativity. The results of this study will not only address the gap in the literature but also will provide guidance for managers since employees could be easily classified based on their goal orientations (performance or mastery).

Additionally, internal and external locus of control were selected in this study as moderators in the relationship between extrinsic rewards for creativity and employees' creativity. This was in response to scholars' repetitive calls to focus on personal dispositions as moderators (Zhou and Shalley, 2003; Malik and Butt, 2017). Since individuals having a distinct locus of control have different perceptions of events (Rotter, 1966), employees having an internal or an external locus of control could have different perceptions when offered extrinsic rewards, and hence may exhibit different creative performance. As highlighted in previous sections, locus of control was studied earlier in the literature as a moderator between extrinsic rewards and intrinsic motivation leading to creative performance (Malik et al., 2015), which confirms the importance of locus of control as a moderator. However, this study is the first to investigate the moderating effect of internal and external locus of control in the relationship between extrinsic rewards and employees' creativity directly. Understanding the moderating effect of locus of control is expected to enrich the understanding of the reward-creativity relationship and to provide clear directions for practitioners in the rewarding process.

2.5. Chapter Summary

This chapter provided a comprehensive literature review. First, the research context was presented by showing the status of creativity and innovation in the Kingdom of Bahrain. The Kingdom of Bahrain reported a declining global innovation index compared to other GCC countries, especially in the area of education and creative outputs. From this ground, this research considered studying the relationship between extrinsic rewards and employees' creativity for employees' working in primary public schools in the Kingdom of Bahrain. Next, a theoretical background of the research constructs was provided, where the constructs were defined and their importance was emphasized. Then, prominent theories in the literature were discussed. Moreover, the results of similar studies in the literature were presented and the links between the constructs were highlighted. Finally, the existing gaps in the literature were presented, from which this research is initiated, aiming to build on the previous findings and to establish new results that address those gaps. The next chapter will introduce the developed conceptual model aimed to address the gaps found in the literature.

Chapter 3

Conceptual Model

3.1. Introduction

The previous chapter presented a comprehensive review of the existing literature. It provided key theories associated with motivation and creativity and presented the research gap. This chapter introduces the conceptual model that was developed based on the existing literature and the development of the proposed relationships (hypotheses).

According to the literature, there is a scarcity in studies that examine the effects of contextual factors on creativity, and there is a need for more work in this area (Zhou and Shalley, 2003). Extrinsic reward is considered in the literature as a contextual factor (Woodman et al., 1993). This study, therefore, studied the relationship between extrinsic rewards as a contextual factor and employees' creativity. The literature showed mixed results regarding this relationship, and the paradox is continued (Anderson et al., 2014). To better understand the inconsistency surrounding this relationship, the literature emphasized the need to examine individual dispositions to enrich the understanding of the reward-creativity relationship (Baer et al., 2003; Malik and Butt, 2017; Malik et al., 2019). Accordingly, this study responded to the literature and studied the moderating role of goal orientations and locus of control in the relationship between extrinsic rewards for creativity and employees' creativity. Moreover, literature revealed that little research has demonstrated that intrinsic motivation mediated effects of contextual factors on employees' creativity, despite there being many studies that have focused on intrinsic motivation as an underlying explanatory factor. Only very few studies have tested whether this mediation actually exists (Zhou and Shalley, 2003; Malik and Butt, 2017).

Based on the importance evidenced by the literature to exploring the above-mentioned moderators and testing the mediating effect of intrinsic motivation in the relationship between extrinsic rewards and employee creativity, this study conceptualizes its theoretical framework. Seven constructs made up the proposed conceptual model: extrinsic rewards for creativity, intrinsic motivation for creativity, mastery goal orientation, performance goal orientation, internal locus of control, external locus of control, and employees' creativity.

This chapter presents the proposed conceptual model and is structured as follows: In section 3.2, the developed conceptual model will be presented. Next, the constructs adopted in the conceptual model will be identified. In section 3.3, the theoretical foundations underlying the developed conceptual model will be outlined. Next, section 3.4 will provide a detailed explanation of the hypotheses development and will present the arguments supporting each hypothesis. This section will discuss the relationship between extrinsic rewards for creativity, and employees' creativity, the relationship between extrinsic rewards for creativity, intrinsic motivation and employees' creativity, the moderating role of goal orientations, and the moderating role of locus of control. Finally, the chapter summary will be presented in section 3.5.

3.2. Conceptual Framework

The proposed conceptual framework establishes the relationship between the following constructs: extrinsic rewards for creativity, intrinsic motivation for creativity, mastery goal orientation, performance goal orientation, internal locus of control, external locus of control, and employees' creativity (see Figure 3.1). The model suggests that extrinsic rewards for creativity have a positive impact on employees' creativity. Moreover, it suggests that intrinsic motivation for creativity has a mediation effect in the relationship between extrinsic rewards for creativity and employees' creativity. The model posits a positive relationship between extrinsic rewards for creativity (the independent variable) and intrinsic motivation for creativity (the mediator), and in turn, posits a positive relationship between intrinsic motivation for creativity (the mediator) and employees'

creativity (the dependant variable). Moreover, the model predicts that goal orientations and locus of control can enhance the effectiveness of employees' creativity. More specifically, the model examines the moderating effect of mastery goal orientation, performance goal orientation, internal locus of control, and external locus of control in the relationship among extrinsic rewards for creativity and employees' creativity. In the following subsections, the constructs within the conceptual model are identified and defined, and the inter-relationships (hypotheses) between them are developed.

3.2.1. Extrinsic Rewards for Creativity

Extrinsic motivation is defined in the literature as the motivation to do an activity because of a separate external consequence (Porter and Lawler, 1986). It is also defined as the desire to perform an activity to achieve an outcome other than the activity itself (Deci and Ryan, 1985). Extrinsic rewards are rewards that provoke extrinsic motivation among individuals (Malik et al., 2015). Additionally, extrinsic rewards include financial incentives such as bonuses and non-financial incentives such as appreciation (Van Dijk and Van Den Ende, 2002; Malik and Butt, 2017). Accordingly, the construct in this study, extrinsic rewards for creativity, is defined as financial and non-financial incentives that aim to induce employees' extrinsic motivation to deliver creative outcomes (Van Dijk and Van Den Ende, 2002). Specifically, this construct links extrinsic rewards provision with employees' creative performance, such that it makes it clear for employees that the desired performance is creative performance and not conventional performance. The underlying reason behind this identification is learned industriousness theory (Eisenberger, 1992), it suggests that when a specific performance dimension (e.g., creativity) is rewarded, individuals learn this consciously and subconsciously and tend to focus on that specific performance dimension more than others (e.g., efficiency, accuracy, productivity, etc.). Additionally, this construct refers to a creativity-contingent reward (Byron and Khazanchi, 2012). Moreover, the construct, extrinsic rewards for creativity, is employed in multiple studies in the literature (Malik et al., 2015; Malik et al., 2019).

3.2.2. Intrinsic Motivation for Creativity

The literature presents several definitions of intrinsic motivation. Intrinsic motivation is defined as the motivation to perform an activity as an end in itself, to enjoy the activity, and not to obtain external rewards (Lepper, Greene, and Nisbett, 1973). Also, intrinsically motivated behaviour is defined as the behaviour an individual chooses to feel competent and self-determining (Deci, 1975). Moreover, Amabile (1993) defined individuals as intrinsically motivated when they seek interest, enjoyment, and satisfaction of curiosity, self-expression, or personal challenge in the work. Furthermore, intrinsic motivation is defined in the literature as the motivation to do an activity for their own sake, or their inherent interest and enjoyment (Deci and Ryan, 2000). More specifically, creativity-related intrinsic motivation is defined as "enjoyment for activities related to generating new ideas" (Tierney, Farmer, and Graen, 1999). Accordingly, the construct in this study, intrinsic motivation for creativity, adopts the definition of creativity related to intrinsic motivation. It is because this study aims at measuring the mediation effect of intrinsic motivation targeting at employees' creativity, adopting the construct intrinsic motivation for creativity is expected to have a more consistent relationship with creativity (e.g., Shin and Zhou, 2003; Zhang and Bartol, 2010; Malik et al., 2015; Li, Deng, Leung, and Zhao, 2017; Malik et al., 2019).

3.2.3. Goal Orientation

Goal orientations are defined in the literature as situated orientations for action in an achievement task (Dweck, 1986; Nicholls, 1984). Previous research has mainly focused on two types of goal orientations, namely "mastery" and "performance" orientations (Ames, 1992), and those are the adopted constructs in this research. Mastery goal orientation is defined as the purpose of developing competence (Ames, 1992). It is also defined as the focus to master skills and information as well as learning and understanding (Kaplan and Maehr, 2007). Performance goal orientation is defined as the purpose of demonstrating competence (Ames, 1992; Dweck, 1986). It is defined as the focus on demonstrating high ability (Dweck, 1986). Mastery and performance goal orientations have two distinctions, namely "approach" and "avoidance" (Elliot, 1999; Elliot and Church, 1997; Elliot and McGregor, 2001; Van Yperen, 2003). Under the approach version, a mastery goal-oriented individual seeks to master the skill, while in a

mastery-avoidance version, one avoids losing a skill. In a performance-approach version one seeks to demonstrate competence while in the avoidance version one seeks to avoid looking incompetent (Elliot, 1999; Dweck, 1991; Elliot and McGregor, 2001). The constructs in this study refer only to the approach versions of mastery and performance goal orientations (Hirst, Knippenberg, and Zhou, 2009). Therefore, the constructs are defined as follows: mastery-approach goal orientation is seeking to master the skill, while performance-approach goal orientation is seeking to demonstrate competence (Elliot, 1999; Dweck, 1991; Elliot and McGregor, 2001). In this study, the terms “mastery orientation” and “performance orientation” refer to the approach versions.

3.2.4. Locus of Control

The construct locus of control is a personality attribute reflecting the degree to which an individual perceives having control over the events (Rotter, 1966). Rotter (1966) differentiates internal and external locus of control. Individuals with an internal locus of control are those who perceive having control over the events, and therefore, are alert and confident in attempting to control the external environment. On the other hand, individuals with an external locus of control are those who perceive events to be under the control of powerful others, and therefore, perceive themselves in a passive role towards the external environment (Rotter 1966, 1990). Internal locus of control and external locus of control are identified constructs in this study.

3.2.5. Employee Creativity

Stein (1953) was the first to offer the standard definition of creativity in an unambiguous fashion (Runco and Jaeger, 2012). As defined by Stein (1953): “the creative work is a novel work that is accepted as tenable or useful or satisfying by a group in some point in time”. According to the standard definition of creativity, creativity requires both originality and effectiveness, ideas that are unique and useful are considered as creative (Runco, 1988). The standard definition of creativity has received wide acceptance in the literature and has been adopted by many scholars (Amabile, 1988, Oldham and Cummings, 1996; Ford, 1996; Woodman et al., 1993). For instance, Amabile (1988)

defined creativity as the production of novel and useful ideas. Woodman et al. (1993) defined creativity as the generation of useful new product, service, idea or process by individuals working together in a complex social system. Ford (1996) defined creativity as outcomes that are novel and valuable. Similarly, Oldham and Cummings (1996) defined creativity as the production of ideas, products, or procedures that are (1) novel or original and (2) potentially useful to the organization. As can be seen in the literature, the definition of creativity by Oldham and Cummings (1996) has been adopted in similar studies investigating the relationship between extrinsic rewards and employees' creativity (Baer et al., 2003; Malik et al., 2015), and hence this definition is adopted in this study.

3.3. Theoretical Foundations

The creativity and motivation literature comprises a number of prominent theories that received scholars' attention over the years as presented in the literature review chapter. A number of theories were adopted in developing the conceptual model of this study such as the interactionist model of creative behaviour (Woodman et al., 1993). The interactionist model of creative behaviour helps to understand creativity in complex social settings. It suggests that creativity at the individual level results from the interaction between individual factors (i.e., intrinsic motivation, personality, knowledge, and cognitive style) and contextual and social factors. This theory inspired the development of the proposed conceptual model in this thesis, where employees' creativity is an output of a contextual factor (i.e., extrinsic rewards for creativity) interacting with individual factors (i.e., intrinsic motivation, locus of control, and goal orientations). Also, learned industriousness theory (Eisenberger, 1992) was found greatly relevant to this research. This theory suggests that if the desired performance dimension is clear and well communicated, individuals tend to focus on that performance dimension and ignore other performance dimensions (Eisenberger and Armeli, 1997). According to this theory, extrinsic rewards have a positive effect on employees' creativity only if employees were aware that the extrinsic reward is contingent on a desired creative performance (Eisenberger and Cameron, 1998). This theory is especially relevant to this research since the proposed construct "extrinsic

rewards for creativity" clearly communicates that the desired performance is creative performance, therefore extrinsic rewards are initially proposed to have a positive effect on employees' creativity. Moreover, intrinsic motivation theory (Amabile, 1996) suggests that individuals who are intrinsically motivated are more likely to take higher risks and hence are more likely to be creative (Amabile et al., 1994). This theory is adopted as it specifically provides support to the importance of intrinsic motivation in enhancing employees' creativity, therefore it stands to be the basis for suggesting intrinsic motivation as a mediator explaining the relationship between extrinsic motivation and employees' creativity in the proposed conceptual model of this study.

The cognitive evaluation theory (Deci, 1971) suggests on the one hand that extrinsic rewards have a negative effect on employees' creativity because extrinsic rewards are viewed as signs of incompetency; therefore extrinsic rewards hinder intrinsic motivation as well as creativity (Deci, 1971; Deci and Cascio, 1972; Deci et al., 1981). This theory suggests that offering extrinsic rewards for employees working in complex tasks leads to shifting the locus of causality from the intrinsic to the extrinsic, such that employees' will stop appreciating the nature of their job and start viewing it as an extrinsic motivator (Calder and Staw, 1975; Daniel and Esser, 1980; Deci, Koestner, and Ryan, 1999). This theory is adopted because creativity is considered as a complex task; it is the production of novel and useful ideas, as suggested by the creativity definition. Therefore, the shift in the locus of causality from an intrinsic to the extrinsic is applicable in this study and is expected to have an impact especially for employees who could be sensitive to this shift (i.e., mastery-oriented employees). Furthermore, the cognitive evaluation theory was extended by the development of the self-determination theory (Deci and Ryan, 1985). The self-determination theory suggests that not all extrinsic rewards have a negative effect on intrinsic motivation and employees' creativity (Koestner et al., 1984). According to this theory, a contextual factor does not always have a negative effect on intrinsic motivation and employees' creativity, as it could have either an informational or a controlling effect. When a contextual factor promotes feelings of competency, it has a positive effect on creativity; however, if it undermines feelings of competency, it has a negative effect on creativity (Gagné and Deci, 2005).

This theory establishes the basis of these research hypotheses because this research studies the relationship between extrinsic rewards and employees' creativity considering different personal dispositions (i.e., internal and external locus of control); therefore, individuals with different personal dispositions are expected to view extrinsic rewards differently. The controlling and informational effects proposed in this theory are expected to vary based on the employee's personality.

The componential model for creativity introduced by Amabile (1988) is a prominent theory in the creativity literature as it establishes the components for creativity (creative skills, motivation and knowledge). The arguments in this research are drawn from this theory because it posits that motivation is an essential component in the creativity process. From this vein, the proposed conceptual model in this study included two motivation related constructs, namely, the independent variable "extrinsic rewards for creativity" (which is a form of extrinsic motivation) and the mediator "intrinsic motivation for creativity". Moreover, the componential model for creativity was advanced by the introduction of the dynamic componential model (Amabile and Pratt, 2016). The dynamic componential suggested mechanisms by which extrinsic motivation might have additive effects with intrinsic motivation and hence creativity. According to the proposed mechanism "extrinsics in service of intrinsics", some types of extrinsic motivators have a harmonious effect on intrinsic motivation and hence have a positive role in the creativity process (Amabile and Pratt, 2016). The harmonious effect suggested in the dynamic componential model goes hand in hand with the self-determination theory which suggests that some extrinsic rewards have an informational effect on intrinsic motivation and hence have a positive effect on employee' creativity. Therefore, the mechanism proposed in the dynamic componential model, extrinsics in service of intrinics, is considered in developing these research hypotheses.

Finally, achievement goal theory (Dweck, 1986). This theory proposed two types of achievement goals (i.e., mastery and performance goals). It suggests that employees' job performance depends on their goal orientations. Achievement goal theorists maintain that an individual's goal orientation determines his/her response in an

achievement situation (e.g., Barron and Harackiewicz, 2000; Duda, 2001; Dweck, 1986, 1999; Nicholls, 1984; Pintrich, 2000). Accordingly, this theory established the basis for proposing mastery and performance goal orientations as moderators in the relationship between extrinsic rewards for creativity and employees' creativity, as depicted in the developed conceptual model.

The above-mentioned theories established the theoretical foundation for the developed hypotheses. The next section will offer a detailed explanation of each hypothesis and its supporting theories.

3.4. Hypotheses Development

This section provides a comprehensive view of the hypotheses development. It discusses supporting arguments and theories driving the development of each hypothesis presented in table 3.1.

3.4.1. Relationship between Extrinsic Rewards for Creativity and Employees' Creativity

The paradox of rewards is a challenging question in the literature associated with creativity. Therefore, it is imperative to study the impact of extrinsic rewards on employees' creativity in the workplace, given that rewards and compensation programmes are widely used by practitioners and are believed to promote work outcomes including creativity (Zhou and Shalley, 2003).

There have been several attempts to examine extrinsic rewards in relation to employees' creativity (Malik and Butt, 2017). According to the literature, the findings of the rewards-creativity relationship were not consistent; the effect of rewards on creativity has yielded mixed results (Zhou and Shalley, 2003). Some studies demonstrated negative effects (Amabile et al., 1986), whereby others demonstrated informational, positive effects (Eisenberger and Armeli, 1997; Eisenberger and Selbst, 1994). In this study, the researcher has drawn propositions considering the findings of the latter group.

First, those studies concluding the negative effects of extrinsic rewards on creativity used procedures that may convey a dependency between extrinsic rewards and conventional performance rather than creative performance. For example, Kruglanski, Friedman, and Zeevi (1971) asked college students to list titles for a paragraph without giving instructions regarding the desired appropriate titles (conventional or creative). Accordingly, less-creative titles were produced by students who were promised a reward compared to students who were not promised a reward. Also, in another study conducted to measure student's creativity when given a reward, students were asked to make a collage, solve a puzzle and tell a story, in order to be rewarded by taking a picture using an instant camera (Amabile et al., 1986). In this study the experimenters did not instruct the students that the desired performance was to be creative, only asking them to carry out the activities. The rewarded group were offered a picture using an instant camera as a reward. However, the non-rewarded group were presented the picture taking as an activity and not as a reward. Both the rewarded and non rewarded group were offered the picture taking before other activities were commenced (i.e., make a collage, solve a puzzle and tell a story). This study found the non-rewarded group to be more creative than the rewarded group. Likewise, other studies reported similar results concluding negative effects of reward on creativity (Amabile, 1983; Collins and Amabile, 1999; Condry, 1977). It is noteworthy that those studies did not specify the desired performance for the expected reward. From this standpoint, Eisenberger and Rhoades (2001) argue that it is premature to conclude that extrinsic rewards hinder creativity.

The position that extrinsic rewards have a positive effect on creativity is supported theoretically in the literature through the learned industriousness theory (Eisenberger, 1992) which has also been tested empirically (Eisenberger and Rhoades, 2001). According to learned industriousness theory, extrinsic rewards should increase creativity if a positive relationship between rewards and creativity is conveyed by prior experience or by instructions. It has been proved by empirical evidence that extrinsic rewards lead to creativity. For instance, an experiment was undertaken with students asking them to develop creative titles for a movie in one study and for a short story in another, showed that students were more creative when their creative performance was

rewarded. In this experiment, it was clearly communicated to both the rewarded and the control group that the desired performance is creative performance (i.e., develop creative titles) (Eisenberger and Rhoades, 2001).

Second, the studies concluding the negative effects of reward on creativity (Amabile et al., 1986) were conducted on a sample of students and not employees. This varies from the context of the current thesis which intends to study employees' creativity, and hence the yielded prior results cannot simply be generalized in the context of employees. There are examples from the literature such as the empirical studies conducted by Eisenberger and Rhoades (2001) as well as Malik, Butt, and Choi (2015), Yoon, Sung, and Choi (2015), and Malik, Choi, and Butt (2019), which considered samples of employees and yielded positive results showing positive effects of extrinsic rewards on employees' creativity.

Third, Byron and Khazanchi (2012) meta-analysed 60 studies that examined the rewards-creativity relationship found that creativity-contingent rewards tend to increase the creative performance, in contrast to performance-contingent rewards and completion-contingent rewards, which tend to slightly decrease the creative performance. This is because creativity-contingent rewards clarify that creativity is valued and expected, and hence individuals' efforts are directed towards creative performance (Eisenberger and Shanock, 2003). However, performance-contingent rewards are less likely to motivate creative performance because individuals are likely to assume that routine performance is desired (Eisenberger and Rhoades, 2001). Similarly, completion-contingent rewards are unlikely to motivate creative performance because they fail to communicate that creativity is valued, and individuals instead tend to finish the tasks quicker (Eisenberger and Cameron, 1996).

In this study, a creativity contingent reward was adopted by choosing the construct (extrinsic rewards for creativity). The selection of this construct is guided by the literature inviting researchers to consider reward-related factors such as creativity contingency (Byron and Khazanchi, 2012; Malik and Butt, 2017). Accordingly, this study proposed a positive effect of extrinsic rewards for creativity on employees' creativity.

Based on this discussion, it is proposed that:

H1: Extrinsic rewards for creativity are positively related to employees' creativity.

3.4.2. Relationship between Extrinsic Rewards for Creativity, Intrinsic Motivation for Creativity, and Employees' Creativity

Many researchers have argued that when individuals experience high levels of intrinsic motivation, they are likely to be most creative (Amabile, 1996; Oldham and Cummings, 1996; Shalley and Oldham, 1997). This argument has also been supported empirically, with a number of studies showing a positive connection between intrinsic motivation measures and creativity (Amabile, 1979; Koestner et al., 1984). For example, a study by Shalley, Zhou, and Oldham (2004) found that when employees were highly interested in their work, they were more willing to consider diverse solutions, take risks and persist until ideas are translated into innovations.

Although the importance of intrinsic motivation is widely emphasized, the literature lacks studies confirming that intrinsic motivation mediates the effect of contextual factors on creativity (Zhou and Shalley, 2003). Moreover, the studies that have empirically examined the mediating role of intrinsic motivation have not resulted in definitive outcomes. For example, Shin and Zhou in 2003 found partial mediation only in their study of the relationship between transformational leadership and creativity. Also, Shalley and Perry-smith in 2001 found that intrinsic motivation had no significance in mediating the relationship between expected evaluation and creative performance. Moreover, Baer, Oldham, and Cummings in 2003 studied the relationship between rewards and creativity following an intrinsic motivation perspective like previous studies (Oldham and Cummings, 1996; Shalley and Oldham, 1997), they did not measure intrinsic motivation directly, and hence the mediating effect was not clear. As a result, more research is needed to examine how intrinsic motivation affects employees' creativity (Zhou and Shalley, 2003; Malik and Butt, 2017). The following theories demonstrate the importance of intrinsic motivation as the psychological process that accounts for creativity. Based on the following arguments, the researcher considered

intrinsic motivation as a mediator between extrinsic rewards for creativity and employee creativity in the proposed model.

First, the self-determination theory (Deci and Ryan, 1985) suggested that all contextual factors have either informational or controlling function. The salience of each function determines the positive or negative effect of a contextual factor on individuals' intrinsic motivation. For example, if an employee perceives a certain reward as informational, this would increase the intrinsic motivation of the employee and hence his/her creativity. This theory assumes that people need to feel autonomous and competent, and therefore contextual factors that enhance these feelings increase intrinsic motivation, whereas factors that diminish these feelings undermine intrinsic motivation.

Second, the componential model for creativity (Amabile, 1986) suggested that creativity is a function of domain-relevant skills, creative skills, and motivation. It suggested that for an individual to be creative, it is not enough to have the factual knowledge and creativity strategies and skills, motivation, and willingness to do a task is also important. In 2016, the dynamic componential model for creativity and innovation was introduced as an enhancement to the componential model, and it highlighted the concept of "synergistic extrinsic motivation". According to this concept, extrinsic rewards that are more informational and help to boost the self-determination of the employees and express competencies, work to increase intrinsic motivation and hence positively affect creativity. Whereas controlling rewards that are perceived as "carrots" to drive employees to do a certain task, have a negative effect on intrinsic motivation and hence hindering employees' creativity.

Third, according to the intrinsic motivation theory, individuals that are intrinsically motivated to perform a task such that they find a task interesting and satisfying, are expected to take high risks and are therefore more likely to experience higher creativity, consider multiple solutions, and persist to convert creative ideas into innovations (Amabile et al., 1994; Shalley et al., 2004). For example, in their study, Eisenberger and Aselage (2009) have proposed and found a positive relationship between intrinsic motivation and creativity, where the former was a mediator.

To conclude, it is proposed in this study that intrinsic motivation for creativity explains the relationship between extrinsic motivation for creativity and employees' creativity. This is because an individual's intrinsic motivation is directly affected by contextual factors (i.e., extrinsic rewards for creativity). An individual's intrinsic motivation explains the controlling or informational function of a contextual factor (Deci and Ryan, 1985), and based on whether an individual's intrinsic motivation perceives extrinsic rewards for creativity as informational or controlling, it affects employees' creativity. Moreover, intrinsic motivation is a major component in the creativity process and it has a harmonious effect with extrinsic motivation (i.e., extrinsic rewards for creativity) (Amabile, 1988; Amabile and Pratt, 2016). Furthermore, intrinsically motivated individuals are more likely to persist and take higher risks, and since creativity involves risk taking, intrinsically motivated individuals are more likely to experience higher creativity (Amabile et al., 1994; Shalley et al., 2004; Eisenberger and Aselage, 2009). Additionally, intrinsic motivation is a key driver for employees' creativity as demonstrated by existing empirical studies (Grant and Berry, 2011; Montoro-Sánchez, Soriano, Zhou, and Zhang, 2011), it is therefore expected to strongly affect the creative performance of employees in this study, specially that this study focused on intrinsic motivation for creativity instead of intrinsic motivation in general (Zhang and Bartol, 2010; Malik et al., 2015). Consequently, intrinsic motivation is considered as a mediator in the relationship between extrinsic rewards for creativity and employees' creativity.

Based on the above discussion, the researcher proposed that:

H2a: Extrinsic rewards for creativity are expected to have a positive effect on intrinsic motivation for creativity.

H2b: Intrinsic motivation for creativity is expected to have a positive effect on employees' creativity.

3.4.3. The Moderating Role of Goal Orientations

According to the literature, studying personality traits as moderators in the relationship between extrinsic rewards for creativity and employees' creativity is considered an

underesearched area (Malik et al., 2019). In this study goal orientations were considered as moderators.

Goal orientations, first introduced in the literature by Dweck in 1986, are viewed as stable personality characteristics (Dweck, 1991). Goal orientations are believed to create different perceptions for how individuals interpret and respond to achievement situations (Barron and Harackiewicz, 2000; Dweck, 1991; Pintrich, 2000; Van Yperen, 2003). The literature indicates that the two most prevalent types of goal orientation are mastery orientation and performance orientation. A mastery orientation focuses on learning, developing and gaining skill; whereas performance orientation focuses on outperforming others and expressing superiority. Mastery and performance goal orientations were further bifurcated into approach and avoidance versions (Elliot, 1999; Elliot and Church, 1997; Elliot and McGregor, 2001; Van Yperen, 2003). As a result, there are four types of goal orientations – that is mastery-approach, mastery-avoidance, performance-approach and performance-avoidance. In a mastery-approach, individuals focus on developing competency and task mastery, whereas in mastery-avoidance, individuals focus on avoiding losing their skills (Elliot and McGregor, 2001). Likewise, individuals endorsing performance-approach focus on outperforming others, whereas individuals endorsing performance-avoidance tend to avoid looking incompetent (Elliot and Church, 1997; Elliot, 1999; Dweck; 1999).

This research focused only on the approach versions of each orientation and not the avoidance versions. This is because the study was to examine the relationship between extrinsic rewards and employees' creativity, and creativity is something one seeks to achieve rather than to avoid, such as avoiding not being less creative than other people. It is reasonable to argue that employees will either be creative when rewards are given because they want to master the creativity skills (mastery-approach) or employees want to look more creative than others (performance-approach). However, it is not reasonable to argue that employees will either be creative when rewards are given because they want to avoid losing creativity skills (mastery-avoidance) or employees want to avoid looking less creative than others (performance-avoidance). Also, in a similar study by Hirst, Knippenberg, and Zhou (2009), only the approach version of the

mastery orientation was considered, since a learning activity is something one needs to actively seek, more than something one needs to avoid. In this research, therefore, the "mastery" and "performance" goal orientations were restricted to the approach versions.

According to the achievement goal theory, employees' job performance depends on their goal orientations (Farr, Hofmann, and Ringenbach, 1993; Phillips and Gully, 1997; Van Yperen and Janssen, 2002). Therefore, taking into account employees goal orientations is important in studying employees' creative performance. According to recent studies, it is necessary to study boundary conditions when studying the relationship between extrinsic rewards and employees' creativity (Malik and Butt, 2017). The literature calls to further investigate the role of goal orientations in studying employees' creativity (Anderson et al., 2014; Malik et al., 2019). Since creativity is considered as a spontaneous behaviour, employees' personal dispositions such as their goal orientations are important in forming employees' creativity (Malik et al., 2019).

It has been suggested in the literature that mastery orientated individuals are expected to have a positive relationship with creativity for a number of reasons. For instance, employees having a mastery orientation can handle complex tasks, as they are likely to persist in learning new skills and put more effort until they master the skill (VandeWalle, 1997; Dweck, 1991). Creativity ("generating new ideas") is considered a challenging and complex task that requires persistence in creating new knowledge (Janssen and Van Yperen, 2004). Also, mastery-oriented employees have intrinsic motivation in the tasks they perform (Elliot, 1999), and intrinsic motivation is an important and fundamental factor to generate creative ideas (Amabile, 1988). However, there is an alternative logic, which is the logic followed in this study. It has been proposed that mastery-oriented employees are expected to experience lower creativity when offered extrinsic rewards for creativity because of the expected shift in the locus of causality from the intrinsic to the extrinsic. According to the cognitive evaluation theory (Deci, 1971), offering extrinsic rewards to individuals who work on complex jobs that produce high intrinsic motivation, should have a negative effect on their subsequent intrinsic motivation and creativity. Because in this situation, individuals are likely to view their creative performance as being motivated by the extrinsic reward contingency rather

than by the work itself (Calder and Staw, 1975; Daniel and Esser, 1980; Deci et al., 1999; Baer et al., 2003). This is likely to affect mastery-oriented individuals because they naturally tend to master skills and hence are motivated by the work itself (Dweck, 1986). Therefore, the shift in the locus of causality from the intrinsic to the extrinsic is expected to have a negative effect on employees' creativity for employees' having a mastery goal orientation.

According to the literature, performance orientation is expected to have a negative relationship with creativity for certain reasons. One reason is that creativity means generating novel ideas, novel ideas mean adopting new approaches, and new means there is uncertainty involved. Creativity is therefore a spontaneous endeavour that requires individuals to take a risk ("the uncertainty"). Performance-oriented employees are expected to avoid risk taking because uncertainty could mean a possibility of failure. This could, in turn, signal inferiority rather than superiority among others, and as previously mentioned, performance-oriented employees tend to express superiority over others (Janssen and Van Yperen, 2004). Furthermore, employees having a performance orientation tend to rehearse tasks until they become automatic (Fisher and Ford, 1998). This surface processing and practicing helps performance-oriented employees to express superiority among others (Elliot and MacGregor, 2001), but does not help in generating new ideas and fostering creative performance (Janssen and Van Yperen, 2004). However, it has also been proposed that performance-oriented employees are expected to exhibit higher creativity, when offered extrinsic rewards for creativity. This is because performance-oriented individuals tend to prove their competence by fulfilling the desired performance criteria, and therefore they heavily lean towards performance evaluation and reward contingency (Elliot and Dweck, 1988). Accordingly, it is necessary for performance-oriented employees to obtain extrinsic rewards by meeting the desired performance criteria (i.e., perform creatively), in order to demonstrate their competence. For performance-oriented employees, the perceived value of extrinsic rewards is greater than a pure materialistic value; extrinsic rewards fulfil additional needs by signalling competence and proving the ability to others (VandeWalle, 2001). Therefore, the effects of creativity contingent extrinsic rewards are

strengthened for employees' having a performance goal orientation (VandeWalle, 1997; Malik et al., 2019).

It is important at this juncture to point out in a related area, in an attempt to study the relationship between goal orientations and employees' innovative job performance, researchers also found a positive relationship between innovative job performance and employees having a mastery-approach orientation, and a negative relationship for employees having performance-approach orientation (Janssen and Van Yperen, 2004). However, it is important to note that the dependant variable (innovative job performance) did not distinguish between creativity and innovation and hence cannot be taken to support the argument for a positive effect of the mastery-approach. Moreover, Janssen and Van Yperen's study presented the effect of goal orientations (independent variables) on employees' innovative job performance (dependant variable) without considering the effect of extrinsic rewards in the relationship. In this study, an extrinsic reward for creativity is the proposed independent variable, and goal orientations are moderators. Moreover, a more recent study (Malik et al., 2019) investigated the moderating effect of performance goal orientation in the relationship between extrinsic rewards and incremental creativity and found a positive moderating effect which is consistent with the proposition of this study. In their study, Malik, Butt, and Choi (2019) found that performance goal-oriented employees were keen to obtain extrinsic rewards in order to demonstrate their competence, and hence they performed creatively in the presence of creativity contingent extrinsic rewards. However, the dependant variable in their study was incremental creativity and therefore the result cannot necessarily be generalized to other types of creativity, such as employees' creativity as was the dependant variable in this study. Moreover, Malik, Butt, and Choi (2019) did not simultaneously investigate the moderating effect of mastery goal orientation in the relationship between extrinsic rewards and employees' creativity; they only included performance goal orientation in their model. Whereas mastery goal orientation was included as a moderator in the relationship between intrinsic motivation (independent variable) and radical creativity and incremental creativity (dependant variables).

The above lines of reasoning led to the following hypotheses:

H3a: Extrinsic rewards for creativity and goal orientations will interact such that employees with mastery goal orientation will exhibit lower creativity when an extrinsic reward is given.

H3b: Extrinsic rewards for creativity and goal orientations will interact such that employees with performance goal orientation will exhibit higher creativity when an extrinsic reward is given.

3.4.4. The Moderating Role of Locus of Control

Locus of control is a major motivational theory that was introduced by Rotter in 1966. It refers to the perception of who is in control of the events and is classified into an internal locus of control and external locus of control. Individuals with an internal locus of control believe that events are controlled by internal forces and that they are responsible for their success or failure, whereas individuals with an external locus of control have a low sense of control, and believe that luck and external forces cause events to occur (Rotter, 1966). According to the definition of locus of control, each person can perceive the same external factors differently based on the individual's perception of their self-control. From this standpoint, it is likely that individuals have different perceptions of extrinsic rewards for creativity based on their locus of control (Malik et al., 2015; Malik and Butt, 2017).

As can be seen from the literature, locus of control is considered as one of the core self-evaluation theory traits – the locus of control, self-esteem, generalized self-efficacy, and emotional stability (Judge, Locke, Durham, and Kluger, 1998). It is considered among the best dispositional predictors of job performance and is therefore has been proposed for inclusion in (future) explanatory frameworks related to job performance (Judge and Bono, 2001). However, it is noteworthy that previous research has tended to study locus of control in relation to job performance as a general construct, but has not specifically studied employees' creative performance as a more specific element of job performance. This is with the exception of one study that took place in Pakistan (Malik et al., 2015), which considered locus of control as a moderator in the relationship

between extrinsic rewards for creativity and intrinsic motivation. Given this need but lack of attention in the prior research, this study considered the internal locus of control and external locus of control as moderators in the relationship between extrinsic rewards for creativity and employees' creativity.

According to the literature, individuals with an internal locus of control very often have higher levels of job motivation, job satisfaction, leadership, and job performance than individuals with an external locus of control (Spector, 1982). It is suggested that internals ("individuals with an internal locus of control") reflect greater intrinsic motivation to achieve desired outcomes; they set more difficult goals and have a stronger need for achievement than externals ("individuals with an external locus of control") (Yukl and Latham, 1978). Moreover, empirical research has found that internals have more faith in effort-performance and performance-reward relationship compared to externals (Spector, 1982). Furthermore, in a more recent study, it was found that employees with an internal locus of control have a greater intrinsic motivation to perform creatively when given an extrinsic reward (Malik et al., 2015).

In the current research, it is proposed that employees with an internal locus of control are expected to be more creative when given an extrinsic reward. As suggested by the self-determination theory, individuals perceive contextual factors as either controlling or informational (Deci and Ryan, 1985). Following this context, individuals with an internal locus of control believe in their inner control to achieve the desired goal (i.e., creative performance), and therefore when given an extrinsic reward, internals are immune from perceiving the reward as a controlling contextual factor. They would, however, perceive the reward as an informational contextual factor that confirms their competence to perform well. Hence, internals' creativity is expected to be greater when offered an extrinsic reward. The opposite is true of 'externals', who are more likely to consider extrinsic rewards as controllers of their behaviour and hence react negatively when given an extrinsic reward (Gagné and Deci, 2005).

Based on the above logic, it is proposed that:

H4a: Extrinsic rewards for creativity and locus of control will interact such that employees with an internal locus of control will exhibit higher creativity when an extrinsic reward is given.

H4b: Extrinsic rewards for creativity and locus of control will interact such that employees with an external locus of control will exhibit lower creativity when an extrinsic reward is given.

Figure 3.1 below presents the proposed conceptual framework based on the developed hypotheses. Table 3.1 summaries the hypotheses developed in this study.

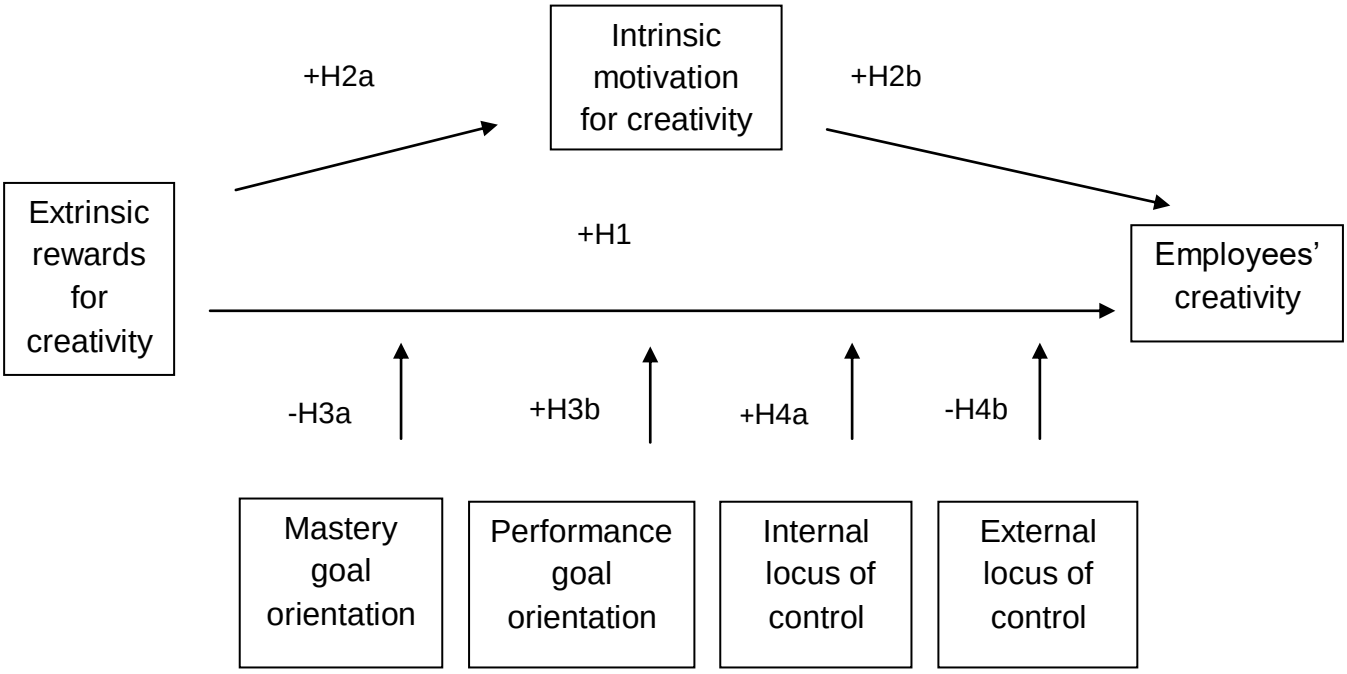


Figure 3.1 Conceptual Framework

No.	Hypothesis
H1	Extrinsic rewards for creativity are positively related to employees' creativity.
H2a	Extrinsic rewards for creativity are expected to have a positive effect on intrinsic motivation for creativity.
H2b	Intrinsic motivation for creativity is expected to have a positive effect on employees' creativity.
H3a	Extrinsic rewards for creativity and goal orientations will interact such that employees with mastery goal orientation will exhibit lower creativity when an extrinsic reward is given.
H3b	Extrinsic rewards for creativity and goal orientations will interact such that employees with performance goal orientation will exhibit higher creativity when an extrinsic reward is given.
H4a	Extrinsic rewards for creativity and locus of control will interact such that employees with an internal locus of control will exhibit higher creativity when an extrinsic reward is given.
H4b	Extrinsic rewards for creativity and locus of control will interact such that employees with an external locus of control will exhibit lower creativity when an extrinsic reward is given.

Table 3.1: List of the Research Hypotheses

3.5. Chapter Summary

This chapter has introduced the conceptual model of the study. It discussed the proposed research hypotheses supported by arguments drawn from the literature. This study is the first of its kind to propose a conceptual model that examines the effect of extrinsic rewards for creativity on employees' creativity in the Kingdom of Bahrain, considering the mediating effect of intrinsic motivation for creativity and the moderating effects of goal orientations and locus of control. At the beginning of this chapter, the developed conceptual model was presented in figure 3.1. Then, the proposed constructs of the conceptual model were identified. The chapter has discussed the

proposed relationship between the constructs of this research such as the relationship between extrinsic rewards for creativity and employees' creativity, the relationship between extrinsic rewards for creativity, intrinsic motivation and employees' creativity, the moderating role of goal orientations, and finally the moderating role of locus of control. The next chapter will present the methodology used to examine the developed conceptual model.

Chapter 4

Research Methodology

4.1. Introduction

The previous chapter explained the proposed conceptual model as well as the research hypotheses to be tested. This chapter provides details about the adopted research methodology. This includes the research philosophy, research design, sampling process, and data collection methods. Given the importance of these methodological elements, the identification and selection of the research methodology were derived giving due consideration to the most suitable approaches discussed in the existing literature.

This research followed a positivism philosophy and a deductive theory development approach. Accordingly, a quantitative methodology was adopted in this research. The purpose of the research is explanatory and a survey strategy was chosen in order to collect data from employees working in primary public schools in the Kingdom of Bahrain. Questionnaires were delivered and collected by the researcher during field visits. Prior to conducting the main survey, a pre-test and a pilot survey were performed to check the validity of the conceptual model and the reliability of the data.

This chapter is structured as follows. Section 4.2 presents the research philosophies and the reason underlying the selection of a positivist philosophy. Section 4.3 discusses the quantitative, qualitative and mixed research methodologies. Section 4.4 outlines the nature of the study in relation to theory development or theory testing. Section 4.5 explains the research design including research purpose, unit of analysis, research data, research strategy, time dimension, and the main steps in the research. Section 4.6 focuses on the study sample; it includes the population, population target and sample, sampling techniques, sample size, data collection method, and questionnaire modes. Then section 4.7 explains how the questionnaire was developed and validated. It provides an overview, followed by more detailed information about the structure of the questionnaire, the pre-test, pilot testing, and the main survey. Section 4.8 introduces the

techniques used for data analysis and then section 4.9 presents the research ethics approval. Finally, section 4.10 provides a brief summary of the chapter.

4.2. Research Philosophy

Research philosophy refers to the assumptions and beliefs of the researcher when developing knowledge (O'Gorman and MacIntosh, 2014). According to Burrell and Morgan (2017), whether or not a researcher is consciously aware, a researcher will make a number of assumptions. Those assumptions shape the understanding of research questions, the methods used to generate findings, and the way those findings are interpreted (Crotty, 1998). According to the literature, there are three assumptions and five philosophies mainly adopted in business and management research (Saunders, Lewis, and Thornhill, 2019).

The three research assumptions are ontology, epistemology, and axiology. Ontology is concerned with assumptions related to the nature of reality as subjective or objective, it influences the way a researcher sees and studies the research objects (Thomas and Hardy, 2011; O'Gorman et al., 2014; Saunders et al., 2019). For example, for a long time, researchers of creativity made the ontological assumption that rewarding creativity leads to undermining intrinsic motivation and creativity (Deci and Ryan, 1985; Amabile, 1988). More recently, some researchers started to view the concept of extrinsic rewards differently resulting in new strands of research (Zhou and Shalley, 2003; Anderson et al., 2014; Malik et al., 2019; Saunders et al., 2019). Epistemology is concerned with assumptions related to knowledge, what is or should be considered as acceptable knowledge, and how we can communicate knowledge to others (Burrell and Morgan, 2017). The third assumption, axiology, is concerned with our values and ethics in relation to the research, that is to say, researchers make judgments about the research they are conducting on the basis of their values, and values are the guiding reason for all human action (Heron, 1996; Saunders et al., 2019).

The five main research philosophies are positivism, critical realism, interpretivism, postmodernism, and pragmatism. The positivism philosophy stems from the word

‘posit’, and is based on numbers and facts. A positivist researcher uses existing theories to develop hypotheses that are then tested and confirmed (Saunders et al., 2019). A positivist researcher usually uses quantifiable data using a highly structured methodology such as questionnaires (Gill and Johnson, 2002), instead of using in-depth interviews, hence helping to increase the likelihood of being neutral and detached from the research findings (Crotty, 1998). The second philosophy, critical realism, is about looking at the bigger picture by studying the history to find causes and mechanisms that explain a certain event (Reed, 2005). The third philosophy, interpretivism, is about creating different meanings and developing deeper understanding and interpretations by investigating what is meaningful to the research participants from their perspective and experiences (Saunders et al., 2019). The fourth philosophy, postmodernism, is about conducting an in-depth analysis of situations and deconstructing data by challenging theories. This philosophy aims to look for realities that are ‘left silent’ (Townley, 1994). Finally, the pragmatism philosophy emphasizes that concepts are relevant only when they support action (Kelemen and Rumens, 2008). This philosophy considers theories, concepts, hypotheses, and research findings in terms of their roles as instruments of thought and action, and not in an abstract form. Moreover, in this philosophy, the research question is initiated by the sense that something is wrong, and the pragmatist researcher aims to find practical outcomes instead of abstract distinctions (Elkjaer and Simpson, 2011).

In light of the above discussions and for the following reasons, the most suitable research philosophy to be adopted in this research was deemed to be positivism. Firstly, this research did not intend to look into the history of a certain event to find causes, which eliminates the critical realism philosophy. Secondly, its purpose was not to create new meaning by developing a new theory and looking at the organization from the perspective of different groups of people who are experiencing different workplace realities, it instead aimed to explain an existing meaning and experiences that are common to all people at all times (Saunders et al., 2019), which eliminates the interpretivism philosophy. In addition, it is argued that interpretivism philosophy is not applicable in social sciences since it focuses on the ‘causal-functional’ approach which is more applicable to natural sciences (Weber, 1924; O'Gorman et al., 2014). Thirdly,

this study does not intend to deeply analyse and challenge existing theories, it however tests its hypothesis using existing theories, which eliminates the post-modernism theory. Finally, this research was not initiated based on the sense that something is wrong and needs practical solutions, which eliminates the pragmatism philosophy. Since existing theories had been used to develop new hypotheses for testing, the research is following a positivist research philosophy.

4.3. Quantitative, Qualitative and Mixed Methodologies

There are three different research methodologies: quantitative, qualitative, and a blend of both qualitative and quantitative (Bernard, 2017; Creswell, 2018; Saunders et al., 2019). The selection of research methodology is dependent on the nature of the research topic, research questions, and the type of data available (Punch, 2013).

The quantitative method aims to determine whether a predicted generalization of a theory holds true (Habib, Pathik, and Maryam, 2014). It involves collecting data, converting data into a numerical form, analysing the data statistically, and drawing conclusions (Habib et al., 2014). In a quantitative method, data about different variables are captured from a large number of respondents in a standardized way such as using questionnaires (Habib et al., 2014; Saunders et al., 2019). On the other hand, a qualitative method is used to explore a phenomenon in more detail as it is concerned with individual experiences related to the problem and involves collecting data, analysing data, and subjectively interpreting data (Habib et al., 2014). In a qualitative method, data are non-numerical; they are captured from a small number of respondents in a non-standardized way such as using interviews (Saunders et al., 2019). The third method is a mixed-method, as the name suggests, it is a blend of both quantitative and qualitative. This method is used to capture the best of both methodologies and to better understand the problem (Burns and Bush, 2006). Figure 4.1 below shows the different methodological choices.

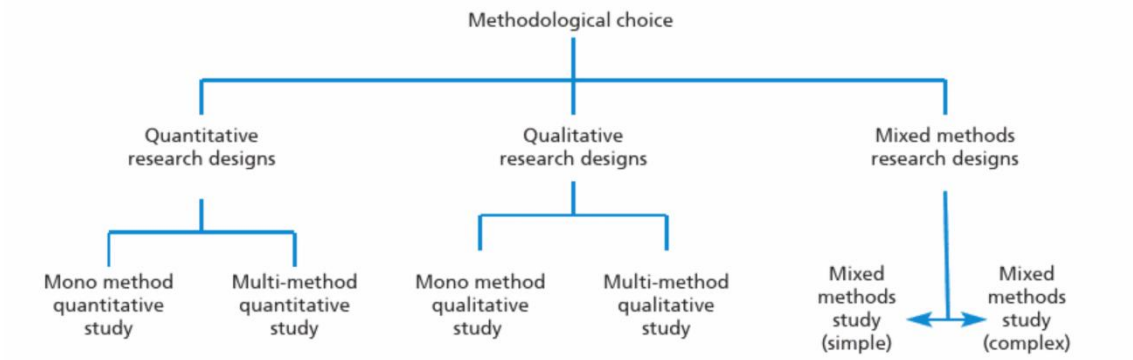


Figure 4.1 Methodological Choice
Source: Saunders et al., 2019

Following the above explanation of each method, as well as the below reasons, a quantitative research methodology was found to be the most suitable method for this research. The sub-category was mono method quantitative study given that only a single data collection technique was used (Questionnaires). This research aimed to explain the relationship between identified variables (extrinsic rewards for creativity and employees' creativity). Furthermore, this research involved statistical testing of the developed hypotheses to predict if the developed theoretical framework holds true. Also, the intended audience of respondents was large, as this study required the participation of employees and their supervisors to collect data, only a quantitative method serves the research objective and fits its nature. This selection was indifferent from most studies addressing the reward-creativity relationship in the literature, that adopted a quantitative method (Baer et al., 2003; Malik et al, 2015, Yoon, Sung and Choi, 2015; Malik et al., 2019).

4.4. Research Approaches

There are three different research approaches in relation to 'theory': deduction, induction, and abduction (Saunders et al., 2019). The selection of a suitable research approach depends on the extent to which the research is concerned with theory testing or theory building (Saunders et al., 2019).

In the deductive approach, the research starts with a theory that is developed from reading the existing literature; the researcher designs a research strategy and collects data to test the theory. The deductive approach, therefore, aims to test a theory and not develop a new one. It aims to explain the causal relationship between variables. This study adopted a deductive theory development approach as it sought to explain the causal relationship between rewards and employees' creativity by testing a number of hypotheses developed from existing theories in the literature (Saunders et al., 2019). A deductive approach has been a salient theory testing approach for many previous studies in the literature addressing similar causal relationships (Baer et al., 2003; Malik et al., 2015; Yoon, Sung, Choi, et al., 2015; Malik et al., 2019). The second research approach is an inductive theory building approach, where the researcher moves from specific observations to a broader generalization. It is often used when the topic is new and is not supported by the existing literature to an extent that allows the development of a theoretical framework (Saunders et al., 2019). The inductive approach, therefore, aims to build a new theory. The research questions in this study enjoy the support of existing literature and required a theory-testing approach, therefore following an inductive approach was not appropriate. The third research approach is abduction, where the researcher combines both deductive and inductive approaches, such that the research process starts by observing certain phenomena and then identifying new or existing theories that are relevant to the phenomena and testing those theories accordingly (Saunders et al., 2019). It is an approach regarded to be useful when there is rich information in the literature about a certain context but poor information about another context, which makes it useful to combine an inductive and a deductive approach (Saunders et al., 2019). This did not suit the nature of the research questions in this study, since there is rich information in the literature about the research context. The existing phenomena, gap, and theories are relatively well defined in the literature (Zhou and Shalley, 2003; Anderson et al., 2014; Malik et al., 2017), necessitating a theory-testing approach.

4.5. Research Design

This section provides an in-depth explanation of the research design. It presents the research unit of analysis as well as the research data. Next, it discusses the research strategy and time dimension. Finally, it highlights the steps followed to conduct research. An early consideration in research design is a research purpose.

4.5.1. Research Purpose

Research has different purposes, and Collis and Hussey (2014) argue that there are four main types of 'research purpose', namely exploratory, descriptive, explanatory, and predictive. Exploratory research focuses on exploring a problem or an issue that has very few or no earlier studies that can be referred to (Hair, Page, and Brunsveld, 2019), and tends to rely on case studies, historical analysis, and observations to provide both quantitative and qualitative data. However, exploratory research is more likely to provide directions for future research than conclusive answers to a research problem (Collis and Hussey, 2014). The second type is the descriptive research, which tends to provide a greater level of detail about a phenomenon than the exploratory research, as it is conducted to describe in detail a certain phenomenon and to ascertain the characteristics of the phenomena (Collis and Hussey, 2014). The third purpose is explanatory. In explanatory research, the researcher studies why or how the phenomenon is happening. In this way, it tends to be more analytical than the descriptive research as it discovers, measures, and explains the causal relations between the critical variables (Collis and Hussey, 2014). Finally, predictive research, as the name suggests, seeks to predict if a similar situation is happening somewhere else. It aims to generalize the solution of a certain problem on other similar problems, and hence it goes even further than explanatory research (Collis and Hussey, 2014).

This research studies the relationship between rewards and employees' creativity, and it sought to identify factors that mediate and moderate the relationship between the independent variable (extrinsic rewards for creativity) and the dependant variable (employees' creativity). This research was conducted by developing a conceptual model and associated hypotheses to be tested. Thus, as per the above definitions and given

that this research sought to explain the relationship between defined variables of the proposed conceptual model, the research purpose in this study is explanatory.

4.5.2. Unit of Analysis

This research examined the influence of rewards on employees' creativity. Therefore, the target audience was employees working in the education sector, in this case from public schools. Accordingly, the employee was the unit of analysis for this research.

4.5.3. Research Data

For this research, the data collected to test the constructs in the conceptual model was primary data from employees working in the Kingdom of Bahrain.

4.5.4. Research Strategy

There are different research strategies that can be used for exploratory, descriptive, and explanatory research. The selection of a research strategy is dependent upon the research objective and intended research questions (Saunders et al., 2019).

This section identifies the different research strategies that were potentially available, discusses the research strategy chosen for this study, and the reasons for rejecting others. An experimental research strategy is a form of strategy that established its roots from the natural sciences (Saunders et al., 2019). Researchers enjoy increased control over the conditions in experiments and hence experiments can offer minimized error (Oehlert, 2000; O'Gorman et al., 2014). An Experimental research strategy involves manipulating the independent variable to assess the effect on the dependant variable while holding other independent variables constant (O'Gorman et al., 2014; Saunders et al., 2019). An experimental strategy uses predictive hypothesis rather than open research questions; however, most business and management research questions are designed to inquire into the relationship between variables instead of testing a predicted relationship (Saunders et al., 2019). Likewise, this research had open research questions that were designed to inquire into the relationship between extrinsic rewards for creativity and employees' creativity; therefore it was not feasible to use an experimental strategy due to the nature of the research questions. Also, in this

research, it was not deemed fair or ethical to run an experiment on individuals where advantageous conditions are applied to one group and not the other. In the context of this research, it means giving rewards to a group of employees and not the others since the independent variable was extrinsic rewards for creativity and an experimental strategy involves manipulating the independent variable to identify the effects on the dependant variable (O'Gorman et al., 2014; Saunders et al., 2019). Moreover, experiments are often used on captive populations such as university students as it requires a large group of subjects for the results to be statistically significant (Saunders et al., 2019) and therefore easy access. For this study, it was therefore not deemed applicable, as this study did not constitute a captive population. Another research strategy is an action research, where the researcher plays an active role rather than passive in the research by having an involved role and by teasing out the issues (Saunders et al., 2019). This was clearly not applicable to this study. There were other research strategies that were deemed not to be applicable for this study such as the narrative inquiry and grounded theory (Saunders et al., 2019), as they were more relevant to inductive research approaches, unlike this research which was deductive. Ethnography is another research strategy but is rarely used in business research due to its time-consuming nature where it is concerned with learning from people by observing them in their natural environments (Saunders et al., 2019). An archival research strategy is also not commonly used as a major strategy in business research as it depends on the availability of the historical data, which might not meet the research needs even if it was available (Saunders et al., 2019).

Another available research strategy is the case study, which involves the investigation of a particular topic and focuses on a sole focus which can be an individual, an organization, or department (O'Gorman et al., 2014). A case study is more often used in exploratory and descriptive research (Saunders et al., 2019). Case studies place a high weight on ‘context’ which is the key to explaining social phenomena (Saunders et al., 2019). A case study strategy can incorporate one or even more cases to generalize the findings. It is necessary however to consider the availability of access and resources. The case study strategy is most applicable when little is known about the phenomenon under study or the causal relationships, this contrasts with this research where the

researcher was able to construct a conceptual model with associated hypotheses for testing, and hence a case study was not deemed applicable for this research.

Using a survey research strategy, which was chosen for this study, is popular in business research because it enables collecting data about precisely specified phenomenon/constructs from a large number of people, as was required to test the conceptual framework, and practically, at a much lower cost than other strategies (Saunders et al., 2019; Hair et al., 2019). Surveys may take the form of questionnaires or interviews which could be administered by phone, online, or face to face (O'Gorman et al., 2014; Saunders et al., 2019). In this research, the data was collected using a survey questionnaire strategy by handing out a questionnaire directly to the respondents. This strategy was considered especially useful for this study because it allowed a structured collection of data given the nature of the research variables and the nature of research questions, and moreover, adopting this strategy is also in line with previous studies addressing the same reward-creativity relationship (Malik et al., 2015; Yoon, Sung, and Choi, 2015; Yoon, Sung, Choi, et al., 2015; Malik et al., 2019).

4.5.5. Time Dimension

Research projects can have different time dimensions, as they can be cross-sectional or longitudinal (Saunders et al., 2019). In cross-sectional research, data is collected once at only one period in time, whereas in longitudinal research, data is collected over an extended period of time (Saunders et al., 2019). The chosen time dimension for this research is cross-sectional, as it is the most suitable to answer the research questions. This research was concerned with testing the proposed relationships between constructs rather than studying how constructs change over a period of time, and hence a longitudinal study was not deemed applicable. Furthermore, given the time constraint in the completion of the research project, adopting a cross-sectional time dimension was suitable. This choice was also consistent with previous research conducted in the literature to study rewards and employees' creativity (e.g., Baer et al., 2003; Malik et al., 2015; Malik et al., 2019).

4.5.6. Steps in the Research Process

When undertaking research, a researcher will generally go through the following five largely sequential steps: formulating the problem, research design, data collection, data processing, and finalizing the report, as shown in figure 4.2 (Habib et al., 2014).

Figure 4.2 Research Steps
Source: Habib et al., 2014

In this study, step one was initiated by conducting a thorough literature review. This process helped in formulating the research problem and identifying the existing gaps in the literature. During this step, the researcher found inconsistency in the literature with respect to the relationship between extrinsic rewards for creativity and employees' creativity. Furthermore, the proposed conditions (moderators) that warranted further investigation to clarify this relationship were identified.

In step two, the research design is considered as a map, a systematic procedure that includes designing, compiling, and analytical procedures, described through a conceptual model, variables, and research instrument (Habib et al., 2014). In this study, through building on the existing literature, a conceptual model was developed identifying the dependant, independent variables, and the moderators and mediator. Associated hypotheses were developed for each proposed relationship between the constructs supported by existing theory from the literature.

Step three is to collect the data. Since this study follows a quantitative research methodology using questionnaires, questionnaires were handed out by the researcher to the intended respondents (employees and their supervisors) working in public

schools in the Kingdom of Bahrain. Prior to this, a pilot was conducted to ensure the clarity of the questions.

In step four, the collected data was processed using an SPSS tool for data analysis. Structural equation modelling was the selected multivariate technique to examine the conceptual model and test the hypotheses.

In step five, the findings of the analysed data are discussed and presented. The theoretical and practical contributions are highlighted, in addition to the limitations, directions for future research, and drawn conclusions.

4.6. Data Collection

This section defines the research population and sample. It sheds the light on the sampling techniques as well as the sampling size. Finally, it discusses the data collection method and questionnaire modes.

4.6.1. Population, Target Population, and Sample

A population is defined as the complete set of group members that share a common set of characteristics (Hair et al., 2019); researchers however may redefine population to a more manageable definition which is a target population (Saunders et al., 2019). A target population is a subset of the population and is the actual target of research inquiry (Saunders et al., 2019). A sample is drawn from the target population; it is defined as the subgroup of the complete set of group members (Hair et al., 2019). Researchers usually collect data from a selected sample because it is not practical due to the time constraints of a research project (Saunders et al., 2019). For this research, the population is employees working in the public education sector in the Kingdom of Bahrain, the target population is employees working in primary public girls' schools and the sample is employees working in two primary public girls' schools.

4.6.2. Sampling Techniques

A sample is selected based on the research question, whether the total population is known and whether it is possible to get a full list of the population (Saunders et al., 2019). The complete list of population members is called the sampling frame; the sample is drawn from this comprehensive list of elements (Saunders et al., 2019; Hair et al., 2019). There are two main types of sampling: probability sampling and non-probability sampling, and under each type, there are a number of sampling techniques (Saunders et al., 2019). In probability sampling, researchers select the sample randomly from the sampling frame; in this case, the sample represents the population statistically (Hair et al., 2019). Researchers could also follow a non-probability sampling technique when the list of a full population is unknown, as it is not possible to define the chance of each member to be selected for the sample, and not every element of the target population has a chance to be included in the sample (Saunders et al., 2019; Hair et al., 2019). There are many sampling techniques under probability and non-probability sampling as shown below:

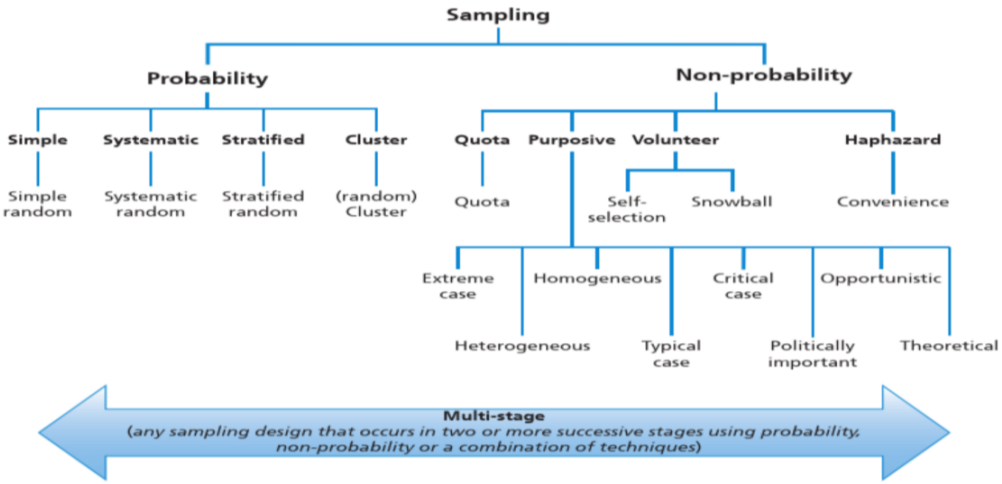


Figure 4.3 Sampling Techniques
Source: Saunders et al., 2019

This research follows probability sampling, since probability sampling is concerned with survey, and this study uses survey as a research strategy (Saunders et al., 2019). Moreover, the target population is known since this study intends to capture the

rewards-creativity relationship for employees working in primary public girls' schools in the Kingdom of Bahrain. The researcher had access to collect data from two primary public girls' schools in the Kingdom of Bahrain. A simple random probability sampling technique is followed since the sampling frame is accurate and easily accessible (Saunders et al., 2019)

4.6.3. Sample Size

The sample size for this study is considered suitable compared to previous similar studies such as Malik et al., 2015; where the final sample included 181 pairs of employees and their supervisors from 73 organizations (80.3% response rate). Another study included 171 surveys distributed with 141 completed (83% response rate) from 2 organizations (Baer et al., 2003).

4.6.4. Data Collection Method

The data collection tool used in this study was a questionnaire for the following reasons. Questionnaires are one of the most widely used data collection methods within a survey strategy; it is useful for quantitative data collection for subsequent data analysis since each respondent answers the same set of questions (Saunders et al., 2019). Furthermore, questionnaires are useful for explanatory research, as was the purpose of this research (Saunders et al., 2019). Moreover, questionnaires are generally used to obtain large quantities of data and hence it was suitable for this research (Hair et al., 2019).

4.6.5. Questionnaire Modes

There are different modes of questionnaires depending on the way it is intended to be delivered, completed, returned or collected (Saunders et al., 2019). The figure below illustrates the different types.

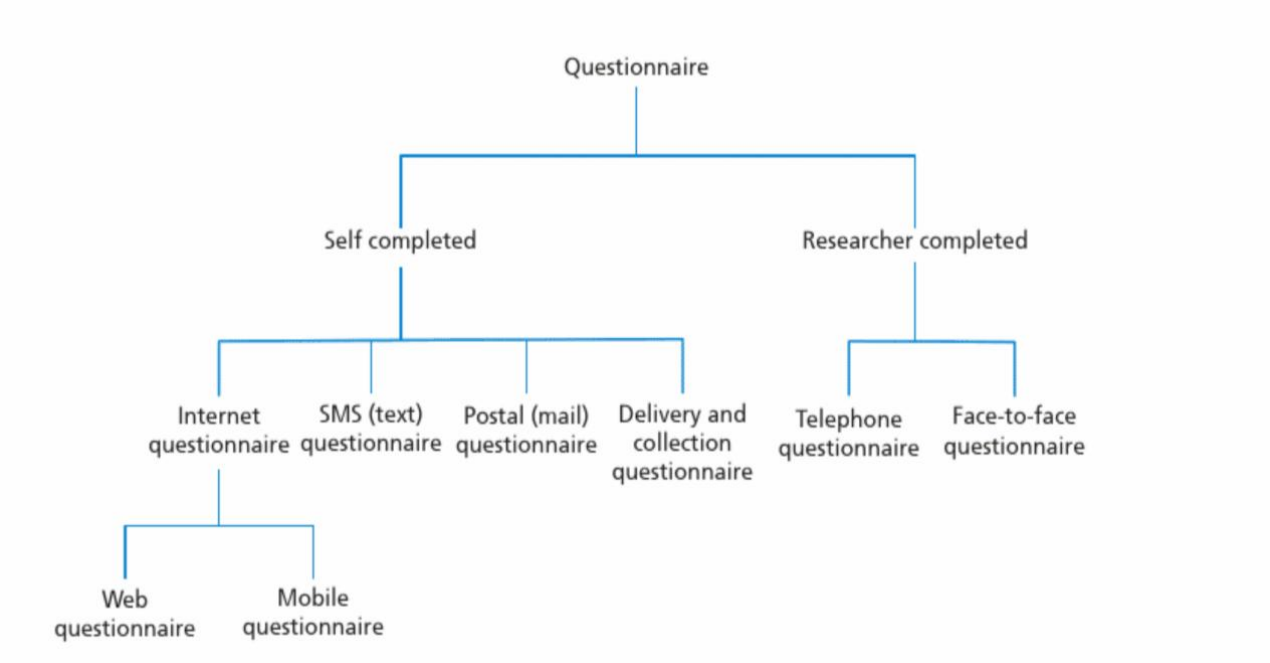


Figure 4.4 Questionnaire Modes
Source: Saunders et al., 2019

Selection of questionnaire mode depends on many factors such as the importance of reaching a particular respondent, the characteristics of respondents, the size of the target sample and the number and types of questions (Saunders et al., 2019). The mode of questionnaire selected for this research was self-completed, by the target employees in the sample, and through direct delivery and collection questionnaire of the questionnaires to the participants as it was necessary for each to be filled by each employee and the specific supervisor. To facilitate this, delivering and collecting the questionnaires by hand was deemed to be the most appropriate method. This mode facilitated full confidence that the right supervisor had responded to the right questionnaire.

In order to increase the participation rate, the administration of each school facilitated the data collection process by making sure that employees were aware of the nature and purpose of the study. The school administrations provided employees reassurance that the data collection was only for the specific research purpose, and hence independent of the organization. Moreover, the presence of the researcher in the

schools to deliver and collect the questionnaire from each participant helped in enhancing the respondents' participation. Under this mode, a reasonable response rate is (30-50%) (Saunders et al., 2019). The response rate for the employees' questionnaire was 81%, and 100% for supervisors' questionnaire.

4.7. Questionnaire Development and Validation

This section discusses how the questionnaire was developed and validated. It starts with an overview; it then discusses the structure of the questionnaire and identifies the sources of the measurement items. Next, the pre-test and pilot tests are discussed. Finally, highlights on the main survey are presented.

4.7.1. Overview

The questions of this research questionnaire were all adopted from previous research measuring the same constructs intended in this study (Rotter, 1966; George and Zhou, 2001; George and Zhou, 2002; Van Yperen and Janssen, 2002; Janssen and Van Yperen, 2004; Malik et al., 2015, Yoon, Sung, Choi, et al., 2015, Yoon, Sung, and Choi, 2015; Malik et al., 2019).

This study comprises two sets of questionnaires, each having different sets of questions. One set of questionnaire was structured to be answered by employees and the other set of questionnaire was for their supervisors, and mainly included questions to measure employees' creative performance (George and Zhou, 2002). All questions were close-ended questions (Fink, 2003), the questionnaires developed for employees included 43 multiple choice questions with single answers. Whereas the questionnaire for the supervisors included 13 multiple choice questions with single answers. From the 43 questions for employees, two multiple choice questions were related to demographic variables such as educational level and working experience, 8 questions were 6-point Likert scale multiple choice questions, 23 questions were 5-point Likert scale multiple choice questions and 10 were checklist multiple choice questions. The 13 questions for supervisors were all 7-point Likert scale multiple choice questions. It is noteworthy that

the selection of measures and scales (e.g., 5 or 7 point Likert scale) is strictly driven by what is adopted in the existing literature to measure each construct of the developed conceptual model (Rotter, 1966; George and Zhou, 2001; George and Zhou, 2002; Van Yperen and Janssen, 2002; Janssen and Van Yperen, 2004; Malik et al., 2015, Yoon, Sung, Choi, et al., 2015; Yoon, Sung, and Choi, 2015; Malik et al., 2019).

The language used in the questionnaire was Arabic. This was to ensure the clarity and ease of understanding of the respondents, keeping into consideration the characteristics of the selected sample. Employees in the Kingdom of Bahrain, where the first language is Arabic and more specifically, employees working in primary public schools use Arabic as the main language in all their communications including the subjects being taught to students. To ensure that the questions were correctly translated to Arabic without losing its intended meaning, a back translation was conducted (Brislin, 1970; Behr, 2017). This ensured that the lexical meaning of individual words, idiomatic meaning of group of words, experiential meaning of sentences in every day experience and grammar and syntax are achieved (Usunier, Van Herk, and Lee, 2017; Saunders et al., 2019).

The questionnaires confirmed that the information provided would only be used for this research purposes and will be kept confidential. The questionnaires filled by the employees and their supervisors were only collected by the researcher and were kept in a sealed envelope. Moreover, the questionnaires handed to the supervisors refrained from any information related to the identity of the employee being evaluated, as it included number codes (each number represents an employee, the full list of employee names and codes was taken from the school administration), to ensure the confidentiality of the information collected.

4.7.2. Structure of Questionnaire and Measurement Items

The employee questionnaire included an introduction followed by five sections. In the introduction page, the respondents were introduced to the research topic, aims and objectives. Moreover, the confidentiality of the respondents was assured and it was clarified that the decision to take part of this study is completely optional. The first section included two multiple choice questions related to demographic information such

as the educational level and working experience and the following sections measured the constructs. The supervisors' questionnaire included an introduction page followed only by one section. The following lines will provide further details.

The dependant variable in the developed conceptual model was measured by the supervisors. The questionnaire included thirteen questions with a 7-points Likert scale to measure the construct employees' creativity

The independent variable in this study was measured by the employees. The second section of the employees' questionnaire included eight questions with a 6-points Likert scale to measure the construct extrinsic rewards for creativity.

The mediator of the developed conceptual model was measured by the employees. The third section of the questionnaire included five questions with a 5-points Likert scale to measure the construct intrinsic motivation for creativity.

The moderators of the developed conceptual model were measured by the employees. The fourth section of the questionnaire included eighteen questions with a 5-points Likert scale to measure mastery and performance goal orientations. The fifth section included ten multiple choice questions to measure internal and external locus of control.

4.7.3. Pre-Test

Survey questionnaires should be tested to ensure they meet their purpose (Collins, 2003). Pre-testing questions in their questionnaire context enables the research to establish whether respondents can understand the questions in a consistent way and in the way intended by the researcher (Collins, 2003). This research followed a cognitive pre-testing method, particularly cognitive interviewing, which is considered as an increasingly widespread tool (Collins, 2003). The researcher used a think-aloud cognitive interview, which is usually used for self-administered questionnaires (Collins, 2003); the respondents were asked to think-aloud when answering the question, to say how they went about answering the questions. Two respondents from the educational sector were involved to perform the pre-testing to confirm that the questions were understood as intended by the researcher. Moreover, the researcher communicated

through email correspondences with scholars from the field who conducted questionnaires using the same measures (Malik et al., 2015), to find out the selection criteria for selecting 9 questions out of 29 from Rotter's scale to measure locus of control (Malik et al., 2015). This selection was to reduce the length of the survey. Likewise, in this study, the researcher selected only 10 questions, that are found more relevant to the research context, to measure the locus of control. Consequently, the initial employees' questionnaire included 62 questions adopted from the literature, dropped to 43 questions. The supervisors' questionnaire however remained the same.

4.7.4. Pilot Testing

Pilot testing is implemented prior to collecting data; it aims to refine the questionnaire to avoid problems related to answering or recording the data (Saunders et al., 2019). Before conducting the main survey, a pilot study was conducted in February 2020. The questionnaires were paper based and were distributed and collected by hand to 10 employees and 2 managers working in the educational sector, this is in line with the number of pilot tests for most smaller-scale surveys which is 10 (Fink, 2003; Saunders et al., 2019). The completion rate of the responses was 100%; the high response rate could be attributed to the physical distribution and collection at the same session by the researcher. The table below illustrates the measuring items for each construct along with the supporting evidence from the literature. All the questions have been recorded in Appendix 1.

Construct	Measuring Items	Adopted from
Extrinsic rewards for creativity (EXREC)	Section 2: Q2.1-Q2.8	Yoon and Choi, 2010
Intrinsic motivation for creativity (IMC)	Section 3: Q3.1-Q3.5	Yoon, Sung, Choi, et al.,2015
Performance goal orientation (PGO)	Section 4: Q4.1-Q4.8	Van Yperen and Janssen, 2002
Mastery goal orientation (MGO)	Section 4: Q4.9-Q4.18	Van Yperen and Janssen, 2002
Internal locus of control (ILOC)	Section 5: 1b, 2a,3b,4b, 5a,6a, 7a, 8b,9b,10a	Rotter, 1966
External locus of control (ELOC)	Section 5: 1a, 1b,3a,4a, 5b,6b, 7b, 8a,9a,10b	Rotter, 1966
Employee creativity (EC)	Q1-13	George and Zhou, 2001

Table 4.1 Research Questions and Evidence from the Literature

The validity and reliability tests of the conceptual model were conducted using Statistical Package for the Social Sciences (SPSS) version 26. To measure the reliability of the conceptual model, Chronbach's alpha was used where alpha values exceeding 0.7 were considered good measures of reliability (Nunnally, 1978). To measure the validity of the conceptual model, inter-item correlation and item to total correlation were conducted, where the former is expected to be between 0.3 and 0.8, and the latter is expected to be greater than 0.5 (Robinson, Shaver, and Wrightsman, 1991). The items that had poor reliability or validity were removed from the main survey, a detailed explanation is provided in the data analysis chapter in section 5.5.

4.7.5. Main Survey

The main survey was conducted in February 2020. The researcher conducted a number of field visits to primary public girls' schools in the Kingdom of Bahrain to distribute and collect the questionnaires from the employees and their supervisors. In total, 150 questionnaires were distributed to employees out of whom 122 responses were received. From the 122 responses, only 102 responses were completed, which

represents a completion rate of 83.6 %. The responses received from supervisors were 105 complete responses, which represents 100% response rate and a 100% completion rate.

4.8. Data Analysis

Data analysis techniques differ according to the type of data being collected (Saunders et al., 2019). There are two distinct groups of data in quantitative analysis: categorical data which refers to classifying data to certain categories where the data cannot be measured numerically, and numerical data were the data can be measured and counted numerically (Brown and Saunders, 2007; Saunders et al., 2019).

In this research, the type of data collected is only categorical data. There are different sub-groups for categorical data; this research includes data of all subgroups: dichotomous data, nominal data, and ordinal data (Saunders et al., 2019). The dichotomous data represents the data collected in section five of the employees' questionnaire, where the data can be classified only into two categories (there are two sentences per question, each sentence represent either an internal locus of control or an external locus of control). The nominal data represents the data collected in section one of the employees' questionnaire where demographic data is collected giving them four options for each question. The ordinal data represents the data collected in sections two, three, and four of the employees' survey as well as the supervisors' survey, where the answers are placed in rank order.

Since this research uses a delivery and collection questionnaire where the survey is paper-based and not online, the data entry, data checking, and data coding are all done manually and then exported to statistical software. The statistical software used for data analysis is SPSS version 26. SPSS was used because it is found effective in data management and analysis, user friendly and includes a lot of options for data representation such as graphs and charts (Pallant, 2016).

In this research, Structural Equation Modelling (SEM) is used to statistically analyse the relationship between the variables. The purpose of SEM is to test a theory by specifying a model that represents predictions, where the constructs are measured with

appropriate observed variables (Hayduk, Cummings, Boadu, Pazderka-Robinson, and Boulianne, 2007). SEM is used in this research to clarify the theoretical rationale, to differentiate between what is known and what is unknown such as limits and conveniences of the model, and to set conditions for new questions (Kline, 2016). This research proposed a conceptual model and developed hypotheses based on existing theories in the literature, which makes SEM a suitable statistical tool to test the fitness of the proposed conceptual model through conducting CFA, and to test the direction and significance of the proposed hypotheses by conducting path analysis. The tool used for SEM is Analysis of Moment Structure (AMOS) version 26. Further elaboration on data analysis will be provided in chapter 5 of this thesis.

4.9. Research Ethics

In this research, primary data was collected from employees and supervisors working in primary public girls' schools in the Kingdom of Bahrain, and therefore obtaining ethical approval was needed before the commencement of data collection. As per Brunel University's Code of Research Ethics, an application for research ethics approval was submitted and ethical approval was successfully obtained (See Appendix 2). The submitted application included information about the research problem, aim, objectives, target audience, sample, data collection tool, and approval letter from school administration to conduct the survey and questions included in the survey. Obtaining the ethical approval aims to ensure conducting the research in a professional manner as well as respecting the rights of the participants.

4.10. Chapter Summary

This chapter outlined the research methodology adopted in this research. First, it provided an overview of the research philosophies and highlighted the reasons for selecting a positivist philosophy in this research. Second, it explained the selection of a quantitative methodology and a deductive research development approach. Then, it discussed the adopted research design, including the research purpose being

explanatory, the selected research strategy being a survey, and the unit of analysis being employees of primary public girls' schools in the Kingdom of Bahrain. Then, it highlighted that primary data was collected at a cross-sectional time dimension. Next, the research steps were illustrated followed by the research methodology selected. Moreover, this chapter provided details about data collection such as the population, target population, sample, sampling techniques, sampling size, and data collection methods. It explained how questionnaires were developed and validated during the pre-test, pilot, and actual survey. Finally, it introduced the data analysis techniques based on the type of data collected in this research followed by introducing the research ethics. The next chapter presents the data analysis process and findings.

Chapter 5

Data Analysis

5.1. Introduction

The previous chapter explained the research methodology adopted for this thesis. It covered the research philosophy, theory development approach, research design, methodology, data collection, and analysis process. A quantitative research method was adopted by distributing and collecting surveys from employees working in primary public girls' schools in the Kingdom of Bahrain to investigate the influence of extrinsic rewards for creativity on employees' creativity. This chapter presents findings from various tests performed on the data collected.

A number of tests were conducted including exploratory factor analysis (EFA), reliability and validity tests, correlation and normality of the data, and path analysis. Considering the research methodology explained in chapter 4, confirmatory factor analysis (CFA) was used to measure the model fitness. Structural equation modelling (SEM) was the selected multivariate technique to validate the proposed conceptual model.

This chapter is structured as follows. Sections 5.2 and 5.3 present the response rate, sampling size, and profile of the respondents. Section 5.4 explains the factor analysis. Section 5.5 presents the reliability and validity analysis. Descriptive statistics and correlation matrix are explained in sections 5.6 and 5.7 respectively. Normality of the data is presented in section 5.8. In section 5.9, the structural equation modelling is introduced. Confirmatory factor analysis including measuring model fitness, standardized loadings, critical rations, R squares and construct validity assessment are presented in section 5.10. Finally, the results of the path analysis, mediation effect, and moderation effect are presented in sections 5.11, 5.12, and 5.13 respectively, followed by the chapter summary in section 5.14.

5.2. Response Rate and Sampling Size

The research used a paper-based survey questionnaire delivered to and collected from the respondents directly by the researcher. For a response to be usable, two questionnaires needed to be completed, one completed by the employee and the other by the corresponding supervisor. The questionnaires were distributed in February 2020, where the researcher conducted field visits to the schools to collect data on-site. The school administration provided an official list to the researcher comprising the names of the employees as well as their supervisors, to ease the distribution of the questionnaires to the right recipients while ensuring the confidentiality of the collected data. Employees were asked to write their names on the questionnaire and supervisors were given numbered questionnaires, where each number represented an employee. The employees and supervisors independently completed the questionnaires and submitted them to the researcher on site. The questionnaires were distributed to 150 employees, 122 of which were completed and returned. After excluding the questionnaires with substantial missing information, only 102 of the employees' responses and 105 responses from supervisors were usable. The final sample of this study, therefore, included 102 pairs of employees and their supervisors.

According to the literature, several rules of thumb have been proposed over the years to indicate a suitable sample size, such as no less than 100 observations, and 5 to 10 observations per variable (Muthén and Muthén, 2002). However, in reality, no rule of thumb applies in all situations since sample size depends on many factors such as the amount of missing data, the size of the model, and the reliability of the variables (Muthén and Muthén, 2002). The sample size in this study was considered adequate based on the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) of 0.808 which is greater than the recommended 0.5 (Yong and Pearce, 2013).

The response rate for the employees' questionnaire was 81% and was 100% for the supervisor's questionnaire. This response rate is considered excellent for a delivery and collection questionnaire, which is generally expected to be between 30%-50% (Saunders et al., 2019). The response rate was also considered adequate and in line with the response rate of similar previous studies of the reward-creativity relationship,

such as Malik et al. (2015) with an 80.4% response rate and Malik et al. (2019) with a response rate of 83% for an online survey comprising of 88 employee-supervisor dyads and 75% for an on-site survey comprising of 132 employee-supervisor dyads respectively.

5.3. Respondent Profile

Demographic questions were included in the questionnaire such as educational level and working experience. All the respondents of the survey were females since the primary public girls' school comprises of only female employees. The profile of the respondents is shown in figures 5.1 and 5.2 below. As can be seen, most of the respondents held a bachelor's degree, most had above 5 years of working experience, and nearly 40% had above 10 years.

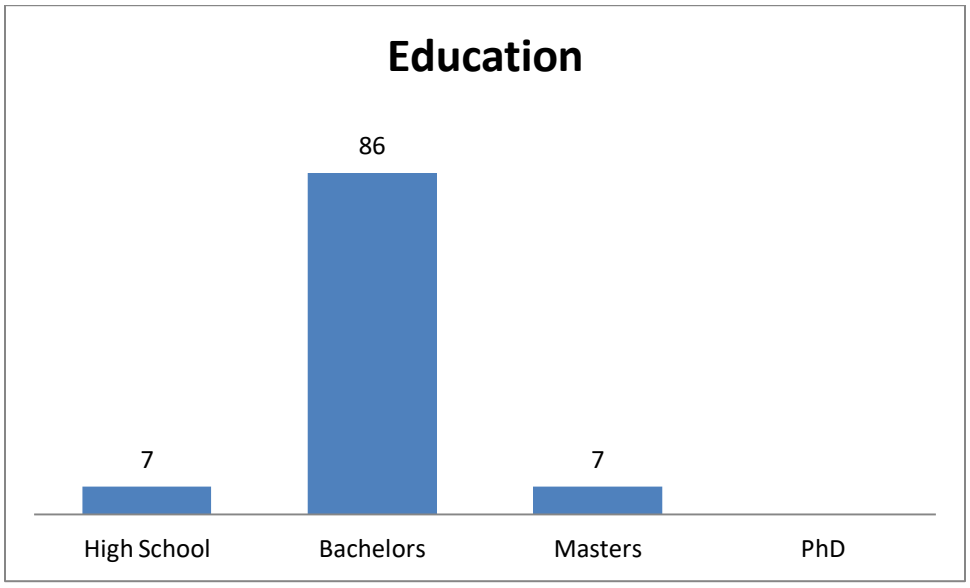


Figure 5.1 The Education of the Respondents
Note: The label represents the frequency of occurrence, 100 employees responded to the demographic questions and only 2 did not respond.

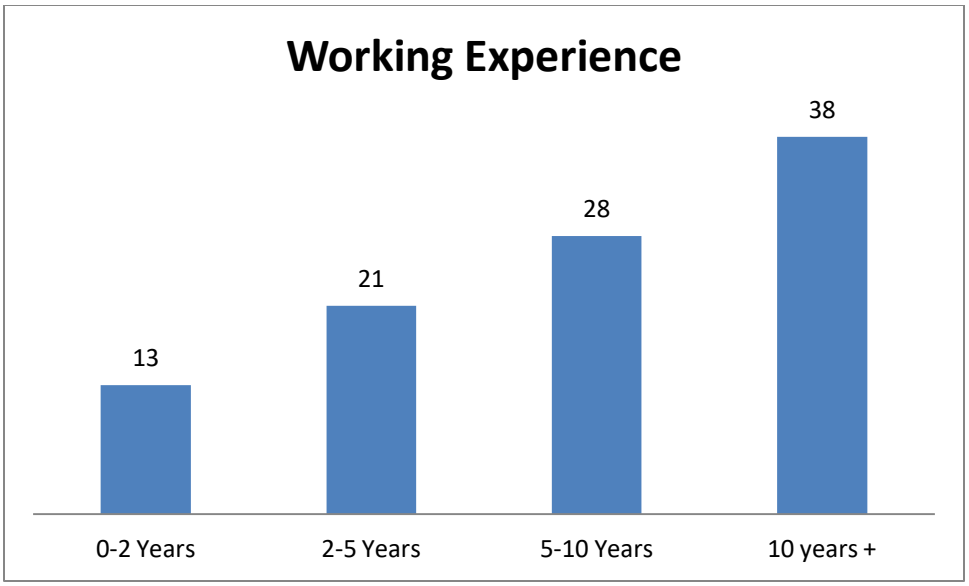


Figure 5.2 The Working Experience of the Respondents.
Note: The label represents the frequency of occurrence, 100 employees responded to the demographic questions and only 2 did not respond.

5.4. Factor Analysis

There are two uses of factor analysis, namely exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Bryan and Carmer, 2011). (EFA) is most commonly reported under which the relationships between variables are examined without confirming to which extent the results fit a particular model, whereas (CFA) compares the solution found against the hypothesis (Cramer, 2003; Howitt and Cramer, 2011).

After running EFA using SPSS, a total of 17 items were eliminated. Ten items were removed out of 13 items from the employee creativity (EC) construct due to issues in inter-item correlation. Three items were removed out of eight from the extrinsic rewards for creativity (EXREC) construct as they had a problem with inter-item correlation and item to total correlation, two items were deleted out of eight from the performance goal orientation (PGO) construct as they had an inter-item correlation issue, and two items were eliminated out of ten from the mastery goal orientation (MGO) construct as they had a problem with inter-item correlation. The details are shown in tables 5.1 and 5.2 below. The total remaining items after running the (EFA) were 27 (24 for employees and 3 for supervisors).

5.5. Reliability and Validity Analysis

Reliability and validity tests are conducted to ensure the consistency and accuracy of the research instruments. The reliability test is conducted for multiple items scales to measure whether each scale is measuring a single idea (Bryman and Cramer, 2011). Chronbach's alpha is commonly used to measure internal consistency between items in a scale, and a good measure of reliability is expected to be greater than 0.7 (Nunnally, 1978). A validity test is conducted to measure how far a measure really measures the intended concept and not something else (Bryman and Cramer, 2011). Inter-item correlation and item to total correlation are conducted to measure the validity of constructs, where the former is expected to be between the values 0.3 and 0.8, and the latter is expected to be greater than 0.5 (Robinson et al., 1991).

The reliability and validity tests were conducted on 44 items (31 items for employees and 13 for supervisors). As shown in table 5.1 below, all of the constructs were internally reliable since the coefficients were above the 0.7 criterion, except the locus of control. Locus of control includes two constructs, namely, internal locus of control (ILOC) and external locus of control (ELOC). To measure ILOC and ELOC, employees were given 10 pairs of statements and were asked to select only one statement from each pair. Each statement from each pair therefore indicated a preference either for ILOC or ELOC. The frequencies of the selected statements were then counted (i.e., a total for ILOC and a total for ELOC) to measure employees' ILOC and ELOC. Since both ILOC and ELOC were computed from the frequencies on a set of dichotomous items, they were not measured for reliability or validity and were not included in tables 5.1 and 5.2. The validity test came up poor for some constructs which led to removing some items as shown in table 5.2 and in Appendix 3. The total number of remaining items was 27 (24 items for employees and 3 for supervisors), in addition to locus of control which included 10 dichotomous items for employees which resulted in a total of 37 items (34 items for employees and 3 for supervisors).

No.	Construct	Question #	# of items	N	Chronbach's Alpha	Inter-item correlation (range)	Corrected Item-total correlation	Remarks
1	EC	Q1-Q13	13	102	0.988	**0.654 to 0.956**	0.824 to 0.960	Reliability is good since Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is slightly above the acceptable range (0.3 to 0.8).The item to total correlation is acceptable as it is exceeding the minimum of 0.5.
2	EXREC	Q2.1-Q2.8	8	102	0.853	**0.170 to 0.680**	**0.363 to 0.725**	Reliability is good since Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is lower than the minimum acceptable score of 0.3, it is caused by Q2.5, 2.6 and 2.8. Also, questions 2.5 and 2.6 did not meet the minimum criterion for validity, question 5 has 0.363 item to total score and question 6 has 0.499 item to total score which is lower than the minimum of 0.5. therefore, questions 2.5,2.6 and 2.8 were deleted.
3	IMC	Q3.1-Q3.5	5	102	0.912	0.581 to 0.757	0.731 to 0.819	Reliability is good since the Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is within the acceptable range as well as the item to total correlation.
4	PGO	Q4.1-Q4.8	8	102	0.882	**0.282 to 0.825**	0.510 to 0.728	Reliability is good since the Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is not within the acceptable range and it is caused by Q 4.1 and 4.2 and hence they were deleted .Item to total correlation is acceptable.
5	MGO	Q4.9-Q4.18	10	102	0.927	**0.378 to 0.864**	0.588 to 0.828	Reliability is good since the Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is not within the acceptable range caused by question 4.13 and 4.17 and hence they were removed.Item to total correlation is acceptable.

Table 5.1 Reliability and Validity Test Results.

No.	Construct	Question #	# of items	N	Chronbach's Alpha	Inter-item correlation (range)	Corrected Item-total correlation (range)	Remarks
1	EC	Q1-Q3-Q6	3	102	0.891	0.654 to 0.790	0.748 to 0.857	After deleting 10 questions, the reliability is still good. The inter-item correlation is whithin acceptable range as well as the item to total correlation
2	EXREC	Q2.1,2.2,2.3,2.4,2.7	5	102	0.851	0.443 to 0.680	0.617 to 0.743	After deleting 3 questions, the reliability is still good. The inter-item correlation is within the acceptable range (0.3-0.8). Item to total correlation is above the minimum of 0.5.
3	IMC	Q3.1-Q3.5	5	102	0.912	0.581 to 0.757	0.731 to 0.819	Reliability is good since the Chronbach's alpha's coefficient is above 0.7. Inter-item correlation is within the acceptable range as well as the item to total correlation.
4	PGO	Q4.3-Q4.8	6	102	0.886	0.367 to 0.713	0.634 to 0.741	After deleting 2 questions, the reliability is still good. The inter-item correlation is within the acceptable range and the item-total is also acceptable.
5	MGO	Q4.9-4.12,4.14-4.16 and 4.18	8	102	0.898	0.378 to 0.748	0.600 to 0.731	After deleting 2 questions, the reliability is still good. The inter-item correlation is within the acceptable range and the item-total is also acceptable.

Table 5.2 Reliability and Validity Test Results after Removing Items.

5.6. Descriptive Statistics

The following table shows the means and standard deviations for all the items of the 5 constructs. It does not include means/standard deviations for ILOC and ELOC since they were not measured on a Likert scale. As shown in the below table, the questions are coded to easily link them with the constructs.

Construct	Item	code	N	Mean	Std. Deviation
EC	Q1	EC1	105	4.97	1.484
	Q2	EC2	105	5.08	1.573
	Q3	EC3	105	5.18	1.645
	Q4	EC4	105	5.03	1.559
	Q5	EC5	105	4.87	1.629
	Q6	EC6	105	5.05	1.655
	Q7	EC7	105	4.83	1.667
	Q8	EC8	105	4.88	1.561
	Q9	EC9	105	4.86	1.541
	Q10	EC10	105	4.75	1.622
	Q11	EC11	105	4.87	1.618
	Q12	EC12	105	4.86	1.626
	Q13	EC13	105	4.88	1.579
EXREC	Q2.1	EXREC1	102	3.41	1.731
	Q2.2	EXREC2	102	3.40	1.776
	Q2.3	EXREC3	102	4.11	1.670
	Q2.4	EXREC4	102	4.58	1.389
	Q2.5	EXREC5	102	4.60	1.388
	Q2.6	EXREC6	102	3.78	1.767
	Q2.7	EXREC7	102	3.86	1.489
	Q2.8	EXREC8	102	4.61	1.612
IMC	Q3.1	IMC1	102	4.77	0.506
	Q3.2	IMC2	102	4.55	0.698
	Q3.3	IMC3	102	4.57	0.711
	Q3.4	IMC4	102	4.71	0.590
	Q3.5	IMC5	102	4.72	0.587
PGO	Q4.1	PGO1	102	4.15	1.075
	Q4.2	PGO2	102	4.11	1.098
	Q4.3	PGO3	102	2.53	1.578
	Q4.4	PGO4	102	2.97	1.486
	Q4.5	PGO5	102	2.51	1.494
	Q4.6	PGO6	102	3.44	1.404
	Q4.7	PGO7	102	3.10	1.432
	Q4.8	PGO8	102	3.44	1.411
MGO	Q4.9	MGO1	102	4.55	0.698
	Q4.10	MGO2	102	4.61	0.662
	Q4.11	MGO3	102	4.52	0.714
	Q4.12	MGO4	102	4.64	0.577
	Q4.13	MGO5	102	4.69	0.545
	Q4.14	MGO6	102	4.75	0.481
	Q4.15	MGO7	102	4.62	0.690
	Q4.16	MGO8	102	4.60	0.649
	Q4.17	MGO9	102	4.59	0.680
	Q4.18	MGO10	102	4.62	0.646

Table 5.3 Descriptive Statistics.

The respondents showed high agreement to the items: intrinsic motivation for creativity (IMC) and mastery goal orientation (MGO). However, less agreement was shown to the items: performance goal orientation (PGO) and extrinsic rewards for creativity. The overall employee creativity is moderate since each employee is evaluated separately by their supervisors, and it is expected to have mixed results, which led to a moderate mean result for 7 points Likert scale.

5.7. Correlation Matrix

A correlation matrix was used to find the degree of the relationship between the variables of this research. The Pearson Product-Moment correlation was the adopted correlation coefficient; it is used to measure the linear relationship between two typically continuous variables (Denis, 2018). It is therefore important to examine the correlation matrix in order to indicate the direction of the relationship between the variables along with the significance level. This is specifically useful to decide to reject the null hypothesis if the result was found significant, or fail to reject the null hypothesis if the result was found insignificant, and to find out if there is a positive, negative, or no correlation between the variables (Denis, 2018). Table 5.4 below shows the correlation between the variables. The table shows that there are significant positive and negative correlations between some variables, and there are insignificant positive and negative correlations between other variables.

Correlations								
		EC	**EXREC**	**IMC**	**PGO**	**MGO**	**ILoC**	**ELoC**
EC	Pearson Correlation	1	0.084	0.136	-0.029	0.062	0.114	-0.117
	Sig. (2-tailed)		0.419	0.189	0.780	0.548	0.248	0.236
	N	105	95	95	95	95	105	105
EXREC	Pearson Correlation	0.084	1	.388**	0.113	.235*	0.145	-0.145
	Sig. (2-tailed)	0.419		0.000	0.258	0.017	0.146	0.146
	N	95	102	102	102	102	102	102
IMC	Pearson Correlation	0.136	.388**	1	0.033	.638**	0.145	-0.145
	Sig. (2-tailed)	0.189	0.000		0.744	0.000	0.146	0.146
	N	95	102	102	102	102	102	102
PGO	Pearson Correlation	-0.029	0.113	0.033	1	0.108	-.253*	.253*
	Sig. (2-tailed)	0.780	0.258	0.744		0.281	0.010	0.010
	N	95	102	102	102	102	102	102
MGO	Pearson Correlation	0.062	.235*	.638**	0.108	1	.226*	-.226*
	Sig. (2-tailed)	0.548	0.017	0.000	0.281		0.023	0.023
	N	95	102	102	102	102	102	102
ILoC	Pearson Correlation	0.114	0.145	0.145	-.253*	.226*	1	-.209*
	Sig. (2-tailed)	0.248	0.146	0.146	0.010	0.023		0.027
	N	105	102	102	102	102	112	112
ELoC	Pearson Correlation	-0.117	-0.145	-0.145	.253*	-.226*	-.209*	1
	Sig. (2-tailed)	0.236	0.146	0.146	0.010	0.023	0.027	
	N	105	102	102	102	102	112	112
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Table 5.4 Correlation Matrix

5.8. Normality of the Data

To validate the normality of the data distribution, a skewness and kurtosis test was conducted (Hair, 2010). Skewness indicates the symmetry of the distribution, and kurtosis presents the peak of the data distribution (Pallant, 2010). The acceptable range for skewness is (+1.5 to -1.5), where negative skewness refers to a distribution shifted to the right, and positive skewness refers to a distribution shifted to the left. The acceptable range for kurtosis is (+3 to -3), where negative kurtosis refers to peaked data distribution, while a positive kurtosis refers to a flat data distribution (Li, 1999; Pallant, 2010).

The following table (table 5.5) illustrates the results from the skewness and kurtosis test. As shown in the table, all the items skewness and kurtosis fall within the acceptable

ranges of (+1.5 to -1.5) and (+3 to -3) respectively, with the exception of the construct (IMC), which reported a skewness of -2.327 and kurtosis of 7.693. This result indicates that the scores for (IMC) were not normally distributed; there was a clustering of scores at the right-hand side (Pallant, 2010). It is common in the social sciences to find that variables are not normally distributed (Pallant, 2010). With reasonably large samples, skewness will not impact the analysis substantially (Tabachnick, Fidell, and Ullman, 2007, p.80). In addition, a positive kurtosis can result in an underestimated variance, but it is not an issue for samples of 100 or more cases (Tabachnick and Fidell, 2013, p.114). Accordingly, no further action was taken regarding the results of the skewness and kurtosis of (IMC).

	N	**Skewness**		**Kurtosis**	
	Statistic	***Statistic***	***Std. Error***	***Statistic***	***Std. Error***
EC	105	-0.716	0.236	-0.062	0.467
EXREC	102	-0.298	0.239	-0.491	0.474
IMC	102	-2.327	0.239	7.693	0.474
PGO	102	0.019	0.239	-0.967	0.474
MGO	102	-1.140	0.239	0.443	0.474

Table 5.5 Skewness and Kurtosis.

5.9. Structural Equation Modelling

Structural equation modelling (SEM) refers to a family of statistical procedures. It is defined as a causal inference method that takes three inputs (causal hypothesis based on theory, questions about the relationship between the variables and data from experimental designs (if any)), and generate three outputs (numeric estimates of model parameters, logical implications of the model and the degree to which the data supports the testable implications of the model) (Pearl, 2012; Kline, 2015). SEM is used to test a theory by specifying a model that includes constructs measured with suitable observed variables that present predictions of that theory (Hayduk et al., 2007). The researcher therefore adopted SEM as a multivariate statistical analysis technique to test the

proposed model in this thesis by performing a confirmatory factor analysis (CFA) and path analysis (Hair, 2015). SEM includes two models, the measurement model which investigates the relationships between the observed and latent variables, and the structural model which investigates the relationships between the latent variables (Suhr, 2006).

5.10. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is used to compare the solution found against the hypotheses (Cramer, 2003; Howitt and Cramer, 2011). (CFA) was conducted for this research using AMOS. The following sections present the outcomes of the (CFA) starting with the model fitness measurement.

5.10.1. Measurement Model Fit

In order to test the fitness of the measurement model, confirmatory factor analysis (CFA) was conducted using AMOS. It is recommended that at least one fit indices is reported to measure the model fit (Park, 2008). In this research the model fit was measured using chi-square test statistic, root mean square error of approximation, comparative fit index, and incremental fit index. The recommended values and results of the structural model are shown below. All fit indices results are within the recommended values and therefore the proposed model is considered to be in a good fit.

Fit indices	Recommended value	Structural Model	Reference
Chi-square test statistic CMIN/ df	1.00~3.00	1.619	Lee and Lim, 2015
Root mean square error of app. (RMSEA)	<0.080	0.075	Lee and Lim, 2015
Comparative Fit Index (CFI)	>0.90	0.918	Hu and Bentler,1998;1999
Incremental Fit Index (IFI)	>0.90	0.921	Hu and Bentler,1998;1999

Table 5.6 Values for Fit Indices.

5.10.2. Standardized Loadings, Critical Ratios and R Squares

The standardized loadings, critical ratios (CR), and R squares of the measurement model are presented in table 5.7. The recommended values for the parameters are as follows: standardized loadings (S.R.W) > 0.5 (Hair et al., 2019), Critical ratios (CR) > ± 1.96 (Hox and Bechger, 1998) and for the R square (SMC) <=0.9 (Field, 2013). As shown in the table below, the values of the measurement model are in line with the recommended values with the exception of the squared multiple correlation value of the structural relation (EC1 <--- E_C) and (EXREC2 <--- EX_RE_C). The coefficient of determination, R square (SMC), indicates how much variance the two variables share (Pallant, 2003). In the case of the structural relation (EC1 <--- E_C), it means that there was a slight overlap between the two variables, the two variables shared 93.5% of the variance and only 6.5% of the variance was not explained (Bryman and Cramer, 2011, p.300). Likewise, in the case of the structural relation (EXREC2 <--- EX_RE_C) it means that there was a slight overlap between the two variables, they shared 92.2% of the variance and only 7.8% of the variance was not explained (Bryman and Cramer, 2011, p.300). This result is expected since each variable represents a form of the other

variable, EC1 is a form of EC and EXREC2 is a form of EXREC and therefore the reported R square values were high.

Structural Relation			RW	S.E.	C.R.	P	S.R.W	SMC
EC6	<---	E_C	1				0.795	0.632
EC3	<---	E_C	1.022	0.108	9.499	***	0.817	0.668
EC1	<---	E_C	1.09	0.105	10.381	***	0.967	0.935
EXREC3	<---	EX_RE_C	1				0.675	0.456
EXREC2	<---	EX_RE_C	1.511	0.232	6.527	***	0.96	0.922
EXREC1	<---	EX_RE_C	1.083	0.166	6.512	***	0.706	0.498
PGO7	<---	P_GO	1				0.821	0.673
PGO6	<---	P_GO	1.011	0.107	9.406	***	0.846	0.716
PGO5	<---	P_GO	0.861	0.12	7.148	***	0.677	0.458
IMC5	<---	IM_C	1				0.882	0.778
IMC4	<---	IM_C	0.97	0.086	11.272	***	0.85	0.723
IMC3	<---	IM_C	1.15	0.105	10.969	***	0.837	0.701
IMC2	<---	IM_C	1.078	0.107	10.115	***	0.799	0.638
MGO10	<---	M_GO	1				0.828	0.686
MGO8	<---	M_GO	0.951	0.107	8.925	***	0.784	0.615
MGO7	<---	M_GO	1.005	0.114	8.848	***	0.779	0.607
MGO6	<---	M_GO	0.654	0.081	8.061	***	0.727	0.529
MGO4	<---	M_GO	0.793	0.097	8.191	***	0.736	0.542
MGO3	<---	M_GO	0.918	0.122	7.497	***	0.688	0.473
PGO8	<---	P_GO	1.014	0.108	9.389	***	0.844	0.713

Table 5.7 Values for standardized loadings, C.R, SMC.
Legend: RW: Regression weight, S.E: Standard error, C.R: Critical ratio, S.R.W: Standardized Regression Weights, S.MC: Squared multiple correlation

The measurement model is presented below in figure 5.3. It is noteworthy that some questions had low factor loadings and hence were excluded from the model to increase the fitness of the model. The items measuring employee creativity (E_C) remained similar to the items mentioned in table 5.2. As for extrinsic rewards for creativity (EX_RE_C), items 2.4 and 2.7 were dropped, and items 2.1, 2.2, and 2.3 remained. Intrinsic motivation for creativity (IMC) dropped measurement item number 3.1 only. Performance goal orientation (P_GO) dropped items 4.3 and 4.4 and remained 4 items (4.5, 4.6, 4.7, and 4.8). Mastery goal orientation (M_GO) dropped items 4.9 and 4.10 and remained 6 items (4.11, 4.12, 4.14, 4.15, 4.16, and 4.18) (See Appendix 4).

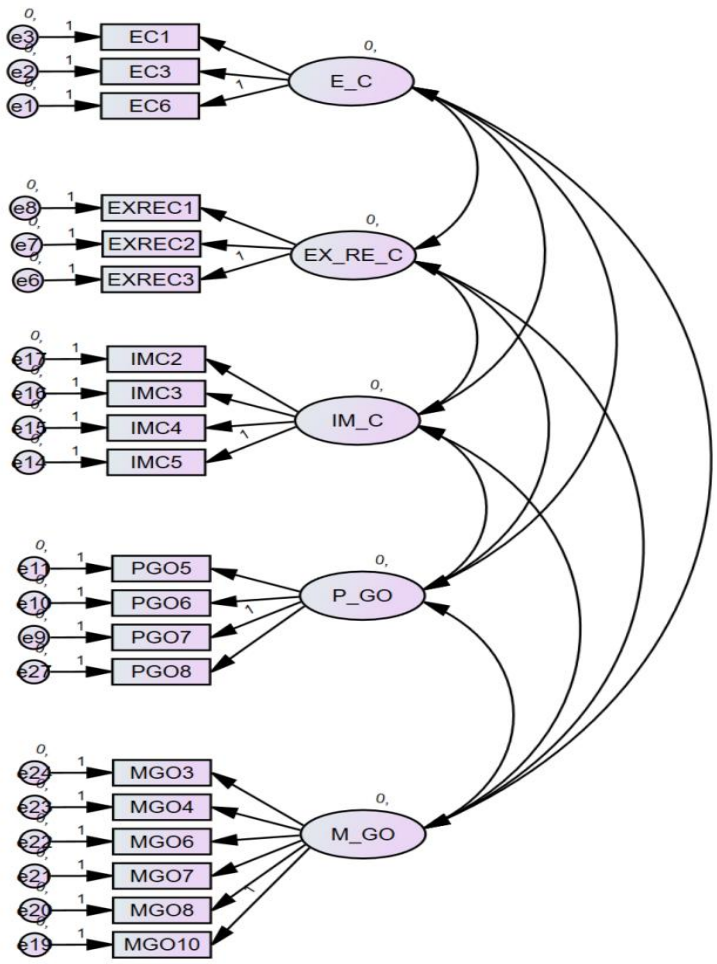


Figure 5.3 Measurement Model

5.10.3. Construct Validity Assessment

The ability of a construct to measure what it is designed for is called construct validity (Hair et al., 2010). Performing different methods to reach the same results on a certain construct is called convergent validity, which was conducted in this research (Hair et al., 2010) and is examined using standardized loadings (recommended value is > 0.5), average variance extracted (AVE) (recommended value >= 0.5) and composite reliability (CR) (recommended value >=0.7) (Hair et al., 2010; Nunnally and Bernstein, 1994). Since the results of the standardized loadings were already discussed in section 5.10.2 and where all acceptable values, the below table shows the results for average

variance extracted and the composite reliability. As shown in table 5.8, all the values of the average variance extracted are within the recommended value (>=0.5), the values of the composite reliability are also within the recommended value (>=0.7), which indicates a good constructs reliability with only one exception where the construct reliability is 0.629 (for the factor extrinsic rewards for creativity). However, since the reliability measure (Chronbach's alpha) is within the acceptable range, as explained earlier in tables 5.1 and 5.2, the construct's reliability can be considered satisfactory.

Structural Relation			AVE	CR
EC6	<---	E_C	0.745	0.766
EC3	<---	E_C		
EC1	<---	E_C		
EXREC3	<---	EX_RE_C	0.625	0.629
EXREC2	<---	EX_RE_C		
EXREC1	<---	EX_RE_C		
PGO7	<---	P_GO	0.640	0.803
PGO6	<---	P_GO		
PGO5	<---	P_GO		
PGO8	<---	P_GO		
IMC5	<---	IM_C	0.710	0.954
IMC4	<---	IM_C		
IMC3	<---	IM_C		
IMC2	<---	IM_C		
MGO10	<---	M_GO	0.575	0.935
MGO8	<---	M_GO		
MGO7	<---	M_GO		
MGO6	<---	M_GO		
MGO4	<---	M_GO		
MGO3	<---	M_GO		

Table 5.8 AVE and CR Values of the Measurement Model.
Note: The constructs ILOC and ELOC are not included in the table as they were not measured on a Likert scale.

5.11. Path Analysis

In order to test the proposed hypotheses in the conceptual model, path analysis was conducted using AMOS. The path analysis results are presented below in table 5.9 and figures 5.4, 5.5, and 5.6. This study included seven constructs and seven hypotheses.

Hypotheses #	Path	Standardized Coefficient (β)	t-test	*P-value*	Results
H1	E_C <--- EX_Re_C	0.059	0.601	0.548	Not supported
H2a	IM_C <--- EX_Re_C	0.294	3.236	0.001	Supported
H2b	E_C <--- IM_C	0.13	1.325	0.185	Not supported
H3a	ZE_C <--- EXREC_X_MGO	-0.2	-2.081	0.037	Supported
H3b	ZE_C <--- EXREC_X_PGO	-0.007	-0.08	0.937	Not supported
H4a	ZScoEC<---EXREC_x_ILOC	-1.982	-3.315	***	Not Supported
H4b	ZScoEC<---EXREC_x_ELOC	-1.951	-3.305	***	Supported

Table 5.9 Path Analysis Results

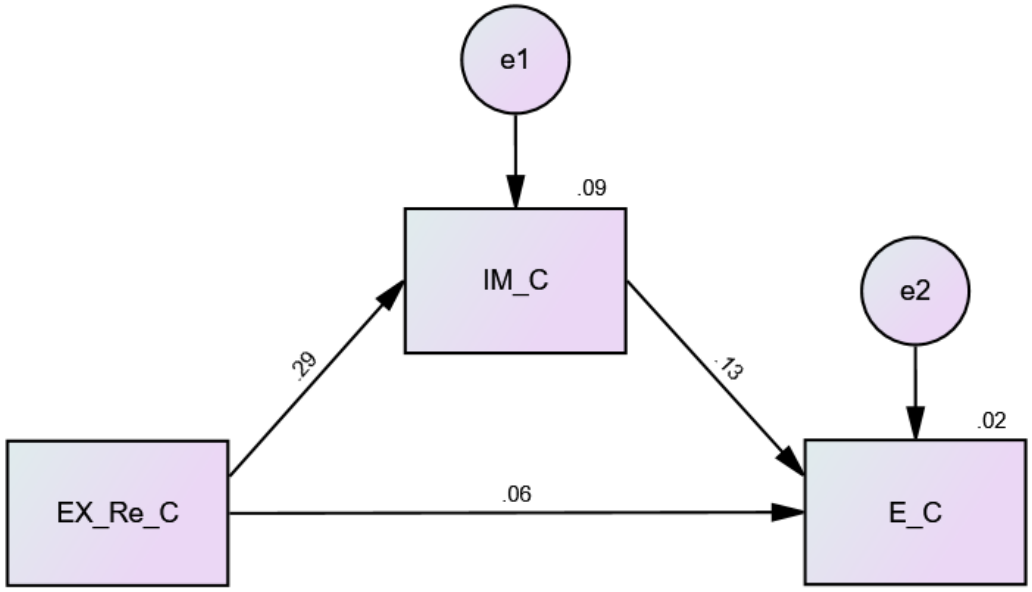


Figure 5.4 Path Analysis Results (mediation effect of intrinsic motivation for creativity)

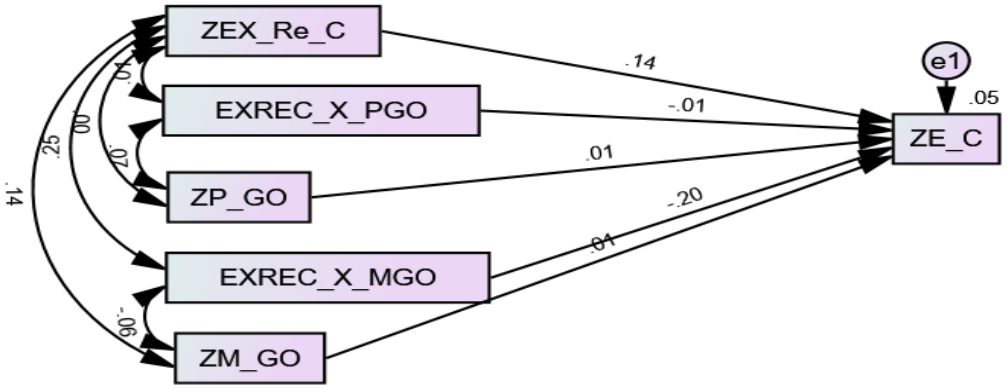


Figure 5.5 Path Analysis Results (moderation effect of goal orientations)

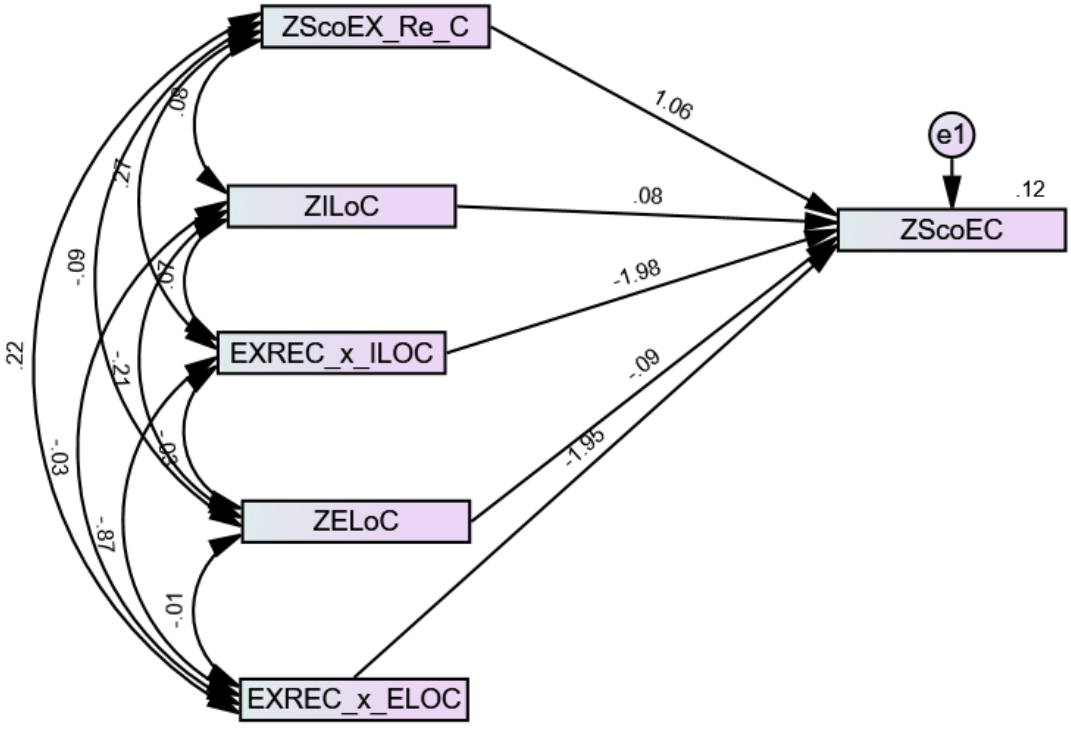


Figure 5.6 Path Analysis Results (moderation effect of locus of control)

Table 5.9 shows that hypotheses H1, H2b, H3b, and H4a of the proposed conceptual model are not supported and that hypotheses H2a, H3a, and H4b were supported.

According to the results, the hypothesis that extrinsic rewards for creativity have a positive effect on employees' creativity, H1, was not supported (*b*=0.059, *t*=0.601, *p*=0.548). Since the *p* value is greater than 0.05, the result indicates strong evidence for the null hypothesis and hence we fail to reject the null hypothesis. It can be concluded that extrinsic rewards for creativity do not have any significant direct effect on employees' creativity.

Extrinsic rewards for creativity show a positive effect on intrinsic motivation for creativity (*b*=0.294, *t*=3.236, *p*=0.001), which provides support to H2a. Since the *p* value is less than 0.05, there is strong evidence to reject the null hypothesis. However, the hypothesis that intrinsic motivation for creativity shows a positive effect on employee creativity, H2b, was not supported (*b*=0.13, *t*=1.325, *p*=0.185). Since the *p* value is greater than 0.05, the result indicates strong evidence for the null hypothesis and hence we fail to reject the null hypothesis. According to the result, intrinsic motivation does not have any significant direct effect on employees' creativity.

Mastery goal orientation has a strong negative effect on employees' creativity *(b*=-0.2, *t*= -2.081, *p*=0.037), which provides support to H3a. According to the result, extrinsic rewards for creativity have a significant negative effect on employees' creativity for employees having a mastery goal orientation, such that, for every unit of increase in extrinsic rewards, mastery goal-oriented employees' creativity will be decreased by 0.2 units. However, the hypothesis that performance goal orientation has a positive effect on employees' creativity was not supported due to the *p* value which was greater than 0.05, and beta which was found negative (*b*=-0.007, *t*=-0.08, *p*=0.937). The result does not provide support to H3b, and hence, we fail to reject the null hypothesis. According to the result, performance goal orientation does not have any significant direct effect on the relationship between extrinsic rewards for creativity and employees' creativity. The pattern is not within the hypothesized direction and is not statistically significant.

Internal locus of control shows a significant negative effect on employees' creativity (*b*= -1.982, *t*=-3.315, ***). Although hypothesis H4a proposed a positive relationship, the result shows that when extrinsic rewards for creativity increase by one unit, employees' creativity decreases by 1.982 units for employees having an internal locus of control.

The result is significant but not within the hypothesized direction, and hence H4a is not supported. Also, external locus of control shows a significant negative effect on employees' creativity (*b*=-1.951, *t*= -3.305, ***), which provides support to H4b since it is significant and within the hypothesized direction. According to the result, when extrinsic rewards for creativity are increased by one unit, it leads to decreasing employees' creativity by 1.951 units for employees having an external locus of control.

5.12. Mediation Effect

The construct intrinsic motivation for creativity is a proposed mediator in the conceptual model. Accordingly, one of the research objectives was to examine the mediation effect of intrinsic motivation for creativity on the relationship between extrinsic rewards for creativity and employees' creativity. In order to observe the mediation effect of intrinsic motivation for creativity, the results of the path analysis are utilized. Table 5.10 shows the standardized regression weights of the path between extrinsic rewards for creativity and intrinsic motivation for creativity, intrinsic motivation for creativity and employees' creativity, and extrinsic rewards for creativity and employees' creativity. This indicates that intrinsic motivation partially mediates the relationship between extrinsic rewards for creativity and employees' creativity.

Path	SRW	*P-value*	Statistical significance α<0.05
E_C <--- EX_Re_C	0.059	0.548	Not statistically significant
IM_C <--- EX_Re_C	0.294	0.001	Statistically significant
E_C <--- IM_C	0.13	0.185	Not statistically significant

Table 5.10 Standardized Regression Weights (mediation effect)

The indirect effect of the path was found using AMOS. It is worth highlighting that there is an indirect effect in the relationship between extrinsic rewards for creativity and employees' creativity that is 0.038, which further confirms the partial mediation of intrinsic motivation, as shown in table 5.11 below.

Construct code	EX_Re_C	IM_C
IM_C	0	0
E_C	**0.038**	0

Table 5.11 Indirect Effects on Employee Creativity

5.13. Moderation Effect

This section presents in more detail the outcomes of the moderation effect of mastery goal orientation, performance goal orientation, internal locus of control, and external locus of control.

5.13.1. The Moderation Effect of Goal Orientations

The constructs mastery goal orientation and performance goal orientation are proposed moderators in the conceptual model. Accordingly, one of the research objectives is to examine the moderation of goal orientations on the relationship between extrinsic rewards for creativity and employees' creativity. In order to test the moderation, the results of the path analysis are utilized. Table 5.12 shows the standardized regression weights, P-values, and statistical significance of the path between extrinsic rewards for creativity and employees' creativity, the joint effect of extrinsic reward for creativity and performance goal orientation and employees' creativity, performance goal orientation and employees' creativity, the joint effect of extrinsic reward for creativity and mastery goal orientation and employees' creativity, and mastery goal orientation and employees' creativity.

Path	SRW	*P*-value	Statistical significance α<0.05
ZE_C <--- ZEX_Re_C	0.138	0.155	Not statistically significant
ZE_C <--- EXREC_X_PGO	-0.007	0.937	Not statistically significant
ZE_C <--- ZP_GO	0.008	0.927	Not statistically significant
ZE_C <--- EXREC_X_MGO	-0.2	0.037	statistically significant
ZE_C <--- ZM_GO	0.011	0.909	Not statistically significant

Table 5.12 Standardized Regression Weights (moderation effect of goal orientations)

As shown in table 5.12 above, it is statistically significant that mastery goal orientation negatively moderates the relationship between extrinsic rewards for creativity and employees' creativity, such that employees with mastery goal orientation are expected to exhibit lower creativity when extrinsic rewards are given.

5.13.2. The Moderation Effect of Locus of Control

The constructs internal and external locus of control are proposed moderators in the conceptual model. One of the research objectives is to examine the moderation of locus of control on the relationship between extrinsic rewards for creativity and employees' creativity. The results of the path analysis are utilized to test the moderation as shown in table 5.13 below. The standardized regression weights, P-values, and statistical significance are presented for the paths between extrinsic rewards for creativity and employees' creativity, internal locus of control and employees' creativity, the joint effect of internal locus of control and extrinsic rewards for creativity and employees' creativity, external locus of control and employees' creativity and finally the joint effect of external locus of control and extrinsic rewards for creativity and employees' creativity.

Path	SRW	*P*-value	Statistical significance α<0.05
ZScoEC<---ZScoEX_Re_C	1.055	***	Statistically significant
ZScoEC<---ZILoC	0.081	0.374	Not statistically significant
ZScoEC<---EXREC_x_ILOC	-1.982	***	Statistically significant
ZScoEC<---ZELoC	-0.094	0.306	Not statistically significant
ZScoEC<---EXREC_x_ELOC	-1.951	***	Statistically significant

Table 5.13 Standardized Regression Weights (moderation effect of locus of control)

According to table 5.13, internal and external locus of control moderate the relationship between extrinsic rewards for creativity and employees' creativity such that employees with an internal and external locus of control exhibit lower creativity when extrinsic rewards are given.

5.14. Chapter Summary

Chapter 5 presented the data analysis of this research. It included results of reliability and validity tests, CFA, and path analysis. At the beginning of the chapter, the response rate, sample size, and respondents' profile were discussed. Next, the results of the reliability and validity tests, factor analysis, descriptive statistics, correlation matrix, and normality of the data were illustrated. Consequently, the variables were ready for a smooth SEM phase.

CFA was used to measure the model fitness which resulted in a good fit. Then, construct validity assessment was conducted using convergent validity which concluded a satisfactory validity result. Path analysis was then performed to find if the results of the data analysis supported the proposed hypotheses in the conceptual model. Next, the mediation effect was analysed confirming a partial mediation of intrinsic motivation for creativity in the relationship between extrinsic rewards for creativity and employees' creativity. Finally, the moderation effect of goal orientation and locus of control was presented. The next chapter discusses these research findings.

Chapter 6

Discussion

6.1. Introduction

In the previous chapter, the results of the data analysis were presented. The data collected from employees working in primary public schools in the Kingdom of Bahrain was analysed using different tests to generate the research findings.

The data analysed in chapter 5 is discussed in detail in this chapter, and the research findings are mapped to the research gap identified earlier in the literature review chapter. This chapter discusses responses to the three research questions identified earlier. It also thoroughly discusses the results of the hypotheses testing and explains the potential reasons underlying the results obtained. Moreover, it presents thoughts on the empirical findings and links the results of this research to practice. As will be shown, it is interesting to find that some research findings are consistent with the literature while others are not. The findings of this research illustrate that extrinsic reward for creativity does not have a direct effect on employees' creativity, and that intrinsic motivation does not mediate the relationship between those constructs. It is also found that giving extrinsic rewards to employees who are mastery goal-oriented or have an internal locus of control or an external locus of control will lead to hindering employees' creative performance. Therefore, these factors should be considered by practitioners who aim to enhance their employees' creative performance.

This chapter is structured as follows. Section 6.2 presents an overview of this research. In section 6.3, the concepts of extrinsic rewards for creativity and employees' creativity are revisited. Section 6.4 recaps the instrument validation process. Section 6.5 discusses the research findings, it includes subsections that attempt to explain the answer this study has generated to the research questions, the results to the hypotheses testing, and the mediation and moderation effect observed. The last section 6.6 summarizes the chapter.

6.2. Overview of the Research

The purpose of this research was to investigate the influence of extrinsic rewards for creativity on employees' creativity, considering intrinsic motivation for creativity as a mediator, and mastery goal orientation, performance goal orientation, internal locus of control, and external locus of control as moderators. Extrinsic reward for creativity was defined as the motivation to do an activity (i.e., be creative) because of a separate consequence such as verbal or tangible rewards. This research posited three research questions: (1) What factors influence the relationship between extrinsic rewards for creativity and employees' creativity, (2) How do these factors influence the relationship between extrinsic rewards for creativity and employees' creativity based on the existing literature and knowledge base, (3) How, empirically, is extrinsic rewards for creativity related to employees' creativity.

In order to achieve the purpose of this research and answer the three research questions a literature review was performed. During this stage, key factors influencing or influenced by extrinsic rewards for creativity and influencing employees' creativity were identified and explained. Next, a conceptual model was developed taking into consideration the factors identified from the literature review. The defined constructs forming the conceptual model as well as the relationship between those constructs were supported by theories from the literature. The research adopted a quantitative methodology using a survey that was administered (handed and collected) by the researcher to the intended respondents, who were employees and their supervisors working at public primary schools in the Kingdom of Bahrain. In order to ensure the reliability and validity of the data, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and path analysis were performed and resulted in a good fit for the proposed conceptual model. Some of the hypotheses set for this research were supported while others were not supported. The findings are explained in detail below in this chapter.

6.3. Revisiting the Concept of Extrinsic Rewards and Employees' Creativity

As presented earlier in the literature review chapter, the relationship between extrinsic rewards and employees' creativity has had inconsistent results, and the paradox of rewards was highlighted as a challenging question that calls for future research attention (Zhou and Shalley, 2003; Anderson et al., 2014). Some scholars argued that extrinsic rewards lead to diminishing creativity (Amabile, 1996; Amabile et al., 1986 and Kruglanski et al., 1971), while other scholars argued that extrinsic rewards can lead to enhancing creativity (Eisenberger, 1992; Eisenberger and Selbst, 1994; Eisenberger and Armeli, 1997; Eisenberger et al., 1998; Eisenberger and Rhoades, 2001).

According to the literature, there are some factors that influence the relationship between extrinsic rewards for creativity and employees' creativity. Investigating those factors identified in the literature is expected to provide further clarity on whether these relationships are positive, negative or neutral (Eisenberger and Cameron, 1996). Many factors were investigated earlier in the literature as moderators of the relationship, such as employee job complexity and cognitive style (Baer et al., 2003). Goal orientations were proposed in the literature as potential moderators of the relationship (Janssen and Van Yperen, 2004), consisting of mastery and performance orientations. Locus of control (internal and external locus of control) was also proposed in the literature as a potential moderator of the relationship between extrinsic rewards and employees' creativity (Rotter, 1966; Malik et al., 2015). Moreover, many studies were consistent with the argument that contextual factors affect creativity via their effects on individuals' intrinsic motivation, yet few studies actually measured intrinsic motivation and tested whether it empirically mediates the context-creativity relation (Zhou and Shalley, 2003); thus, intrinsic motivation was identified as a potential mediator. Consequently, in this study, the conceptual model proposed goal orientations and locus of control as moderators and intrinsic motivation as a mediator between extrinsic rewards for creativity which is the independent variable and employees' creativity which is the dependant variable.

It is worth highlighting that the current studies in the literature investigating this relationship mostly were performed in the West (region of the world) and not in the GCC

countries nor the Kingdom of Bahrain. One study that was conducted in Pakistan (Malik et al., 2015) and another that was conducted in South Korea (Yoon, Sung, Choi, et al., 2015) could be classified in the East (region of the world). However, since the nature of the present study consists of variables that are culturally sensitive and personality sensitive (such as extrinsic rewards, intrinsic motivation, goal orientations, locus of control and creativity), the results of previous studies cannot be generalized in the Kingdom of Bahrain. Although the constructs of the proposed conceptual model in this study are inspired from previous theories and existing models (Eisenberger, 1992; Malik et al., 2015, Zhou and Shalley, 2003), the results still cannot be generalized.

According to the global innovation index, the Kingdom of Bahrain had a declining global innovation ranking in the past five years. The global innovation ranking went down from 57th place in 2015 to 78th place in 2019. Also, the global innovation index ranking of the Kingdom of Bahrain has fallen behind other countries in the GCC region with the exception of Oman in the year 2019. Based on the results of the global innovation index, there is a need to enhance the innovation in the Kingdom of Bahrain, which supports the objective of this study. By investigating the factors affecting the relationship between extrinsic rewards for creativity and employees' creativity, it will be clear for practitioners the conditions under which extrinsic rewards lead to employees' creativity. According to the literature, creativity is the first step for innovation and therefore enhancing employees' creativity is expected to enhance the country's innovation (Amabile, 1996).

6.4. Instrument Validation

It was necessary to conduct reliability and validity tests of the research instruments in order to validate the findings of the research (Hair et al., 2010). In order to measure the constructs reliability, Chronbach's alpha was used as a measure of internal consistency between items in a scale, and the values for all constructs were found to be acceptable at greater than 0.7. In order to measure the constructs validity, inter-item correlation and item to total correlation were used for each construct. The inter-item correlation and

item to total correlation values found for all constructs were within the acceptable measures. Based on the reliability and validity tests results (as illustrated in table 5.2), it could be concluded that the research instruments used were valid and reliable.

In addition to conducting SEM and CFA for this research, convergent validity was performed to measure constructs validity (Hair et al., 2010). As was shown in section 5.10.3, standardized loadings, AVE and CR were examined for all items achieving satisfactory values. Therefore, it could be concluded that the measurement model has good validity.

6.5. Significance of Empirical Findings

This section presents and provides explanations for the empirical findings of this research.

6.5.1. Overview of the Findings

Starting from a thorough literature review as explained in chapter two, and the identification of the research gap, the research aim, objectives and questions were developed. In order to achieve the research aim and objectives and to answer the research questions, a conceptual model was developed consisting of seven constructs and seven hypotheses as illustrated in chapter 3. The developed conceptual model was validated and a path analysis was conducted leading to the below findings.

Hypotheses #	Prediction	Finding
H1	Extrinsic rewards for creativity are positively related to employees' creativity.	(Not supported) The relationship was found in the hypothesized direction (i.e. positive), but not statistically significant.
H2a	Extrinsic rewards for creativity are expected to have a positive effect on intrinsic motivation for creativity.	(Supported) The relationship was found in the hypothesized direction, (i.e. positive) and statistically significant.
H2b	Intrinsic motivation for creativity is expected to have a positive effect on employees' creativity.	(Not supported) The relationship was found in the hypothesized direction (i.e. positive), but not statistically significant.
H3a	Extrinsic rewards for creativity and goal orientations will interact such that employees with mastery goal orientation will exhibit lower creativity when an extrinsic reward is given.	(Supported) The relationship was found in the hypothesized direction (i.e. negative) and statistically significant
H3b	Extrinsic rewards for creativity and goal orientations will interact such that employees with performance goal orientation will exhibit higher creativity when an extrinsic reward is given.	(Not supported) The relationship was found not in the hypothesized direction (i.e. negative) and not statistically significant
H4a	Extrinsic rewards for creativity and locus of control will interact such that employees with an internal locus of control will exhibit higher creativity when an extrinsic reward is given.	(Not supported) The relationship was found not in the hypothesized direction, negative and statistically significant
H4b	Extrinsic rewards for creativity and locus of control will interact such that employees with an external locus of control will exhibit lower creativity when an extrinsic reward is given.	(Supported) The relationship was found in the hypothesized direction, negative and statistically significant

Table 6.1 Summary of Path Analysis Results.

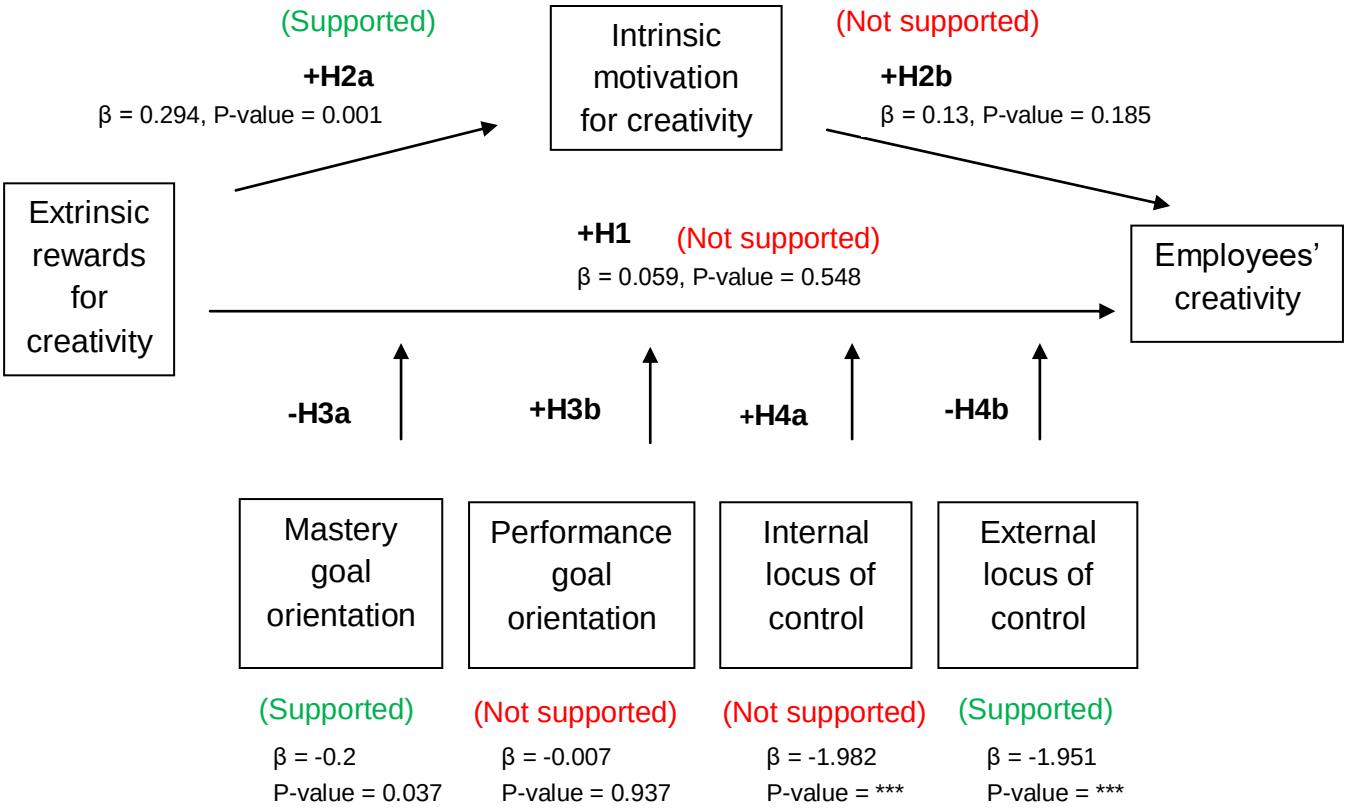


Figure 6.1 Path Analysis Results on the Conceptual Framework

As shown in table 6.1 and figure 6.1 above, three hypotheses out of the seven hypotheses suggested for this research were supported. In detail, an extrinsic reward for creativity has a significant positive effect on intrinsic motivation for creativity, therefore supporting H2a. There is a significant negative effect of extrinsic rewards for creativity on employees' creativity for employees having a mastery goal orientation, thus supporting H3a. Moreover, external locus of control had a significant negative moderating effect in the relationship between extrinsic rewards for creativity and employees' creativity, supporting H4b.

On the other hand, four hypotheses were not supported. It was found that extrinsic rewards for creativity had a non-significant positive relationship with employees'

creativity. Also, it was found that intrinsic motivation for creativity had a non-significant positive relationship with employees' creativity. Performance goal orientation had a non-significant negative moderating effect. Moreover, internal locus of control, although having a significant moderating effect, did not support the hypothesis since the result was not within the hypothesized direction.

6.5.2. Answers to the Research Questions

This research identified three main questions. Based on the results summarized in the previous section, the following sub-sections provide responses to these research questions.

6.5.2.1. Research Question 1 - *What factors influence the relationship between extrinsic rewards for creativity and employees' creativity?*

The conceptual model developed for this research investigates the relationship between extrinsic rewards for creativity and employees' creativity. In order to investigate the proposed relationship, five factors proposed by the literature were hypothesized to influence the relationship between extrinsic rewards for creativity and employees' creativity. The first factor is intrinsic motivation for creativity, and it is a proposed mediator in the relationship between extrinsic rewards for creativity and employees' creativity (Zhou and Shalley, 2003). The second factor is mastery goal orientation and the third is performance goal orientation, and each factor is a proposed moderator of the relationship (Dweck, 1986; Janssen and Van Yperen, 2004). The fourth factor is internal locus of control and the fifth is external locus of control which are also proposed moderators (Rotter, 1966; Malik et al., 2015). Findings of the research supported the relationship between some of the factors mentioned above and employees' creativity and did not provide support for others, since not all factors had a statistically significant relationship as presented in table 6.1.

The above means that personal dispositions are important to achieve creative performance. In order to achieve employees' creativity, the following factors were found statistically significant and hence should be considered by both theorists and practitioners: (1) employees' intrinsic motivation, (2) employees' mastery goal

orientation (3) employees internal locus of control (4) employees' external locus of control. Those factors were found statistically significant based on the research findings, which confirms their role in the relationship between extrinsic rewards for creativity and employees' creativity, which will be discussed in detail in sections 6.5.2.2, 6.5.2.3 and 6.5.3.

On the other hand, as per the research findings, the relationship was found not to be statistically significant between extrinsic rewards for creativity and employees' creativity, in other words, there was not enough evidence that there is a direct relationship between extrinsic rewards for creativity and employees' creativity. The fact that there was not enough evidence of a direct relationship, although unexpected, highlights the importance of considering a mediator between the constructs, extrinsic rewards for creativity and employees' creativity, to explain the relationship between them. This finding is in line with some of the prior literature which shed the light on the importance of the mediators' role in explaining this relationship, and suggested investigating the role of intrinsic motivation as a mediator. Moreover, the relationship between intrinsic motivation and employees' creativity was found non-significant, which means that there is not enough evidence that there is a relationship between intrinsic motivation for creativity and employees' creativity, such that intrinsically motivated employees working in primary public schools do not necessarily perform creatively. This finding is different from what is seen in the prior literature, where the relationship between intrinsic motivation and employees' creativity is considered as an accepted wisdom (Amabile, 1988; Shalley et al., 2004; Amabile and Pratt, 2016). However, in the context of this research, the so-called "accepted wisdom" seems not to hold true. Finally, performance goal orientation as a moderator was also found statistically non-significant, which means that there is not enough evidence that performance goal orientation moderates the relationship between extrinsic rewards for creativity and employees' creativity. The subsequent section will discuss potential reasons behind these findings in further detail (see section 6.5.3).

6.5.2.2. Research Question 2 - *How does these factors influence the relationship between extrinsic rewards for creativity and employees' creativity based on the existing literature and knowledge base?*

As mentioned, four factors were predicted to influence the relationship between extrinsic rewards for creativity and employees' creativity that are: employees' intrinsic motivation, employees' mastery goal-orientation, employees' internal locus of control, and employees' external locus of control. This section sets out how these factors were found to influence the relationship between extrinsic rewards for creativity and employees' creativity through discussing the strength and direction of the relationship being negative or positive, considering secondary source analysis.

According to the research findings, there is a positive relationship between extrinsic rewards for creativity and the intrinsic motivation of the employees. (The path analysis showed a statistically significant positive result where b=0.294). The literature confirms this positive relationship (Deci and Ryan, 1985). As suggested by the self-determination theory, the salience of the informational or controlling effect of the contextual factors determines the negative or positive effect. Such that, if employees perceive a reward as informational, it increases the intrinsic motivation. In the context of this study, it seems that the respondents (employees) consider the extrinsic rewards for creativity as informational (i.e., rewards give them information that they are competent) and not controlling (i.e., rewards are used to control their behaviour), and therefore extrinsic rewards for creativity has a positive relationship with intrinsic motivation for creativity.

On the other hand, the research findings support a number of negative predicted influences between the constructs. First, it was found that when extrinsic rewards are given to employees having a mastery goal orientation, this will lead to diminishing employees' creativity. (According to the path analysis, there is a statistically significant negative relationship for mastery goal orientation as a moderator between extrinsic rewards for creativity and employees' creativity where b= -0.2). This finding is in line with the literature. In the presence of extrinsic rewards, employees who are mastery goal-oriented are expected to experience lower creativity due to the shift in the locus of causality from the intrinsic to the extrinsic, such that the rewards will be perceived by

mastery-oriented individuals as controlling rather than as informational (Deci and Ryan, 1985). Since mastery goal-oriented individuals tend to achieve an identified goal (being creative) for the purpose of mastering a certain skill, the presence of rewards tends to shift this focus as if they are achieving an identified goal in order to get the extrinsic rewards instead of mastering a skill.

The path analysis also resulted in a statistically significant strong negative relationship for internal locus of control as a moderator between extrinsic rewards for creativity and employees' creativity where *b*= -1.982. Although internal locus of control was proposed in both the prior literature and in this study as a predictor of job performance (Judge and Bono, 2001), the direction of the relationship however is not as expected and is not similar to previous studies (Malik et al., 2015). According to the literature, individuals with an internal locus of control are expected to exhibit higher creativity in the presence of extrinsic rewards but this study's research findings show the opposite. The literature suggests that employees with an internal locus of control, since they believe that they have control over what happens to them, are expected to be immune from the controlling effect of extrinsic rewards and hence exhibit higher creativity. However, in the context of this research, even employees who have an internal locus of control were found to exhibit lower creativity when rewards are given. It is reasonable to propose that this finding may therefore be context specific, such that employees within this study's context, even when they have an internal locus of control, are less creative when given extrinsic rewards. Possible reasons for this are discussed in section 6.5.3.

According to the research findings, when extrinsic rewards are given to employees having an external locus of control, this will lead to lower creativity as predicted. (As resulted from the path analysis, there is a statistically significant strong negative relationship for external locus of control as a moderator between extrinsic rewards for creativity and employees' creativity where *b*= -1.951). This finding is supported by the literature (Judge and Bono, 2001). According to the literature, individuals with an external locus of control believe that what happens to them is due to external factors (Rotter, 1966). In other words, individuals with an external locus of control believe that they do not have control over what happens to them, and that external factors such as

luck and surrounding events control what happens to them. This is in line with the self-determination theory (Deci and Ryan, 1985); individuals with an external locus of control tend to perceive the effect of extrinsic rewards as controlling their creative behaviour and therefore exhibit lower creativity.

6.5.2.3. Research Question 3 – *How, empirically, is extrinsic rewards for creativity related to employees' creativity?*

As per the literature, there is a lack of knowledge on how extrinsic rewards for creativity can be related to employees' creativity. There are inconsistent findings in the literature on the relationship between extrinsic rewards for creativity and employees' creativity, such that some scholars argue that extrinsic rewards lead to hindering creativity (Amabile, 1996; Amabile et al., 1986) while others argue that extrinsic rewards for creativity lead to enhancing employees' creativity (Eisenberger and Rhoades, 2001; Eisenberger and Aselage, 2009). This is the main gap found in the literature, this research attempts to address it, and hence question 3 was posited.

After answering research questions 1 and 2, the answer to the third research question has become clear. According to this research, it is found that extrinsic rewards for creativity can hinder employees' creativity under certain conditions, such as an employee is mastery-oriented, has an internal or an external locus of control. It is found that there is no direct significant relationship between the independent variable (extrinsic rewards for creativity) and the dependant variable (employees' creativity) which requires the existence of a mediator. The mediator proposed for this study was intrinsic motivation for creativity which was found to be positively influenced by extrinsic rewards for creativity, however according to this study; intrinsic motivation does not necessarily lead to employees' creativity. Those findings are illustrated in table 6.1 above as well as tables 5.9 and 5.10 in the previous chapter.

In practice, this means that extrinsic rewards lead to hindering employees' creativity, specifically if an employee adopts a mastery goal orientation when achieving goals. Moreover, internal locus of control and external locus of control leads to hindering employees' creativity with a slightly stronger negative effect for employees having an

internal locus of control. The only positive impact of extrinsic rewards was found on employees' intrinsic motivation as it is enhanced when employees are rewarded, however, this does not necessarily lead to creative performance. This answers the third research question and bridges the gap identified in this research.

The knowledge gained through answering the three research questions in this study can help practitioners to understand what happens when they provide employees with extrinsic rewards for creativity. They should not be surprised if creativity is not enhanced in spite of offering extrinsic rewards.

6.5.3. Discussion of the Findings for each Hypothesis

As already stated, three of the seven hypotheses were supported, and the other four were not supported, out of which three were found non-statistically significant and one was statistically significant but in the opposite direction to that predicted. The findings represent the position of the employees working in public primary schools and their supervisors with respect to the relationship between the constructs. In this section, each of these seven results is examined in relation to the extant literature to help to identify and explain the possible reasons behind those findings.

6.5.3.1. Extrinsic Rewards for Creativity and Employees' Creativity (H1)

According to the literature, the effect of extrinsic rewards for creativity on employees' creativity yielded mixed results (Zhou and Shalley, 2003). Some scholars found a positive effect of extrinsic rewards on employees' creativity (Eisenberger, 1992; Eisenberger and Armeli, 1997; Eisenberger and Selbst, 1994; Eisenberger and Rhoades, 2001). They argued that if a positive relationship was conveyed to the employees, such that they know if they performed creatively they will be rewarded, extrinsic rewards will lead to higher creativity (Eisenberger and Rhoades, 2001). On the other hand, other scholars found a negative effect of extrinsic rewards on employees' creativity (Amabile, 1983; Amabile et al., 1986; Collins and Amabile, 1999 and Condry, 1977). They argued that extrinsic rewards have a controlling effect on individuals' creativity, such that individuals perceive their creative performance to be controlled by

the extrinsic reward and not stemmed from their capability to perform creatively (Deci and Ryan, 1971).

In order to examine the paradox and have more clarity of the relationship, more recent studies called for studying moderating and mediating variables in different contexts and cultures (Malik et al., 2015; Malik and Butt, 2017; Malik et al., 2019). As was seen from the literature, many studies were clustered in the western region (mainly in the USA), with only a few exceptions of studies conducted in the east region (Yoon, Sung, Choi, et al., 2015; Malik et al., 2015, Li et al., 2017) and non in Bahrain. Accordingly, this study was conducted in the Kingdom of Bahrain, and before studying the effect of the proposed moderators and mediator, the relationship between extrinsic rewards for creativity and employees' creativity was examined.

Results of H1 testing show that the effect of extrinsic rewards for creativity on employees' creativity was in the hypothesized direction but not statistically significant, thus H1 was not supported. Accordingly, it can be concluded that extrinsic rewards for creativity do not affect employees' creativity, there is no significant relationship between the two variables. This finding is in line with the outcome of previous researchers, where extrinsic rewards did not show a significant direct effect on employees' creativity (Malik et al., 2015).

The potential reasons behind the research findings are as follows. First, the research finding may be context-specific, since this study was conducted in the Kingdom of Bahrain on employees working in primary public schools. The literature included initial evidence that the effects of rewards on creativity might depend upon national culture (Zhang, Long, Wu, and Huang, 2015). In the context of this study and this culture, providing extrinsic rewards to employees working in primary public schools does not mean that they will perform creatively. Second, since extrinsic rewards for creativity do not directly influence employees' creativity, there may be mediating variables through which rewards affect the creative behaviour (Malik et al., 2019). In the literature, there are studies that focused on investigating mediators such as creative intention (Choi, 2004), competition and stress (Eisenberg and Thompson, 2011), and commitment to creativity (Yoon, Sung, and Choi, 2015). In this study, the role of intrinsic rewards for

creativity is studied as a mediating variable. Third, this finding points to studying potential moderators as suggested earlier in the literature (Zhou and Shalley, 2003; Malik and Butt, 2017). The importance of moderators is confirmed in the following sections, notably that the relationship between extrinsic rewards for creativity and employees' creativity was found significant in the presence of moderators such as mastery goal orientation and external locus of control. Finally, the reason behind this finding could be that the construct employees' creativity included in the conceptual model of this study was viewed as a unidimensional construct instead of a multidimensional construct. In a very recent study that studied creativity as a multidimensional construct, it was found that extrinsic rewards for creativity had a significant effect on employees' incremental creativity, but not on employees' radical creativity (Malik et al., 2019). This confirms that the results could be different when studying creativity as a multidimensional construct as opposed to a unidimensional construct. This is commented on further in directions for future research.

The key message here is that extrinsic rewards cannot work directly to achieve employees' creativity and that therefore other factors should be considered as well to understand the mechanism through which extrinsic rewards affect employees' creativity. Moreover, it is likely to be necessary to view creativity as a multidimensional construct rather than a unidimensional construct.

6.5.3.2. Extrinsic Rewards for Creativity and Intrinsic Motivation for Creativity (H2a)

Intrinsic motivation was proposed in the literature as a potential mediator that warrants further research attention (Zhou and Shalley, 2003). Existing studies in the literature argued that extrinsic rewards affected creativity via effects on intrinsic motivation, however, intrinsic motivation was not directly measured in the prior studies and therefore it was not clear if the effects of rewards on employees' creativity were mediated by intrinsic motivation (Baer et al., 2003). Moreover, recent studies in the literature did not study the direct mediation effect of intrinsic motivation, as there were proposed moderators between extrinsic rewards for creativity and intrinsic motivation (Malik et al., 2015).

In this study, it was hypothesized that extrinsic rewards for creativity lead to enhancing employees' intrinsic motivation. According to the literature, contextual factors have positive effects on intrinsic motivation if they were informational, such that they convey information that the individual is competent (Deci and Ryan, 1985). Since H2a is supported, it can be concluded that extrinsic rewards for creativity have a positive effect on employees' intrinsic motivation. This finding confirms that the construct extrinsic reward for creativity has an informational effect on employees in this context and therefore it positively affected their intrinsic motivation. Employees do not view rewards as controllers (carrots) that are used to obtain a certain benefit from them, however, they view rewards as evidence that they are capable to achieve.

There are many potential reasons that can explain the positive effect of extrinsic rewards on employees' intrinsic motivation. As mentioned earlier, in this context, giving an extrinsic reward to an employee to act creatively is a sign that the employee is competent enough to be creative, which boosts the individual's intrinsic motivation. Also, in practice, employees initially work to earn money, and therefore money is less likely to be perceived as a (carrot) or a controller to their performance. Therefore, the existence of extrinsic rewards is indifferent from this perception; it is less likely that employees consider rewards as a means to control their performance. Furthermore, this finding is supported by the literature with the introduction of "synergistic extrinsic motivation" (Amabile and Pratt, 2016). According to this concept, extrinsic rewards that help to boost employees' self-determination work to increase intrinsic motivation.

6.5.3.3. Intrinsic Motivation for Creativity and Employees' Creativity (H2b)

As can be seen from the literature, many researchers argue that when individuals are intrinsically motivated, they are likely to be most creative (Amabile, 1996; Oldham and Cummings, 1996; Shalley and Oldham, 1997). Since creativity requires taking risks, considering diverse solutions, and persisting, it is important that an individual has a high level of intrinsic motivation in order to be creative. The idea that there is a positive relationship between intrinsic motivation and creativity is considered in the literature as "accepted wisdom" (Amabile, 1988; Woodman et al., 1993).

In this research, the results of H2b testing showed that the direction of influence was in line with the literature but not statistically significant, thus H2b was not supported. It can be concluded that intrinsic motivation for creativity does not affect employees' creativity; there is no relationship between the two variables.

The reason behind this finding could be context-specific, such that there is no direct relationship between the intrinsic motivation and creativity for employees working in the primary public schools in the Kingdom of Bahrain. Having a high level of intrinsic motivation does not necessarily mean that those employees will perform creatively. This finding was perhaps the most unexpected - that intrinsic motivation is not enough for those employees to be creative, and hence it is reasonable to conclude that there could be other factors involved. Those factors may be potential mediators that are related to the employees' cognitive and affective states such as enjoyment, involvement, engagement, and commitment (Malik et al., 2019). Other factors could be potential moderators of the relationship between intrinsic motivation and employees' creativity such as individual differences (e.g., individual importance of reward, self-esteem, and risk propensity) and contextual factors (e.g., job complexity, stage of creative endeavour, and support from colleagues) (Malik et al., 2019). In other words, even if employees were intrinsically motivated and they loved their job, they may need to feel that they are engaged and involved in the tasks in order to be creative, or they may need to perceive the rewards as important and valuable in order to be creative (Malik et al., 2015), or they may need support from their colleagues to be creative. Moreover, since the respondents of this study are employees working in the public sector, where there is greater stability of employment (Bellante and Link, 1981), employees may tend to relax and stay in their comfort zone focusing on conventional performance rather than creative performance. Creative performance requires risk-taking, as it is about generating new ideas, employees in the public sector, however, have a high degree of risk aversion (Bellante and Link, 1981).

The key finding is that even if employees working in primary public schools were intrinsically motivated, they might be hesitant to perform creatively due to the above-mentioned reasons. Those reasons should be taken into account by the government

and concerned educational institutions in the Kingdom of Bahrain in order to work on enhancing employees' creativity. This is revisited in the final chapter.

6.5.3.4. Mastery Goal Orientation and Employees' Creativity (H3a) – Moderation Effect

According to the literature, goal orientations are stable personality characteristics that are believed to create different perceptions of achievement situations (Barron and Harackiewicz, 2000; Dweck, 1991; Pintrich, 2000; Van Yperen, 2003). Recent studies encouraged researchers to consider the role of goal orientations when studying the relationship between extrinsic rewards and creativity (Malik and Butt, 2017; Malik et al., 2019). In this research, goal orientations were therefore proposed as moderators between extrinsic rewards for creativity and employees' creativity in the conceptual model. Some studies in the literature suggest that employees who are mastery goal-oriented are expected to exhibit higher creativity since they focus on mastering new skills and they are likely to persist and handle complex tasks, which is what it takes to be creative (VandeWalle, 1997 and Dweck, 1991). However, those studies did not consider the existence of extrinsic rewards in the relationship. Therefore in this research, the researcher proposes a negative relationship between extrinsic rewards for creativity and employees' creativity for employees having a mastery goal orientation. This view is stemmed from the self-determination theory (Deci and Ryan, 1985). When an extrinsic reward is offered for employees working on a complex job (creative performance) that produces high intrinsic motivation, it is expected to have a controlling effect. In this case, mastery-oriented employees who aim to master the creative performance are expected to view rewards as carrots that induce their performance and hence interfere with their aim of mastering a new skill.

In this research, results of H3a testing show that extrinsic rewards for creativity are negatively related to employees' creativity for employees having a mastery goal orientation, the pattern is in line with the hypothesized direction, and the result is statistically significant, thus H3a is supported.

The reason behind this finding is that mastery-oriented employees may view extrinsic rewards as controllers of their creative performance and hence it hinders their creativity, especially that mastery-oriented employees' main aim is skill mastery, extrinsic rewards contradict this aim and therefore lead to less creativity. Furthermore, a potential context-specific reason could be that employees working in primary public schools experience high time pressure to submit the required tasks especially due to the big number of students enrolled in public schools. According to the literature, high time pressure leads to less creative thinking (Amabile, Hadley, and Kramer, 2002). Therefore, when extrinsic rewards are given to employees who are mastery-oriented, who naturally aim to master the performance in hand, and of course mastering requires time, their creative performance is decreased.

For the above-mentioned reasons it can be concluded that giving extrinsic rewards for employees who are mastery goal-oriented will lead to undesired results, such that they will exhibit lower creativity. It follows that it is unlikely that practitioners will get creative performance from mastery-oriented employees when they are provided with extrinsic rewards. Therefore, practitioners should pay attention to understanding employees' individual dispositions as well as the above-mentioned factors in order to achieve the desired results.

6.5.3.5. Performance Goal Orientation and Employees' Creativity (H3b) - Moderation Effect

The literature highlights two main goal orientations, mastery and performance goal orientation (Dweck, 1986). This section will discuss the results of the performance orientation testing as a moderator in the relationship between extrinsic rewards for creativity and employees' creativity. The research in hand suggests that in the existence of rewards, performance-oriented employees are expected to perform creatively since extrinsic rewards are expected to be perceived as signals of superior performance which is the main aim of performance-oriented individuals (Dweck, 1986).

H3b was not supported. The reason behind this finding could be that employees who are performance goal-oriented are risk-averse since they are focused on showing superiority among others, they avoid taking risks to avoid failure (Janssen and Van Yperen, 2004), and creativity is a spontaneous endeavour that includes taking risks. Therefore, even when extrinsic rewards are given, the creativity of performance-oriented employees is dropped. Moreover, this finding could be due to the subcategories of the performance orientation, as mentioned earlier in chapter 3, each goal orientation has an approach and an avoidance version. This study focused only on the approach versions; therefore the result showed that performance orientation does not affect the relationship between extrinsic rewards and employees' creativity. However, if the avoidance version of performance orientation was considered, the result could have been significant; nevertheless, this is to be confirmed by future studies. Moreover, the reason could be related to considering creativity as a unidimensional construct in this study rather than a multidimensional, especially that there is a recent study in the literature which considered creativity as a multidimensional construct and found a significant positive moderating effect of performance orientation (Malik et al., 2019). Extrinsic rewards for creativity had a significant positive effect on employees' incremental creativity for performance goal-oriented individuals, but a non-significant effect on radical creativity (Malik et al., 2019).

It can be concluded that performance goal orientation does not have a significant moderating effect in the relationship between extrinsic rewards for creativity and employees' creativity in the context of this research for the above-mentioned reasons.

6.5.3.6. Internal Locus of Control and Employees' Creativity (H4a) – Moderation Effect

According to the literature, locus of control is considered as one of the core self-evaluation theory traits (Judge et al., 1998) and is considered among the best dispositional predictors of job performance (Judge and Bono, 2001). Locus of control refers to the perception of who is in control of the surrounding events (Rotter, 1966). Therefore, in this study locus of control is proposed as a moderator in the conceptual model between extrinsic rewards for creativity and employees' creativity. Locus of

control can be internal or external (Rotter, 1966). As can be seen from the literature, individuals who have an internal locus of control believe that they have control over the events in their life, they have higher levels of job motivation and job performance (Judge and Bono, 2001), and therefore are expected to perform creatively when extrinsic rewards are present.

According to the results, there is a significant negative relationship between extrinsic rewards for creativity and employees' creativity for employees who have an internal locus of control. This finding, although statistically significant, is not in the direction of the proposed hypothesis, thus H4a was not supported. It is found that when extrinsic rewards are given to employees who have an internal locus of control; this will hinder their creative performance.

This finding was also at odds with the prevalent view in the literature. However, a potential reason for this finding is that individuals with an internal locus of control consciously decide not to be creative. This position is stemmed from the investment theory (Sternberg, 2006), which suggests that creativity is a conscious intentional decision. In this context, employees with an internal locus of control believe that they have control over the events and hence they are decision-makers, they decide not to be creative and not to be induced by extrinsic rewards. The reason behind this decision could be because of other factors that do not help towards building the intention to perform creatively (Malik and Butt, 2017). It could be that the extrinsic rewards provided are not perceived as worthy of the effort exhibited to perform creatively (Malik et al., 2015), such that employees associate low importance to those extrinsic rewards. As per some empirical findings in the literature, when employees perceived rewards as not important, extrinsic rewards were negatively related to creative performance of employees (Malik et al., 2015). It may be that employees working in the public sector perceive rewards as not important, especially that there is a specified ceiling for extrinsic rewards for organizations in the public sector which is governed by the laws in the Kingdom of Bahrain.

In conclusion, internal locus of control is a significant moderator of the relationship between extrinsic rewards for creativity and employees' creativity. Practitioners should

therefore consider employees' locus of control as well as the above-mentioned factors when offering extrinsic rewards for creativity.

6.5.3.7. External Locus of Control and Employees' Creativity (H4b) – Moderation Effect

According to the literature, individuals who have an external locus of control believe that events are controlled by luck and external forces (Rotter, 1966). Therefore, following a cognitive evaluation perspective (Deci and Ryan, 1971), individuals who have an external locus of control are expected to believe that extrinsic rewards control their creative performance. According to the literature, as stated by the self-determination theory, when extrinsic rewards are perceived as controllers, there is a negative impact on employees' creativity (Deci and Ryan, 1985; Amabile and Pratt, 2016).

H4b was found statistically significant and was supported. This finding is in line with the literature (Deci and Ryan, 1985; Malik et al., 2015; Amabile and Pratt, 2016). Employees who have an external locus of control perceive extrinsic rewards as controllers of their behaviour (Gagné and Deci, 2005). When they are given extrinsic rewards, they feel that they are externally controlled by those rewards especially that they are vulnerable to external attribution of events (Richmond and De La Serna, 1980), which negatively affects their creative performance. This finding endorses the self-determination theory, such that extrinsic rewards are found as controllers in this context (Deci and Ryan, 1985).

The key message to practitioners is that creativity will be hindered if extrinsic rewards are given to employees having an external locus of control. This, in turn, highlights the importance of understanding the concept and nature of locus of control for employees in an organization.

6.5.4. Mediation Effect of Intrinsic Motivation for Creativity

Intrinsic motivation for creativity is a proposed mediator of the relationship between extrinsic rewards for creativity and employees' creativity. Based on the empirical findings of this research for H2a and H2b to start with, there is no significant direct effect

between extrinsic rewards for creativity and employees' creativity, which sheds the light on the importance of having a mediator.

According to the results of testing the mediation effect, an indirect effect was found in the relationship between extrinsic rewards for creativity and employees' creativity, which is 0.038 as shown in table 5.11. Moreover, it was found that extrinsic rewards for creativity had a positive significant relationship with intrinsic motivation. However intrinsic motivation for creativity did not have a significant relationship with employees' creativity (table 5.10). Therefore, it can be concluded that the mediation effect of intrinsic motivation is not fully supported by the empirical findings of this research.

6.6. Chapter Summary

The effect of extrinsic rewards for creativity on employees' creativity was identified as the main research gap, and accordingly, this research investigated this gap. Based on the data analysis presented in chapter 5, this chapter has discussed the research findings, linked them to the literature, and some provided insights for practitioners, which are extended in the next chapter.

This chapter started by providing a research overview followed by revisiting some concepts from the literature. It discussed the significance of empirical findings by answering the proposed research questions as well as thoroughly explaining the results of the hypothesis testing, taking into consideration that the results are based on responses from employees working in primary public schools in the Kingdom of Bahrain and responses from their supervisors. Not all hypotheses suggested for this research were supported by empirical findings due to the possible reasons presented. In addition, not all of the empirical findings were supported by the literature, which to some extent could be expected, given the scarcity of studies conducted in the East (region of the world) and in the Kingdom of Bahrain specifically.

The discussion of the research findings provided guidance to practitioners on what happens to employees' creativity when extrinsic rewards are given. It is worth pointing

out that providing extrinsic rewards for creativity aiming to gain employees' creative performance will not always yield the desired results. It is found that extrinsic rewards do not directly lead to employees' creativity. This sheds the light on the importance of understanding the personal dispositions of the employees to achieve creative performance.

In the next chapter, the practical implications of this research as well as the specific knowledge contributions will be presented.

Chapter 7

Conclusion

7.1. Introduction

In the previous chapter, the research findings were thoroughly discussed and linked back to the prior literature. The proposed reasons behind the research findings were explained in relation to the research context of the respondents being employees and supervisors working in primary public schools in the Kingdom of Bahrain. In this chapter, the research aim and objectives are revisited (section 7.3) and the theoretical and practical contributions of the research are presented (sections 7.4 and 7.5 respectively). The research limitations are identified (section 7.6) and the directions for future research are proposed (section 7.7). In section 7.8, the lessons learned from the Ph.D. journey are outlined. The chapter starts by providing an overview of the research.

7.2. Overview of the Research

According to the literature, the innovation ranking of the Kingdom of Bahrain has been declining since 2016 as highlighted by the global innovation index (Global Innovation Index, 2019). The ranking of Bahrain's innovation has not only been declining compared to Bahrain itself but also to other GCC countries. This observation was an alert and an eye-opener to the importance of enhancing innovation, especially given that innovation is linked to the economic growth of a country (OECD, 2010). Moreover, innovation in education is particularly important due to the critical role of education in creating a sustainable future (Serdyukov, 2017). "It is widely believed that countries' social and economic well-being will depend to an ever greater extent on the quality of their citizens' education" (Cornali, 2012. P. 255). The literature highlighted that creativity is considered to be the first important step for innovation, and accordingly this research focused on the mechanisms of enhancing employees' creativity which consequently can lead to innovation (Amabile, 1996). More specifically, this research focused on the relationship

between extrinsic rewards for creativity and employees' creativity for employees working in primary public schools in the Kingdom of Bahrain.

It has generally been the 'traditional' practice for managers to offer extrinsic rewards in order to encourage employees' performance. However, the literature contains contradicting arguments and evidence that extrinsic rewards might not necessarily lead to employees' creativity. This was the main research gap, some scholars argued that extrinsic rewards lead to higher creativity (Eisenberger, 1992; Eisenberger and Selbst, 1994; Eisenberger and Armeli, 1997; Eisenberger et al., 1998; and Eisenberger and Rhoades, 2001), while others argued that extrinsic rewards hinder employees' creativity (Amabile, 1996; Hennessey and Grossman, 1986; Kruglanski et al., 1971), and each group had a distinct theoretical perspective as well as supporting empirical evidence. The contradicting findings are in fact not entirely surprising, especially given that some studies were conducted in educational settings while others were conducted in organizational settings. Some studies were experimental while others were survey-based. Moreover, the different cultures of the respondents in those studies could have contributed to the contradictory findings. Most importantly, it is likely that contextual factors and personal dispositions play a critical role in shaping the results (Zhou and Shalley, 2003; Anderson et al., 2014; Malik and Butt, 2017).

Against this background, the aim of the research in hand was to investigate the relationship between extrinsic rewards for creativity and employees' creativity, for employees' working in primary public schools in the Kingdom of Bahrain. This research proposed a conceptual framework consisting of important moderating and mediating factors identified from a careful analysis of the literature (Zhou and Shalley, 2003; Malik and Butt, 2017). Those factors were personal dispositions, namely employees' intrinsic motivation (Zhou and Shalley, 2003); employees' goal orientations (Dweck, 1986; Malik and Butt, 2017), and employees' locus of control (Rotter, 1966; Malik and Butt, 2017). There was no comprehensive research identified in the prior literature that had studied these factors, and as such, also not in the context of the Kingdom of Bahrain. In order to achieve the aim of this research, the following three questions were posited: (1) What factors influence the relationship between extrinsic rewards for creativity and

employees' creativity, (2) How do these factors influence the relationship between extrinsic rewards for creativity and employees' creativity based on the existing literature and knowledge base, (3) How, empirically, is extrinsic rewards for creativity related to employees' creativity.

The first chapter of the thesis presented the research background, identifying the research aim, objectives and questions, and the motivation to undertake the research.

The second chapter presented the findings of the literature review, highlighting the main theories and studies in the literature on the subject matter. The literature review process helped to identify the research gaps and define and confirm the research aim and objectives. Moreover, the main factors influencing the relationship between extrinsic rewards for creativity and employees' creativity were identified and discussed.

The third chapter introduced the proposed conceptual model, the development of which was influenced by the factors identified from the literature review. The corresponding research hypotheses were developed and the supporting theories from the literature for each construct and hypothesis were explained.

The fourth chapter presented the research design and approach adopted for the study. This was based on a quantitative research methodology, with the target audience of employees working in primary public schools in the Kingdom of Bahrain. The data was collected through a survey-based strategy administered by hand by the researcher. Two different questionnaires were distributed, one completed by employees and the other by their supervisors, where the latter evaluated employees' creativity.

In chapter five, the analysis of the data collected was presented. A number of tests were conducted including reliability tests, validity tests, correlation, and normality of data. Then, to validate the fitness of the conceptual model, structural equation modelling was performed. Confirmatory factor analysis was performed, followed by path analysis to test the proposed hypotheses.

In the sixth chapter, the results of the data analysis were discussed in detail. The research questions were answered and the findings were mapped to the research gap

initially identified. The results of the seven research hypotheses were comprehensively discussed in relation to the existing theories, and to practice. Interestingly, unlike what managers traditionally do in practice, it was found that extrinsic rewards do not directly lead to employees' creativity. It was also found that other personality-related factors should be considered, that are employees' mastery goal orientation, internal locus of control, external locus of control and intrinsic motivation.

7.3. Review of the Research Objectives

Based on the research aim, a number of research objectives were developed. This section will shed the light on the status of those objectives, how each objective was addressed, and whether or not each objective was achieved.

The first research objective was to identify factors that influence the relationship between extrinsic rewards for creativity and employees' creativity. In chapter 2 of this thesis, the literature review was presented. It identified dominant theories in the literature as well as potential factors that may act as mediators or moderators of the relationship between extrinsic rewards for creativity and employees' creativity. The literature identified intrinsic motivation as a mediator, goal orientations, and locus of control as moderators, and thus, the first research objective was achieved.

The second research objective was to study the current literature to identify which theories could be used to explain the relationship between the identified constructs. In the literature review chapter, major theories adopted in similar studies were explained. Those theories were then used to develop the hypotheses proposed in chapter 3 where the conceptual model was developed. Those theories were cognitive evaluation theory, self-determination theory, learned industriousness theory and achievement goal theory. Accordingly, it can be concluded that the second research objective was met.

The third research objective was to define a suitable methodology for conducting the empirical study in order to test the proposed hypotheses. In chapter 4 of this research, the adopted research methodology, and the reasons for the research design choices

were discussed in detail. The research adopted a quantitative methodology, the data was collected using surveys, the researcher physically distributed and collected the surveys from the respondents who were employees working in primary public schools in the Kingdom of Bahrain. Thus, the third research objective was met.

The fourth research objective was to analyse the research findings and discover the relationship between the proposed constructs of the conceptual model. Chapter 5 of this thesis presented findings from the data analysis which was conducted using SPSS and AMOS. The findings confirmed the fitness of the model, the reliability and validity of the constructs. The data analysis showed that not all hypotheses were supported, and accordingly highlighted the relationship between the proposed constructs being significant or insignificant, positive or negative. Consequently, the fourth research objective was achieved.

The fifth research objective was to discuss and interpret the research findings according to the literature and the research context, and to outline the theoretical contributions, practical implications, and future research directions. In chapter 6 the research findings were discussed in detail, hypothesis by hypothesis, and mapped in relation to the research questions. Theoretical and contextual reasons that could explain the research findings were discussed. In chapter 7, the theoretical contributions and practical implications are set out. This study contributed to the literature by examining a set of constructs organised into a proposed conceptual framework had not been studied before, and in a location and culture where the subject had not been considered before. Practitioners now have a clear guideline on how extrinsic rewards affect employees' creativity for employees having distinct personal dispositions, and thus can adopt a selective rewarding approach. For those reasons, it can be concluded that the fifth research objective was achieved.

It is reasonable to conclude that all of the five research objectives were met in full.

7.4. Theoretical Contributions

This section presents the main contributions of the research to the existing literature and the growing body of knowledge.

7.4.1. Contribution 1: This is the first piece of research to investigate the relationship between extrinsic rewards for creativity and employees' creativity for employees working in primary public schools in the Kingdom of Bahrain. Also, it is the first to examine the relationship in the context of the GCC. Moreover, this study is the first to examine the relationship in the context of a different cultural background than the West (region of the world) for employees from the education sector. Similar studies conducted in the East (region of the world) (e.g., Pakistan and South Korea) included respondents from different industries (e.g., manufacturing industries, service industries, research and development, financial institutions, and business consultancy firms) (Malik et al., 2015; Yoon, Sung, Choi, et al., 2015). Therefore, this research provides a novel contribution in the context of the eastern culture, GCC and the Kingdom of Bahrain specifically.

7.4.2. Contribution 2: This is the first research to investigate the moderating effect of mastery goal orientation and performance goal orientation, and to do so simultaneously, in the relationship between extrinsic rewards for creativity and employees' creativity. It is worth highlighting that only one similar study investigated the moderating role of performance goal orientation, but not mastery goal orientation in the relationship between extrinsic rewards for creativity and incremental creativity (Malik et al., 2019).

7.4.3. Contribution 3: This is also the first study to investigate the moderating effect of internal and external locus of control in the relationship between extrinsic rewards for creativity and employees' creativity. It therefore complements and extends the knowledge gleaned by the one similar study, but which investigated the moderating role of internal and external locus of control in the relationship between extrinsic rewards for creativity and intrinsic motivation (Malik et al., 2015).

7.4.4. Contribution 4: The main gap found in the literature was the extrinsic rewards-creativity paradox and the need to understand how those constructs are related (Zhou and Shalley, 2003). Accordingly, this research investigated the mediating role of intrinsic

motivation and found that there was no enough evidence that intrinsic motivation is a mediator in the relationship between extrinsic rewards for creativity and employees' creativity. However, it was found that extrinsic rewards for creativity helped to boost employees' intrinsic motivation for employees working in primary public girls schools in the Kingdom of Bahrain.

7.4.5. Contribution 5: The literature identified potential factors that may affect the relationship between extrinsic rewards for creativity and employees' creativity. The research in hand confirmed which factors had a significant effect, and which factors did not have a significant effect in the relationship between extrinsic rewards for creativity and employees' creativity. The study in hand contributed to the existing knowledge therefore, by determining that (in the context of this study), performance goal orientation does not have a moderating influence on the relationship between extrinsic rewards for creativity and employees' creativity, however mastery goal orientation does. Furthermore, it has contributed to the existing knowledge by determining that internal and external locus of control have a moderating influence on the relationship between extrinsic rewards for creativity and employees' creativity.

7.4.6. Contribution 6: The literature suggested studying personal dispositions as moderators of the relationship to understand when extrinsic rewards lead to enhancing employees' creativity and when extrinsic rewards lead to hindering employees' creativity. This research made this contribution, the outcomes of this research adding to the knowledge by revealing that mastery goal orientation leads to hindering employees' creativity. Also, internal and external locus of control negatively affected employees' creativity for employees working in primary public girls schools in the Kingdom of Bahrain. This research contributes to the existing body of knowledge by clearly identifying the conditions that hinder employees' creativity in the context of the educational sector in the Kingdom of Bahrain and the GCC, which guides theorists addressing similar relationship in a similar context.

7.4.7. Contribution 7: A conceptual model was developed for this research to address the research aim, objectives, and questions. The conceptual model consisted of seven constructs and seven hypotheses and was tested and validated. To the best of the

researcher's knowledge, this is the first conceptual model of its kind to investigate the relationship between extrinsic rewards for creativity and employees' creativity, considering intrinsic motivation as a mediator, goal orientations, and locus of control as moderators. Hence, the developed conceptual model is a novel theoretical contribution that can be applied and tested in multiple different contexts and settings. Such that, it can be applied in other educational settings (i.e. private schools, intermediate and high schools and higher education institutions), it can be applied in other countries in the GCC and in other sectors as well.

7.5. Practical Implications

In this research, the relationship between extrinsic rewards for creativity and employees' creativity was studied from the perspective of employees working in primary public schools in the Kingdom of Bahrain, with respondents representing both employees and supervisors based on the research design. Outcomes of this research are therefore expected to benefit managers working in the public educational sector, by providing them with a clear guideline on how offering extrinsic rewards affect employees' creativity for the identified personal disposition.

According to the findings of this research, offering extrinsic rewards for creativity does not directly lead to employees' creativity. It is not enough to provide extrinsic rewards when aiming for a creative behaviour. This finding could be a surprise for practitioners who traditionally offer extrinsic rewards aiming to induce employees' creative behaviour. Practitioners should take note of the fact that providing extrinsic rewards for creativity is not enough to obtain employees' creative performance. The research provides an outline that helps practitioners to understand the conditions under which extrinsic rewards lead to enhancing or hindering employees' creativity. Those boundary conditions that influence the effect of extrinsic rewards on employees' creativity were employees' intrinsic motivation, goal orientations, and locus of control.

To start with, practitioners should understand the personal dispositions of the employees in an organization before they offer extrinsic rewards. It is confirmed by this research that employees with different personality characteristics perceive rewards

differently and thus behave differently when they are rewarded. Practitioners should consider testing employees' goal orientations and locus of control before deciding whether or not to offer extrinsic rewards for creativity. Moreover, based on the results of the personality dispositions, practitioners may consider adopting a selective rewarding approach, such that they avoid providing extrinsic rewards for employees who have a personal disposition that leads to hindering employees' creativity. The study in hand enlightens practitioners with those conditions, such that employees with a mastery goal orientation will exhibit lower creativity when extrinsic rewards are given. Likewise, employees with an internal or an external locus of control will exhibit lower creativity when extrinsic rewards are given. Therefore, practitioners should be cautious when giving rewards to employees from the mentioned categories.

This research confirms that providing extrinsic rewards for creativity leads to enhancing employees' intrinsic motivation. This piece of knowledge is useful for practitioners who want to enhance employees' intrinsic motivation; the outcomes of this study ensure that providing extrinsic rewards will give practitioners the desired result in boosting employees' intrinsic motivation. However, the desired results in relation to employees' creativity stop at this point, since a high intrinsic motivation does not necessarily lead to higher creativity, and thus obtaining further desired results depends on why practitioners want to boost employees' intrinsic motivation and whether the desired performance is significantly positively correlated with employees' intrinsic motivation. r

This research provided practical contributions for practitioners of the educational sector, specifically in the Kingdom of Bahrain and the GCC countries. By considering this research findings, practitioners could apply practices that enhance employees' intrinsic motivation and creativity, and avoid practices that hinder employees' creativity. As a result, employees' creativity is expected to be enhanced which leads to enhancing the global innovation index ranking of the Kingdom of Bahrain in the education sector and creative outputs specifically. Moreover, global innovation index ranking of the GCC countries, which experienced a fluctuating pattern, could also be enhanced.

The previous paragraphs covered the practical implications of this research. It provided guidelines for practitioners to understand the important factors influencing employees'

creativity in the presence of extrinsic rewards for creativity. This section has offered suggestions for practitioners based on the research findings.

7.6. Research Limitations

Each research study has its limitations, and this research of course is not without limitations. This section presents the limitations associated with this research.

First, no research study can capture all possible factors/influences. Accordingly, this research did not capture the influence of some important factors, such as time pressure, engagement, commitment, individual importance of reward, self-esteem, risk propensity, job complexity, stage of creative endeavour, and support from colleagues. Those factors are important to deeply understand the relationship between extrinsic rewards for creativity and employees' creativity; however, they were not captured in the research. The review of the literature which pointed to the importance of intrinsic motivation, mastery goal orientation, performance goal orientation, internal locus of control, and external locus of control, which were therefore chosen as the factors to investigate in this research.

Second, creative performance in this research was viewed as a unidimensional construct. This may explain some of the unexpected findings in the research outcomes. Viewing creativity as a multidimensional construct may therefore provide a more detailed understanding of the relationship between the constructs. Creative performance may be classified based on the level of analysis, or based on the nature of creative outcome, or based on whether creativity is triggered by internal drive or external pressure.

Third, the construct extrinsic rewards for creativity adopted in this research was general and it included both tangible and intangible extrinsic rewards. Arguably, this could be considered as a further limitation for this research. Although extrinsic rewards were specified as extrinsic rewards for creativity, which means that it is clear for employees that those rewards were provided to obtain a desired creative performance, the type of

extrinsic reward was not specified. This classification is useful to further understand the influence of extrinsic rewards on employees' creativity; however, it was not captured in this research due to time limitations.

Fourth, this research adopted only a quantitative methodology. The adoption of a quantitative methodology is useful to generalize the research findings and was deemed the appropriate methodology to test the proposed conceptual model. However, on its own, it inevitably restricts the depth of understanding of the reason underpinning the findings concerning the factors influencing/not influencing the relationship between extrinsic rewards for creativity and employees' creativity, in a certain context. A mixed methodology was not adopted by the researcher as it was beyond the scope of the study.

Fifth, this research was a cross-sectional design; the data was collected at one point in time, which could also be considered as a limitation. Since at one particular point in time there may be other factors influencing the answers of the research respondents, which arguably might be easier to detect if the data was collected at multiple points of time. Longitudinal studies can give more nuanced results than a cross-sectional study; however, it was not possible to adopt longitudinal research due to the duration of the research investigation that would have been necessary.

Finally, the outcome of this research, as with most research investigations, is necessarily context-specific. It is limited to a specific country, situation, and conditions. Since the respondents' sample of this research are employees and their supervisors working in primary public schools in the Kingdom of Bahrain, arguably the research outcome may be generalized to intermediate and secondary public schools as well. Especially that the policies, procedures, and rewarding systems are similar for public schools in the Kingdom of Bahrain as they are all governed by the ministry of education. Moreover, the results may be generalized within the GCC region, as most countries share the same political, economic, educational, and cultural structure. However, the results arguably cannot be generalized beyond GCC countries. Also, the results cannot be generalized beyond female schools since the sample of this research included only primary public girls' schools in which the employees are all females.

7.7. Future Research Directions

Based on the research limitations presented above, this section provides suggestions for future research in order to enrich the understanding of the relationship between extrinsic rewards and employees' creativity.

As mentioned in the limitations section, there are important factors that were not captured in this research but they are potential mediators. For instance: factors related to the employees' cognitive and affective states such as enjoyment, involvement, engagement, and commitment (Malik et al., 2019). Other factors could be potential moderators such as individual differences (e.g., individual importance of reward, self-esteem, and risk propensity) and contextual factors (e.g., job complexity, stage of creative endeavour, and support from colleagues) (Malik et al., 2019). Accordingly, the conceptual model may be expanded/modified in future studies to include the above-mentioned mediators and moderators.

In addition, in future studies, researchers may consider expanding the conceptual model by further breaking down the dependant and independent variables. For example, the independent variable extrinsic rewards for creativity could be further classified into tangible and intangible extrinsic rewards, and the dependant variable employees' creativity could be viewed as a multidimensional construct and classified accordingly based on the level of analysis (e.g., team creativity vs. individual creativity; Taggar, 2002), or based on the nature of creative outcome (e.g., incremental vs. radical; Gilson and Madjar, 2011), or based on whether creativity is triggered by internal drive or external pressure (e.g., proactive vs. responsive creativity; Sung, Antefelt and Choi, 2017).

Moreover, to enhance the understanding of the relationship between extrinsic rewards for creativity and employees' creativity and the factors involved, qualitative research approaches could be adopted. Adopting a mixed methodology will also be useful to enrich the research findings. Also, to confirm the research findings and overcome any potential bias, conducting a longitudinal study will be useful.

Furthermore, similar future research may be conducted to include male schools in order to generalize the findings. Also, this research can be conducted in other GCC countries or any other country in the world. Furthermore, the selection of focal organizations could be different such as universities or private schools instead of public schools. This study could also be conducted in organizations operating in other industries and not only in the educational sector. It would be interesting to conduct a comparative analysis of public vs. private schools in the Kingdom of Bahrain or a comparative analysis of the GCC countries with respect to this subject matter.

The above lines provided a map for scholars to follow in future research in order to enhance the understanding of the concepts discussed in this research.

7.8. Lessons Learned from the Ph.D. Journey

At the end of this thesis, the researcher will talk about the lessons learned from the Ph.D. journey and the challenges the researcher has been through. By sharing this journey the researcher hopes to inspire current and future researchers to successfully accomplish their goals.

Going through a Ph.D. journey is like riding a roller coaster. This is of course not how the researcher pictured the journey to start with. However, after she started her studies she faced a lot of ups and downs; it was definitely not a straight road. Though this should be expected, especially that great achievements require great efforts. If getting a Ph.D. was easy, everyone would have done it. The first and biggest challenge the researcher faced was her own self. It may be surprising but it is the truth. The hardest part was to face her excuses, her fears, and laziness. It is hard to be committed and dedicate tremendous time and effort all by one's self throughout the whole 3 years. Although there were deadlines that may push one to be committed, however, a Ph.D. needs a bigger inner push. In addition to dealing with herself, the researcher had to deal with other external factors, such that she had major shifts in her career as well as her personal life during the Ph.D. journey which indeed was not easy to deal with. During her Ph.D. journey, she resigned from her job as a practitioner and commenced her

career in teaching academic and professional courses, she got married, she immigrated from her home country and lived in Jordan for a year and then came back to Bahrain, she was blessed to have her first baby and blessed to be pregnant with her second baby all during the Ph.D. journey. It was as overwhelming as it sounds, dealing with those life-changing experiences while doing a Ph.D. was extremely challenging.

Moreover, the researcher encountered some challenges while working on the Ph.D. phases. Such that, both her first and second supervisors got changed, this took some time to adjust with. In addition, the data collection process was another story since the data was collected physically from the field by the researcher, this included multiple visits to the schools, waiting for the teachers to be free to hand out the surveys, explain and collect them on spot. Also, due to the data collection method, a data entry phase was added to the work. What is more, the Corona Virus pandemic started during the Ph.D. journey; thankfully it did not affect the data collection which was done prior to the lockdown. However, it affected the researcher's learning progress since important scheduled SPSS workshops got postponed; this doubled the researcher's effort in learning about data analysis from the available online resources.

What helped the researcher to overcome those challenges was that every time she felt weak, she reminded herself of why she started this journey on the first place. She reminded herself of how much she wanted this degree, of how this degree will help her advance in her dream career, that this degree is her passport to become an academic, to add value to the researchers' community, and to practice her passion for teaching.

From the Ph.D. journey, the researcher learned a lot of lessons. Since it was her first research project at a post-graduate level, the researcher learned how to read the literature critically and develop her thoughts accordingly. She learned academic writing skills, and today she has two published symposium papers and one published journal article. She learned how to use data analysis tools such as SPSS and AMOS, and how to interpret the findings. Furthermore, the researcher learned how to be fully responsible for her actions. She learned that "if it is to be, it is up to me", excuses are just self-made blocks that an individual puts in his own way to succeed. She learned that nobody will

do it for her if she doesn't do it for herself. She learned how to be truly committed, and that procrastination only feeds future regrets.

The researcher today is definitely a different person than who she was 3 years ago; she feels that she is a stronger person. A Ph.D. journey is an opportunity for every researcher to discover strengths he/she did not know have existed. The researcher's advice for current and future researchers is to enjoy the roller coaster ride and make the best out of it.

References

Abay, K.A., Blalock, G. and Berhane, G., 2017. Locus of control and technology adoption in developing country agriculture: Evidence from Ethiopia. *Journal of Economic Behaviour and Organization*, *143*, pp.98-115.

Abdi Mohamud, S., Ibrahim, A.A. and Hussein, J.M., 2017. The effect of motivation on employee performance: Case study in Hormuud company in Mogadishu Somalia. *International Journal of Development Research*, *9*(11), pp.17009-17016.

Akarakiri, J.B., 1998. Utilisation of creativity and innovation by the practice of new-product planning in developing countries. *IFE PsychologIA: An International Journal*, *6*(2), pp.64-80.

Amabile, T.M. and Pratt, M.G., 2016. The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in organizational behaviour*, *36*, pp.157-183.

Amabile, T.M., 1979. Effects of external evaluation on artistic creativity. *Journal of personality and Social Psychology*, *37*(2), p.221.

Amabile, T.M., 1983. The social psychology of creativity: A componential conceptualization. *Journal of personality and social psychology*, *45*(2), p.357.

Amabile, T.M., 1988. A model of creativity and innovation in organizations. *Research in organizational behaviour*, *10*(1), pp.123-167.

Amabile, T.M., 1993. Motivational synergy: Toward new conceptualizations of intrinsic and extrinsic motivation in the workplace. *Human resource management review*, *3*(3), pp.185-201.

Amabile, T.M., 1996. Creativity and innovation in organizations.

Amabile, T.M., 1998. *How to kill creativity* (Vol. 87). Boston, MA: Harvard Business School Publishing.

Amabile, T.M., Goldfarb, P. and Brackfield, S., 1990. Social influences on creativity: Evaluation.

Amabile, T.M., Hadley, C.N. and Kramer, S.J., 2002. Creativity under the gun. *Harvard business review*, *80*, pp.52-63.

Amabile, T.M., Hennessey, B.A. and Grossman, B.S., 1986. Social influences on creativity: The effects of contracted-for reward. *Journal of personality and social psychology*, *50*(1), p.14.

Amabile, T.M., Hill, K.G., Hennessey, B.A. and Tighe, E.M., 1994. The Work Preference Inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of personality and social psychology*, *66*(5), p.950.

Ames, C. and Archer, J., 1987. Mothers' beliefs about the role of ability and effort in school learning. *Journal of educational psychology*, *79*(4), p.409.

Ames, C. and Archer, J., 1988. Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of educational psychology*, *80*(3), p.260.

Ames, C., 1992. Classrooms: Goals, structures, and student motivation. *Journal of educational psychology*, *84*(3), p.261.

Anderman, E.M. and Maehr, M.L., 1994. Motivation and schooling in the middle grades. *Review of educational Research*, *64*(2), pp.287-309.

Anderson, N., Potočnik, K. and Zhou, J., 2014. Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, *40*(5), pp.1297-1333.

Asante, E.A. and Affum-Osei, E., 2019. Entrepreneurship as a career choice: The impact of locus of control on aspiring entrepreneurs' opportunity recognition. *Journal of Business Research*, *98*, pp.227-235.

Auger, P. and Woodman, R.W., 2016. Creativity and intrinsic motivation: Exploring a complex relationship. *The journal of applied behavioural science*, *52*(3), pp.342-366.

Baer, M., Oldham, G.R. and Cummings, A., 2003. Rewarding creativity: when does it really matter?. *The Leadership Quarterly*, *14*(4-5), pp.569-586.

Baier, F., Decker, A.T., Voss, T., Kleickmann, T., Klusmann, U. and Kunter, M., 2019. What makes a good teacher? The relative importance of mathematics teachers' cognitive ability, personality, knowledge, beliefs, and motivation for instructional quality. *British Journal of Educational Psychology*, *89*(4), pp.767-786.

Barrett, H., Balloun, J.L. and Weinstein, A., 2005. The impact of creativity on performance in non-profits. *International Journal of Nonprofit and Voluntary Sector Marketing*, *10*(4), pp.213-223.

Barron, K.E. and Harackiewicz, J.M., 2000. Achievement goals and optimal motivation: A multiple goals approach. In *Intrinsic and extrinsic motivation* (pp. 229-254). Academic Press.

Behr, D., 2017. Assessing the use of back translation: The shortcomings of back translation as a quality testing method. *International Journal of Social Research Methodology*, *20*(6), pp.573-584.

Bellante, D. and Link, A.N., 1981. Are public sector workers more risk averse than private sector workers?. *ILR Review*, *34*(3), pp.408-412.

Berger, J.L. and Girardet, C., 2020. Vocational teachers' classroom management style: the role of motivation to teach and sense of responsibility. *European Journal of Teacher Education*, pp.1-17.

Bernard, H.R., 2017. *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman and Littlefield.

Brislin, R.W., 1970. Back-translation for cross-cultural research. *Journal of cross-cultural psychology*, *1*(3), pp.185-216.

Brophy, J., 1999. Toward a model of the value aspects of motivation in education: Developing appreciation for.. *Educational psychologist*, *34*(2), pp.75-85.

Brown, R.B. and Saunders, M.P., 2007. *Dealing with statistics: What you need to know*. McGraw-Hill Education (UK).

Bryman, A. and Cramer, D., 2011. *Quantitative data analysis with IBM SPSS 17, 18 and 19*. Routledge.

Burns, A.C. and Bush, R.F., 2006. Marketing research 5th ed. *New Jersey*.

Burrell, G. and Morgan, G., 2017. *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Routledge.

Butler, R., 1987. Task-involving and ego-involving properties of evaluation: Effects of different feedback conditions on motivational perceptions, interest, and performance. *Journal of educational psychology*, *79*(4), p.474.

Byron, K. and Khazanchi, S., 2012. Rewards and creative performance: a meta-analytic test of theoretically derived hypotheses. *Psychological bulletin*, *138*(4), p.809.

Calder, B.J. and Staw, B.M., 1975. Self-perception of intrinsic and extrinsic motivation. *Journal of personality and social psychology*, *31*(4), p.599.

Che-Ha, N., Mavondo, F.T. and Mohd-Said, S., 2014. Performance or learning goal orientation: Implications for business performance. *Journal of Business Research*, *67*(1), pp.2811-2820.

Choi, J.N., 2004. Individual and contextual predictors of creative performance: The mediating role of psychological processes. *Creativity Research Journal*, *16*(2-3), pp.187-199.

Collins, D., 2003. Pretesting survey instruments: an overview of cognitive methods. *Quality of life research*, *12*(3), pp.229-238.

Collins, M.A. and Amabile, T.M., 1999. I5 motivation and creativity. *Handbook of creativity*, *297*, pp.1051-1057.

Collis, J. and Hussey, R., 2014. Business Research. sl.

Condry, J., 1977. Enemies of exploration: Self-initiated versus other-initiated learning. *Journal of Personality and Social Psychology*, *35*(7), p.459.

Cornali, F., 2012. Effectiveness and efficiency of educational measures: Evaluation practices, indicators and rhetoric. *Sociology Mind*, *2*(03), p.255.

Cramer, D., 2003. *Advanced quantitative data analysis*. McGraw-Hill Education (UK).

Creswell, J.W. and Creswell, D.J., 2018. Research design: Qualitative, quantitative, and mixed methods approaches. United Kingdom, UK.

Crotty, M., 1998. *The foundations of social research: Meaning and perspective in the research process*. Sage.

Daniel, T.L. and Esser, J.K., 1980. Intrinsic motivation as influenced by rewards, task interest, and task structure. *Journal of Applied Psychology*, *65*(5), p.566.

Darnon, C., Butera, F. and Harackiewicz, J.M., 2007. Achievement goals in social interactions: Learning with mastery vs. performance goals. *Motivation and Emotion*, *31*(1), pp.61-70.

de Jesus, S.N., Rus, C.L., Lens, W. and Imaginário, S., 2013. Intrinsic motivation and creativity related to product: A meta-analysis of the studies published between 1990–2010. *Creativity Research Journal*, *25*(1), pp.80-84.

Decharms, R. and Carpenter, V., 1968. Measuring motivation in culturally disadvantaged school children. *The Journal of Experimental Education*, *37*(1), pp.31-41.

Deci, E.L. and Cascio, W.F., 1972. Changes in intrinsic motivation as a function of negative feedback and threats.

Deci, E.L. and Ryan, R.M., 1985. The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, *19*(2), pp.109-134.

Deci, E.L. and Ryan, R.M., 2000. The" what" and" why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological inquiry*, *11*(4), pp.227-268.

Deci, E.L., 1971. Effects of externally mediated rewards on intrinsic motivation. *Journal of personality and Social Psychology*, *18*(1), p.105.

Deci, E.L., 1975. Intrinsic motivation. New York, NY, US.

Deci, E.L., Koestner, R. and Ryan, R.M., 1999. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological bulletin*, *125*(6), p.627.

Deci, E.L., Koestner, R. and Ryan, R.M., 2001. Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of educational research*, *71*(1), pp.1-27.

Deci, E.L., Nezlek, J. and Sheinman, L., 1981. Characteristics of the rewarder and intrinsic motivation of the rewardee. *Journal of personality and social psychology*, *40*(1), p.1.

Denis, D.J., 2018. *SPSS data analysis for univariate, bivariate, and multivariate statistics*. John Wiley and Sons.

Duda, J.L., 2001. Achievement goal research in sport: Pushing the boundaries and clarifying some misunderstandings. *Advances in motivation in sport and exercise*, *129*, p.182.

Dweck, C.S. and Elliot, E., 1988. Goals: An approach to motivation and achievement. *Journal of personality and Social Psychology*, *54*(1), pp.5-12.

Dweck, C.S. and Leggett, E.L., 1988. A social-cognitive approach to motivation and personality. *Psychological review*, *95*(2), p.256.

Dweck, C.S., 1986. Motivational processes affecting learning. *American psychologist*, *41*(10), p.1040.

Dweck, C.S., 1991. Personality, and Development. *Perspectives on motivation*, *38*, p.199.

Edrak, B.B., Yin-Fah, B.C., Gharleghi, B. and Seng, T.K., 2013. The effectiveness of intrinsic and extrinsic motivations: A study of Malaysian Amway company's direct sales forces. *International Journal of Business and Social Science*, *4*(9), pp.96-103.

Eisenberg, J. and Thompson, W.F., 2011. The effects of competition on improvisers' motivation, stress, and creative performance. *Creativity Research Journal*, *23*(2), pp.129-136.

Eisenberger, R. and Armeli, S., 1997. Can salient reward increase creative performance without reducing intrinsic creative interest?. *Journal of personality and social psychology*, *72*(3), p.652.

Eisenberger, R. and Aselage, J., 2009. Incremental effects of reward on experienced performance pressure: Positive outcomes for intrinsic interest and creativity. *Journal of Organizational Behaviour: The International Journal of Industrial, Occupational and Organizational Psychology and Behaviour*, *30*(1), pp.95-117.

Eisenberger, R. and Cameron, J., 1996. Detrimental effects of reward: Reality or myth?. *American psychologist*, *51*(11), p.1153.

Eisenberger, R. and Cameron, J., 1998. Reward, intrinsic interest, and creativity: New findings.

Eisenberger, R. and Rhoades, L., 2001. Incremental effects of reward on creativity. *Journal of personality and social psychology*, *81*(4), p.728.

Eisenberger, R. and Selbst, M., 1994. Does reward increase or decrease creativity?. *Journal of Personality and Social Psychology*, *66*(6), p.1116.

Eisenberger, R. and Shanock, L., 2003. Rewards, intrinsic motivation, and creativity: A case study of conceptual and methodological isolation. *Creativity Research Journal*, *15*(2-3), pp.121-130.

Eisenberger, R., 1992. Learned industriousness. *Psychological review*, *99*(2), p.248.

Eisenberger, R., Armeli, S. and Pretz, J., 1998. Can the promise of reward increase creativity?. *Journal of Personality and Social Psychology*, *74*(3), p.704.

Ek, K. and Mukuru, E., 2013. Effect of motivation on employee performance in public middle level Technical Training Institutions in Kenya. *International Journal of Advances in Management and Economics*, *2*(4), pp.73-82.

Elkjaer, B. and Simpson, B., 2011. Pragmatism: A lived and living philosophy. What can it offer to contemporary organization theory?. In *Philosophy and organization theory*. Emerald Group Publishing Limited.

Elliot, A.J. and Church, M.A., 1997. A hierarchical model of approach and avoidance achievement motivation. *Journal of personality and social psychology*, *72*(1), p.218.

Elliot, A.J. and McGregor, H.A., 2001. A 2× 2 achievement goal framework. *Journal of personality and social psychology*, *80*(3), p.501.

Elliot, A.J., 1999. Approach and avoidance motivation and achievement goals. *Educational psychologist*, *34*(3), pp.169-189.

Elliott, E.S. and Dweck, C.S., 1988. Goals: An approach to motivation and achievement. *Journal of personality and social psychology*, *54*(1), p.5.

Erez, M., Gopher, D. and Arzi, N., 1990. Effects of goal difficulty, self-set goals, and monetary rewards on dual task performance. *Organizational behaviour and human decision processes*, *47*(2), pp.247-269.

Farr, J.L., Hofmann, D.A. and Ringenbach, K.L., 1993. Goal orientation and action control theory: Implications for industrial and organizational psychology. *International review of industria*l and organizational psychology, 8(2), pp.193-232.

Fernet, C., Austin, S. and Vallerand, R.J., 2012. The effects of work motivation on employee exhaustion and commitment: An extension of the JD-R model. Work and Stress, 26(3), pp.213-229.

Field, A., 2013. Discovering statistics using IBM SPSS statistics. sage.

Fink, A., 2003. *The survey handbook*. Sage.

Fischer, C., Malycha, C.P. and Schafmann, E., 2019. The influence of intrinsic motivation and synergistic extrinsic motivators on creativity and innovation. *Frontiers in psychology*, *10*, p.137.

Fisher, S.L. and Ford, J.K., 1998. Differential effects of learner effort and goal orientation on two learning outcomes. *Personnel Psychology*, *51*(2), pp.397-420.

Ford, C.M., 1996. A theory of individual creative action in multiple social domains. *Academy of Management review*, *21*(4), pp.1112-1142.

Gackstatter, S., Kotzemir, M. and Meissner, D., 2014. Building an innovation-driven economy–the case of BRIC and GCC countries. *Foresight*.

Gagné, M. and Deci, E.L., 2005. Self-determination theory and work motivation. *Journal of Organizational behaviour*, *26*(4), pp.331-362.

George, J.M. and Zhou, J., 2001. When openness to experience and conscientiousness are related to creative behaviour: an interactional approach. *Journal of applied psychology*, *86*(3), p.513.

George, J.M. and Zhou, J., 2002. Understanding when bad moods foster creativity and good ones don't: the role of context and clarity of feelings. *Journal of applied psychology*, *87*(4), p.687.

Gill, J. and Johnson, P., 2002. *Research methods for managers*. Sage.

Gilson, L.L. and Madjar, N., 2011. Radical and incremental creativity: Antecedents and processes. *Psychology of Aesthetics, Creativity, and the Arts*, *5*(1), p.21.

Gilson, L.L., Mathieu, J.E., Shalley, C.E. and Ruddy, T.M., 2005. Creativity and standardization: complementary or conflicting drivers of team effectiveness?. *Academy of Management journal*, *48*(3), pp.521-531.

Gorsuch, R. L. (1983). Factor analysis (2nd ed.). Hillsdale, NJ: Erlbaum

Grant, A.M. and Berry, J.W., 2011. The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of management journal*, *54*(1), pp.73-96.

Grolnick, W.S. and Ryan, R.M., 1989. Parent styles associated with children's self-regulation and competence in school. *Journal of educational psychology*, *81*(2), p.143.

Grolnick, W.S., Ryan, R.M. and Deci, E.L., 1991. Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of educational psychology*, *83*(4), p.508.

Guay, F., Ratelle, C.F., Roy, A. and Litalien, D., 2010. Academic self-concept, autonomous academic motivation, and academic achievement: Mediating and additive effects. *Learning and Individual Differences*, *20*(6), pp.644-653.

Habib, M.M., Pathik, B.B. and Maryam, H., 2014. *Research methodology-contemporary practices: guidelines for academic researchers*. Cambridge Scholars Publishing.

Hair, J., Page, M. and Brunsveld, N., 2019. *Essentials Of Business Research Methods*. 4th ed. Taylor and Francis Group, pp.179-301.

Hair, J.F., 2010. Black, Wc, Babin, Bj, and Anderson, Re (2010). *Multivariate data analysis*, *7*.

Hair, J.F., 2015. *Essentials of business research methods*. ME Sharpe.

Harackiewicz, J.M., Barron, K.E., Tauer, J.M., Carter, S.M. and Elliot, A.J., 2000. Short-term and long-term consequences of achievement goals: Predicting interest and performance over time. *Journal of educational psychology*, *92*(2), p.316.

Hassan, M.U., Qureshi, S.U., Sharif, S. and Mukhtar, A., 2013. Impact of marketing strategy creativity on organizational performance via marketing strategy implementation effectiveness: empirical evidence from pakistani organizations. *Middle-East Journal of Scientific Research*, *16*(2), pp.264-273.

Hayduk, L., Cummings, G., Boadu, K., Pazderka-Robinson, H. and Boulianne, S., 2007. Testing! testing! one, two, three–Testing the theory in structural equation models!. *Personality and Individual Differences*, *42*(5), pp.841-850.

Heider, F., 1958. The psychology of interpersonal relations New York Wiley, 1958.

Hennessey, B.A., 1989. The effect of extrinsic constraints on children's creativity while using a computer. *Creativity Research Journal*, *2*(3), pp.151-168.

Hennessy, B.A. and Amabile, T.M., 1988. The conditions of environment. *The nature of creativity: Contemporary psychological perspectives*, pp.11-38.

Heron, J., 1996. *Co-operative inquiry: Research into the human condition*. Sage.

Hirst, G., Van Knippenberg, D. and Zhou, J., 2009. A cross-level perspective on employee creativity: Goal orientation, team learning behaviour, and individual creativity. *Academy of management journal*, *52*(2), pp.280-293.

Hong, O. and Song, J., 2020. A componential model of Science Classroom Creativity (SCC) for understanding collective creativity in the science classroom. *Thinking Skills and Creativity*, p.100698.

Howard, J.L., Gagné, M. and Bureau, J.S., 2017. Testing a continuum structure of self-determined motivation: A meta-analysis. *Psychological Bulletin*, *143*(12), p.1346.

Howitt, D. and Cramer, D., 2011. *Introduction to SPSS statistics in psychology: for version 19 and earlier*. Pearson.

Hox, J.J. and Bechger, T.M., 1998. An introduction to structural equation modelling.

Hu, L.T. and Bentler, P.M., 1998. Fit indices in covariance structure modelling: Sensitivity to underparameterized model misspecification. *Psychological methods*, *3*(4), p.424.

Hu, L.T. and Bentler, P.M., 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modelling: a multidisciplinary journal*, *6*(1), pp.1-55.

Hulleman, C.S., Schrager, S.M., Bodmann, S.M. and Harackiewicz, J.M., 2010. A meta-analytic review of achievement goal measures: Different labels for the same constructs or different constructs with similar labels?. *Psychological bulletin*, *136*(3), p.422.

Incentivefederation.org. 2016. *Incentive Marketplace Estimate Research Study*. [online] Available at: <https://www.incentivefederation.org/wp-content/uploads/2016/07/Incentive-Marketplace-Estimate-Research-Study-2015-16-White Paper.pdf>.

Janssen O, Van Yperen NW. Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. Academy of management journal. 2004 Jun 1;47(3):368-84.

Joussemet, M. and Koestner, R., 1999. Effect of expected rewards on children's creativity. *Creativity Research Journal*, *12*(4), pp.231-239.

Judge, T.A. and Bono, J.E., 2001. Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of applied Psychology*, *86*(1), p.80.

Judge, T.A., Locke, E.A., Durham, C.C. and Kluger, A.N., 1998. Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of applied psychology*, *83*(1), p.17.

Kaplan, A. and Maehr, M.L., 2007. The contributions and prospects of goal orientation theory. *Educational psychology review*, *19*(2), pp.141-184.

Karabenick, S.A., 2003. Seeking help in large college classes: A person-centered approach. *Contemporary educational psychology*, *28*(1), pp.37-58.

Katz, I., Eilot, K. and Nevo, N., 2014. "I'll do it later": Type of motivation, self-efficacy and homework procrastination. *Motivation and Emotion*, *38*(1), pp.111-119.

Kelemen, M.L. and Rumens, N., 2008. *An introduction to critical management research*. Sage.

Kenny, D.A., Kashy, D.A. and Bolger, N., 1998. The handbook of social psychology. *Data analysis in social psychology*, pp.233-265.

Kin, B.J. and Pope, B., 1999. Creativity as a factor in psychological assessment and healthy psychological functioning. *Journal of Personality Assessment*, *72*(2), pp.200-207.

Kline, R.B., 2015. *Principles and practice of structural equation modelling*. Guilford publications.

Kline, R.B., 2016. Principles and Practice of Structural Equation Modelling, 4th Edn New York. *NY: The Guilford Press.[Google Scholar]*.

Koestner, R., Ryan, R.M., Bernieri, F. and Holt, K., 1984. Setting limits on children's behaviour: The differential effects of controlling vs. informational styles on intrinsic motivation and creativity. *Journal of personality*, *52*(3), pp.233-248.

Kruglanski, A.W., Friedman, I. and Zeevi, G., 1971. The effects of extrinsic incentive on some qualitative aspects of task performance 1. *Journal of personality*, *39*(4), pp.606-617.

Kusuma, A.H.P., Rina, R. and Syam, A.H., 2018. The Main Role of Locus of Control and Professional Ethics on Lecturer's Performance (Indonesian Lecturer Empirical Study). *International Review of Management and Marketing*, *8*(5), p.9.

Lee, H.S. and Lim, J.H., 2015. SPSS 22 manual. *Seoul: Jiphyunjae*, pp.21-56.

Lepper, M.R., Corpus, J.H. and Iyengar, S.S., 2005. Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. *Journal of educational psychology*, *97*(2), p.184.

Lepper, M.R., Greene, D. and Nisbett, R.E., 1973. Undermining children's intrinsic interest with extrinsic reward: A test of the" overjustification" hypothesis. *Journal of Personality and social Psychology*, *28*(1), p.129.

Levy, I., Kaplan, A. and Patrick, H., 2004. Early adolescents' achievement goals, social status, and attitudes towards cooperation with peers. *Social Psychology of Education*, *7*(2), pp.127-159.

Li, D.X., 1999. Value at Risk based on the Volatility, Skewness and Kurtosis. *RiskMetrics Group*.

Li, F., Deng, H., Leung, K. and Zhao, Y., 2017. Is perceived creativity-reward contingency good for creativity? The role of challenge and threat appraisals. *Human Resource Management*, *56*(4), pp.693-709.

Lim, V.K., Teo, T.S. and Loo, G.L., 2003. Sex, financial hardship and locus of control: an empirical study of attitudes towards money among Singaporean Chinese. *Personality and Individual Differences*, *34*(3), pp.411-429.

Liu, D., Chen, X.P. and Yao, X., 2011. From autonomy to creativity: A multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology*, *96*(2), p.294.

Liu, D., Jiang, K., Shalley, C.E., Keem, S. and Zhou, J., 2016. Motivational mechanisms of employee creativity: A meta-analytic examination and theoretical

extension of the creativity literature. *Organizational behaviour and human decision processes*, *137*, pp.236-263.

Livingston, J.A., 1999. Something old and something new: Love, creativity, and the enduring relationship. *Bulletin of the Menninger Clinic*, *63*(1), p.40.

Madjar, N., Oldham, G.R. and Pratt, M.G., 2002. There's no place like home? The contributions of work and nonwork creativity support to employees' creative performance. *Academy of Management journal*, *45*(4), pp.757-767.

Maehr, M.L. and Nicholls, J.G., 1980. Culture and achievement motivation: A second look. *Studies in cross-cultural psychology*, *2*, pp.221-267.

Maehr, M.L., 1984. Meaning and motivation: Toward a theory of personal investment. *Research on motivation in education*, *1*(4), pp.115-144.

Malik, M.A.R. and Butt, A.N., 2017. Rewards and creativity: Past, present, and future. *Applied Psychology*, *66*(2), pp.290-325.

Malik, M.A.R., Butt, A.N. and Choi, J.N., 2015. Rewards and employee creative performance: Moderating effects of creative self-efficacy, reward importance, and locus of control. *Journal of Organizational Behaviour*, *36*(1), pp.59-74.

Malik, M.A.R., Choi, J.N. and Butt, A.N., 2019. Distinct effects of intrinsic motivation and extrinsic rewards on radical and incremental creativity: The moderating role of goal orientations. *Journal of Organizational Behaviour*, *40*(9-10), pp.1013-1026.

Meece, J.L., Blumenfeld, P.C. and Hoyle, R.H., 1988. Students' goal orientations and cognitive engagement in classroom activities. *Journal of educational psychology*, *80*(4), p.514.

Midgley, C. and Urdan, T., 2001. Academic self-handicapping and achievement goals: A further examination. *Contemporary educational psychology*, *26*(1), pp.61-75.

Mohamed, M.S., Khalifa, G.S., Al-Shibami, A.H., Alrajawi, I. and Isaac, O., 2019. The Mediation Effect of Innovation on the relationship between Creativity and organizational productivity: An empirical study within public sector organizations in the UAE. *Journal of Engineering and Applied Sciences*, *14*(10), pp.3234-3242.

Montoro-Sánchez, Á., Soriano, D.R., Zhou, Y. and Zhang, Y., 2011. Utilitarianism or romanticism: the effect of rewards on employees' innovative behaviour. *International Journal of Manpower*.

Mueller, S.L. and Thomas, A.S., 2001. Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of business venturing*, *16*(1), pp.51-75.

Mumford, M.D. and Gustafson, S.B., 1988. Creativity syndrome: Integration, application, and innovation. *Psychological bulletin*, *103*(1), p.27.

Muraven, M., Rosman, H. and Gagné, M., 2007. Lack of autonomy and self-control: Performance contingent rewards lead to greater depletion. *Motivation and Emotion*, *31*(4), pp.322-330.

Muthén, L.K. and Muthén, B.O., 2002. How to use a Monte Carlo study to decide on sample size and determine power. *Structural equation modeling*, *9*(4), pp.599-620.

Nicholls, J.G., 1984. Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological review*, *91*(3), p.328.

Nonaka, I., 1991. The knowledge-creating company Harvard business review November-December. *Google Scholar*.

Nunally, J.C. and Bernstein, I.H., 1978. Psychometric theory.

Nunnally, J. C. and Bernstein, I. H. (1994) *Psychometric theory (*3rd ed). New York: McGraw-Hill.

Nunnally, J.C., 1978. *Psychometric Theory: 2d Ed*. McGraw-Hill.

Oecd, O.E.C.D., 2010. Factbook 2013: Economic, environmental and social statistics. *Organization for Economic Cooperation and Development, Paris*.

Oehlert, G.W., 2000. Design and analysis of experiments: Response surface design. *New York*.

O'Gorman, K.D. and MacIntosh, R., 2014. *Research methods for business and management*. Goodfellow Publishers Limited.

Oldham, G.R. and Cummings, A., 1996. Employee creativity: Personal and contextual factors at work. *Academy of management journal*, *39*(3), pp.607-634.

Pallant, J. and Manual, S.S., 2010. A step by step guide to data analysis using SPSS. *Berkshire UK: McGraw-Hill Education*.

Pallant, J., 2003. SPSS survival manual. Versions 10 and 11.

Pallant, J., 2016. SPSS Surviving Manual: a step by step guide t data analysis using IBM SPSS.

Park, H.M., 2008. *Univariate analysis and normality test using SAS, Stata*. and SPSS.

Pearl, J., 2012. *The causal foundations of structural equation modelling*. CALIFORNIA UNIV LOS ANGELES DEPT OF COMPUTER SCIENCE.

Pekrun, R., Elliot, A.J. and Maier, M.A., 2006. Achievement goals and discrete achievement emotions: A theoretical model and prospective test. *Journal of educational Psychology*, *98*(3), p.583.

Phillips, J.M. and Gully, S.M., 1997. Role of goal orientation, ability, need for achievement, and locus of control in the self-efficacy and goal--setting process. *Journal of applied psychology*, *82*(5), p.792.

Pianta, R.C. and Hamre, B.K., 2009. Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational researcher*, *38*(2), pp.109-119.

Pintrich, P.R., 1999. The role of motivation in promoting and sustaining self-regulated learning. *International journal of educational research*, *31*(6), pp.459-470.

Pintrich, P.R., 2000. Multiple goals, multiple pathways: The role of goal orientation in learning and achievement. *Journal of educational psychology*, *92*(3), p.544.

Pintrich, P.R., Smith, D.A., Garcia, T. and McKeachie, W.J., 1993. Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and psychological measurement*, *53*(3), pp.801-813.

Plucker, J.A., Beghetto, R.A. and Dow, G.T., 2004. Why isn't creativity more important to educational psychologists? Potentials, pitfalls, and future directions in creativity research. *Educational psychologist*, *39*(2), pp.83-96.

Porter, L.W. and Lawler, E.E., 1968. Managerial attitudes and performance.

Punch, K.F., 2013. *Introduction to social research: Quantitative and qualitative approaches*. sage.

Rahnama, A., Mousavian, S.J. and Maghvan, T.S., 2011. The survey of relationship between creativity of staffs and organizational effectiveness. *Australian Journal of Business and Management Research*, *1*(6), p.97.

Reed, M., 2005. Reflections on the 'realist turn'in organization and management studies. *Journal of Management studies*, *42*(8), pp.1621-1644.

Richmond, B.O. and De La Serna, M., 1980. Creativity and locus of control among Mexican college students. *Psychological Reports*, *46*(3), pp.979-983.

Robinson, A.G. and Stern, S., 1997. Three simple principles that dramatically boost corporate creativity. *National Productivity Review*, *17*, pp.43-52.

Robinson, J. P., Shaver, P. R., and Wrightsman, L. S. (1991) *Criteria for scale selection and evaluation*. Measures of personality and social psychological attitudes, 1(3), pp. 1-16..

Roth, G., Assor, A., Kanat-Maymon, Y. and Kaplan, H., 2007. Autonomous motivation for teaching: how self-determined teaching may lead to self-determined learning. *Journal of educational psychology*, *99*(4), p.761.

Rotter, J.B., 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, *80*(1), p.1.

Rotter, J.B., 1990. Internal versus external control of reinforcement: A case history of a variable. *American psychologist*, *45*(4), p.489.

Runco, M.A. and Jaeger, G.J., 2012. The standard definition of creativity. *Creativity research journal*, *24*(1), pp.92-96.

Runco, M.A., 1988. Creativity research: Originality, utility, and integration.

Russ, S.W., 1998. Play, creativity, and adaptive functioning: Implications for play interventions. *Journal of Clinical Child Psychology*, *27*(4), pp.469-480.

Ryan, R.M. and Deci, E.L., 2000. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, *25*(1), pp.54-67.

Saunders, M.N.K., Lewis, P. and Thornhill, A., 2019. Research Methods for Business Students (8th edn.) Harlow.

Scheerens, J., 2016. Educational effectiveness and ineffectiveness. *A critical review of the knowledge base*, *389*.

Selart, M., Nordström, T., Kuvaas, B. and Takemura, K., 2008. Effects of reward on self-regulation, intrinsic motivation and creativity. *Scandinavian Journal of Educational Research*, *52*(5), pp.439-458.

Serdyukov, P., 2017. Innovation in education: what works, what doesn't, and what to do about it?. *Journal of Research in Innovative Teaching & Learning*.

Shah, S.I., Afsar, B. and Shahjehan, A., 2020. Unique Contextual Conditions Affecting Coworker Knowledge Sharing and Employee Innovative Work Behaviors. *Journal of Work and Organizational Psychology*, *36*(2), pp.125-134.

Shalley, C.E. and Oldham, G.R., 1997. Competition and creative performance: Effects of competitor presence and visibility. *Creativity Research Journal*, *10*(4), pp.337-345.

Shalley, C.E. and Perry-Smith, J.E., 2001. Effects of social-psychological factors on creative performance: The role of informational and controlling expected evaluation and modelling experience. *Organizational behaviour and human decision processes*, *84*(1), pp.1-22.

Shalley, C.E., 1995. Effects of coaction, expected evaluation, and goal setting on creativity and productivity. *Academy of Management journal*, *38*(2), pp.483-503.

Shalley, C.E., Zhou, J. and Oldham, G.R., 2004. The effects of personal and contextual characteristics on creativity: Where should we go from here?. *Journal of management*, *30*(6), pp.933-958.

Shin, S.J. and Zhou, J., 2003. Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of management Journal*, *46*(6), pp.703-714.

Skinner, B.F. (1938). The behaviour of organisms: An experimental analysis. New York: Appleton-Century-Crofts.

Sözbilir, F., 2018. The interaction between social capital, creativity and efficiency in organizations. *Thinking Skills and Creativity*, *27*, pp.92-100.

Spector, P.E., 1982. Behaviour in organizations as a function of employee's locus of control. *Psychological bulletin*, *91*(3), p.482.

Stein, M.I., 1953. Creativity and culture. *The journal of psychology*, *36*(2), pp.311-322.

Sternberg, R.J., 2006. The nature of creativity. *Creativity research journal*, *18*(1), p.87.

Stevens, G., Burley, J. and Divine, R., 1999. Creativity business discipline= higher profits faster from new product development. *Journal of Product Innovation Management: AN INTERNATIONAL PUBLICATION OF THE PRODUCT DEVELOPMENT and MANAGEMENT ASSOCIATION*, *16*(5), pp.455-468.

Stoeber, J., Otto, K., Pescheck, E., Becker, C. and Stoll, O., 2007. Perfectionism and competitive anxiety in athletes: Differentiating striving for perfection and negative reactions to imperfection. *Personality and Individual Differences*, *42*(6), pp.959-969.

Stringer, C., Didham, J. and Theivananthampillai, P., 2011. Motivation, pay satisfaction, and job satisfaction of front-line employees. *Qualitative Research in Accounting and Management*.

Suhr, D.D., 2006. Exploratory or confirmatory factor analysis?.

Sung, S.Y., Antefelt, A. and Choi, J.N., 2017. Dual effects of job complexity on proactive and responsive creativity: Moderating role of employee ambiguity tolerance. *Group & Organization Management*, *42*(3), pp.388-418.

Tabachnick, B.G. and Fidell, L.S., 2013. Using multivariate statistics: International edition. *Pearson2012*.

Tabachnick, B.G., Fidell, L.S. and Ullman, J.B., 2007. *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.

Taggar, S., 2002. Individual creativity and group ability to utilize individual creative resources: A multilevel model. *Academy of management Journal*, *45*(2), pp.315-330.

Tan, C.S., Lau, X.S., Kung, Y.T. and Kailsan, R.A.L., 2019. Openness to experience enhances creativity: The mediating role of intrinsic motivation and the creative process engagement. *The Journal of Creative Behaviour*, *53*(1), pp.109-119.

Teixeira, P.J., Patrick, H. and Mata, J., 2011. Why we eat what we eat: the role of autonomous motivation in eating behaviour regulation. *Nutrition bulletin*, *36*(1), pp.102-107.

Tentama, F. and Abdussalam, F., 2020. Internal locus of control and entrepreneurial intention: A study on vocational high school students. *Journal of Education and Learning (EduLearn)*, *14*(1), pp.97-102.

Thanh, B.T., 2019. Mediating mechanisms linking developmental feedback with employee creativity. *Journal of Workplace Learning*.

Thomas, R. and Hardy, C., 2011. Reframing resistance to organizational change. *Scandinavian Journal of Management*, *27*(3), pp.322-331.

Tierney, P., Farmer, S.M. and Graen, G.B., 1999. An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel psychology*, *52*(3), pp.591-620.

Torrance, E.P., 1972. Career patterns and peak creative achievements of creative high school students twelve years later. *Gifted Child Quarterly*, *16*(2), pp.75-88.

Torrance, E.P., 1981. Predicting the Creativity of Elementary School Children (1958-80)—and the Teacher Who" Made a Difference". *Gifted Child Quarterly*, *25*(2), pp.55-62.

Townley, B., 1994. *Reframing human resource management: Power, ethics and the subject at work*. SAGE Publications Ltd.

Urdan, T.C. and Maehr, M.L., 1995. Beyond a two-goal theory of motivation and achievement: A case for social goals. *Review of educational research*, *65*(3), pp.213-243.

Usunier, J.C., Van Herk, H. and Lee, J.A., 2017. *International and cross-cultural business research*. Sage.

Van Dijk, C. and Van Den Ende, J., 2002. Suggestion systems: transferring employee creativity into practicable ideas. *RandD Management*, *32*(5), pp.387-395

Van Yperen, N.W. and Janssen, O., 2002. Fatigued and dissatisfied or fatigued but satisfied? Goal orientations and responses to high job demands. *Academy of Management Journal*, *45*(6), pp.1161-1171.

Van Yperen, N.W., 2003. Task interest and actual performance: the moderating effects of assigned and adopted purpose goals. *Journal of personality and social psychology*, *85*(6), p.1006.

Van Yperen, N.W., Elliot, A.J. and Anseel, F., 2009. The influence of mastery-avoidance goals on performance improvement. *European Journal of Social Psychology*, *39*(6), pp.932-943.

VandeWalle, D., 1997. Development and validation of a work domain goal orientation instrument. *Educational and psychological measurement*, *57*(6), pp.995-1015.

VandeWalle, D., 2001. Goal orientation:: Why wanting to look successful doesn't always lead to success. *Organizational Dynamics*, *30*(2), pp.162-171.

Weber, M., 1924. Gesammelte aufsätze zur soziologie und sozialpolitik.

Weinstein, N. and DeHaan, C.R., 2014. On the mutuality of human motivation and relationships. In *Human Motivation and Interpersonal Relationships* (pp. 3-25). Springer, Dordrecht.

West, M.A., 2002. Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied psychology*, *51*(3), pp.355-387.

Wipo.int. 2015. *Global Innovation Index 2015.* [online] Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_gii_2015.pdf>.

Wipo.int. 2016. *Global Innovation Index 2016*. [online] Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2016.pdf>.

Wipo.int. 2017. *Global Innovation Index 2017.* [online] Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2017.pdf>.

Wipo.int. 2018. *Global Innovation Index 2018*. [online] Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018.pdf>.

Wipo.int. 2019. *Global Innovation Index 2019*. [online] Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2019.pdf>.

Wolters, C.A., 2004. Advancing Achievement Goal Theory: Using Goal Structures and Goal Orientations to Predict Students' Motivation, Cognition, and Achievement. *Journal of educational psychology*, *96*(2), p.236.

Woodman, R.W., Sawyer, J.E. and Griffin, R.W., 1993. Toward a theory of organizational creativity. *Academy of management review*, *18*(2), pp.293-321.

Wu, C.H., Parker, S.K. and De Jong, J.P., 2014. Need for cognition as an antecedent of individual innovation behaviour. *Journal of Management*, *40*(6), pp.1511-1534.

Yong, A.G. and Pearce, S., 2013. A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, *9*(2), pp.79-94.

Yoon, H.J. and Choi, J.N., 2010. Extrinsic and intrinsic rewards and creativity in the workplace: Reward importance as a moderator. In *Academy of Management Annual Meeting*.

Yoon, H.J., Sung, S.Y. and Choi, J.N., 2015. Mechanisms underlying creative performance: Employee perceptions of intrinsic and extrinsic rewards for creativity. *Social Behaviour and Personality: an international journal*, *43*(7), pp.1161-1179.

Yoon, H.J., Sung, S.Y., Choi, J.N., Lee, K. and Kim, S., 2015. Tangible and intangible rewards and employee creativity: The mediating role of situational extrinsic motivation. *Creativity Research Journal*, *27*(4), pp.383-393.

Yuan, F. and Woodman, R.W., 2010. Innovative behaviour in the workplace: The role of performance and image outcome expectations. *Academy of management journal*, *53*(2), pp.323-342.

Yukl, G.A. and Latham, G.P., 1978. Interrelationships among employee participation, individual differences, goal difficulty, goal acceptance, goal instrumentality, and performance. *Personnel Psychology*, *31*(2), pp.305-323.

Zaccone, M.C. and Pedrini, M., 2019. The effects of intrinsic and extrinsic motivation on students learning effectiveness. Exploring the moderating role of gender. *International Journal of Educational Management*.

Zhang, X. and Bartol, K.M., 2010. Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of management journal*, *53*(1), pp.107-128.

Zhang, Y., Long, L., Wu, T.Y. and Huang, X., 2015. When is pay for performance related to employee creativity in the Chinese context? The role of guanxi HRM practice, trust in management, and intrinsic motivation. *Journal of Organizational Behavior*, *36*(5), pp.698-719.

Zhou, H. and He, H., 2020. Exploring Role of Personal Sense of Power in Facilitation of Employee Creativity: A Dual Mediation Model Based on the Derivative View of Self-Determination Theory. *Psychology Research and Behaviour Management*, *13*, p.517.

Zhou, J. and Oldham, G.R., 2001. Enhancing creative performance: Effects of expected developmental assessment strategies and creative personality. *The Journal of Creative Behaviour*, *35*(3), pp.151-167.

Zhou, J. and Shalley, C.E., 2003. Research on employee creativity: A critical review and directions for future research.

Zhou, J. and Shalley, C.E., 2011. Deepening our understanding of creativity in the workplace: A review of different approaches to creativity research. In *APA handbook of industrial and organizational psychology, Vol 1: Building and developing the organization.* (pp. 275-302). American Psychological Association.

Zhu, Y.Q., Gardner, D.G. and Chen, H.G., 2018. Relationships between work team climate, individual motivation, and creativity. *Journal of Management*, *44*(5), pp.2094-2115.

Zuckerman, M., Porac, J., Lathin, D. and Deci, E.L., 1978. On the importance of self-determination for intrinsically-motivated behaviour. *Personality and social psychology bulletin*, *4*(3), pp.443-446.

Appendices

Appendix 1 – Research Instruments (before data analysis)

Construct	Measuring Items	
EXREC	Q2.1	When I perform creatively, I receive financial rewards, such as incentives or bonuses
	Q2.2	When I perform creative work, it affects my promotion
	Q2.3	If I suggest new ideas for tasks, this approach influences my performance evaluation
	Q2.4	I get recognized by my supervisor when I suggest new ideas for the task
	Q2.5	My co-workers recognize me when I perform creatively at work
	Q2.6	When an employee exhibits creative performance, my company offers some treats such as a celebration dinner
	Q2.7	When I perform creatively at work, my company offers corresponding benefits in return
	Q2.8	When I perform creatively at work, my manager or the top management compliments me publicly
IMC	Q3.1	In my current task I feel satisfaction when I perform creatively
	Q3.2	In my current task I feel competent about my creative performance at work
	Q3.3	In my current task I feel achievement when I suggest new task ideas
	Q3.4	In my current task I feel confident when I perform creativity at work
	Q3.5	In my current task creative performance helps me in personal growth
PGO	Q4.1	I feel successful on my job when I perform better than my colleagues. . . . .
	Q4.2	I feel successful on my job when others cannot do as well as me
	Q4.3	I feel successful on my job when others mess up and I do not
	Q4.4	I feel successful on my job when I can clearly demonstrate that I am the best qualified person
	Q4.5	I feel successful on my job when I accomplish something where others failed.
	Q4.6	I feel successful on my job when I am clearly the most productive employee.
	Q4.7	I feel successful on my job when I am the only one who knows about particular things or who has a particular skill
	Q4.8	I feel successful on my job when I am the best
MGO	Q4.9	I feel successful on my job when I acquire new knowledge or learn a new skill by trying hard.
	Q4.10	I feel successful on my job when I acquire new knowledge or master a new skill which was difficult for me in the past.
	Q4.11	I feel successful on my job when I learn something that makes me want to practice more
	Q4.12	I feel successful on my job when I learn something that motivates me to continue.
	Q4.13	I feel successful on my job when I feel I am improving.
	Q4.14	I feel successful on my job when I learn something new that is fun to do

	Q4.15	I feel successful on my job when I get the maximum out of myself.
	Q4.16	I feel successful on my job when I improve on particular aspects
	Q4.17	I feel successful on my job when I master new knowledge or a new skill.
	Q4.18	I feel successful on my job when I perform to my potential
ELOC	Q1	a. Many of the unhappy things in people's lives are partly due to bad luck.
ILOC		b. People's misfortunes result from the mistakes they make.
ILOC	Q2	a. In the long run people get the respect they deserve in this world.
ELOC		b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
ELOC	Q3	a. Heredity plays the major role in determining one's personality.
ILOC		b. It is one's experiences in life which determine what they're like.
ELOC	Q4	a. I have often found that what is going to happen will happen.
ILOC		b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action
ILOC	Q5	a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
ELOC		b. Getting a good job depends mainly on being in the right place at the right time.
ILOC	Q6	a. When I make plans, I am almost certain that I can make them work.
ELOC		b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
ILOC	Q7	a. In my case getting what I want has little or nothing to do with luck.
ELOC		b. Many times we might just as well decide what to do by flipping a coin.
ELOC	Q8	a. Most people don't realize the extent to which their lives are controlled by accidental happenings
ILOC		b. There really is no such thing as "luck."
ELOC	Q9	a. Many times I feel that I have little influence over the things that happen to me
ILOC		b. It is impossible for me to believe that chance or luck plays an important role in my life.
ILOC	Q10	a. What happens to me is my own doing.
ELOC		b. Sometimes I feel that I don't have enough control over the direction my life is taking.
EC	Q1	This employee suggests new ways to achieve goals or objectives
	Q2	This employee comes up with new and practical ideas to improve performance
	Q3	This employee searches out new technologies, processes, techniques, and/or product ideas
	Q4	This employee suggests new ways to increase quality
	Q5	This employee is a good source of creative ideas
	Q6	This employee not afraid to take risks
	Q7	This employee promotes and champions ideas to others
	Q8	This employee exhibits creativity on the job when given the

		opportunity to
	Q9	This employee develops adequate plans and schedules for the implementation of new ideas
	Q10	This employee often has new and innovative ideas
	Q11	This employee comes up with creative solutions to problems
	Q12	This employee often has a fresh approach to problems
	Q13	This employee Suggests new ways of performing work tasks

Appendix 2 – Research Ethics Approval

College of Business, Arts and Social Sciences Research Ethics Committee
Brunel University London
Kingston Lane
Uxbridge
UB8 3PH
United Kingdom

www.brunel.ac.uk

29 January 2020

LETTER OF APPROVAL

APPROVAL HAS BEEN GRANTED FOR THIS STUDY TO BE CARRIED OUT BETWEEN 29/01/2020AND31/12/2020

Applicant (s): Mrs Maryam Hashem

Project Title: The relationship between extrinsic rewards for creativity and employees creativity

Reference: 19411-LR-Jan/2020- 24369-2

Dear Mrs Maryam Hashem

The Research Ethics Committee has considered the above application recently submitted by you.

The Chair, acting under delegated authority has agreed that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that the conditions of approval set out below are followed:

- **Please amend the dates at the top of the consent form to the same as the dates on the top of this letter.**
- The agreed protocol must be followed. Any changes to the protocol will require prior approval from the Committee by way of an application for an amendment.

Please note that:

- Research Participant Information Sheets and (where relevant) flyers, posters, and consent forms should include a clear statement that research ethics approval has been obtained from the relevant Research Ethics Committee.
- The Research Participant Information Sheets should include a clear statement that queries should be directed, in the first instance, to the Supervisor (where relevant), or the researcher. Complaints, on the other hand, should be directed, in the first instance, to the Chair of the relevant Research Ethics Committee.
- Approval to proceed with the study is granted subject to receipt by the Committee of satisfactory responses to any conditions that may appear above, in addition to any subsequent changes to the protocol.
- The Research Ethics Committee reserves the right to sample and review documentation, including raw data, relevant to the study.
- You may not undertake any research activity if you are not a registered student of Brunel University or if you cease to become registered, including abeyance or temporary withdrawal. As a deregistered student you would not be insured to undertake research activity. Research activity includes the recruitment of participants, undertaking consent procedures and collection of data. Breach of this requirement constitutes research misconduct and is a disciplinary offence.

Professor David Gallear

Chair of the Committee Name

Brunel University London

Appendix 3 – Research Instruments (after reliability and validity analysis)

Construct	Measuring Items	
EXREC	Q2.1	When I perform creatively, I receive financial rewards, such as incentives or bonuses
	Q2.2	When I perform creative work, it affects my promotion
	Q2.3	If I suggest new ideas for tasks, this approach influences my performance evaluation
	Q2.4	I get recognized by my supervisor when I suggest new ideas for the task
	Q2.7	When I perform creatively at work, my company offers corresponding benefits in return
IMC	Q3.1	In my current task I feel satisfaction when I perform creatively
	Q3.2	In my current task I feel competent about my creative performance at work
	Q3.3	In my current task I feel achievement when I suggest new task ideas
	Q3.4	In my current task I feel confident when I perform creativity at work
	Q3.5	In my current task creative performance helps me in personal growth
PGO	Q4.3	I feel successful on my job when others mess up and I do not
	Q4.4	I feel successful on my job when I can clearly demonstrate that I am the best qualified person
	Q4.5	I feel successful on my job when I accomplish something where others failed.
	Q4.6	I feel successful on my job when I am clearly the most productive employee.
	Q4.7	I feel successful on my job when I am the only one who knows about particular things or who has a particular skill
	Q4.8	I feel successful on my job when I am the best
MGO	Q4.9	I feel successful on my job when I acquire new knowledge or learn a new skill by trying hard.
	Q4.10	I feel successful on my job when I acquire new knowledge or master a new skill which was difficult for me in the past.
	Q4.11	I feel successful on my job when I learn something that makes me want to practice more
	Q4.12	I feel successful on my job when I learn something that motivates me to continue.
	Q4.14	I feel successful on my job when I learn something new that is fun to do
	Q4.15	I feel successful on my job when I get the maximum out of myself.
	Q4.16	I feel successful on my job when I improve on particular aspects
	Q4.18	I feel successful on my job when I perform to my potential
ELOC	Q1	c. Many of the unhappy things in people's lives are partly due to bad luck.
ILOC		d. People's misfortunes result from the mistakes they make.
ILOC	Q2	c. In the long run people get the respect they deserve in this world.
ELOC		d. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

ELOC	Q3	c. Heredity plays the major role in determining one's personality.
ILOC		d. It is one's experiences in life which determine what they're like.
ELOC	Q4	c. I have often found that what is going to happen will happen.
ILOC		d. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action
ILOC	Q5	c. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
ELOC		d. Getting a good job depends mainly on being in the right place at the right time.
ILOC	Q6	c. When I make plans, I am almost certain that I can make them work.
ELOC		d. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
ILOC	Q7	c. In my case getting what I want has little or nothing to do with luck.
ELOC		d. Many times we might just as well decide what to do by flipping a coin.
ELOC	Q8	c. Most people don't realize the extent to which their lives are controlled by accidental happenings
ILOC		d. There really is no such thing as "luck."
ELOC	Q9	c. Many times I feel that I have little influence over the things that happen to me
ILOC		d. It is impossible for me to believe that chance or luck plays an important role in my life.
ILOC	Q10	c. What happens to me is my own doing.
ELOC		d. Sometimes I feel that I don't have enough control over the direction my life is taking.
EC	Q1	This employee suggests new ways to achieve goals or objectives
	Q3	This employee searches out new technologies, processes, techniques, and/or product ideas
	Q6	This employee not afraid to take risks

Appendix 4 – Items Included in the Measurement Model

Construct	Measuring Items	
EXREC	Q2.1	When I perform creatively, I receive financial rewards, such as incentives or bonuses
	Q2.2	When I perform creative work, it affects my promotion
	Q2.3	If I suggest new ideas for tasks, this approach influences my performance evaluation
IMC	Q3.2	In my current task I feel competent about my creative performance at work
	Q3.3	In my current task I feel achievement when I suggest new task ideas
	Q3.4	In my current task I feel confident when I perform creativity at work
	Q3.5	In my current task creative performance helps me in personal growth
PGO	Q4.5	I feel successful on my job when I accomplish something where others failed.
	Q4.6	I feel successful on my job when I am clearly the most productive employee.
	Q4.7	I feel successful on my job when I am the only one who knows about particular things or who has a particular skill
	Q4.8	I feel successful on my job when I am the best
MGO	Q4.11	I feel successful on my job when I learn something that makes me want to practice more
	Q4.12	I feel successful on my job when I learn something that motivates me to continue.
	Q4.14	I feel successful on my job when I learn something new that is fun to do
	Q4.15	I feel successful on my job when I get the maximum out of myself.
	Q4.16	I feel successful on my job when I improve on particular aspects
	Q4.18	I feel successful on my job when I perform to my potential
EC	Q1	This employee suggests new ways to achieve goals or objectives
	Q3	This employee searches out new technologies, processes, techniques, and/or product ideas
	Q6	This employee not afraid to take risks