



جامعة أبوظبي
Abu Dhabi University

College of Business

**BETTER SERVICE THROUGH CREATIVE
EMPLOYEES: DEVELOPING A CUSTOMIZED
COMPREHENSIVE MODEL OF EMPLOYEE
CREATIVE BEHAVIOR COMPARING THE UAE
PUBLIC AND PRIVATE SECTOR**

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The Academic Faculty**

**By
KHAWLA ALI IBRAHIM AL HOSANI**

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**BETTER SERVICE THROUGH CREATIVE EMPLOYEES: DEVELOPING A
CUSTOMIZED COMPREHENSIVE MODEL OF EMPLOYEE CREATIVE BEHAVIOR
COMPARING THE UAE PUBLIC AND PRIVATE SECTOR**



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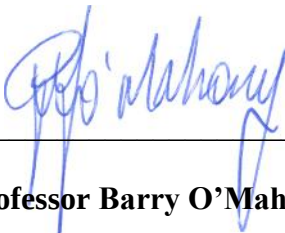
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ABSTRACT

Service levels between public organizations in the United Arab Emirates (UAE) differ and fluctuate. Research shows that service levels generally increase with the level of Employee Creative Behavior (ECB), which is currently a focal point of organizational policies by the federal UAE government. While the literature presents an ample array of determinants of ECB some provide more leverage than others based on the local context. Therefore, this research presents a customized ranking of determinants, which enables managers in the UAE public sector to successfully stimulate ECB. Additionally, the public sector is compared to the private sector to determine whether the ranking is different.

Through a Systematic Literature Review (SLR), this research identified 21 determinants at four distinct levels of an organization and subsequently utilized the Analytic Hierarchical Process (AHP) to map their relative importance. For the analysis of the public sector, data were obtained from 33 experts, i.e., managers and senior employees from 33 organizations in three emirates (Abu Dhabi, Dubai, and Sharjah). For the private sector analysis, data were obtained from 15 experts, i.e., managers and senior employees from 15 organizations in the same three emirates. After assessing outcomes (the highest and lowest ranking determinants for each sector), a comparison was conducted to display and explain potential similarities and differences.

Overall, findings indicate that the individual level is the most important leverage point to stimulate ECB in both sectors, which is followed by the team level. ECB is the result of group characteristics, team activities, and the

communication of team members. Employees must also understand what their expectations are and what society expects to have a clear perspective of the future. Most determinants of this level should be available in all organizations, which make it a leading level with an impact on ECB.

By comparing determinants at each level, management support (organizational level) is perceived as having the most impact followed by coworker support (team level). As the head of the pyramid, it is critical to have complete support from managers, and the rest of the determinants help solidify the ECB process in the firm. A favorable or negative relationship between the employee and the employer impacts how the two operate. Additionally, it has a direct impact on outcomes that result from services or products that enterprises deliver to their consumers.

Again, this result applies to both sectors. Data demonstrates only slight variances in the impact on ECB in each UAE industry. As a result, this type of model can be applied to all industries in the UAE. Furthermore, data demonstrates that the working environment is consistent across industries. Both public and private sectors have the necessary resources for ECB but there is a difference in how they are used.

This study began with an SLR, which revealed 21 ECB determinants that were divided into four categories: individual, team, job, and organization. The attention was then shifted to the UAE's public sector to better understand where ECB is now and how these determinants will influence the future of ECB in the UAE. The outcomes of the study were then contrasted between public and

private sectors. This study created a contextualized model to help decision-makers in both industries determine what initiatives will be most effective in boosting ECB among workers. The outcomes of this study add value to ECB studies and ways in which enterprises will profit from them. It also contradicts SLR findings, which revealed that the employee involvement factor had the greatest impact on ECB. Although the study was conducted using particular keywords, there is a risk that some important but unrelated terms were utilized, which results in significant and disparate publications and findings (which is a phenomenon known as publication bias). Because all specialists came from this background, conclusions cannot be applied outside the UAE's governmental and private sector. However, future research can use this strategy to develop tailored causal models for various industries and regions and also build an additional framework by examining the impact of coworker and manager support on ECB. As mediators and/or moderators, the determinants of creative self-efficacy and autonomy were added.

This research provides multiple contributions that will facilitate future studies and management practices. First, while comprised of levels derived from other studies, it also builds a more comprehensive AHP model with a level that was implicit before and that can be used in further analyses. Second, insights generated by this research provide guidance to managers who want to enhance ECB in UAE public and private sectors, which will contribute to increased service quality. During their efforts, managers should invest in all possible ECB determinants, and they could combine some or all of the top five determinants (i.e., management support, coworker support, creative self-efficacy, autonomy,

and knowledge sharing). Employees who are pleased at work are more likely to innovate, care for one another, and collaborate. As a result, firms who successfully implement ECB at work achieve positive results. Understanding ECB will assist organizations in making the best decisions regarding hiring individuals and strategizing the allocation of resources. Decision-makers and leaders in public and private sectors in the UAE must consider management support and coworker support as the main determinants that impact the empowerment of ECB. When it comes to ECB, various social, religious, and cultural elements are heavily weighed. In underperforming businesses, utilizing and comprehending ECB is critical because it ensures high-quality service levels across all sectors.

Keywords – employee, creativity, determinants, public sector, private sector, innovation, analytical hierarchy process, United Arab Emirates.

LIST OF ABBREVIATIONS

AHP	Analytic Hierarchy Process
CI	Consistency Index
CR	Consistency Ratio
ECB	Employee Creative Behavior
EIB	Employee Innovative Behavior
GCC	Gulf Cooperation Council
JCM	Job Characteristics Model
NIS	UAE National Innovation Strategy
RI	Random Index
SLR	Systematic Literature Review
UAE	United Arab Emirates

DECLARATION

I hereby declare that this research is my original work, completed after I registered for the DBA program at Abu Dhabi University and that it has not previously appeared in a thesis or dissertation submitted to this or any other school for a degree, diploma, or other qualification.

I have obtained to identify any potential dangers associated with this research, received the necessary ethical and/or safety permission (where applicable), and accepted my responsibility and the participants' rights.

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CHAPTER 1: INTRODUCTION TO THE DISSERTATION

1.1 Chapter Introduction

To fulfill swiftly changing client demands, today's business environment compels firms to revitalize existing products and services. Competitive advantages and business prospects emerge because of new ideas, goods, and services. In any industry, product and service innovation has become a vital driver for long-term business success (Jaiswal, & Dhar, 2015). Creative thinking is the ability of an individual to use sets of convergent and divergent thinking to create a process or act of generating different and creative ideas and solutions (Guilford, 1967). The definition of creativity presented by Xu, Zhao, Li, and Lin (2017, p. 484) captures the processual and outcome dimensions of employee creative behavior (ECB) as follows: "*...the development of novel and useful ideas that solve workplace challenges, thereby providing tangible and useful outcomes for an organization.*" Given its importance and application to every sector, creativity is a topic that is gaining popularity. The word "creativity" comes from the Latin word "creates," which means "to produce, make, or grow" (Chen, Chen, Lee, You, & Jao, 2011). Understanding and leveraging ECB can ensure that performance is optimized at individual and organizational levels (Jeong, McLean, McLean, Yoo, & Bartlett, 2017). ECB is considered an important source of success in modern organizations (Zaitouni & Ouakouak, 2018) where effective work practices are the foundation for innovation (Wallace, Butts, Johnson, Stevens, & Smith, 2013) and organizational competitiveness is created by individual creativity (Zaitouni & Ouakouak,

2018). Individuals and organizations both benefit from ECB. Therefore, creativity research has been a priority for more than four decades (Jain, & Jain, 2017). Leaders can assist followers by collecting vital resources, such as access to information and knowledge, cash, and materials, all of which take time and effort (Carmeli, Gelbard, & Reiter-Palmon, 2013). For almost 60 years, an extensive study on creativity has been conducted in the disciplines of management and psychology and has increased tremendously in previous decades (Jain, & Jain, 2017). When service professionals are required to handle a wide range of customer needs and requests at work, they must demonstrate creativity during their regular routines, which corresponds to everyday creativity rather than exceptional creativity (Hur, Moon, & Jun, 2016). According to research, creative outputs must include novelty, originality, or other distinguishing features that set them apart from basic alternatives. In addition, creative outputs must be valuable, situationally relevant, problem-solving, and useful (Suh, & Badrinarayanan, 2014). Furthermore, individual elements, such as cognition, personality, and approaches for developing individual creativity, have been the subject of previous studies on creativity development (Ghosh, 2015). Studies attempt to identify work conditions and social climates that support or impede creativity in the workplace in addition to human characteristics. By encouraging creativity and innovation, a diverse workforce provides a long-term competitive advantage (Chow, 2018).

Creativity and innovation are valuable resources that can be used to establish a competitive advantage. Because employees frequently work in teams to discuss a shared understanding of consumer and service market design, creativity is

widely used in the service industry (Cheung, & Wong, 2011). Organizations must outcompete inventive competitors and stimulate creativity to survive and grow in the face of developing technology, tough domestic and global rivalry, and an uncertain and unstable economic climate (Alzghoul, Elrehail, Emeagwali, & AlShboul, 2018). Because creativity fosters innovation, growth, and competition, most businesses invest substantially in and seek effective ways to boost employees' creativity, particularly in competitive, fast-paced workplaces. For example, service providers stimulate employee creativity as a means of delivering high-quality services (Zaitouni, 2018). Organizations that do not innovate or create are at a risk of losing their competitiveness and long-term viability. New concepts for the company might be something unexpected, unique, or creative; a new point of view, thinking outside the box, and contributing something that was not previously available are all examples of creativity (Suifan, Abdallah, & Al Janini, 2018). Creative employees may uncover clients' hidden demands and solve difficulties in a creative and effective manner, which results in higher performance (Suifan et al., 2018). Practitioners and researchers are becoming increasingly interested in the importance of creativity for organizational survival and success. Personal aspects and contextual qualities, such as work environment, job characteristics, interactions with colleagues and leaders, personality, and cognitive style, have been shown to influence ECB in related research investigations (Hu, Gu, Liu, & Huang, 2017). It is just as crucial to know how employees can improve their creative performance as it is to know who they are and how their environment aids their efforts (De Stobbeleir, Ashford, & Buyens, 2011). To develop a creative result,

employees must be willing to tackle organizational and environmental obstacles (Mittal, & Dhar, 2015). Employees can be creative individuals that seek new sources of inspiration or identify new opportunities. Because the number of employees is often far higher than the number of managers, they represent a significant creative potential that is frequently underutilized. They also often have relevant network ties outside the company, which could be potential sources of fresh information and ideas (Kesting, & Parm Ulhøi, 2010). However, employers appreciate creativity only to the extent that it affects employee work performance. As a result, it's critical to determine both causes and effects of employee creativity (Gong, Huang, & Farh, 2009). Inventing new procedures or processes for completing tasks or finding products or services that better suit client needs are examples of creative answers. Refining existing procedures or processes to improve efficiency (e.g., by decreasing resources required to complete a task) or the invention of new procedures or processes that are more effective are examples of creative developments (Gong et al., 2009). Employees are widely inspired to be inventive, plan, and discover unique solutions to work-related difficulties and efficiently and cost-effectively standardize their tasks. Furthermore, high levels of creative engagement have been identified as options for competing, and in some cases, more beneficial options of low levels of creative engagement and long-term acts are presented (Madjar, Greenberg, & Chen, 2011). Accordingly, these studies are only part of numerous studies that have identified a wide range of determinants that stimulate ECB.

1.2 Justification of the Research

Most governments provide incentives to optimize the delivery of public service, which also implies understanding and leveraging ECB (Moonesar, Stephens, Batey, & Hughes, 2019; Williams, 2012). The United Arab Emirates (UAE) government recently increased support to staff working on this topic by introducing different initiatives and awards toward improving work processes in different organizations (Ministry of Cabinet Affairs and The Future, 2019; Moonesar et al., 2019). The Ministry of Cabinet Affairs and the Future is creating different innovation systems in terms of government processes, procedures, services, and policies (Ministry of Cabinet Affairs and The Future, 2019). The aim is to generate competition among employees in the public sector and secure government innovation as a prearranged corporate culture that supports the UAE government's aims and objectives (Ministry of Cabinet Affairs and The Future, 2019). However, while determinants of ECB have been widely studied, it is unclear which of these determinants are more important to the public sector of the UAE. In the context of the UAE, Moonesar et al. (2019) noted that because of the increasing supply and demand for public services, antiquated government systems need to consider creative new ideas through the efficient use of new technology and cutting-edge knowledge. By focusing on the public sector, the UAE offers an opportunity for new and improved ways of providing services to citizens by instituting and operationalizing new management systems (Moonesar et al., 2019).

When it comes to ECB in the private sector, UAE Vision 2021 stated, *"Innovation, research, science, and technology will form the pillars of a knowledge-based, highly productive and competitive economy, driven by entrepreneurs in a business-friendly environment where public and private sectors form effective partnerships"* (Moonesar et al., 2019, p. 136). During the 1990s, the UAE government attempted to increase the number of Emirati employees in the private sector (Goby, 2020; Goby, & Alhadhrami, 2020). As a result, the gap between the public and private sector was noticeable (Al Bastaki, Haak-Saheem, & Darwish, 2020; Howe-Walsh, Turnbull, Khan, & Pereira, 2020). Despite these attempts, numbers did not increase as expected (Goby, 2020). Therefore, the Emiratization policy was set to reduce the imbalance with the workforce in this sector (Goby, & Alhadhrami, 2020) and to implement Emirati staff employment in the private sector (Al Bastaki et al., 2020). This policy includes certain benefits for those Emirati staff along with quotas (Goby, & Alhadhrami, 2020; Younies, & Al-Tawil, 2020). Emiratization is defined as a *"social capital program that seeks to overcome structural barriers to Emirati employment in organizations, and address social issues rising from citizens' entry into the labor market"* (Howe-Walsh et al., 2020, p. 98). It is also an important part of the UAE's Vision 2021 strategy that aims to increase the Emirati workforce in the private sector from 1% to 5% by 2021 (Howe-Walsh et al., 2020). Previous reports indicate that the Emiratization rate in the private sector reached 3.8% of the total private sector workforce in 2018 (Ministry of Economy, 2018). In 2020, the rate decreased by 0.3% and reached 3.78% of the total private sector workforce (UAE Vision 2021, 2020). Most

private companies are working longer hours than those in the public sector and have low wages, which discourages Emiratization in this sector (Ryan, Tipu, & Zeffane, 2011). Many big companies all over the UAE, like Jumeirah Group Corporate Office (Stanojevic, 2020), are hiring Emirati employees in keeping with the UAE Emiratization policy (Stanojevic, 2020). Government sponsorship toward supporting career development is one of the important steps that supports gradual initiatives in hiring Emirati staff (Howe-Walsh et al., 2020). These initiatives include financial support, qualification and course advancement, and paid study leave (Al-Balushi, & Durugbo, 2020; Howe-Walsh et al., 2020; Younies, & Al-Tawil, 2020). Consequently, it is important to prepare Emirati staff with all of the needed skills and knowledge (like these creative behaviors) to empower their roles in this sector.

To clarify where ECB stands in the UAE's different sectors, comparative research is being conducted to determine if there is one sector that is exceeding another in applying ECB. This comparison will help reduce the gap, if any, and allow efforts between different sectors to be more equal regarding the application of ECB. It will also direct decision-makers from different sectors to focus on specific ECB determinants within the different sectors (if needed).

1.3 Significance of the Research

UAE is taking significant steps to be a leader in all fields and a role model that most countries in the world will want to emulate (Dulaimi, 2021). ECB is an important part of achieving this goal. This research is a base or start for organizations to move toward high-level services, more income, less use of

resources, and a good reputation that results from ECB. According to Systematic Literature Review (SLR) results that were applied in different countries and sectors, those determinants have a positive impact on ECB. Consequently, the chosen determinants in this study were among the best-matched reasons for creativity from different countries with different working conditions. Thus, applying them within the context of the UAE was a success for decision-makers in this country. This research compares results between private and public sectors to identify the common/different and important determinants that affect ECB in the UAE. Furthermore, Emiratization is an important policy that all companies in the private sector must apply. Hence, this research will introduce to Emirati staff the most important ECB that they should have to empower them to become attractive to companies in the private sector.

1.4 Research Objectives

The objective of this research is to provide a comprehensive summary of ECB determinants that have a positive impact on ECB for employees working in the public and private sectors. The research also presents a contextualized model to provide managers with guidance on what steps will be most effective in stimulating ECB among public and private sector employees in the UAE.

1.5 Research Question and Problem

The main research question is as follows: *What are the determinants of employee creative behavior in the UAE public and private sector?* Therefore, this research seeks to identify significant factors and sub-factors that will encourage ECB in both the public and private sectors so that employees can be

more creative in their work while concomitantly benefiting and improving services provided by organizations (Lasrado, Arif, & Rizvi, 2015). This aim of this research is to generate results that will help managers and decision-makers in UAE sectors have a clear picture of how to stimulate ECB at work and improve organizational outcomes (Shin, Hur, & Oh, 2015). This research will also investigate the role of social, cultural, and religious influences in the creative process (Petrou, Bakker, & Bezemer, 2019; Saraç, Efil, & Eryilmaz, 2014).

1.6 Research Contributions

The expected contribution of this research is that it will be a study that contributes to creativity studies and provide important results for the success of organizations (Zaitouni, & Ouakouak, 2018). The most significant determinants and important levels that have a positive impact on ECB in the public and private sectors will be examined. A review of ECB determinants that positively reflect on the public and private sector will be conducted by establishing a new theoretical perspective to investigate creativity (Zaitouni, & Ouakouak, 2018) through the new Analytic Hierarchy Process (AHP) that will be conducted through questionnaires and interviews. Furthermore, it will also categorize the highest and lowest (by importance) determinants that are considered the best sources and identify the most dominant determinants that need to be implemented in the public and private sector context in the UAE. The final customized AHP model includes critical success levels and determinants that are most relevant to the UAE public and private sector. Finally, a comparison

between the two sectors will be performed to display the highest and lowest ranking determinants.

Based on previous studies, determinants of ECB will vary from one context to another. Human nature is different from person-to-person in sending and receiving creative ideas and then applying them at work (Dulaimi, 2021). Many studies connect ECB with an organization's success, high competition, and better service, which are considered a great value from the perspective of customers (Dulaimi, 2021). Consequently, service levels vary from one organization to another (Lasrado et al., 2015) and this indicates that ECB varies from one organization to another in the UAE. Therefore, this research will provide a guide of the best suited determinants that will help in obtaining the maximum advantage of ECB for employees in both sectors. As a result, the gap in service quality will be reduced among these two sectors and employees will get high-level service through advanced and creative ways and systems.

The expected and practical contributions of the research are as follows:

1. Understanding ECB will help organizations make the right choices regarding hiring individuals and strategizing resource allocations (Song, Wu, & Gu, 2017).
2. Staff who exhibit ECB will be loyal to their organization, use resources efficiently, and be happy in their work (Petrou et al., 2019).
3. ECB varies from one organization to another in the UAE, and as a result, service levels vary from one organization to another. Thus, understanding and leveraging ECB in under-performing organizations will help ensure that

consistent service quality levels are manifested across the country (Bani-Melhem, Zeffane, & Albaity, 2018).

4. Social, cultural, and religious influences will be considered in the creative process (Petrou et al., 2019; Saraç et al., 2014).
5. Decision-makers and leaders will have a comprehensive overview of all possible determinants of ECB as a palette of options to choose from when thinking of new ways to stimulate their organization (De Stobbeleir et al., 2011).
6. Emirati staff will be introduced to the most important ECB determinants that they should have or use to empower themselves so that they can be attractive to companies in the private sector (Howe-Walsh et al., 2020).

1.7 Chapter Structure

This chapter started with an introduction of ECB and mentioned certain studies that discovered many determinants that encourage ECB. It then presented the research justification, the significance of the research, the research question and problem, and the objectives of the research and then concluded with the theoretical and practical contributions of the research.

Chapter 2 includes the SLR that discusses specific steps to conduct the SLR and an overview of determinants that were found to affect ECB. It also includes full explanations of the four levels approved and the 21 determinants. Chapter 3 provides a detailed explanation of the research methodology. It lists how data analysis was performed including participants' selection strategy, final sample characteristics, data collection strategy, and a process for data collection for the

public and private sector. Chapter 4 provides a comprehensive description of the AHP model and process. Chapters 5 & 6 discuss data collection results of both sectors. Chapter 7 compares results between both sectors. The final chapter is a conclusion of the dissertation and presents theoretical contributions, practical contributions, limitations, and suggestions for future research.

CHAPTER 2: SYSTEMATIC LITERATURE REVIEW

2.1 Chapter Introduction

This research utilized a systematic meta-analysis of previously published articles on ECB. The aim was to select key determinants that affect ECB based on extant literature in this domain and then categorize these determinants for the UAE public and private sector pursuant to helping government organizations better harness the creativity of individuals. A comprehensive model will then be built from a multitude of studies published about ECB. By applying SLR, the supported ECB determinants discussed in the literature were collected and categorized into levels and determinants. The literature is also a source to for other unexplored determinants and levels. Furthermore, by developing a clear research process, the quality of results and outcomes of the research are improved (Bos-Nehles, Renkema, & Janssen, 2017). The research also combined an unbiased and full search to identify as many related types of literature on ECB as possible (Bos-Nehles et al., 2017). This is the first comprehensive SLR of determinants that drive ECB. Therefore, future studies can build on the modification and customization of the model for use in different sectors and in different countries.

The SLR method is a process based on evidence and is a technique for critiquing and reviewing the literature to improve future practice and stimulate more advanced research approaches (Senivongse, Bennet, & Mariano, 2017). It has its origins in the medical field and is currently finding favor in several sectors, such as business and management, information systems, psychology, and

nursing studies and it reduces any expected research bias. First, the SLR structure starts with a keyword and/or related keywords that characterize the focus of the research. The research is also restricted by special search conditions selected by the researcher such as years, industry, country, sector, and others. Second, retrieved articles are reviewed based on the researcher's search limitations and criteria. Consequently, revised articles will show transparency and focus more on the objectivity of the focus area. In addition, if the same research with similar search conditions is conducted by other researchers, then results similar to those found by the first researcher are achieved (Senivongse et al., 2017).

2.2 Chapter Methodology

Many determinants associated with ECB are shown in previous studies. For example, particular leadership styles and behaviors can boost ECB such as empowering leadership, a group-innovation climate (Suliman, 2013), structural empowerment, transformational leadership (Jaiswal, & Dhar, 2015), emotional and informational support, and team-learning behavior (Matsuo, 2018). In some organizations, leadership support is a determinant of the creativity level in the workplace (Suifan et al., 2018), and such support is important because it provides evidence to the staff that their leaders are actively involved in the organization's creative processes (Zhang, & Bartol, 2010). Once proactive employees have the necessary leadership support and required creativity, they can utilize their creative talents in the workplace (Ghosh, 2015).

Consequently, the first step in starting this research refers to the Publish or Perish program that investigates and retrieves academic citations on the needed research topic from different data sources like Microsoft Academic Search, Scopus, and Google Scholar (Harzing, 2020). It also classifies the articles by the number of citations, year, author, journal, or number of citations per year. The research results for the keyword 'creative behavior' up to 2019 showed a total of 299 references focused on ECB that was initially started by COHEN (1962). The top three cited articles were (George, 2001) with 615 citations, (Ohly, Sonnentag, & Pluntke, 2006) with 264 citations, and (Pryor, Haag, & O'Reilly, 1969) with 232 citations. Next, the search was customized by year and the specific Scopus reference rating. To obtain the most recent knowledge and due to the rapidly changing business world, the SLR focused on articles from the last ten years (2009 to 2019) originating from different industries and countries. The Scopus rating was set above one and this provided a total of 86 articles that were used to define significant and supported determinants related to ECB. From these criteria, a total of 55 significant determinants were found. To minimize the number of determinants, research used determinants that were supported twice or more times across articles and by combining the determinants that were related to each other. In addition, the literature review supported the relationships of determinants with ECB by including double-blind, peer-reviewed, and high-ranking articles in internationally recognized academic journals with an ABCD rating A and A*. This rating is covered by fields like accounting, business and taxation law, economics, finance, information systems, management, commercial services, transport and logistics,

marketing and tourism, and others (commerce, management, tourism, and services) with 837 journals. Therefore, 21 was the final number of determinants. This shows how studies are reliable enough that they don't need to be exhaustive. Articles were identified through online search engines such as Wiley Online Library, Emerald, and ProQuest. Keywords were used to identify relevant literature and included 'employee creative behavior,' 'creativity,' 'creative behavior,' 'innovation,' 'ECB,' and all of the mentioned 21 determinants. The timeline that was applied during the research was from the last decade and showed 96 total articles.

2.3 Chapter Results

Two studies (Anderson, Potočnik, & Zhou, 2014; Jaiswal, & Dhar, 2015) divided and categorized their determinants into multiple levels. A study by Anderson, Potočnik, and Zhou (2014) applied a framework that has comprehensive levels-of-analysis as follows: individual level, team level, organizational level, and multi-level innovation. This framework is a result of studying six frameworks focused on creativity and innovation. The following integrative definition about ECB was developed “*Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. The creativity stage of this process refers to idea generation, and innovation to the subsequent stage of implementing ideas toward better procedures, practices, or products. Creativity and innovation can occur at the level of the individual, work team, organization, or at more than one of these levels combined, but will invariably result in*

identifiable benefits at one or more of these levels-of-analysis” (Anderson et al., 2014, p. 4). A study by Jaiswal and Dhar (2015) used the individual level and group level to contribute to the current research of ECB that defines effects of the multilevel of group-level variables on individual-level variables to expand ECB.

The SLR revealed another category of determinants that revolved around job characteristics. The Job Characteristics Model (JCM) by Hackman and Oldham (1975) states that employees’ behaviors in their jobs are related to their perception of five core job characteristics as follows: Autonomy, Feedback, Skill Variety, Task Identity, and Task Significance. While the latter was not related to ECB in any study included in the SLR, the other four job characteristics were explicitly related. Besides, studies referred to two job characteristics that were later added to the JCM (Oldham, & Cummings, 1996) including Job Complexity and Role Expectations.

After screening studies that applied levels to categorize their ECB determinants (Anderson et al., 2014; Jaiswal, & Dhar, 2015), the research applied three levels that were generally used in this type of comparison of determinants, and this research focused more on work performance. Therefore, this research adds a new level to Anderson et al. (2014) and settles on the individual level, team level, job level, and organizational level.

At the individual level, ECB is an outcome of individual determinants such as personality traits and abilities (Anderson et al., 2014). At the team level, ECB is an outcome of group attributes, team activities, and communication of team

members (Anderson et al., 2014). The comprehensive review paper of Li, and Hsu (2016) discussed the impact of Employee Innovative Behavior (EIB) in hospitality firms. EIB and ECB are not the same, but they are connected. *Innovation* is the process of creating and executing new ideas, and *creativity* is the first step in the innovation process where ideas are generated and implemented (Hulsheger, Anderson, & Salgado, 2009; Liao, & Chen, 2018). Different job characteristics impact service outcomes and EIB is a workplace behavior (Li, & Hsu, 2016). Therefore, research applied the JCM, which states that employees' responses and perceptions of their work are directly related to their jobs. There are also impacts on work performance, turnover intention, job satisfaction, and work motivation (Li, & Hsu, 2016). The model also stated that a high level of these dimensions at work leads to reduced turnover and absenteeism among employees and a high level of performance, satisfaction, and motivation at work (Tang, Yu, Cooke, & Chen, 2017). Other studies related ECB with JCM (Anderson et al., 2014; Boeck, Dries, & Tierens, 2018; Chong, Eerde, Rutte, & Chai, 2012; De Stobbeleir et al., 2011; Eldor, 2017a; Hulsheger et al., 2009; Hung, & Dong, 2013; Jeng, 2018; Li, Deng, Leung, & Zhao, 2017; Li, & Hsu, 2016; Liu, Jiang, Shalley, Keem, & Zhou, 2016; Pacauskas, & Rajala, 2017; Petrou et al., 2019; Suseno, Standing, Gengatharen, & Nguyen, 2019; Valls, González-Romá, & Tomás, 2016; Wang, & Cheng, 2009; Wang, Liu, & Shalley, 2018). These levels were chosen by comparing certain previous studies (Anderson et al., 2014; Jaiswal, & Dhar, 2015) that divided determinants into multiple levels.

The results of SLR revealed that 21 potential ECB determinants were categorized into four main levels and these levels were classified by grouping the most relevant determinant to their level or a level they are near, i.e., individual level, team level, job level, and organizational level. All determinants were supported by previous research on their positive and significant impact on ECB as shown in *Table 1*.

Level	Determinants	References
<i>Individual</i>	Creative Self-Efficacy	(Gong et al., 2009)
		(Zhang, Zhang, Liu, & Du, 2019)
		(Wang et al., 2018)
		(He et al., 2019)
	Risk Taking	(Madjar et al., 2011)
		(Tang et al., 2017)
		(Ucar, 2018)
	Openness to Experience	(Xu, Jiang, & Walsh, 2018)
		(Liu, Jiang, Shalley, Keem, & Zhou, 2016)
		(Niu, 2014)
	Adaptive Capacity	(Martins, Rindova, & Greenbaum, 2015)
	Cognitive Resources	(Pacauskas, & Rajala, 2017)
		(Geng, Liu, Liu, & Feng, 2014)
		(Chow, 2018)
		(Gong et al., 2009)

	Employee Learning Orientation	(Zhou, Zhao, Tian, Zhang, & Chen, 2018)
	Employee Engagement	(Abdulla, Djebarni, & Mellahi, 2011)
		(Shih, & Wijaya, 2017)
		(Schiemann, Seibert, & Blankenship, 2018)
		(Zhang, & Bartol, 2010)
		(Hameduddin, & Fernandez, 2019)
		(Eldor, & Harpaz, 2016)
		(Sijbom, Anseel, Crommelinck, De Beuckelaer, & De Stobbeleir, 2018)
		(Eldor, 2017a)
Team	Coworker Support	(Bani-Melhem et al., 2018)
		(Liao, Chen, & Hu, 2018)
		(Tang et al., 2017)
		(da Costa, Zhou, & Ferreira, 2018)
		(Ma Prieto, & Pilar Pérez-Santana, 2014)
		(Roopak, Mishra, & Sikarwar, 2019)
	Knowledge Sharing	(Bani-Melhem et al., 2018)
		(Iskoujina, & Roberts, 2015)
		(Liao et al., 2018)
		(Carmeli et al., 2013)
		(Lauring, & Selmer, 2012)

	Team Task and Goal Interdependence	(Hulsheger, Anderson, & Salgado, 2009)
		(Anderson et al., 2014)
		(Hon, & Lui, 2016)
		(Roopak et al., 2019)
	Vision	(Hulsheger et al., 2009)
		(Pan, Liu, Ma, & Qu, 2018)
		(Dong, Bartol, Zhang, & Li, 2017)
Job	Autonomy	(Eldor, 2017b)
		(Wang & Cheng, 2009)
		(Li et al., 2017)
		(Petrou et al., 2019)
		(Wang et al., 2018)
	Feedback	(Boeck, Dries, & Tierens, 2018)
		(De Stobbeleir et al., 2011)
		(Pacauskas, & Rajala, 2017)
		(Hulsheger et al., 2009)
		(Valls, González-Romá, & Tomás, 2016)
		(Hung, & Dong, 2013)
		(Chong, Eerde, Rutte, & Chai, 2012)
	Skill Variety	(Liu et al., 2016)
		(Anderson et al., 2014)
		(Li & Hsu, 2016)

		(Boeck et al., 2018)
	Task Identity	(Jeng, 2018)
		(Boeck et al., 2018)
		(Suseno, Standing, Gengatharen, & Nguyen, 2019)
	Job Complexity	(Tang et al., 2017)
		(Liu et al., 2016)
		(Anderson et al., 2014)
		(Bos-Nehles et al., 2017)
	Role Expectation	(De Stobbeleir et al., 2011)
		(Tang et al., 2017)
		(Duan, Li, Xu, & Wu, 2017)
		(Li & Hsu, 2016)
	Resources	(Richtnér, & Löfsten, 2014)
		(Petrou et al., 2019)
Organizational	Management Support	(Roopak et al., 2019)
		(Ma Prieto, & Pérez-Santana, 2014)
		(Leff Bonney, Geiger, & Williams, 2009)
		(Jain, & Jain, 2017)
		(Jaiswal, & Dhar, 2015)
		(De Stobbeleir et al., 2011)
	Leadership Style	(Gong et al., 2009)

		(Jaiswal, & Dhar, 2015)
		(Renko, El Tarabishy, Carsrud, & Brännback, 2015)
		(Herrmann, & Felfe, 2014)
	Suggestion System	(Froehlich, Hoegl, & Gibbert, 2016)
		(Lasrado, Arif, Rizvi, & Urdzik, 2016)
		(Marin-Garcia, Juarez-Tarraga, & Santandreu-Mascarell, 2018)
		(Tang et al., 2017)

Table 1. Summary of Literature Synthesis on Employee Creative Behavior

2.4 Critical Analysis - Overview of Determinants Affecting ECB

2.4.1 Individual Level

At this level, ECB is an outcome of different determinants like enthusiasm, experience, ability and cognitive style, and personality (Anderson et al., 2014). The research determined the following determinants related to the individual level on ECB.

Creative Self-Efficacy At the individual level, creative self-efficacy determines whether employees will start a certain behavior, efforts shown by them, and how long they are going to take to deal with difficulties of a mission (Wang et al., 2018). Creative work is realized once employees trust their creative ability and different studies show its positive mediating role on factors like an individual's creativity and contextual factors and transformational

leadership and learning goal (Wang et al., 2018). When employees believe that they have skills and the needed knowledge to generate creative ideas (Gong et al., 2009; Zhang et al., 2019), this also cultivates ECB (He et al., 2019). Furthermore, it imitates employees' essential motivations to be part of the creation process and provides essential motivation that enhances their perceptions of self-competence (Gong et al., 2009). A study by Zhang et al. (2019) demonstrated that the reward amount is positively related to customers' follow-up e-referral and is elevated for customers with high creative self-efficacy. Additionally, gift rewards are more accepted by customers than cash rewards (Zhang et al., 2019). The more creative self-efficacy at work, the easier it is for employees to be creative and have creative work processes (He et al., 2019). Furthermore, employees with highly creative self-efficacy are participating in a flexible work style that leads to creative and practical ideas (He et al., 2019). A Componential Model of Creativity (*Amabile, 1988*) was used to explain this determinant (He et al., 2019).

Risk-Taking The personality dimension is a challenging tool for ECB (Madjar et al., 2011) and organizations with creative environments create employees who are eager to take risks (Ucar, 2018). Employees who are open to risk (Tang et al., 2017) create an opportunity to be creative and gratify their needs to be challenge takers (Madjar et al., 2011). Besides, a supportive work environment is highly valued by the creative behavior of employees, which allows risk-taking ideas at work (Madjar et al., 2011). The study of Madjar et al. (2011) focused more on a sense-making perspective compared with previous studies by incorporating a theoretical framework with other models that focus on

personality and contextual factors to motivate creativity (Madjar et al., 2011). Originally, ECB contained a high predilection for risk-taking as it needs to search for undetermined ideas and systems (Ucar, 2018).

Openness to Experience This represents the extent to which an individual is imaginative, curious, and broad-minded (Xu et al., 2018, p. 142) and it is the most common ECB-linked determinant (Liu et al., 2016). It is also thought to be a crucial personal characteristic that impacts ECB (Xu et al., 2018). Many creative personalities with a high degree of openness to new experiences participate in innovative thinking and are more imaginative (Niu, 2014). Social Cognitive Theory is the theory explaining this determinant (Bandura, 1986, 1997, as cited in (Liu et al., 2016).

Adaptive Capacity The concept of Adaptive Capacity was introduced by management and psychological studies in areas such as uncertainty strategy development, creative reasoning, creativity, and innovation. The concept focuses on the ability to apply knowledge from a conventional domain to a modern and emerging environment (Martins et al., 2015). This particular study focused on two major cognitive processes through which employees change their plans to cope with conceptual blend, novelty, and analogical reasoning (Martins et al., 2015).

Cognitive Resources The cognitive efforts of an individual are the element of how appropriately things are designed (Pacauskas, & Rajala, 2017). The ECB of frontline employees at the organization in the service sector needs to show how they are suggesting and producing new and novel products or services that

can be delivered to customers. To be successful, they need enough cognitive resources to improve their domain-relevant and creative-relevant skills (Geng et al., 2014). In addition, there are theories on how business models can be proactively innovated without applying exogenous changes by applying generative cognition processes (Geng et al., 2014). Cognitive resources that best fit ECB are knowledge, skills, and expertise as they are combined to have a positive impact on decision-making processes (Chow, 2018).

Employee Learning Orientation Employee Learning Orientation is defined as a concern for, and dedication to, developing one's competence (Gong et al., 2009). Once employees have a learning orientation it will improve their creative behavior (Gong et al., 2009). The result of a study by Zhou et al. (2018) stated that visionary leadership is the most efficient application when it comes to creating new ideas along with the existence of strong learning orientation from employees who are eager to renovate their knowledge base.

Employee Engagement The study of Zhang, and Bartol (2010) used the term "creative process engagement" to refer to the creative process in the organization and defined it as *"employee involvement or engagement in creativity relevant cognitive processes, including (1) problem identification, (2) information searching and encoding, and (3) idea and alternative generation"* (Zhang & Bartol, 2010, p. 112). One framework assessed the impact of an information-sharing system by recording employees' creative work on the quality of financial performance, job engagement, and creative work. When employees are satisfied with their jobs, a feeling of commitment is produced so

that they devote their energies and time to developing suggestions and concepts that change the work process (Shih, & Wijaya, 2017). ECB, skills, productivity, and efforts are influenced by benefits provided to employees by their organization (Abdulla et al., 2011). The theory is that job satisfaction elements can be allocated into two camps: *a content perspective* that approaches job satisfaction from a needs fulfilment perspective and contains motivator-hygiene theory (Herzberg, Mausner, & Snyderman, 1959) and Maslow's (1954) need of hierarchy theory. *The process perspective* highlights the foremost job satisfaction of the cognitive process and contains Adams' (1963) equity theory and Vroom's (1964) expectancy theory (Abdulla et al., 2011). Most organizations at the service-profit chain framework start looking at the following statistical relationships to measure their business success: profits, internal service, external service, and employee satisfaction, and these areas are measured by anonymous guest scores, customer satisfaction, and employee surveys (Schiemann et al., 2018). Specifically, the process perspective is an *"employee's sense of purpose that is evident in their display of dedication, persistence, and effort in their work or overall attachment to their organization and its mission"* (Hameduddin, & Fernandez, 2019, p. 357). The study of Hameduddin, & Fernandez (2019) verified the association between the U.S. Office of Personnel Management performance and employee engagement initiative. The feel of work engagement is what is behind an organization's expressive, independent, exciting, creative, and diverse workplace (Eldor, & Harpaz, 2016). Proficiency at work, employee engagement, and ECB expand if employees are inspired and involved in creating an organization's vision and if

they join forces in exchanging knowledge with their work partners (Eldor, & Harpaz, 2016). The framework assumes that employee engagement impacts extra-role performance such as adaptiveness, proactivity, creativity, and knowledge sharing. This is in addition to the mediating role of employee engagement between extra-role behaviors and the perceived learning climate (Eldor, & Harpaz, 2016). The result of a study by Eldor (2017a) confirmed that when employee engagement occurs with a sense of organizational politics, employees become more adaptive, creative, and active and also involved more in knowledge sharing. A work environment consisting of opportunity and motivation is considered a method that directs employees to convert information outlets at the organization into creative accomplishments (Sijbom et al., 2018).

2.4.2 Team Level

At this level, ECB is an outcome of group attributes, team activities, and the communication of team members (Anderson et al., 2014). In addition, research found the following determinants that influence ECB at the team level.

Coworker Support Both coworker support and management support are an important part of a supportive work environment that leads to ECB, which enlarges the active motivational state and extends and employee's self-perception of their position in the organization (Ma Prieto, & Pérez-Santana, 2014). A study's framework is intended to examine the link between ECB and high-involving HR practices, and one characteristic of the work environment (coworker support and management support) is linked to ECB (Ma Prieto, & Pérez-Santana, 2014). Working with colleagues who are supportive and

cooperative leads to a workplace where new ideas are open for discussion (Liao et al., 2018). A study by (Bani-Melhem et al., 2018) added that sharing knowledge between co-workers plays an important role in simplifying and learning a new task. As a result, workers have a chance to work with confidence (Tang et al., 2017) and overcome challenges toward creativity. When a staff consists of co-workers who are ready to share their expertise and work together to accomplish the company's goals (Roopak et al., 2019), then creative behavior can exist (Bani-Melhem et al., 2018). Co-workers that endorse and promote creative ideas offer their organization employees who have informational resources, social cues, and critical emotions toward creative task- related actions (da Costa et al., 2018).

Knowledge Sharing This allows employees to gain a benefit from a knowledge base that is available inside and outside the organization and develop creative ideas that lead to launch systems, services, or products new to the market (Carmeli et al., 2013). This specific study discovered links between internal and external knowledge sharing, leader supportive behavior, creative performance, and employee capacity for creative problem-solving. Different studies confirmed the positive role that sharing knowledge plays when it comes to group creativity, such as one study that showed this on a health care work team and another that confirmed the same outcome in a study in China (Liao et al., 2018). Bani-Melhem et al. (2018) strongly argued for the impact of knowledge sharing and that it leads to positive employees. When leadership supports knowledge sharing among employees, then employees have less fear of losing their unique value (Iskoujina, & Roberts, 2015). A study by Iskoujina, &

Roberts, (2015) investigated the relationship between management in open-source software (OSS) societies and individual participant's motivations (Iskoujina, & Roberts, 2015). Overall, organizations are more creative and efficient if they take full advantage of their capability and shared knowledge (Lauring, & Selmer, 2012).

Team Task and Goal Interdependence This also has a direct and moderating impact on team innovativeness (Anderson et al., 2014). One study of goal and task interdependence demonstrated a positive relationship between ECB and heterogeneous teams and showed how task interdependence positively foresees ECB when high concentrations of goal interdependence are shown (Anderson et al., 2014). A study by Roopak et al. (2019) demonstrated that there is a significant correlation between task interdependence and creativity. The interdependence becomes an ancestor to innovation and creativity as the interaction of both promotes cooperation, interaction, and communication among team members (Hulsheger et al., 2009; Roopak et al., 2019). *Task interdependence refers to the extent to which team members are dependent on one another to carry out their tasks and perform effectively. Goal interdependence, or outcome interdependence, describes the extent to which team members' goals and rewards are related in such a way that an individual team member can only reach his or her goal if the other team members achieve their goals as well* (Hulsheger et al., 2009, p. 1129). Furthermore, as task interdependence becomes higher, employees engage in creative activities more often and this will accelerate ECB among team members (Hon, & Lui, 2016). In the case of high task interdependence, employees with less creative efficacy

try to become creative and complete their tasks faster than expected (Hon, & Lui, 2016).

Vision This *"is an idea of a valued outcome, which represents a higher-order goal and motivating force at work,"* (Hulsheger et al., 2009, p. 1131) especially when it comes to team vision. What makes a team more innovative is how committed team members are to organizational ambitions and team ideas and how the team shows acts of responsibility (Hulsheger et al., 2009). ECB is positively affected by an organization's expression of a future-oriented vision (Pan et al., 2018). The model applied in the study of Pan et al. (2018) explains the relationship between creativity and benevolent leadership by considering individual and contextual determinants. This study theorized that formal leaders' visionary behaviors moderate the association between employees' informal leadership status and their creativity; informal leadership status mediates the association between an employee's proactive personality and individual creativity. The shared collective goals and visions among team members leads to an effective ECB that will contribute to the attainment of mutual goals (Dong et al., 2017). This study theorized how dual-focused transformational leadership might influence team and individual creativity through separate channels (Dong et al., 2017).

2.4.3 Job Level

Several studies related ECB to the five Job Characteristics Model (JCM) (Anderson et al., 2014; Boeck et al., 2018; Chong et al., 2012; De Stobbeleir et al., 2011; Eldor, 2017a; Hulsheger et al., 2009; Hung, & Dong, 2013; Jeng,

2018; Li et al., 2017; Li, & Hsu, 2016; Liu et al., 2016; Pacauskas, & Rajala, 2017; Petrou et al., 2019; Suseno et al., 2019; Valls et al., 2016; Wang, & Cheng, 2009; Wang et al., 2018). The Job Characteristics Model (JCM) found by Hackman and Oldham (1975) stated that employees' responses and perceptions of their work are directly related to their jobs. This is divided into five core job characteristics that are the main determinant for this level as follows: Autonomy, Feedback, Skill Variety, Task Identity, and Task Significance. The model also states that the high level of these dimensions at work leads to reduced turnover and absenteeism among employees and a high level of performance, satisfaction, and motivation at work (Tang et al., 2017). According to previous studies (Oldham, & Cummings, 1996), two additional characteristics were added to this research based on other studies and included Job Complexity and Role Expectations. The main determinants are related to ECB as follows:

Autonomy Employees with high autonomy at work and with more work confidence demonstrate high creativity levels (Wang et al., 2018). *Job autonomy refers to the extent to which an individual can determine his or her methods, pace, and effort to accomplish work tasks* (Wang, & Cheng, 2009, p. 110). Therefore, the higher the autonomy of an employee, the higher the alternative thinking, problem-solving, and risk-taking that results in promoting creativity (Wang, & Cheng, 2009, p. 110). A model explained the relationship between creativity and benevolent leadership by considering individual and contextual factors (Wang, & Cheng, 2009, p. 110). ECB is expanded once an organization is supporting behaviors of proficiency, self-fulfillment, and

autonomy (Eldor, 2017b). A study by F. Li, Deng, Leung, and Zhao (2017) indicated that employees show a high degree of autonomy when there is a reward for creativity at their organization that is used as positive influence to achieve their targets. ECB resources are a set of structural resources that employees use to develop their personality (opportunities and job autonomy) or social resources (social support and feedback) (Petrou et al., 2019). According to agency theory, which was developed by Ross and Mitnick (1973), autonomy can aid in making proper decisions (Musallam, 2020). The agency theory emphasizes phrases that can help the organization achieve its goals, and as a result, improve corporate performance (Musallam, 2020). It also underlines the incentives and role of control in allowing economic interactions and organizations to operate (Koster, 2021). Organizations are unwilling to allow employees autonomy because the interests of employees diverge, according to the main premise of agency theory. This hesitancy stems from a lack of confidence among the involved parties. As a result, the theory's focus on autonomy is primarily on the risks of granting work autonomy and the associated agency costs (Koster, 2021). It also includes some of the most important theoretical justifications, as well as an explanation of the limitations of providing autonomy and the conditions under which it can be granted in organizations. Three characteristics of these types of tasks are linked with work autonomy, according to considerations derived from this theory regarding how organizations deal with information asymmetry: how strongly the work rests on the knowledge-intensity of the work, whether the knowledge is firm-specific, and the length of the relationship between principals and agents (Koster,

2021). **Feedback** This is essential for the ECB process as managers can cultivate and stimulate ECB and it is part of the social process at the organization because other employees who are working in the same environment stimulate creativity (De Stobbeleir et al., 2011). Feedback also encourages new pathways that push the work forward and it decreases insecurity correlated with a change in work nature (De Stobbeleir et al., 2011). One study's theoretical goal was to explore differentiating information and contributions from an employee's work that led to more creative activities. Feedback is also a vital process for innovation teams that helps them achieve specified goals in a lucrative way (Chong et al., 2012). This study implemented a challenge–hindrance stressor framework (Podsakoff, LePine, & LePine, 2007) where they theorized and found empirical support that hindrance time pressure and challenge time pressure weakens and expands the relationship between team communication and team proximity, respectively. This communication between team members results in a review and discussion of task-relevant data advanced problem solving and decision-making tasks (Valls et al., 2016). A study by Valls et al. (2016) tested whether team communication quality mediates the relationship between team performance and education-level diversity. To enhance an organization's creativity, it must have a structure that self-controls decision-making processes and cross-functional communication (Hung, & Dong, 2013). This study confirms the opinions of Allen (1977), who found that communication and information dissemination provided by a gatekeeper is crucial to R&D in the organization. In addition, *it provides workers with direct information about the effectiveness of their performances (job feedback)* (Boeck et al., 2018, p. 531). The positive

and direct feedback of potential ECB enhances an organization's creative performance (Boeck et al., 2018). All creativity-supporting systems must provide a feedback tool that measures the achievement process that led to the successful completion of given tasks (Pacauskas, & Rajala, 2017). Many researchers that studied the impact of creativity and its acceleration with technology focused on the different types of feedback in creative-process facilitation to obtain the maximum benefit from the user system (Pacauskas, & Rajala, 2017). Communication or feedback and monitoring are also part of this determinant and is defined as the process of distributing ideas and information, which is the main innovation that helps with implementing new ideas into reality through backup behavior, providing feedback, and reciprocal monitoring (Hulsheger et al., 2009). This is applied to internal communication between employees within the same organization or department and external communication by networking with new functional areas to become exposed to brand-new perceptions and experiences (Hulsheger et al., 2009).

Skill Variety This is one of the five core job characteristics (Anderson et al., 2014) and is "*the degree to which a job requires the use of different skills*" (Boeck et al., 2018, p. 531). Jobs that need skill variety force employees to learn new skills, and the result of these skills leads to creative work that is easy to apply (Li, & Hsu, 2016). A framework was used to apply a comprehensive review of 53 theoretical research articles on ECB in the service sector (Li, & Hsu, 2016). ECB is emphasized through creative thinking skills; therefore, the organization must improve these skills to boost ECB (Liu et al., 2016). The

more skill variety employees show in their jobs, the more likely they will be to efficiently use their skills (Boeck et al., 2018).

Task Identity This *"is the extent to which employees can perform and complete an entire piece of work"* (Jeng, 2018, p. 390). The results of Jeng (2018) showed that logistic jobs need more identity to improve ECB. In addition, providing task identity at work through designing jobs will result in expectations from the employee to follow up with the customer from beginning to end of the provided service (Jeng, 2018). When task identity is increased at jobs, employees are able to express themselves and use their talents to develop creative ideas (Boeck et al., 2018). Jobs that are designed with task identity have employees who are practical when handling significant work, obtain creative results, and can modify current circumstances (Suseno et al., 2019).

Job Complexity Job complexity is one of the main aspects that is connected to the task context and related to ECB (Anderson et al., 2014). Job routinization is part of job complexity (Anderson et al., 2014; Bos-Nehles et al., 2017) as it can negatively affect ECB when employees are working in a job with a low level of complexity (Anderson et al., 2014). This is defined as *"the extent to which a job is mentally challenging and difficult to perform"* (Liu et al., 2016, p. 239). Complex jobs are those with more challenges and a smaller amount of routine work. This indicates that employers need innovative and creative employees who can focus on completing various tasks at once (Tang et al., 2017). This also affects the process of the excitation of ideas as employees working with

complex jobs will have the needed know-how skills that help them apply their ideas with the knowledge provided (Bos-Nehles et al., 2017).

Role Expectation Some jobs expect that a high sense of creativity and innovation will be created from employees as a result of ECB (Li, & Hsu, 2016). Overall, employees respond to role expectations to prevent job punishments and to obtain rewards from their organization (Duan et al., 2017). This framework showed a comprehensive review of ECB articles in service businesses, and another study examined the Pygmalion perspective by studying the relationship between employee voice behavior and transformational leadership (Duan et al., 2017). Employees need to know that they can create new ideas without fear of punishment and their creative behavior is welcomed so that employees can take risks and be rewarded for their participation (Tang et al., 2017). Hence, setting some goals and expectations for the creative performance process so that it is part of the job requirement is important while also providing support of the creative activity (De Stobbeleir et al., 2011). This framework explains how varying input and information about one's work will result in creative performance (De Stobbeleir et al., 2011).

Resources *“Job resources are those facilitating job aspects that help employees deal with demanding situations at work”* (Petrou et al., 2019, p. 306). Resources are vital for creativity development (Petrou et al., 2019). This study's findings support the prediction that task conflict had a reversed U-shaped link with creativity when the structural job resources of employees are enlarged (Petrou et al., 2019). Certain studies (Petrou et al., 2019; Richtnér, & Löfsten, 2014)

explain more about structural resources compared to the other four resources (Structural, Cognitive, Relational, and Emotional) and link them to ECB. Generally, these resources lead to a clear construction that encourages and simplifies activities at the organization. Moreover, if the organization has acceptable financial resources, clear instructions, compacted strategies and visions, sufficient formal power, a valid position, and a stage that will facilitate all actions, then this will lead to resilience that will in turn lead to ECB (Richtnér, & Löfsten, 2014).

2.4.4 Organizational Level

This research defines the following determinants related to the organizational level on ECB.

Management Support A study by Jaiswal, & Dhar, (2015) stated that ECB and innovative outcomes in an organization are positively affected by managers' profound contextual influences. The framework of this study inspected the effects of creative self-efficacy on the mediating route of the innovation climate and transformational leadership on employee creativity (Jaiswal, & Dhar, 2015). Overall, the organization must offer its employees several sources of encouragement to create ECB, such as reward schemes, performance dimensions, permission to move easily among the different product units, a license to create novel ideas, support for results of the selling approach and detailed information about available products and services (Leff Bonney et al., 2009). This framework examined the configuration of salesperson antecedents and outcomes and added opportunity recognition constructed from articles on

creativity and entrepreneurial cognition (Leff Bonney et al., 2009). This is important in energizing ECB and offers employees a sense of association that is needed for idea creation followed by investigating new prospects and transforming them into action (Ma Prieto, & Pilar Pérez-Santana, 2014). Leadership or management support increases work interest in employees, which in return increases their work output and work creativity (Roopak et al., 2019). Roopak et al. (2019) stated that creative management at work includes the consciousness of how immediate leaders influence employees' creativity and identify creative employees. Different work environment procedures and processes can be adopted by organizations to support employees' creativity like rewarding them once they reach creative outcomes, setting creativity as a job requirement, setting creativity goals, creating a "transformational" way as a foremost goal, and offering feedback on the evolution of creative goals (De Stobbeleir et al., 2011). Their study hypothesized that perceived organizational support for creativity and employees' cognitive style impacts feedback-seeking and observing the environment to obtain unintended feedback (De Stobbeleir et al., 2011). Managers have a direct and indirect impact on ECB by providing a positive work environment that supports employee's creative behavior instead of repressing it (Jain, & Jain, 2017). Previous research found that management behavior has a significant impact on ECB (Jain, & Jain, 2017).

Leadership Style This is the main reason for creating the needed context or climate to endorse the creativity process at an organization (Herrmann, & Felfe, 2014). Furthermore, performance goals are often a result of differences in leadership styles (Herrmann, & Felfe, 2014). A study's framework by

Herrmann, & Felfe (2014) examined leadership styles and different creativity methods in both qualitative and quantitative ECB studies (Herrmann, & Felfe, 2014). Some studies (Gong et al., 2009) believe that a successful ECB is accomplished by applying a transformational leadership style. The four dimensions of this style (individualized consideration, charisma, intellectual stimulation, and inspirational motivation) help the employee to be a creative role model and establish creativity anticipation (Gong et al., 2009). ECB has a positive relationship with group-level variables like support for innovation, supportive coworker support, and leadership style (Jaiswal, & Dhar, 2015). Entrepreneurial Leadership Styles are defined as a "*distinctive style of leadership that can be present in an organization of any size, type, or age*" (Renko et al., 2015, p. 54). They help introduce innovative services and goods to the market and creativity is considered its essential element (Renko et al., 2015). This framework concentrates on entrepreneurial leadership that describes its style, outcomes, and operation (Renko et al., 2015).

Suggestion System This system allows employees to express relevant thematic ideas that cannot be raised under normal working conditions and in traditional paths (Froehlich et al., 2016). A recent study by Froehlich et al. (2016) detailed the needed characteristics that may lead to drivers of success, and also adds new and important visions to the suggestion systems from the nascent field of thematic thinking. This is defined as "*a means of facilitating the process of motivating employees to think more creatively, to share those creative thoughts and convert creative ideas into valuable innovations*" (Lasrado et al., 2016, p. 316). Employees' suggestions are the products of ECB that lead to employee-

driven innovation (Lasrado et al., 2016). A study by Lasrado et al. (2016) classified determinants for assessing the sustainability of a suggestion system and explained the importance of each factor. In this process, the creative capability and ideas of all employees (not only the clever employees) are collected, which helps improve the organizations' performance (Marin-Garcia et al., 2018). Therefore, a system without ECB is considered a loss to the organization (Marin-Garcia et al., 2018). It is important to understand how an organization is receiving new ideas from employees and how it deals with them as this action will clarify the organization's image toward innovative ideas from the employees' perspective (Tang et al., 2017).

Figure 1 shows the main levels that affect employee creative behavior based on previous studies.

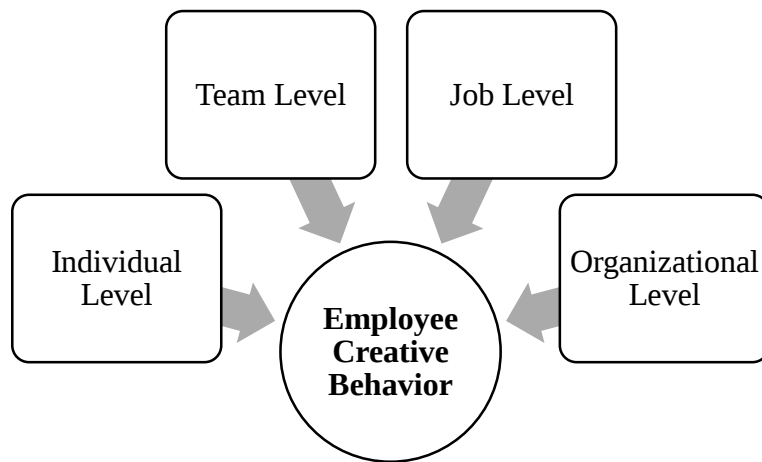


Figure 1. Main Levels Affecting Employee Creative Behavior

2.5 Chapter Discussion

To help distinguish what levels and determinants were considered more important for ECB, *Figure 2* presents the frequency of appearance of ECB determinants that are shown in *Table 1* and for the 96 articles analyzed in this

SLR. The highest repeated determinant was employee engagement, which appeared nine times.

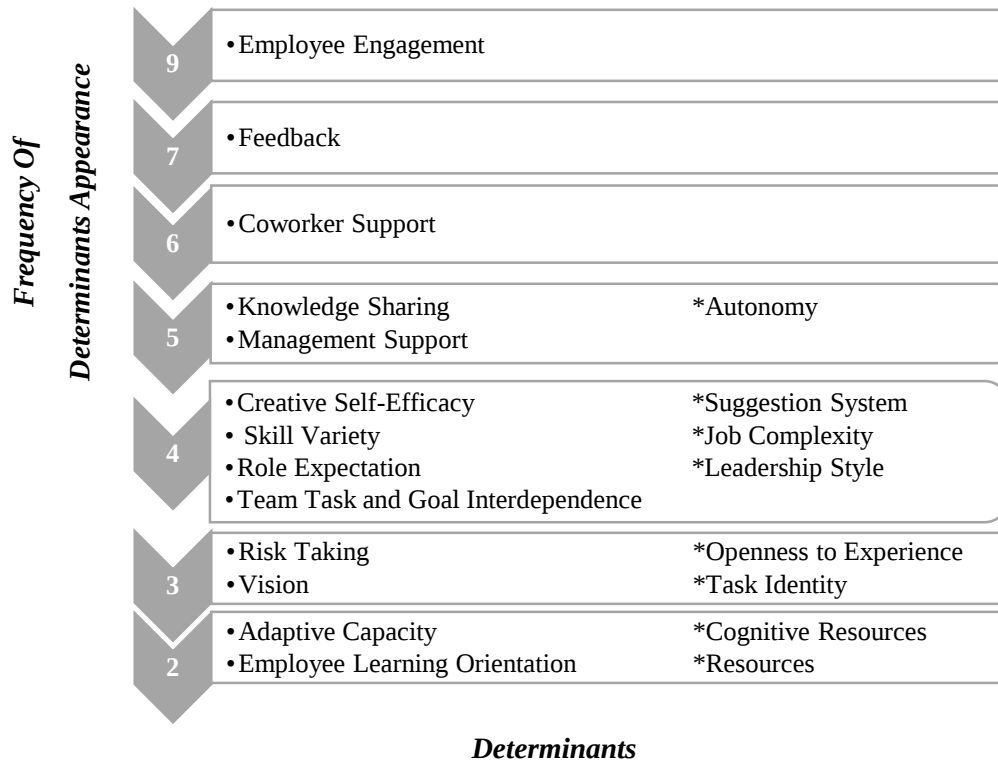


Figure 2. Frequency Of Appearance of ECB Determinants for the 96 Articles

2.6 Chapter Summary

This chapter started with an SLR that identified significant determinants and important levels that have a positive impact on ECB. Results showed 21 potential ECB determinants that were categorized into four main levels; *individual level*, *team level*, *job level*, and *organizational level*, and these levels were classified by grouping the most relevant determinants into a level that is closely related based on reviewing relative ECB articles. A summary of the literature synthesis on ECB with references is shown in *Table 1*. Then, an overview of determinants affecting ECB was illustrated in detail for each level

and determinant. Finally, this chapter added a diagram showing the frequency of the appearance of ECB determinants.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Chapter Introduction

The study objectives are to enable more comprehensive research on this topic that simultaneously tests the relative importance of theories previously linked to ECB. Furthermore, the research objective is to compile a list of ECB determinants that have a beneficial impact on both the public and private sectors. The research also creates a contextualized model to help managers determine what initiatives will be most effective in encouraging ECB among UAE employees in public and private sectors. The relative importance of ECB determinants is unclear and may vary from one context to another. Hence, the second objective is to develop a contextualized model to provide managers with guidance on what steps will be most effective in stimulating ECB among public and private sector employees in the UAE. Additionally, this research reveals the most critical ECB that Emirati employees should have or become empowered with so that they can be recruited by private sector firms.

Application of the AHP model identifies the relative importance of ECB determinants in the private sector and tests whether these are different or similar to those applied in the public sector. The research question is, *“What are the determinants of employee creative behavior in the UAE public and private sector?”*

The AHP method by Saaty (1987) was developed to identify and prioritize different criteria to help in the decision-making processes (Lasrado et al., 2015). Through further application, it is now considered an appropriate method to prioritize determinants to build a customized model (AlJaberi, Hussain, & Drake, 2017; Alkhyeli, & Ewijk, 2018; Kouatli, 2019). Therefore, to answer the research question, the application of the AHP method was the best choice for this research. This is because it is important for decision-makers in an organization to research the creative behavior role and determine how they will benefit from it.

3.2 Overview of AHP

The AHP model, as shown in *Figure 3*, is a decision-making method that is used to convert the process of decision-making into a hierarchy. It includes criteria and sub-criteria for a given area along with different alternatives that help decision-makers make the right decision (Saaty 1980). The matrix makes a set of pairwise comparisons between three levels of the hierarchy and compares one with the other. A summary of the AHP process applied in this research is shown in *Figure 3*. Once the analytical process is over, a straightforward decision will be finalized by giving up all determinants and alternatives. The

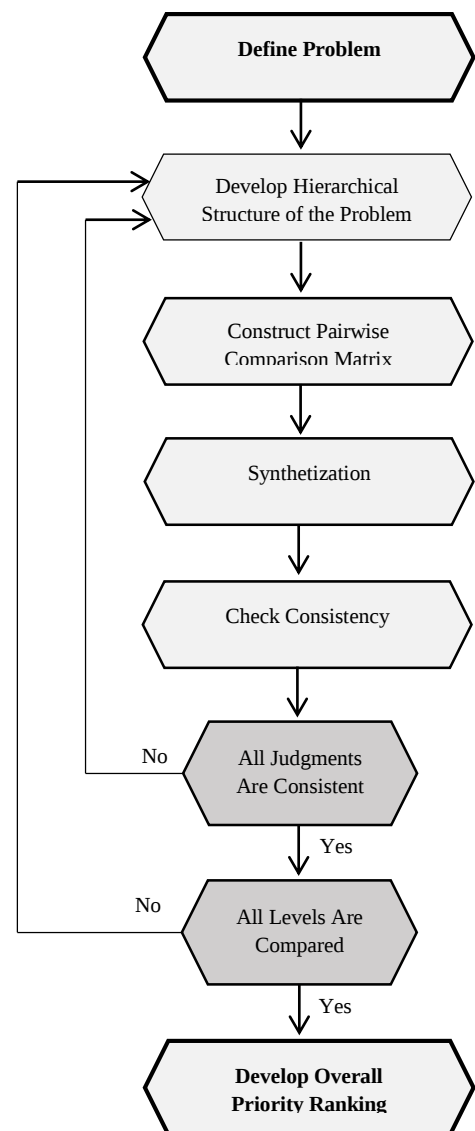


Figure 3. Summary of the AHP Method
source: (Hussain, Ajmal, Khan, & Saber, 2015)

hierarchical structure for the criteria and sub-criteria of ECB is shown in *Figure*

4. The hierarchy consists of four levels:

1. Goal: signifies the main objective of the research, which is studying determinants affecting ECB
2. Criteria: listing four main levels related to ECB
3. Sub-Criteria: listing 21 determinants affecting ECB
4. Alternatives: signifies the sector where the research will be applied. i.e., the public and private sector in the UAE.

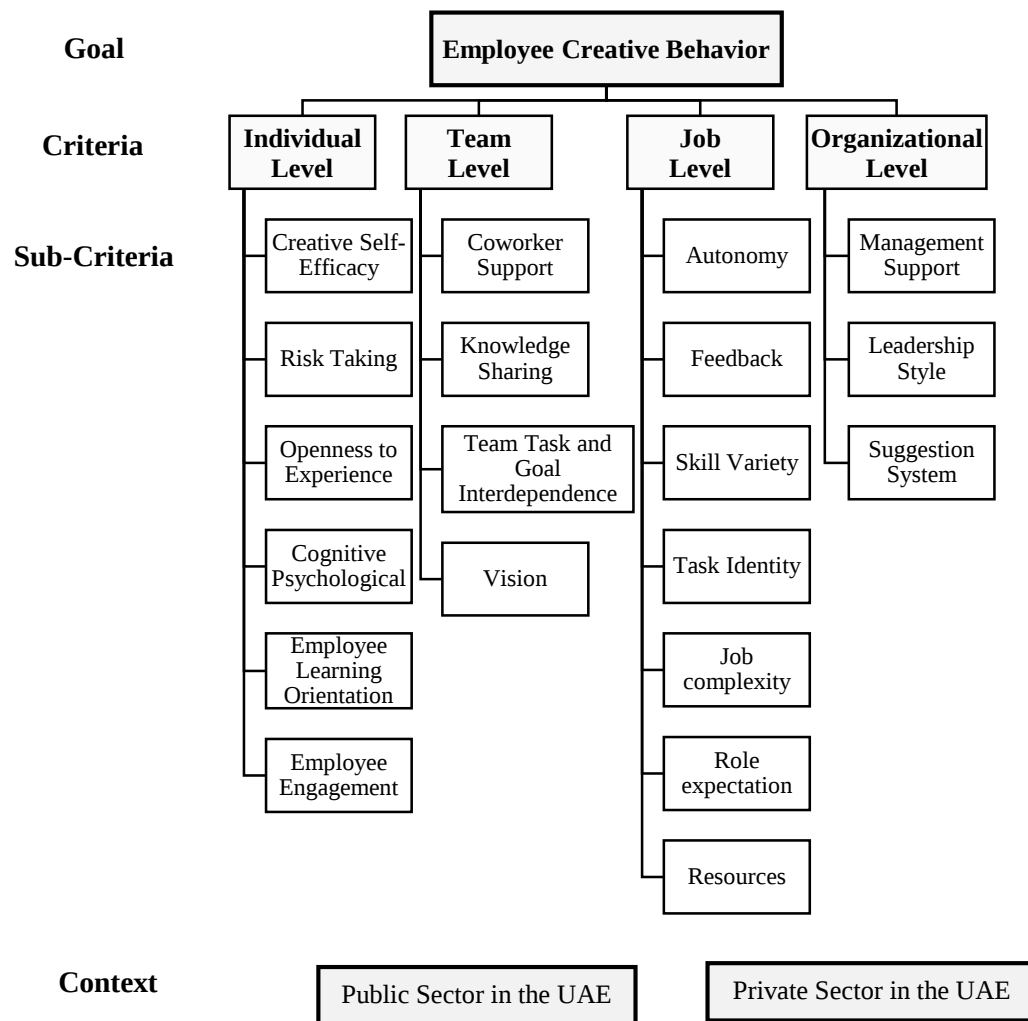


Figure 4. AHP Model for Employee Creative Behavior

3.3 Public Sector

3.3.1 Participant Selection Strategy and Final Sample Characteristics

A small sample size is considered acceptable for AHP studies as they are established on expert judgments and assist in achieving useful outcomes and models of decisions, which also makes them a more desirable process (Darko, Chan, Ameyaw, Owusu, & Edwards, 2019). The majority of AHP studies applied four to nine samples and only a few studies applied 30 or more samples (Darko et al., 2019).

A purposive sampling method was applied because the AHP method is collecting opinions of experts who have a clear idea about how employees are behaving under different situations and what organizations can do to improve ECB. Experts were specialists from the management level and senior positions who had completed 8 or more years in their field and were from random departments.

The first reason behind choosing these participants is that managers are the ones that make decisions at their organizations and so they are the target for this research. Second, in most organizations in the public sector in the UAE, senior staff can often react as managers in the absence of managers. Also, managers give authority to these staff to react without confirmation from them but with limited control. In other words, they are considered future managers and spend years at their positions to the point where they are aware of how to deal with different employees' problems and success stories. They are also aware of capabilities that the organization can offer to improve the work system

compared to new staff who are enthusiastic to recommend anything even if it is not going to be implemented at their organization. Furthermore, these senior staff must complete 8 or more years in their field. This means that they are the staff who spend 8 or more years in one department or a similar department, for example, spending 8 years in the HR department. Senior staff who spend this much time in one department are a good reference when looking for improvements or changes in the work system of that specific department. They explain how work is completed and how it has been improved to the current point; and thus, the researcher can suggest improvements. The reason behind choosing 8 or more years is that in the UAE, the promotion system is varied from one emirate to another. For example, at the Sharjah Emirate, most organizations can promote their staff to the next position after completing 6 years and then they are employed for an additional period of time to become familiar with their new positions. Therefore, 8 years of experience as respondents is considered sufficient to obtain full feedback on issues and changes based on new and old experience with their colleagues, managers, and customers as well as an understanding of rules. Some organizations have seniors or managers, some of which have less than 8 years, but they are able to gain this higher position due to their previous position or experience from other organizations. These types of respondents are not helpful for this research as they mainly reveal their point of view from their previous organization.

3.3.2 Data Collection Strategy

Researchers use different data collection methods for interviews, online questionnaires, focus groups, and on-site observation. At the time of planning this research, the suggested data collection method was interviews and focus groups. Unfortunately, the data collection period started during the Covid 19 coronavirus crisis lockdown period. Most government organizations were working online, and some were only letting customers into their buildings with an appointment for procedures that could not be completed online. Therefore, the approved data completion method was conducted using an online questionnaire and phone interviews using purposive sampling.

To reduce any expected risks that could occur from conducting the phone interview, the researcher informed participants about a consent form that needed to be signed as a guarantee that their names and organizations' names would be kept anonymous and that no one would know them except for the researcher. The consent form is considered a certificate of confidentiality that participants can refer to in the future to ensure the privacy of the given information. For example, a phone-recording file and transcript created from an interview are limited to the researcher and academic colleagues and researchers with whom she/he might collaborate with as part of the research process. In addition, the recording and transcript are stored in a researcher's laptop that no one can access, and no copies are taken or sent to anyone. Furthermore, the laptop is password protected and has the most up-to-date antivirus software and other related security software. Finally, no costs were assigned to individuals participating in the research.

However, there were potential benefits to participants as they will be able to refer to the researcher when the research is complete to discuss the study's results, and this information can be applied to their organization. For example, the research builds a customized model that consists of best practices that organizations can follow to have a good plan for ECB practices at work, which will lead to empowering and expanding an organization's services.

To ensure that participants understood the research and for non-English speaking participants, interviews were conducted in their preferred language (Arabic or English). Later, Arabic language interviews were translated back into English by the researcher. Through the interviews, it was clear to participants that no potential risks would occur from being involved in the research. Some participants had a concern about having their names and the organization's name revealed. They thought that they would get punished for revealing their opinions, which may affect and reflect their organization's reputation. Therefore, the researcher provided them with the necessary documents and forms that guaranteed their anonymity. It was also clearly communicated that if the research ended with negative or positive results, it would not have any effect on the participant. The main goal of the research was to explore what determinants are important for ECB (i.e., this was not an evaluation of a participant's organizational performance).

3.3.3 Data Collection Process

Data were collected from different local and federal government organizations in the public sector in three emirates in the UAE as follows: Abu Dhabi, Dubai, and Sharjah.

The researcher contacted 75 different local and federal government organizations from three emirates by phone and asked them to participate in the research. All participants requested that the questionnaire be sent to their email and promised to contact the researcher. Two weeks later, a second email was sent to organizations as a reminder. A total of 33 employees agreed to participate in the research. The researcher gave them the option of filling out the questionnaire by phone or filling it out by themselves. For those who wanted to fill in the questionnaire on their own, the researcher contacted them and explained how to fill out the questionnaire to ensure they filled it in correctly. Phone interviews were organized on the participant's request and lasted 30 to 45 minutes.

Experts included 20 managers and 13 senior employees, and their identities and organizations were kept anonymous. Most respondents were female (22 employees). A total of 12 participants were from mid-level management positions. A total of 28 participants completed 8 or more years of employment. Most participants were from the Sharjah Emirate, and 19 employees held bachelor's degrees. The demographic data of respondents from the public sector are illustrated in *Table 2*.

<i>Profile</i>	<i>No. of Respondent</i>		<i>Profile</i>	<i>No. of Respondent</i>
Gender			Sector	
Male	11		Public Sector	33
Female	22		Private Sector	0
Management Position			Emirate	
Yes	20		Abu Dhabi	12
No	13		Dubai	6
Management Level			Sharjah	15
High	5		Educational Degree	
Middle	12		High School	1
Low	3		Diploma	3
Years of Experience			Bachelor	19
1 – 3 years	1		Master	10
4 – 7 years	4		Doctorate / PhD	0
8 years and more	28			
Note: n=33				

Table 2. Public Sector Respondents Demographic Data

After collecting data, a pair-wise comparison was conducted to evaluate the importance of two determinants at a time for all data. It was expected that these judgments, along with the experts' opinions, would lead to successfully paired comparisons (Cheng, & Li, 2001).

3.4 Private Sector

3.4.1 Participant Selection Strategy and Final Sample Characteristics

To include more extensive research results for this study, a comparison between public and private sector officials was applied. Besides, the same sampling method and selection criteria were used for private sector participants. These were mainly participants from medium and large companies with 50 employees and above because this makes comparisons similar to public sector organizations.

3.4.2 Data Collection Strategy

The same set of AHP questionnaires, consent forms, and anonymity of participants guarantees that what applied for public sector participants also applied for private sector participants.

3.4.3 Data Collection Process

A total of 32 companies from three emirates were contacted as follows: Abu Dhabi, Dubai, and Sharjah. Three weeks after contacting companies, 15 employees agreed to participate in the research.

Experts included 9 managers and 6 senior employees, and their identities and their organizations' names were kept anonymous. Most respondents were male (9 employees). A total of 7 participants were from mid-level management positions. A total of 13 participants had completed 8 years of employment and above. Most participants were also from the Sharjah Emirate and 11 employees

held bachelor's degrees. Demographic data of respondents from the private sector are illustrated in *Table 3*.

<i>Profile</i>	<i>No. of Respondent</i>		<i>Profile</i>	<i>No. of Respondent</i>
Gender			Sector	
Male	9		Public Sector	0
Female	6		Private Sector	15
Management Position			Emirate	
Yes	9		Abu Dhabi	4
No	6		Dubai	4
Management Level			Sharjah	7
High	1		Educational Degree	
Middle	7		High School	2
Low	1		Diploma	2
Years of Experience			Bachelor	11
1 – 3 years	0		Master	0
4 – 7 years	2		Doctorate / PhD	0
8 years and more	13			
<i>Note: n=15</i>				

Table 3. Private Sector Respondents Demographic Data

3.5 Chapter Summary

Chapter 3 described the research methodology, how data were collected, and results. It also provided an overview of the AHP method, details on AHP hierarchy, and why it is used in the study. Then, the final customized AHP model for ECB was illustrated including its four levels and 21 determinants. In the first part of the research, data collection was conducted on employees from the public sector in the UAE by applying a specific selection strategy for participants. Data were collected through phone interviews and an online questionnaire using purposive sampling from three different emirates. Respondents included 20 managers and 13 senior employees, and most were female (22 employees). In the second stage of the research, data collection was conducted on employees from the private sector in the UAE with a similar selection strategy that applied to participants from the public sector. As a result, a comparison between public and private sector officials was applied. Respondents included 9 managers and 6 senior employees, and most of the respondents were male (9 employees).

CHAPTER 4: AHP MODEL

4.1 Chapter Discussion

The AHP model developed by Saaty (1987) combines different criteria and sub-criteria that were adopted from various sources in one model to help in the decision-making process and to study the role of ECB and how organizations benefit (Emrouznejad, & Marra, 2017). It is a crucial tool for prioritization, selection, and forecasting to improve expected outcomes on the one hand while minimizing costs from making difficult decisions (Mu, & Pereyra-Rojas, 2016). This model is widely used because of its mathematical and intuitive rigor and is considered one of the main tools for modern managers in different government institutions, academia, and Fortune 500 firms (Mu, & Pereyra-Rojas, 2016). The model has also been applied across a broad range of sectors such as healthcare (for example, to help make important decisions regarding diagnostics and treatments), higher education (to improve the quality of courses and increase student satisfaction), chemicals (to inform equipment choices), energy and manufacturing (group decisions in different departments), environmental services, and the automotive sector (Emrouznejad, & Marra, 2017).

Overall, AHP is based on a hierarchy that includes criteria and sub-criteria for a given area along with different alternatives that help decision-makers make the right decision (Saaty, 1980). The matrix makes a set of pairwise comparisons between three levels of the hierarchy and compares one with the other. Upon completion of the analytical process, decisions are made based on all determinants and alternatives. The hierarchy consists of four levels:

1. *Goal*: signifies the main objective of the research, which is exploring the determinants affecting ECB
2. *Criteria*: listing the main factors or levels related to ECB
3. *Sub-Criteria*: listing the determinants related to each factor or level
4. *Alternatives*: signifies the focal sector, which are public and private sectors in the UAE.

After completing the first phase, which is creating the AHP model, the second phase is the data collection phase and includes pair-wise comparisons conducted to evaluate determinants. The AHP questionnaire establishes a pairwise comparison among determinants of the research using a nine-point scale established and suggested by Saaty (1980) and shown in *Table 4* (Mu, & Pereyra-Rojas, 2016). For instance, when experts compare the individual level and the team level, if they believe the individual level is moderately important compared to the team level, they write the number 3 in the box. However, if they believe that team level is strongly important compared to the individual level, then they write a 1/5.

Intensity of Importance	Definition	Explanation
1	Equal Importance	Both determinants are equally important
3	Moderate Importance	One determinant is moderately more important comparing to the other
5	Strong Importance	One determinant is strongly more important comparing to the other
7	Very Strong Importance	One determinant is very strongly more important comparing to the other
9	Extreme Importance	One determinant is extremely more important comparing to the other
2,4,6,8	Intermediate values	Compromise is needed

Table 4. Intensity Scale for Criteria Pairwise Comparison

Once the pair-wise comparison (Normalized Matrix) is completed, different values are calculated for each matrix, eigenvectors, global weights, and the maximum eigenvalue (Cheng, & Li, 2001). Data were analyzed using the Consistency Index (CI) by Saaty (1990) to test consistency within the comparison. The $\lambda_{\max}$ value refers to the maximum eigenvector of the matrix compared to important ratios, and n refers to the number of determinants.

$$CI = (\lambda_{\max} - n) / (n - 1)$$

Equation 1. Consistency Index

The Consistency Ratio (CR) by (Saaty, 1990) evaluates if the matrix is sufficiently consistent (Cheng, & Li, 2001). The CR ratio evaluates CI divided by the Random Index (RI). The RI values were used to show the average random directories for determinants used in the research as shown in *Table 5* and where **n** represents the number of determinants (Cheng, & Li, 2001).

$$CR = CI / RI$$

Equation 2. Consistency Ratio

Random Index Table										
n	1	2	3	4	5	6	7	8	9	10
RI	0.00	0.00	0.52	0.89	1.11	1.25	1.35	1.40	1.45	1.49

Table 5. Random Index Table

If the CR ratio is less than or equal to 0.10, then it is acceptable and excessive intransitivity of preferences is shown. Using these types of methods can mathematically and realistically help decision-makers prioritize determinants that affect ECB in their organization and the public sector. Similar to previous research (Cheng, & Li, 2001), this research utilized Saaty's scale of measurement that includes a nine-point scale as follows: 1 as equal importance and 9 as extreme importance (Saaty, 1980).

4.2 Chapter Summary

Chapter 4 provided evidence from previous studies on the importance of the AHP method found by Saaty (1980) in different study fields. The chapter also

illustrated the essence of the AHP hierarchy and how its different alternatives help decision-makers choose the right decision. Next, it shows how data were collected using the AHP questionnaire with a nine-point scale that establishes a pairwise comparison within determinants of the research. The intensity scale for the criteria pairwise comparison is illustrated in a table that is referred to by participants when filling out the questionnaire. Then, the chapter explains how data are analyzed after applying the related equations, CI, and CR. The final step of the analysis states that when the CR ratio is less than or equal to 0.10, then it is acceptable and excessive preference intransitivity is evident.

CHAPTER 5: RESULTS AND DISCUSSION FOR THE PUBLIC SECTOR

5.1 Data Results

The geometric means of pair-wise comparisons for the four main levels of the research are provided in *Table 6*. The priority vector verifies the vector of relative importance for each determinant (Cheng, & Li, 2001). The results show that the highest-ranked level was the individual level with a priority vector of 0.53. The team level was the second-highest ranked level with a priority vector of 0.26, and the job level was third with a priority vector of 0.14. Overall, the organizational level had the lowest-ranked level with a priority vector of 0.06. The CR of the main levels was 0.04, which is less than 0.1 and therefore acceptable and sufficiently consistent.

Com Priority	Individual Level	Team Level	Job Level	Organizational Level	Priority Vector
Individual Level	0.62	0.77	0.45	0.31	0.53
Team Level	0.13	0.16	0.44	0.31	0.26
Job Level	0.13	0.03	0.09	0.32	0.14
Organizational Level	0.13	0.03	0.02	0.06	0.06

CR value: 0.04 < 0.10 (consistent)

Table 6. The Geometric Means of Pair-Wise Comparisons of The Main Levels

To obtain a deeper understanding of recorded priorities, *Table 7* shows geometric means of pair-wise comparisons for 21 determinants. Results show

that the highest-ranked determinant for the individual level was creative self-efficacy with a priority vector of 0.36. Risk-taking was the second-highest ranked determinant with a priority vector of 0.21, while employee engagement had the lowest priority vector of 0.03. The CR of the individual level was 0.06, which is less than 0.1 and therefore acceptable and sufficiently consistent.

The results also showed that the highest-ranked determinant for the team level was coworker support with a priority vector of 0.51. Knowledge sharing was the second-highest ranked determinant with a priority vector of 0.28, while vision had the lowest priority vector of 0.06. The CR of the team level was 0.04, which is less than 0.1 and therefore acceptable and sufficiently consistent.

The results also showed that the highest-ranked determinant for job level was autonomy with a priority vector of 0.34. Feedback was the second-highest ranked determinant with a priority vector of 0.23, while resources had the lowest priority vector of 0.03. The CR of the job level was 0.06, which is less than 0.1 and therefore acceptable and sufficiently consistent.

The highest-ranked determinant for the organizational level was management support with a priority weight of 0.65. Leadership style was the second-highest ranked determinant with a priority weight of 0.27, while the suggestion system had the lowest priority weight of 0.08. The CR of the organizational level was 0.04, which is less than 0.1 and therefore acceptable and sufficiently consistent.

Geometric means of pair-wise comparisons of the determinants (Individual Level)

Com Priority	1	2	3	4	5	6	7	Priority Vector
1. Creative Self-Efficacy	0.44	0.69	0.42	0.30	0.24	0.22	0.17	0.36
2. Risk Taking	0.09	0.14	0.39	0.30	0.22	0.18	0.14	0.21
3. Openness to Experience	0.11	0.04	0.10	0.28	0.23	0.19	0.17	0.16
4. Adaptive Capacity	0.10	0.03	0.02	0.07	0.24	0.17	0.17	0.11
5. Cognitive Resources	0.09	0.03	0.02	0.01	0.05	0.19	0.16	0.08
6. Employee Learning Orientation	0.08	0.03	0.02	0.02	0.01	0.04	0.16	0.05
7. Employee Engagement	0.09	0.03	0.02	0.01	0.01	0.01	0.04	0.03

CR value: 0.06 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Team Level)

Com Priority	1	2	3	4	Priority Vector
1. Coworker Support	0.60	0.77	0.42	0.27	0.51
2. Knowledge Sharing	0.13	0.16	0.47	0.34	0.28
3. Team Task and Goal Interdependence	0.13	0.03	0.09	0.33	0.15
4. Vision	0.14	0.03	0.02	0.06	0.06

CR value: 0.04 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Job Level)

Com Priority	1	2	3	4	5	6	7	Priority Vector
1. Autonomy	0.43	0.68	0.40	0.28	0.22	0.18	0.16	0.34
2. Feedback	0.10	0.15	0.44	0.31	0.24	0.19	0.15	0.23
3. Skill Variety	0.09	0.03	0.09	0.30	0.23	0.22	0.18	0.16
4. Task Identity	0.10	0.03	0.02	0.06	0.24	0.18	0.17	0.12
5. Job complexity	0.09	0.03	0.02	0.01	0.05	0.18	0.14	0.07
6. Role expectation	0.09	0.03	0.02	0.01	0.01	0.04	0.16	0.05
7. Resources	0.09	0.03	0.02	0.01	0.01	0.01	0.03	0.03

CR value: 0.03 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Organizational Level)

Com Priority	1	2	3	Priority Vector
1. Management Support	0.71	0.80	0.43	0.65
2. Leadership Style	0.15	0.17	0.49	0.27
3. Suggestion System	0.14	0.03	0.08	0.08

CR value: 0.04 < 0.10 (consistent)

Table 7. The Geometric Means of Pair-Wise Comparisons of The Determinants

For the effect of determinants, the management support determinant under the organizational level had the highest impact on ECB for the public sector in the UAE and ranked 65%. Second, coworker support under the team level ranked 51%. Third, creative self-efficacy ranked 36% and occurs under the individual level. Autonomy that occurs under the job-level effect is the fourth highest at 34%. The knowledge sharing determinant that occurs under the team-level effect is the fifth highest when it comes to its impact on ECB and ranked 28%. A summary of the priority vector of the 21 highest and lowest ranking determinants is shown in *Figure 5*.

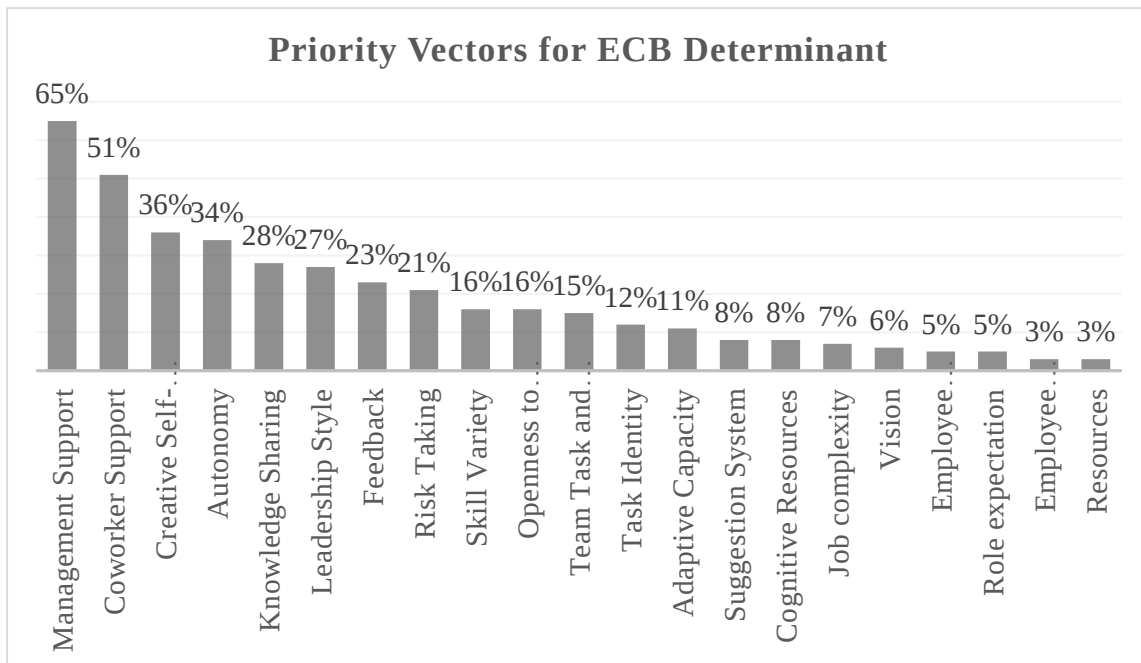


Figure 5. Priority Vectors of The ECB Determinants

5.2 Discussion of Results

ECB is considered an important tool to enhance organizations' services and products for customers (Tang et al., 2017). It is a tool that is needed for almost all positions to enhance job outcomes and staff creativity at work (Tang et al., 2017), which in turn affects the overall performance of the organization (Jeong et al., 2017). The current research identified significant determinants and important levels that have a positive impact on ECB. It revealed 21 potential ECB determinants that were categorized into four main levels based on reviewing the relative ECB papers. By applying the AHP model, it also classifies the highest and least important determinants that help in identifying the most dominant determinants that need to be implemented in the public sector in the UAE. The graphed research also shows the most repeated determinants, and this was illustrated through a literature synthesis on ECB in a table.

Therefore, experts from organizations in the public sector need to evaluate the concept of ECB in their organizations regarding the above determinants. This is the first research of determinants that drive ECB in the context of the UAE. Therefore, future studies should build on, modify, and customize their model for different sectors in different countries.

Considering these results, the individual level has the highest impact on ECB in the public sector in the UAE. The importance of employees themselves as the ECB's key player, even before they have any external support, is emphasized by both experts and in previous studies (Anderson et al., 2014). Experts who clarified reasons behind their choices on the questionnaire declared that mostly ECB characteristics shaped the success of the process, which indicates that ECB is an outcome of individual determinants such as personality traits and abilities (Anderson et al., 2014). If employees are equipped with the necessary aspects like skills and a desire to change and learn, creative behavior will occur.

The team level has the second-highest impact on ECB. It is very important that employees learn from each other while also completing each other. Experts also clarified reasons behind their choices on the questionnaire and stated that each member of a team has a different impact in completing the entire piece. Therefore, the absence of skill or knowledge from a member will be completed by the other ones. ECB is an outcome of group attributes, team activities, and the communication of team members (Anderson et al., 2014).

The job-level effect is ranked as medium in reference to its impact on ECB. Experts who clarify reasons behind their choices on the questionnaire agree that

it is important that employees know what their organization is expecting from them. It is also important that the organization be clear about employees' capabilities regarding resources so that both sides clearly understand and act accordingly. Employees can also gradually obtain or improve needed skills. One of the valuable contributions of this research is comparing this level with other existing levels from other studies. Experts can see how different JCMs have an impact on the ECB process, and this also impacts work performance, turnover intention, job satisfaction, and work motivation (Li, & Hsu, 2016).

The organizational level has the least impact on the decision-making process. Although this was apparent for the level in general, one determinant in this level was perceived as the most influential determinant of all, i.e., management support. According to an expert opinion, *"Having an organization that supports and embeds creative behavior is a key as it will allow the employee to demonstrate such behavior (by providing tools, empowerment, and support), job level would not make any difference if it's a culture across the whole organization."* It is important to have full support from managers as the head of the pyramid and then the rest of the determinants will support a solid ECB process in the organization. As per comments by one respondent in a study by Moonesar et al. (2019, p. 151), *"If top management does not stimulate bottom up development, creativity, and courage and maintains a culture of harsh punishment for failure, it will kill off any initiative and creativity."* The UAE public sector context (e.g., cultural, religious, legal, and educational parameters) may impact determinants that influence ECB. The five cultural values that underpin Hofstede's cultural dimensions theory (1980) are important for

revealing the link between ECB variables and contextual differences. For instance, autonomy and freedom, which are important determinants for ECB, are associated with individualism (Saraç et al., 2014). Furthermore, for a culture to be open to change, it needs low uncertainty avoidance, a robust innovation need, and an elevated creativity level (Moonen, 2017). ECB is reduced in bureaucratic cultures, while cultures with less power distance are conducive to new thoughts and ideas (Moonen, 2017). Coworker support is the second most influential determinant. This result confirms previous results from Zaitouni, & Ouakouak (2018), who stated that the coworker support role is very important when connecting with employee innovative and creative behavior as it encourages knowledge sharing and creates an environment that is full of new ideas. According to one participant's opinion, a coworker can lift you up with their support or can make your job a negative experience that makes you uncomfortable. This is a major and powerful effect and managers need to be smart about it, especially when dealing with a talented employee. Creative self-efficacy is the third most influential determinant. The most frequently quoted theory of innovation in the organizational sense is the componential model of creativity. This model indicates that the three individual-level elements, which are creativity-relevant capacity, intrinsic motivation to perform a task, and skills in the task domain, have an impact on ECB (Zhang et al., 2019). This shapes a team's creative process and how they are affected by external environment factors at different levels (Zhang et al., 2019). Several theories have been used to explain this determinant such as the following: the Componential Model of Creativity (*Amabile, 1988*) (He et al., 2019), the Self-Perception Theory (*Bem,*

1972), Creative Self-Efficacy Theory (*Tierney, & Farmer, 2002*), and the Conservation of Resources Theory (*Hobfoll, 2001*) (*Zhang et al., 2019*).

Eight determinants influence ECB at less than 10%. The suggestion system and cognitive resources determinants had an impact of 8%. How the organization receives new ideas from employees and how it deals with them is important as this action will clarify the organization's image toward innovative ideas from the perspective of employees (*Tang et al., 2017*). A study by *Tang et al. (2017)* used Social Exchange Theory (*Homans, 1958*) to explain the suggestion system determinant. For the cognitive resources determinant and when employees trust their competencies and skills, they can innovate in different and complicated situations (*Mumtaz, & Parahoo, 2019*). For example, according to one expert, during the lockdown period all her work was completed online. She was afraid that her productivity level would go down as she was taking care of her kids' studies and her work requirements. She indicated that the first few weeks were disappointing for her with this new situation as work progress decreased. But their organization started to gain control of the situation and things gradually improved as she became more familiar with the situation. Then, she obtained more skills to get her work done as if she was at work by learning how to deal with meetings, learning the system, and creating a group through the WhatsApp application to get work completed smoothly. Next is job complexity with a 7% impact. Job complexity is one of the main aspects connected to task context and related to ECB (*Anderson et al., 2014*). Cognitive Evaluation Theory (*Deci and Ryan, 1985*) was used to explain this determinant (*Bos-Nehles et al., 2017*). The next determinant is vision with a 5% impact. The shared collective goals and

visions among team members lead to effective ECB that will to the attainment of mutual goals (Dong et al., 2017). This study theorized how dual-focused transformational leadership might influence team and individual creativity through separate channels (Dong et al., 2017). The Interactionist Theory of Innovation (*Woodman, Sawyer, & Griffin, 1993*) was used to explain this determinant (Hulsheger et al., 2009). This was followed by employee learning orientation and role expectation with an impact of 5%. When employees have a high level of learning orientation, they trust that this knowledge will be vital for their job improvement and leaving or decreasing this type of attitude will negatively affect them and their organization (Li, Sun, & Dong, 2018). The theoretical background underlying the employee learning orientation determinant is Social Cognitive Theory (*Bandura, 1986, 1997*) (Gong et al., 2009). Employees need to know that they can create new ideas without fear of punishment and that their creative behavior is welcomed so that employees are able to take risks and get rewarded for their participation (Tang et al., 2017). Social Exchange Theory (*Homans, 1958*) is used to explain this determinant (Tang et al., 2017). Finally, determinants of employee engagement and resources had an impact of only 3%. Employee engagement leads to more creative employees who adopt their ECB to develop outcomes that go beyond their expected job outcomes (Ismail, Iqbal, & Nasr, 2019). The Broaden-And-Build Theory (*Fredrickson's, 2001*) is used to explicate this determinant (Eldor, 2017a). Resources are vital to creativity development (Petrou et al., 2019). During the lockdown period, employees had to improve their skills and tried to maintain productivity in different ways. For example, one organization set

attendance through the organization's application to follow-up with an employee's attendance. In another example, employees created an internal system to manage complaints received from customers to get work quickly completed. Such processes helped employees innovate and try to live without stress or delay in their tasks.

5.3 Chapter Summary

Chapter 5 analyzed public sector data and showed geometric means of pair-wise comparisons for the four levels and illustrated them in a table. Then, it showed geometric means of pair-wise comparisons for 21 determinants in a table. It showed the top-level determinants that have a positive impact on ECB in the UAE's public sector. The chapter was concluded with a graph that summarizes the priority vector of 21 determinants and showed the highest and lowest ranking determinants.

CHAPTER 6: RESULTS AND DISCUSSION FOR THE PRIVATE SECTOR

6.1 Data Results

Geometric means of pair-wise comparisons for the four main levels of the private sector are provided in *Table 8*. Results show that the highest-ranked level was the individual level with a priority vector of 0.54. The team level was the second-highest ranked level with a priority vector of 0.26. The job level was third with a priority vector at 0.14, while the organizational level had the lowest-ranked level with a priority vector of 0.05. The CR of the main levels is 0.04, which is less than 0.1 and therefore acceptable and sufficiently consistent.

Com Priority	Individual Level	Team Level	Job Level	Organizational Level	Priority Vector
Individual Level	0.64	0.80	0.44	0.30	54%
Team Level	0.12	0.15	0.47	0.32	26%
Job Level	0.12	0.03	0.08	0.33	14%
Organizational Level	0.12	0.03	0.01	0.05	5%

CR value: 0.04 < 0.10 (consistent)

*Table 8. The Geometric Means of Pair-Wise Comparisons of The Main Levels –
Private Sector*

The geometric means of pair-wise comparisons for the 21 determinants for the private sector are shown in *Table 9*. Results show that the highest-ranked

determinant for the individual level was creative self-efficacy with a priority vector of 0.36. Risk-taking was the second-highest ranked determinant with a priority vector of 0.23, while employee engagement had the lowest priority vector of 0.03. The CR of the individual level is 0.07, which is less than 0.1, and therefore acceptable and sufficiently consistent.

Results also showed that the highest-ranked determinant for the team level was coworker support with a priority vector of 0.55. Knowledge sharing was the second-highest ranked determinant with a priority vector of 0.26, while vision had the lowest priority vector of 0.05. The CR of the team level was 0.04, which is less 0.1 and therefore acceptable and sufficiently consistent.

Results also showed that the highest-ranked determinant for the job level was autonomy with a priority vector of 0.37. Feedback was the second-highest ranked determinant with a priority vector of 0.22, while resources had the lowest priority vector of 0.02. The CR of the job level was 0.07, which is less than 0.1 and therefore acceptable and sufficiently consistent.

The highest-ranked determinant for the organizational level was management support with a priority weight of 0.69. Leadership style was the second-highest ranked determinant with a priority weight of 0.24, while the suggestion system had the lowest priority weight of 0.07. The CR of the organizational level was 0.04, which is less than 0.1 and therefore acceptable and sufficiently consistent.

Geometric means of pair-wise comparisons of the determinants (Individual Level)

Com Priority	1	2	3	4	5	6	7	Priority Vector
1. Creative Self-Efficacy	0.47	0.74	0.43	0.29	0.23	0.18	0.16	0.36
2. Risk Taking	0.09	0.14	0.44	0.30	0.24	0.20	0.17	0.23
3. Openness to Experience	0.09	0.02	0.08	0.32	0.25	0.20	0.16	0.16
4. Adaptive Capacity	0.09	0.03	0.01	0.05	0.22	0.18	0.15	0.11
5. Cognitive Resources	0.09	0.02	0.01	0.01	0.04	0.19	0.17	0.08
6. Employee Learning Orientation	0.09	0.02	0.01	0.01	0.01	0.04	0.17	0.05
7. Employee Engagement	0.09	0.02	0.01	0.01	0.01	0.01	0.03	0.03

CR value: 0.07 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Team Level)

Com Priority	1	2	3	4	Priority Vector
1. Coworker Support	0.65	0.80	0.46	0.31	0.55
2. Knowledge Sharing	0.12	0.15	0.45	0.32	0.26
3. Team Task and Goal Interdependence	0.11	0.03	0.08	0.31	0.13
4. Vision	0.12	0.03	0.01	0.06	0.05

CR value: 0.04 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Job Level)

Com Priority	1	2	3	4	5	6	7	Priority Vector
1. Autonomy	0.49	0.73	0.46	0.32	0.24	0.20	0.17	0.37
2. Feedback	0.10	0.14	0.41	0.30	0.22	0.19	0.16	0.22
3. Skill Variety	0.08	0.03	0.08	0.30	0.25	0.19	0.17	0.16
4. Task Identity	0.08	0.03	0.01	0.05	0.23	0.19	0.15	0.11
5. Job complexity	0.08	0.03	0.01	0.01	0.04	0.19	0.16	0.08
6. Role expectation	0.08	0.02	0.01	0.01	0.01	0.03	0.16	0.05
7. Resources	0.08	0.02	0.01	0.01	0.01	0.01	0.03	0.02

CR value: 0.07 < 0.10 (consistent)

Geometric means of pair-wise comparisons of the determinants (Organizational Level)

Com Priority	1	2	3	Priority Vector
1. Management Support	0.76	0.84	0.47	0.69
2. Leadership Style	0.13	0.14	0.45	0.24
3. Suggestion System	0.12	0.02	0.07	0.07

CR value: 0.04 < 0.10 (consistent)

Table 9. The Geometric Means of Pair-Wise Comparisons of The Determinants—

Private Sector

For the effect of determinants, the management support determinant under the organizational level has the highest impact on ECB on the public sector in the UAE at a ranking of 69%. Second, coworker support under the team level ranked 55%. Third, autonomy ranked 36% and occurs under the job level. Creative self-efficacy under the individual-level effect is the fourth highest at 36%. The knowledge sharing determinant that occurs under the team-level effect is the fifth highest when it comes to the impact on ECB and ranked 26%. A summary of the priority vector of the 21 determinants shows the highest and lowest ranking determinants in *Figure 6*.

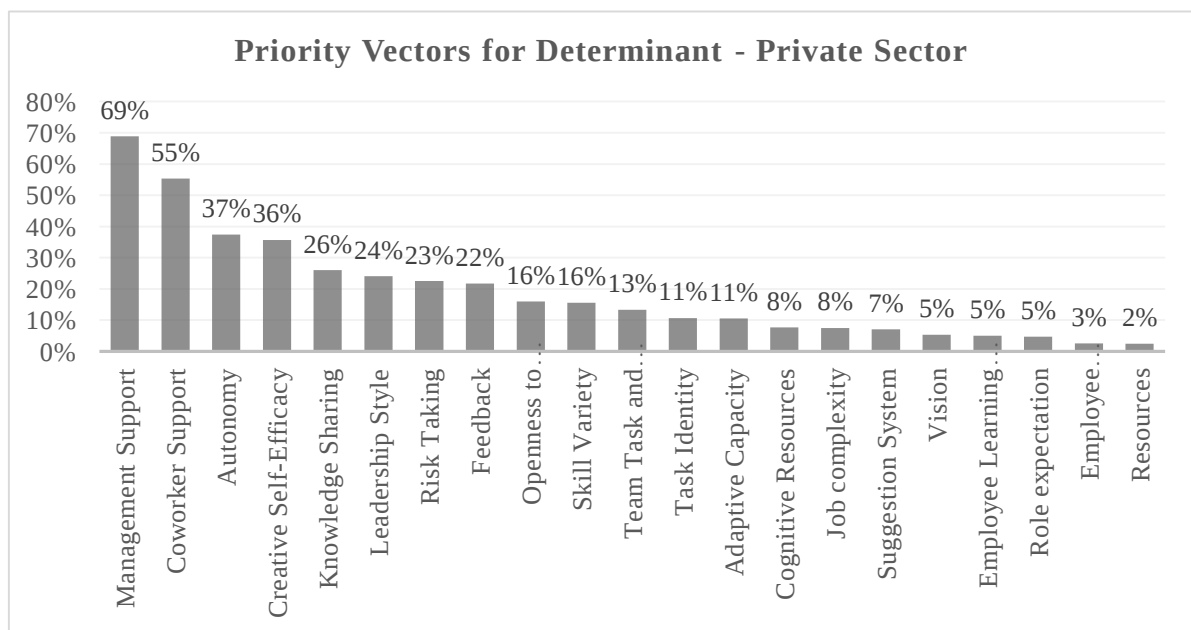


Figure 6. Priority Vectors of The ECB Determinants – Private Sector

6.2 Discussion of Results

Considering these results, the individual level has the highest impact on ECB in the private sector in the UAE. Determinants shaping this level are among the highest that impact ECB in the private sector. This creativity behavior comes from the individual employee and is the core of its success once managerial and

financial support exists. This behavior should first come from the employee and the action will reflect ideas of success. The team level has the second-highest impact on ECB. It is important that employees are surrounded with supportive team members who share their knowledge to build the creativity process within the department. It is also important that employees know what is expected from them and what society is expecting from their organization. Nearly all of the determinants of this level are available at all organizations, and this is what makes it a leading level that has an impact on ECB. The job-level effect is ranked as medium regarding its impact on ECB. As supported by JCM (*Hackman, & Oldham 1975*), the relationship between the employee and job aspects are vital. It is important that employees feel that their organization is confident of their abilities to create. It is also critical that the organization provides and empowers them with the needed skill to continue innovating and thinking differently. Finally, the organizational level has the least impact on the decision-making process in the private sector in the UAE. One of the participants stated that the suggestion system applied at their organization comes with a points system. The more you suggest, the more points you get. Furthermore, if the suggestion was applied then the points are tripled, and the employee gets rewarded. This type of system encourages employees to discuss their points and create a competition among employees, especially those who like to distinguish themselves. This type of system may not be found at all organizations in the private sector, which is one reason this level has least important impact on ECB.

The most influential ECB determinant for the private sector was management support. The Person-Environment Fit Theory (French, Rodgers, & Cobb, 1974) found and explained this determinant (Roopak et al., 2019). This theory explains the degree to which a person and some aspect(s) of his or her work environment are compatible. It is also a dyadic relationship that exists between employees and their bosses (Roopak et al., 2019). A positive or negative relationship between the employee and employer shapes how work is accomplished between the two. It also directly affects outcomes that occur as a service or product provided to organizations' customers. Coworker support occurs as the second most influential determinant and autonomy is the third most influential determinant. Social Exchange Theory explains this determinant (Homans, 1958) (Bani-Melhem et al., 2018; Tang et al., 2017). For one of the survey participants, her coworkers were the inspiration for her to unleash her inner creativity. She received support from them to improve her infographic skills from the junior to senior level. She only applied her skills to her small department, but she advanced to a major department where her skills are used on the organization's website, phone application, and social media pages. Because of this, she makes a substantial difference regarding the organization's image and brand.

Eight determinants had an influence on ECB at less than 10% are as follows: cognitive resources, job complexity, suggestion system, vision, employee learning orientation, role expectation, employee engagement, and resources. Cognitive resources and job complexity had a similar impact at 8%. The ECB of frontline employees in the service sector of the organization indicate that

there is a need based on how they suggest and produce new and novel products or services that can be delivered to customers (Pacauskas, & Rajala, 2017). Cognitive Diversity Theory (Wang, Kim, & Lee, 2016) was used to describe the cognitive resources determinant (Chow, 2018). Job routinization is part of job complexity (Anderson et al., 2014; Bos-Nehles et al., 2017) as it can negatively affect ECB as employees work in a job with a low complexity (Anderson et al., 2014). Self-Determination Theory (Gagné, & Deci, 2005) was used to explain this determinant (Bos-Nehles et al., 2017). Job complexity is a delicate aspect of work. Employers need to test the employee before giving them a major task to determine their ability to perform. According to one participant, his first role was making a PowerPoint slide for an event held at the organization to display it during the upper management monthly meeting. The employee said he could do it, but his manager refused to confirm any slides on the agenda of the meeting until he was able to see them. In one hour, slides were completed but the manager replied to him with only one word in an email, “Excellent,” for the task that was completed over a short period. This first experience showed the employee how things were, and the manager knew what to expect from him. The suggestion system had an impact of 7%. The creative capability and ideas of all employees (not only the clever employees) were added, which helps improve the organization’s performance (Marin-Garcia et al., 2018). Grounded Theory (Glaser, & Strauss, 1967) was used to explain this determinant (Marin-Garcia et al., 2018). Once the system is applied at an organization and used and assessed correctly and continuously, the ECB rate will increase. Vision, employee learning orientation, and role expectation had a similar impact at 5%.

Additionally, a team becomes more innovative based on how committed team members are to organizational ambitions, team ideas, and showing acts of responsibility (Hulsheger et al., 2009). Based on expert opinion, it is important that an employer clarifies to employees its vision and connects with the organization's yearly evaluations as it applies to the organization. During the evaluation, the goals that are added are related to the number of applications completed, number of initiatives completed, and the amount of income for the branch during that year. Overall, these goals are a win-win for both parties. Once employees experience learning orientation then their creative behavior will improve (Gong et al., 2009). ECB can be applied when employees' skills are improved by providing the latest training courses to cope with recent changes. Employees adjust to role expectations to prevent job punishments and gain rewards from their organization (Duan et al., 2017). Most respondents agree that ECB is related to an employee's understanding of the rules and what benefits are most appreciated. Overall, obligations and goals need to be discussed with employees and shown on their contract and job description. Employee engagement had an impact of 3%. ECB, skills, productivity, and efforts are influenced by benefits provided to them by their organization (Abdulla et al., 2011). As per participant comments, some organizations do not involve their staff with the company's rules, and this results in employees only doing their normal work and then going home once work is over. An example is assigning employees to an unknown mission even though they do not have enough skills and background for that job. Resources had an impact of 2%. If the organization has acceptable financial resources, clear instructions, compacted strategies and

visions, sufficient formal power, a valid position, and a stage that will facilitate all actions, then this will lead to resilience and ECB (Richtnér, & Löfsten, 2014). However, some organizations understand that offering unneeded resources, which help employees create, are a waste and these organizations prefer to do things in traditional ways like visiting the organization to obtain a service instead of applying it at home using a website or phone application.

6.3 Chapter Summary

Chapter 6 analyzed private sector data and showed geometric means of pair-wise comparisons for four levels and these are illustrated in a table. Then, it showed geometric means of pair-wise comparisons for 21 determinants in a table. It also showed the top level and determinants that have a positive impact on ECB in the UAE's private sector. The chapter concludes with a graph that summarizes the priority vector of 21 determinants showing the highest and lowest ranking determinants.

CHAPTER 7: COMPARISON OF RESULTS BETWEEN PUBLIC AND PRIVATE SECTOR

7.1 Chapter Discussion

Overall, results between the two sectors were nearly the same. The main importance ranking of the levels was the same between two sectors (at the individual level). A summary of the priority vector comparison for the main criteria and determinants shows the highest and lowest ranking determinants in *Figure 7 & Figure 8*.

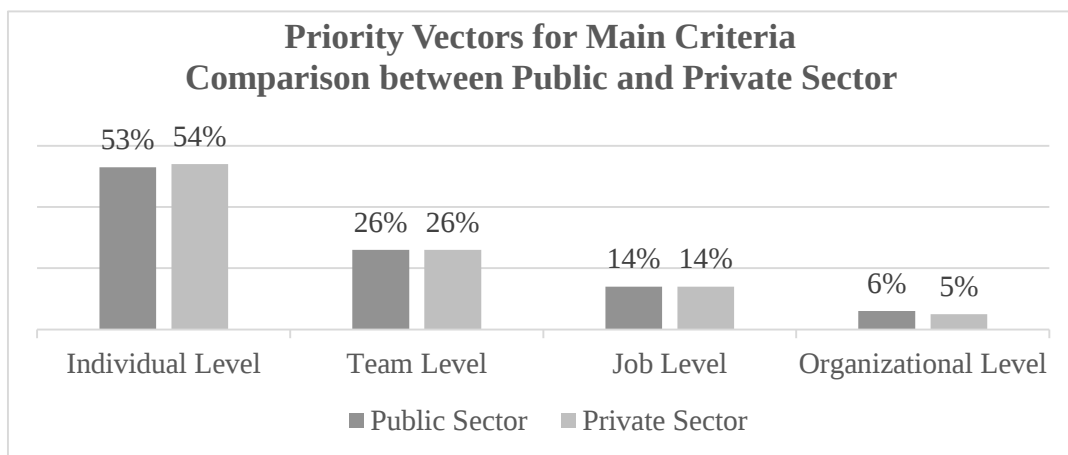


Figure 7. Priority Vectors for Main Criteria - Comparison between Public and Private Sector

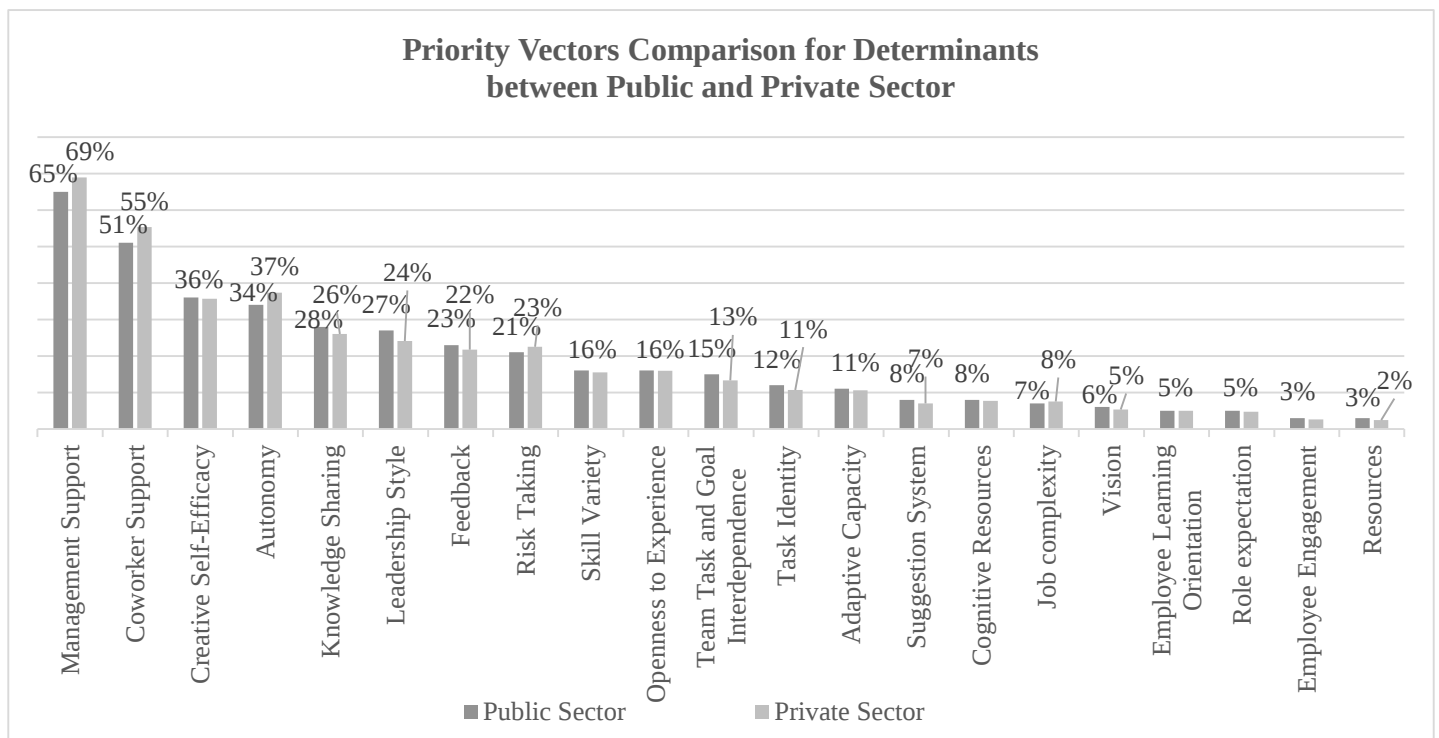


Figure 8. Priority Vectors for Determinants - Comparison between Public and Private Sector

Research shows the importance of these suggested levels and determinants for both sectors. Results also show only minor differences in their impact on ECB at any given sector in the UAE. Therefore, a model can be generalized for both sectors. In addition, this shows that the work environment regarding ECB is the same between sectors. Thus, both sectors are equipped with the needed resources for ECB but there is a difference in applying them. In general, context is an important area to compare results. Nevertheless, the context shows no difference between these two sectors. This might be due to a government initiative to improve equivalence between employees at both sectors when it comes to rules and regulations (Moonesar et al., 2019). It also shows the importance of employees for the UAE government and that there is no bias regarding nationality or qualification (Moonesar et al., 2019; Moriano, Molero, Topa, & Lévy Mangin, 2011). When the UAE announced that 2015 was the

“Year of Innovation,” pressure was applied on all seven emirates and their different sectors (Dulaimi, 2021). Because each emirate wanted to be number one in the country for innovation, all organizations were motivated to develop innovative services and projects (Dulaimi, 2021). As a result, intense research for new knowledge, to learn new practices, and develop successful and creative projects occurred (Dulaimi, 2021). Once organizations shared knowledge and staff creativity was supported by leaders and coworkers, then the procedures, ideas, and suggestions were boosted. Then, staff are also willing to participate in an organization's success without hesitation (Niu, 2014).

Once new employees join their companies and learned in detail how to correctly conduct their work, then they work independently to finish the work and become a benefit to the company; it is known that a company's main goal is to make a profit instead of focusing on employees (Albloushi, 2015). However, the public sector is attracting new ideas and suggestions from employees and clients (Moonesar et al., 2019). Most international companies have branches in the UAE and therefore similar rules and regulations are followed. Different jobs, like engineering, medicine, or finance, need specific skills and techniques. Managers are keen to hire those who have the skill to work independently instead of spending years and extra expenses to train new staff (Albloushi, 2015). Therefore, staff can suggest and renew procedures because of their experience at work. The UAE National Innovation Strategy (NIS) defined innovation as, *“the aspiration of individuals, private institutions and governments to achieve development by generating creative ideas and introducing new products, services, and operations that improve the overall*

quality of life” (The United Arab Emirates' Government portal, 2021, p. 5). The NIS framework consists of three key points as follows: an Innovation-Enabling Environment, Innovation Champions, and Innovation Priority Sectors (The United Arab Emirates' Government portal, 2021). For the Innovation-Enabling Environment, the success of innovative initiatives depends on the creation of a suitable atmosphere for innovation. It establishes a backdrop in which individuals, businesses, and governments operate and also a country's potential to attract investments and new ideas. The goal is to create an environment that fosters and facilitates innovation by building the correct legal framework, offering comprehensive supporting services, expanding technical infrastructure, and assuring the availability of investments and incentives. Innovation Priority Sectors seek to lead innovation in seven main national sectors, including transportation, health, space, renewable and clean energy, technology, education, and water while supporting innovation. Innovation Champions is directly related to ECB. The NIS focuses on the development of individuals and entrepreneurs who have a creative spirit. It strives to equip individuals with 21st-century skills while also empowering the nation to drive local innovation by creating inventive national talents and capacities in engineering, entrepreneurship, mathematics, science, and technology (The United Arab Emirates' Government portal, 2021). The goal is to create systematic methods to identify and sponsor creative and talented people at a young age and help them develop their abilities and reach their full potential. It also seeks to establish a national culture of innovation and entrepreneurship that honors innovators and encourages collaboration across government, media

organizations, and the private sector (The United Arab Emirates' Government portal, 2021).

7.2 Chapter Summary

Chapter 7 compared the results between the public and private sector in the UAE. It lists rates of the most important levels and determinants that have a high impact on ECB in both sectors. It also graphed the priority vectors for main criteria and determinants with a comparison between the public and private sectors. This chapter supports results from previous studies that show equalization between public and private sectors when it comes to ECB.

CHAPTER 8: CONCLUSION

ECB is considered an important tool to enhance organizations' services and products for customers. It is also a needed tool for almost all positions to enhance job outcomes and staff creativity at work (Tang et al., 2017), which in return will affect the overall performance of the organization (Jeong et al., 2017).

This research started by performing a SLR to discover the most significant determinants and important levels that have a positive impact on ECB in different countries and on different sectors. The SLR disclosed 21 ECB determinants that were categorized into four main levels: individual, team, job, and organization. Then, it focused on the UAE's public sector to clarify the current point of ECB and how these determinants can shape the future of ECB in the UAE. By focusing on the public sector, the UAE offers an opportunity for better and new ways of providing services to citizens by instituting and operationalizing new management systems (Moonesar et al., 2019). Later, research compared results between the public and private sector.

The research objective was to summarize ECB determinants that reflect positively on the public and private sectors in the UAE. Therefore, research developed a contextualized model to provide decision-makers (in both sectors) with guidance on what steps will be most effective in stimulating ECB among employees.

The following research question was proposed: *What are the determinants of employee creative behavior in the UAE public and private sector?* Therefore,

results addressed this heterogeneity by identifying significant levels and determinants that encourage ECB in both public and private sectors in the UAE. Thus, employees can be more creative in their work while concomitantly benefiting and improving services provided by organizations (Lasrado et al., 2015).

Findings of this research add value to ECB studies and how organizations are going to benefit. Consequently, experts from organizations in the public and private sectors need to evaluate the concept of ECB at their organization regarding the above determinants. This is the first research paper that includes a SLR on ECB and two AHP studies. The first AHP study applied to employees from the public sector in the UAE and the second AHP study applied to employees from the private sector in the UAE and different levels and departments.

The findings of the research also opposed results of SLR where different ECB studies found that the determinant employee engagement had the highest impact on ECB. Results stated that nine out of ninety-six articles demonstrated that employee engagement was the highest, as shown in *Figure 2*. Findings of this research showed its effect among the lowest determinants (rankings between 20 and 21 determinants) and showed an effect of 3% for both the public and private sector. Next was the feedback determinant with seven appearances. Findings of this research showed its effect among the seven highest determinants with a positive impact on ECB. It is ranked seven between the twenty-one determinants with an effect of 23% for the public and 22% for the private sector. Third was coworker support with six appearances. The findings of this research

considered coworker support among the top impacts on ECB. It ranked the second highest with an effect of 51% for the public and 55% for the private sector. Management support had the highest impact on ECB for both sectors with five appearances together with autonomy and knowledge sharing on articles resulting from the SLR. The interpretation and explanation of these findings led to multiple theoretical and practical contributions as outlined in the following sections.

8.1 Theoretical Contributions

SLR was conducted to identify the most significant determinants and important levels that have a positive impact on ECB in the public and private sectors. The SLR disclosed 21 ECB determinants that were categorized into four main levels. It also showed the most repeated determinants and illustrated them in a graph and a table. The study examined ECB determinants that have a beneficial impact on public and private sectors by developing a new theoretical approach to analyze creativity using a novel system (Zaitouni, & Ouakouak, 2018), which is an AHP that was conducted using questionnaires and interviews. It also categorized the most significant and least important determinants, which is one of the greatest sources for identifying the most dominant determinants that need to be applied in the UAE's governmental and private sectors. This study also determined the most appropriate determinants for the UAE and other similar environments. As a result, there is a list of the most appropriate determinants for maximizing ECB benefits for employees in both sectors. Thus, employees

will receive high-quality services through modern and innovative methods and systems.

To summarize ECB determinants that reflect positively on the public and private sector, an AHP study on ECB was conducted. It classified the highest and least important determinants that are considered the best sources that identify the most dominant determinants needed for implementation in the public and private sector in the UAE. For the public sector, results showed that the highest-ranked level was the individual level with a priority vector of 53%. This finding supports the study by Anderson et al. (2014) as the individual level has a significant impact on ECB. For the effect of determinants, management support that arises under the organizational level had the highest impact on ECB and was ranked at 65%. This finding supports results of previous studies that found management support has a significant impact on ECB (Anderson et al., 2014; De Stobbeleir et al., 2011; Jain, & Jain, 2017; Jaiswal, & Dhar, 2015; Leff Bonney et al., 2009; Ma Prieto, & Pilar Pérez-Santana, 2014; Roopak et al., 2019). As the head of the pyramid, it is critical to have complete support from managers and then the remaining determinants will help solidify the ECB process in the firm. Coworker support that arises under the team level is ranked at 51%. This finding supports previous study results showing that coworker support has a significant impact on ECB (Bani-Melhem et al., 2018; da Costa et al., 2018; Liao et al., 2018; Ma Prieto, & Pilar Pérez-Santana, 2014; Roopak et al., 2019; Tang et al., 2017). One participant's opinion from a coworker can either encourage you or make your job a terrible experience that makes you

uncomfortable. Overall, employees are result in a significant and powerful effect, and managers must be cautious when dealing with brilliant employees.

To see if one sector is exceeding the other in applying ECB, a comparison was conducted between two sectors to display the highest and lowest ranking determinants. Results show that the highest-ranked level was the individual level with a priority vector of 54%. This finding also supports a study by Anderson et al. (2014) as the individual level has a significant impact on ECB. For the effect of determinants, the management support determinant that arises from the organizational level has the highest impact on ECB in the public sector in the UAE and ranked 69%. This finding also supports previous study results showing that management support has a significant impact on ECB (Anderson et al., 2014; De Stobbeleir et al., 2011; Jain, & Jain, 2017; Jaiswal, & Dhar, 2015; Leff Bonney et al., 2009; Ma Prieto, & Pilar Pérez-Santana, 2014; Roopak et al., 2019). This has a direct impact on outcomes that result from services or products that enterprises deliver to their consumers. The Person-Environment Fit Theory (*French, Rodgers, & Cobb, 1974*) was found to justify this determinant (Roopak et al., 2019).

Coworker support that arises under the team level is ranked at 55%. This finding also supports previous study results showing that coworker support has a significant impact on ECB (Bani-Melhem et al., 2018; da Costa et al., 2018; Liao et al., 2018; Ma Prieto, & Pilar Pérez-Santana, 2014; Roopak et al., 2019; Tang et al., 2017). This finding strongly proves the results of Bani-Melhem et al. (2018) who analyzed the impact of workplace happiness, job stress, and coworker support on employee innovative behavior in the private sector in the

UAE. This study found that coworker support has significant positive effects on employee innovative behavior (Bani-Melhem et al., 2018). This theory explained that this determinant is Social Exchange Theory (*Homans, 1958*) (Bani-Melhem et al., 2018; Tang et al., 2017). For example, one of the survey participants stated that her coworkers inspired her to express her inner creativity.

These results showed that findings are nearly the same as each other. To empower the Emiratization policy, it is important to prepare the Emirati staff with all needed skills and knowledge, like these creative behaviors, to empower their roles in this sector. This might be due to the government initiative to equalize employees in both sectors regarding rules and regulations (Moonesar et al., 2019). When the UAE announced 2015 as the “Year of Innovation,” all seven emirates and their different sectors experienced pressure (Dulaimi, 2021). By aiming to be pioneers in innovation, organizations are motivated to develop innovative services and projects (Dulaimi, 2021).

In the UAE, service levels differ from one organization to the next. As a result, the most appropriate determinants for the UAE and other similar environments were determined in this study, and a list of the most appropriate determinants for maximizing ECB benefits for employees in both sectors is provided. As a result, the gap in service quality between the two sectors narrows. The instruments of good services are available for each company to investigate and apply the most suitable ones to each company from a budget perspective or experienced staff or from the support of management.

8.2 Practical Contributions

First, this research provides experts in UAE public and private sector organizations with leverage points for enhancing performance through successful facilitation of the most important ECB determinants. In particular, decision-makers and leaders can combine some or all of the top five determinants, which are management support, coworker support, creative self-efficacy, and autonomy and knowledge sharing, instead of investing in all possible determinants of ECB and thereby spreading their resources to less effective measures (Song et al., 2017).

Second, staff who exhibit creative behavior are loyal to their organization, use resources efficiently, and are happy in their work. Previous studies demonstrated that when employees are loyal to their job and resources are increased, their ECB is also increased (Petrou et al., 2019). Additionally, organizations are able to find the right creativity tools for unsolved work problems and get creative answers to unexpected challenges (Richtnér, & Löfsten, 2014). When employees are happy at work, they innovate, take more care, and work with each other. Hence, organizations with successful adaption of ECB at work leads to positive outcomes.

Third, understanding ECB helps organizations make the right choices when it comes to hiring individuals and strategizing resources; allocations decision-makers and leaders must consider management support and coworker support as the main determinants that impact the empowerment of employee creative behavior in the public and private sectors in the UAE as it develops services

provided by each organization. Findings of this research complement the findings of Tang et al. (2017), who showed that decentralized management has a positive impact on ECB, and with upper management support, there is a greater influence on ECB. Hence, more autonomy and control should be provided to employees and there should be a reduction of the management command and external restrictions from organizations (Tang et al., 2017).

Fourth, different social, religious, and cultural influences are highly considered when it comes to ECB. Findings of this research complemented the research of Saraç et al. (2014), where they explored the comparison between organizations and people under the subject of creativity. They found that culture has an influence on ECB and this could be a new area of study (Saraç et al., 2014).

Fifth, leveraging and understanding ECB in under-performing organizations is important as it guarantees high-quality levels of provided services across different sectors. The local government is always underlining the need for innovation as a diversification option for the country's income away from oil (Bani-Melhem et al., 2018). Therefore, if different sectors like tourism and hospitality depend on creativity, then this research provides them with an ECB model that is needed for increasing income to the country.

8.3 Study Limitations

There are some limitations to this research. First, research was completed using specific keywords, but there is a chance that some relevant and different keywords could have been used that would have had resulted in different and significant articles and results and this would have resulted in publication bias.

This occurs to the degree that existing research findings did not contain all outcomes of available analyses and this influences the scale of the research outcome (Banks, Kepes, & McDaniel, 2012). Future research should look at different synonyms to find different determinants and theories. A broader timeline and journal ranking could also be used, which would result in more ECB determinants that could alter determinants and set levels.

Second, as is inherent in the AHP method, findings cannot be generalized beyond the public and private sector of the UAE since all experts have been drawn from this background. Furthermore, the UAE context might produce different results compared to other contexts. The UAE context includes religious, educational, cultural, and legal boundaries, but study findings demonstrated that none of these boundaries causes a big difference between the public sector and private sector when it comes to ECB. The UAE NIS is the main source for future human investment where managers from different sectors highlight its importance (The United Arab Emirates' Government portal, 2021). The public and private sectors are one, and the similarity in the results supports and proves government efforts toward generalizability of innovation between different sectors that have a direct impact on ECB. The four main tracks of the NIS include the following (The United Arab Emirates' Government portal, 2021):

1. This will create an atmosphere that encourages innovation through laws and supportive institutions
2. It will foster government innovation by formalizing creative processes and supporting them with a comprehensive set of modern technologies

3. It will promote private sector innovation by embracing new technology, developing creative products and services, and incentivizing businesses to construct innovation and scientific research centers.
4. It will focus on mathematics, technology, engineering, and science and the provision of educational materials for schools and colleges to train individuals with highly inventive skills (The United Arab Emirates' Government portal, 2021).

Third, the current research only studied the effect from one country (UAE). It would be interesting to compare results with a similar context, for example, from other Gulf Cooperation Council (GCC) countries, to see what contextual factors might influence differences in rankings of ECB determinants.

8.4 Suggestions for Future Research

The main theoretical contribution for this research is that previous studies outlined many determinants that influence ECB, but local context must be considered to determine the relative importance of these determinants. As relative importance is a subjective phenomenon, this must be done in a particular context by considering how this context might have influenced the perception of determinants. Future studies can draw on this method to identify customized causal models for different sectors and in different countries.

These findings show that management support was the highest for two sectors with a rate of more than 64%. This was followed by coworker support with a 50% impact and above for both sectors. The third determinant was different between these two sectors. Autonomy showed a 37% impact on the private

sector and creative self-efficacy had a 36% impact at the public sector. Due to this change in results between these two sectors, future studies should create a framework by studying the impact of coworker support and management support on ECB. In addition, determinants of creative self-efficacy and autonomy as mediators and/or moderators can be added. These two determinants were changing points of rates among the two sectors; hence, it is important to study their direct and indirect effects on ECB. This framework will show how this difference occurred between two sectors and which one is more effective on ECB in both sectors.

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APPENDICES

Appendix 1: ECB Questionnaire Survey

Research Survey

Dear respondent,

The objective of this study is to identify which success factors are the most important toward increasing employees' creative behavior in the public sector in the UAE.

This survey includes a list of factors that are known from previous studies to affect employees' creative behavior (see page 3). You are kindly requested to compare each factor to another one and indicate which one YOU believe is more important for stimulating creative behavior **in your organization**.

You have been selected to participate because you are considered a practitioner expert on the topic. To have reliable results, **it is very important that you carefully consider and weigh the options before submitting your response**.

The definition of each factor is stated before each question that you can refer to them to clarify the meaning of each factor.

The interview will take around 60 - 90 minutes. Your given information will be kept safe and not shared for any commercial activity. The survey is purely for academic purposes as a part of a Doctoral Dissertation at Abu Dhabi University.

Thank you in advance for your valuable time. Please do not hesitate to contact me if you have any question.

Khawla Al Hosani

E-mail: 1064022@students.adu.ac.ae

By completing the survey, I confirm my understanding and acceptance of the above introduction and conditions.

Research Survey

Section 1- General Information

Please provide the following information:

1. Gender:

Male

Female

2. Job Title:

3. Are you currently in a management position (formally directing other employees):

Yes

No

○ *If yes, at which level:*

High

Middle

Low

4. Years of Experience:

1 – 3 years

4 – 7 years

8 years and more

5. Sector:

Public Sector

Private Sector

6. Emirate:

Abu
Dhabi

Dubai

Sharjah

Ajman

Umm Al
Quwain

Ras Al
Khaimah

Fujairah

7. Highest Educational Degree obtained:

High School

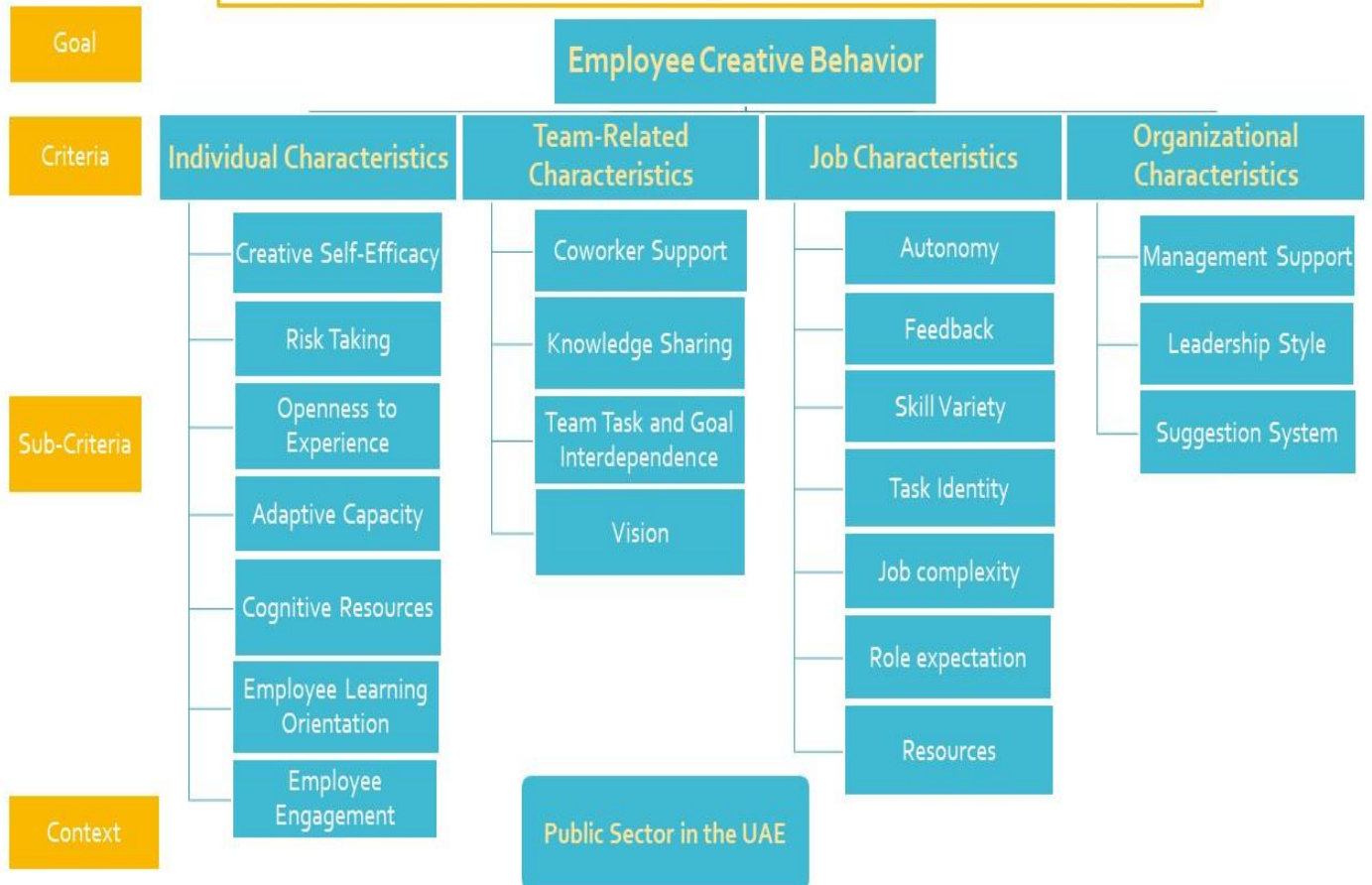
Diploma

Bachelor

Master

Doctorate / PhD

AHP Model for Employee Creative Behavior



Section 2- Pairwise Comparison for Characteristics

2.1 Characteristics Comparison:

Please tick the most appropriate answer to you and choose only one answer per row.

Definitions of Terms:

* **Individual Characteristics:** employee creative behavior (ECB) is an outcome of individual factors such as personality traits and abilities (Anderson et al., 2014).

* **Team-Related Characteristics:** ECB is an outcome of group attributes, team activities, and team members' communication (Anderson et al., 2014).

* **Job Characteristics:** Several studies related ECB with the five Job Characteristics Model (Autonomy, Feedback, Skill Variety, Task Identity, and Job Complexity found by Hackman and Oldham, (1975) stating that employee's responses and perceptions of their job are related to their jobs.

* **Organizational characteristics:** some parts of organizations that can be recognized, that mainly related to its performance.

How do you compare the importance of one characteristic to the importance of the other characteristic for stimulating Employee Creative Behavior in your organization?

Characteristics	1	2	3	4	5	6	7	8	9	Characteristics
/	Equal	Equally to	Moderate	Moderately	Strong	Strongly	Very	Very	Extreme	/
Rating	Importance	Moderately	Importance	to Strong	Importance	to Very	Strong	Strong to	Importance	Rating
		Importance		Importance		Strong	Importance	Extremely		
						Importanc		Importance		
Individual Characteristics										Team-Related Characteristics
Individual Characteristics										Job Characteristics
Individual Characteristics										Organizational Characteristics
Team-Related Characteristics										Job Characteristics
Team-Related Characteristics										Organizational Characteristics
Job Characteristics										Organizational Characteristics

Section 3- Pairwise Comparison for Factors Under Each Characteristics

3.1. Individual Characteristics Factors:

Please tick the most appropriate answer to you and choose only one answer per row.

Definitions of Terms:

- * **Creative Self-Efficacy:** Is when employees believe that they have the skills and the needed knowledge to be able to generate creative ideas (Gong et al., 2009; S. Wang, Liu, & Shalley, 2018; Zhang, Zhang, Liu, & Du, 2019) and in return, it turns cultivates of ECB (He et al., 2019).
- * **Risk-Taking:** It is a challenging tool for ECB (Madjar et al., 2011), a personality dimension, and organizations with creative environments create employees who are eager to take risks (Ucar, 2018).
- * **Openness to Experience:** Is when employees who are open to experience will be oriented to introduce change and adopt new experiences (Liu et al., 2016).
- * **Adaptive Capacity:** The management and psychological researches in areas like strategy making under uncertainty, creative cognition, entrepreneurship, and innovation-focused in process of constructing information from a traditional domain to a novel and new domain (Martins et al., 2015).
- * **Cognitive Resources:** The cognitive efforts on an individual are the element of how appropriately things will be designed (Pacauskas & Rajala, 2017).
- * **Employee Learning Orientation:** It is defined as a commitment and fear to develop the experience or skill of any employee (Gong et al., 2009).
- * **Employee Engagement:** It is defined as “employee’s sense of purpose that is evident in their display of dedication, persistence, and effort in their work or overall attachment to their organization and its mission” (Hameduddin & Fernandez, 2019, p. 357).

How do you compare the importance of one factor to the importance of the other factor for stimulating Employee Creative Behavior in your organization at the individual characteristics?

Rating / Factor	1 Equal Importance	2 Equally to Moderately Importance	3 Moderate Importance	4 Moderately to Strong Importance	5 Strong Importance	6 Strongly to Very Strong Importance	7 Very Strong Importance	8 Very Strong to Extremely Importance	9 Extreme Importance	Rating / Factor
Creative Self-Efficacy										Risk Taking
Creative Self-Efficacy										Openness to Experience
Creative Self-Efficacy										Adaptive Capacity
Creative Self-Efficacy										Cognitive Resources
Creative Self-Efficacy										Employee Learning Orientation
Creative Self-Efficacy										Employee Engagement
Risk Taking										Openness to Experience
Risk Taking										Adaptive Capacity
Risk Taking										Cognitive Resources
Risk Taking										Employee Learning Orientation
Risk Taking										Employee Engagement
Openness to Experience										Adaptive Capacity
Openness to Experience										Cognitive Resources
Openness to Experience										Employee Learning Orientation
Openness to Experience										Employee Engagement
Adaptive Capacity										Cognitive Resources

Adaptive
Capacity

Employee
Learning
Orientation

Adaptive
Capacity

Employee
Engagement

Cognitive
Resources

Employee
Learning
Orientation

Cognitive
Resources

Employee
Engagement

Employee
Learning
Orientation

Employee
Engagement

3.2. Team-Related Characteristics Factors:

Definitions of Terms:

* **Co-Worker Support:** Working with colleagues who are supportive and cooperative leads to a workplace with open and easily discussed new ideas (Liao et al., 2018).

* **Knowledge Sharing:** Different studies confirmed the positive role that sharing knowledge plays when it comes to group creativity, such as one study that demonstrated this on a health care work team and another that confirmed the same outcome on a study in China (Liao et al., 2018).

* **Team Task and Goal Interdependence:** The interdependence becomes an ancestor to innovation and creativity as the interaction of both promote cooperation, interaction, and communication among team members (Hulsheger et al., 2009; Roopak et al., 2019).

* **Vision:** "is an idea of a valued outcome which represents a higher-order goal and motivating force at work" (Hulsheger et al., 2009, p. 1131).

How do you compare the importance of one factor to the importance of the other factor for stimulating Employee Creative Behavior in your organization at the team-related characteristics?

Rating / Factor	1 Equal Importance	2 Equally to Moderately Importance	3 Moderate Importance	4 Moderately to Strong Importance	5 Strong Importance	6 Strongly to Very Strong Importance	7 Very Strong Importance	8 Very Strong to Extremely Importance	9 Extreme Importance	Rating / Factor
Coworker Support										Knowledge Sharing
Coworker Support										Team Task and Goal Interdependence
Coworker Support										Vision
Knowledge Sharing										Team Task and Goal Interdependence
Knowledge Sharing										Vision
Team Task and Goal Interdependence										Vision

Job Characteristics Factors:

Definitions of Terms:

- * **Autonomy:** It refers to the extent to which an individual can determine his or her methods, pace, and effort to accomplish work tasks (A.-C. Wang & Cheng, 2009, p. 110).
- * **Feedback:** It provides workers with direct information about the effectiveness of their performances (job feedback) (Boeck et al., 2018, p. 531).
- * **Skill Variety:** It is one of the five core job characteristics (Anderson et al., 2014) and it is "the degree to which a job requires the use of different skills" (Boeck et al., 2018, p. 531).
- * **Task Identity:** "is the extent to which employees can perform and complete an entire piece of work" (Jeng, 2018, p. 390).
- * **Job Complexity:** "is the extent to which a job is mentally challenging and difficult to perform" (Liu et al., 2016, p. 239).
- * **Role Expectation:** Some job expects from the employee to have a high sense of creativity and to innovate as a result ECB will be created (M. Li & Hsu, 2016).
- * **Resources:** "Job resources are those facilitating job aspects that help employees deal with demanding situations at work (Bakker, Demerouti, & Sanz-Vergel, 2014)" (Petrou et al., 2019, p. 306).

How do you compare the importance of one factor to the importance of the other factor for stimulating Employee Creative Behavior in your organization at the job characteristics?

Rating / Factor	1 Equal Importance	2 Equally to Moderately Importance	3 Moderate Importance	4 Moderately to Strong Importance	5 Strong Importance	6 Strongly to Very Strong Importance	7 Very Strong Importance	8 Very Strong to Extremely Importance	9 Extreme Importance	Rating / Factor
Autonomy										Feedback
Autonomy										Skill
Autonomy										Variety
Autonomy										Task
Autonomy										Identity
Autonomy										Job Complexity
Autonomy										Role Expectation
Autonomy										Resources
Feedback										Skill
										Variety

Feedback	Task Identity
Feedback	Job Complexity
Feedback	Role Expectation
Feedback	Resources
Skill Variety	Task Identity
Skill Variety	Job Complexity
Skill Variety	Role Expectation
Skill Variety	Resources
Task Identity	Job Complexity
Task Identity	Role Expectation
Task Identity	Resources
Job Complexity	Role Expectation
Job Complexity	Resources
Role Expectation	Resources

3.3. Organizational Characteristics Factors:

Definitions of Terms:

* **Management Support:** It is considered as important in energizing ECB and offer the employees a sense of association that needed for ideas creation then investigating for new prospects and later on transforming them into action (Ma Prieto & Pilar Pérez-Santana, 2014).

* **Leadership Style:** is a leader's way of motivating staff, giving direction, and executing plans.

* **Suggestion System:** "a means of facilitating the process of motivating employees to think more creatively, to share those creative thoughts and convert creative ideas into valuable innovations" (Lasrado et al., 2016, p. 316).

How do you compare the importance of one factor to the importance of the other factor for stimulating Employee Creative Behavior in your organization at the organizational characteristics?

Rating / Factor	1 Equal Importance	2 Equally to Moderately Importance	3 Moderate Importance	4 Moderately to Strong Importance	5 Strong Importance	6 Strongly to Very Strong Importance	7 Very Strong Importance	8 Very Strong to Extremely Importance	9 Extreme Importance	Rating / Factor
Management Support										Leadership Style
Management Support										Suggestion System
Leadership Style										Suggestion System

Thank you for completing the questionnaire!

Appendix 2: Abu Dhabi University Ethical Approval



Abu Dhabi University Ethical Approval

Date(mm/dd/yyyy)

File Number: COBA – 20-05-00012

05/08/2020

Ethical Approval Notice

Principal Investigator/ Supervisor/ Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Ms. Khawla	Al Hosani	Abu Dhabi University	Principle Investigator
Dr. Anne	Ewijk	Abu Dhabi University	Co- Investigator
Dr. Matloub	Hussain	Abu Dhabi University	Co- Investigator

File Number:

COBA – 20-05-00012

Type of Project:

Doctorate Dissertation

Title: Better Service Through Creative Public Officials: developing a customized comprehensive model of employee creative behavior in the UAE public sector

Approval Date (mm/dd/yyyy)

05/08/2020

Expiry Date (mm/dd/yyyy)

05/0/2021

Special Conditions / Comments

NA

IRB Chair

Dr. Rania AL Dweik

