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Article

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Abstract

The purpose of current study was to examine the effect of empowering leadership (EL) on ambidextrous (exploratory and exploitative) innovation and the mediating role of creative self-efficacy (CSE) in the telecom sector of Afghanistan on the basis of social exchange theory (SET). To achieve the goal a quantitative methodology was employed and analysis were performed using Smart-PLS (version 3.2.8) software. The results disclosed that Empowering leadership positively and significantly effects both exploratory and exploitative innovations. Furthermore, mediation analysis revealed that creative self-efficacy partially mediates the relationship of empowering leadership and exploratory and exploitative innovation. The findings on creative self-efficacy as a mediator can be considered a valuable contribution to the literature yet current study had some limitation too, like using convenience sampling method and collection of the data at one single point of time only.

Keywords: *Empowering leadership, creative self-efficacy, ambidextrous, explorative innovation, exploitative innovation, social exchange theory*.

Introduction

There is cut-throat competition among organizations to innovate and distinguish themselves from rivals and meet varying consumer needs (Soto-Acosta et al., 2017). In this regard, the latest research has revealed that the majority of the successful and effective organizations were ambidextrous, meaning they could combine exploratory and exploitative creativity (Berraies & Hamouda, 2018). Since exploitative innovation is a method of improving a company's existing expertise, core competencies and technology and exploratory innovation is linked with progressive innovation that is focusing on the discovery of new knowledge and skills to meet the needs of new users and consumers (Benner & Tushman, 2003). Therefore, by incorporating the right mixture of these two forms of innovations, organizations fortify their survival and boost financial efficiency (Cottrell & Nault, 2004).

Consequently, organizations in general and Telecom companies in Afghanistan specifically need to address the ambidexterity phenomenon by suggesting innovation strategies that seek to leverage both existing expertise and skills while also discovering new ones to attain temporary and permanent results (Benner & Tushman, 2003). In this context, pointing out the history of explorative and exploitative or double-dealing is essential because of the difficulty of overcoming the tenseness between the two forms of innovations that contest for inadequate means (resources) and are focused on diverse information processing competencies, (Li et al., 2018). Also, accomplishing the accurate balance of both forms of innovation helps MNOs and other organizations to renew their expertise and abilities,

familiarize with ecological changes, escape the threat of volatile returns and fully leverage their information and immature concepts (Berraies et al., 2015; Benner & Tushman, 2003). Furthermore, the capability of an organization to be ambidextrous is dependent on other factors such as the innovation environment, institutional differentiation, and organization trust which nurture both exploitation and exploration (Berraies & Abedine, 2019).

On the other hand, positive leadership styles play a central part in stimulating ambidextrous innovations. Prior research has primarily put effort into the correlation between transformational style and ambidextrous innovation. For example, Berraies and Abedine (2019) discovered that ambidextrous leadership (transformational & transactional) has an affirmative outcome on ambidextrous (exploitation and exploration) innovation and Zuraik and Kelly (2018) studied the effect of CEO's transformational leadership style on ambidextrous innovation. Besides, EL (empowering leadership) was found to be linked to ambidextrous innovation (Siachou & Gkorezis, 2018), yet research on this subject is still inadequate (Havermans, et al., 2015). EL refers to a collection of leadership behaviours as well as characteristics that include conveying trust in employees, encouraging their involvement in decision-making, giving them autonomy by eliminating rigid limitations and additional impediments to success, assigning motivating and/or practical objectives, and emphasizing the importance of the job (Ahearne et al., 2005). Moreover, there are very limited studies conducted on empowering leadership and ambidextrous innovation and one such study conducted is by Wu and Peng (2019) on empowering leadership and ambidextrous innovation. Therefore, in addition to studying and reexamining the direction relations of empowering leadership and exploratory and exploitative innovation, there is much to be understood on the mediating and moderating factors.

The author believes that CSE is one such element and factor which plays an intervening part and role between EL and ambidextrous innovation. CSF is described as a person's assessment of her or his actions in an inventive action. The greater a person's CSF, the greater their readiness will be to study and learn novel knowledge and matter concurrently (Tierney & Farmer, 2011). Previous research has looked at the impact of CSF on innovative work efficiency. Lah et al. (2011) discovered, in particular, that workers having an upper degree of CSF will most probably display inventive actions at their job in a service environment. According to Seo et al. (2015), CSE affects one's creativeness through an absorptive ability that is exploration and exploitation. In this prospect, the aim of this paper links to the investigation of EL impact on ambidextrous innovation by the mediating effect of CSF in the case of afghan MNOs. The reason behind the selection of mentioned industry is the association of this industry with innovation. It is a prerequisite for mobile network operators to be ambidextrous to ensure their survivability in this tough and competitive business environment. They have to be exploitative as well as explorative at the same time. Therefore, it is of paramount importance for these MNOs to adopt the right leadership style to boost exploratory and exploitative innovations.

Literature Review

Theoretical Background

In the study of leadership and organizational behavior, SET is regarded as one of the most significant theories. Beyond financial rewards, Blau (1964) stressed the prominence of societal trade amongst persons, whereas Yamagishi (1993) maintained that the main elements of SET are individual contact and the resulting formation of responsibilities. According to this view, the majority of individual contacts and relationships originated as a consequence of social exchange. As a result, if one individual does something nice for another, the other will reciprocate. As a result, reciprocity is an important part of all social

relationships, while Molm (2003) believes that it would not be required for reciprocity to incorporate bargaining. Moreover, the notion of trade (exchange) and reciprocity has been given great consideration in the workplace, especially in the context of employee-employer relationships. Employers must take care of workers in exchange for their contributions to the firm (Cropanzano & Mitchell, 2005). By empowering employees, the leaders expect (in exchange) them to show creative behaviors in the form of exploitative and explorative innovations.

Empowering Leadership and Ambidextrous Innovation

In today's managerial and theoretical narratives, innovation is regarded as one of the critical reasons for competition and organizational endurance (Berraies & Hamouda, 2018). Although analysts admit innovation as the success criteria for businesses, it has been the target of a variety of approaches. Innovation is now viewed to be a vibrant, collaborative, as well as a complicated task centered on mutual intellect and additionally nourished through an inner and outer basis of information (Ferraris et al., 2018). As per Baregheh et al. (2009), creativity and innovation are many phase learning methods where a company introduces innovative concepts and converts them to novel goods, methods, procedures as well as services so that to distinguish the business via relative advantage from the competitors. Innovation is described to be the course and method of creating, disseminating plus applying fresh and polished information to help changes in the surrounding and environment, especially the changing customer requirements." These findings suggest that new product or service concepts are born out of a mixture of established facts or practices of innovative disorder, routine demolition as well as knowledge creation (Nonaka & Takeuchi, 1995).

Various studies, in particular, argue that companies have to merge exploratory and exploitative innovations to ensure short as well as long-term survival and efficiency (Benner & Tushman, 2003). Innovation in the form of exploitation concerns a business's short-term growth and sustainability, while exploratory innovation is concerned with a firm's long-term performance and competitiveness (Schamberger et al., 2013). Innovation linked to exploitation yields erratic results, which are often negative in the long run (March, 1991). Such innovation will probably respond to evolving consumer requirements, have a positive effect on the company's brand image in the way that consumers view it as creative, and produce long-lasting income and profit. Innovation in the form of exploration is a dangerous and expensive project (Berraies & Hamouda, 2018). Whereas exploitative innovation is linked to stable and positive profits (March, 1991)

The author bases its study on the judgment that the two types of innovation (exploitative and explorative) accompany one another and therefore should cohabit, as proposed by March (1991). For example, Berraies & Hamouda, 2018 have found that organizational ambidexterity, or a company's capacity to incorporate the two forms of innovation (exploratory and exploitative), is a critical factor in its sustainability and success. Exploitative innovation is likely to raise long-term gains which could be ploughed into exploration kind of innovation. Furthermore, this kind of innovation (explorative) ensures long-lasting gains by preventing the extinction of knowledge and positions (existing conditions), as well as adapting to changing circumstances (Schamberger et al., 2013).

Furthermore, empowering leadership is a concept that describes someone’s behavior and actions in leadership positions where one empowers his or her subordinates and is, therefore, associated with the empowerment principle. Furthermore, this is also described to be the development of a favorable atmosphere that can increase and improve an employee's positive state of mind in regards to control and SE (self-efficacy) while removing

causes that create powerless spirits within subordinates (Arnold et al., 2000). In a more descriptive form EL includes stressing the endowment of value to workers' jobs, removing rigid and inflexible barriers, instilling trust in the importance of performance as well as encouraging the involvement of workers in the decision-making process (Ahearne et al., 2005). Practically, EL has been found to have links with improved sales success, job effort, employees' within a job and outside of job actions, self-leadership as well as employee innovation (Hassi, 2019).

Besides, the idea of empowering leadership is derived from Manz and Sims' proposal of super leadership (Manz C C, 1987). Furthermore, Pearce describes empowering leadership as a distinct leadership behavior separate from transformational and transactional leadership (Pearce et al., 2003). Currently, there are two research perspectives on empowering leadership, while research on organizational innovation is mostly focused on the context of empowerment perspective (M et al., 2005). Taking the lead, participatory goal setting, knowledge exchange, preparation, and attention to subordinates are all dimensions of empowering leadership action from the standpoint of context empowerment (Arnold et al., 2000). Empowering leadership behavior transforms the leader into a participant rather than a leader in the organization. The leader's information sharing within the team would encourage team members to learn from one another. They will also take the time to get to know each team member's positive qualities so that the employees have a clear sense of confidence in the leader (Srivastava et al., 2006). Furthermore, because leaders are more up to date with current business dynamics and emerging technical trends than other members of the team, other members of the team are more likely to select exploratory technologies that will impact the company's long-term future. Listening closely to subordinates, from the other side, has been shown to inspire subordinates to push themselves and break through obstacles, resulting in workers attempting challenging research such as the advancement of cutting-edge technology and market forecasting. As a result, this type of leadership encouragement for subordinates will significantly enhance employees' innovation and risk-taking (Zhang and Bartol, 2010), and motivate members of the team to have more opportunities to conduct exploratory innovation.

H1. EL has positive effect on employees' explorative innovation of telecoms in Afghanistan

Research conducted by Wu and Peng (2019) on EL and ambidextrous innovation in Chinese SMEs (small and medium enterprises) perspective, revealed that EL is positively related to explorative innovation, yet negatively linked with explorative innovation. This finding looks logical in the context of Afghanistan, particularly in the telecom sector (MNOs) of the country. Since conventional leadership behavior in Afghanistan presented to employees' job intentions is often the primary search for short-term gains. As a result, workers are more likely to distrust their bosses, which leads to the suppression of disruptive ideas, and subordinates are less likely to take the initiative to suggest a new idea to the boss. This long-term relationship would jeopardize subordinates' job satisfaction and perceived organizational support, enabling employees who are afraid of making mistakes to avoid making them. Moreover, the organization's creative actions would become more consistent and vigilant, making exploitative innovations less possible. Empowering leadership, from the other end, has the potential to improve the situation because it encourages workers to establish participation goals. Participatory goal setting ensures that the leader invites all participants to discuss the preparation of organizational goals without the leader interfering (Janz, 1999). Non-interference, on the other hand, does not imply letting things run their course without oversight; leaders may build a plan through internal collective supervision and encouragement for self-targeting. Employees are also the most valuable technical staff in knowledge-based organizations, therefore leaders will focus on collaborative decision-

making with subordinates when setting goals. Many telecom business leaders' future goals revolve around profit-maximizing innovation practices, so subordinates would prioritize long-term business growth over short-term gain because they want to be able to remain in the job for a long period and earn a higher salary. The leader's decision to seek to generate greater short-term gains would not be available in the participatory target setting because the goal of organizational innovation relies on the collective pursuit of members of the team instead of the idea of one leader (P & C, 1997). Thus, when establishing innovation goals, team members will think of longer-term gains, which will contribute to a greater propensity for the final company to avoid innovation in the form of exploitation.

H2. EL has a negative effect on employee's exploitative innovation of telecoms in Afghanistan

Empowering Leadership and Creative Self-Efficacy

The development of self-efficacy word stems from SCT (Social cognitive theory) which describes the notion and belief of an individual regarding his or her ability in accomplishing a job (Bandura, 1978). Moreover, Bandura (1991) describes it (self-efficacy) as a vital internal or in other words within a person's (intrinsic) motivation which influences people's perseverance in the face of hardship and their attempts to complete specific tasks. Another definition developed by Tierney and Farmer (2002) in regards to CSE is where they explain it as a person's assessment of her or his capability in producing innovative actions and original concepts, grounded on Bandura's conceptualization of SE. An individual's assessment and self-evaluation of her or his actions in a creative activity was described as CSE. The possibility of learning and studying fresh and novel things and knowledge on the spur of moment enhances as a person's CSF gets higher according to Tierney and Farmer (2011).

Employees who trust in their capacity to create innovative ideas for organizational outcomes are defined as CSE by Tierney and Farmer (2002). As a result, CSE can be described as a major indicator of employee creativity in the workplace. A high degree of confidence in one's self is important to inspire workers to engage in innovative behavior (Tierney & Farmer, 2002). Considering that various positive leadership types and attitudes have a substantial influence on the likelihood that employee creativity will emerge in the place of work (Shalley et al., 2004; Amabile et al., 2004) it's not surprising that several studies have looked into the impact of leaders' actions and behaviors on CSE.

Numerous scholars in the field of leadership found a favorable link between supportive and positive leadership and CSE. As an example, facilitating team and tasks, as well as appreciating imagination (creativity) and being able to initiate, have a constructive effect on creative CSE (Tierney & Farmer, 2002) as doing general motivation and affirmation, as well as supportive types of leadership involving "interpersonal support" (Chong & Ma, 2010).

Creative self-efficacy has been associated with non-controlling leadership and supervisor help (Chong & Ma, 2010) transformational leadership (Gong et al., 2009) and charismatic leadership (Strickland & Towler 2011). Moreover, other researchers have associated leadership styles with subordinates' originality, creativity and inventiveness (Zhang & Zhou, 2014) and since employee's creativity is connected to CSE, the author concludes that EL is essential in developing CSE.

H3: EL has a positive impact on employees' CSE of telecoms in Afghanistan

Empowering Leadership and Ambidextrous Innovation: The Mediating Role of Creative Self-Efficacy

In addition to that, there is clear evidence that CSE could intervene and mediate the relationship between EL and inventive actions and behaviors. Numerous scholars have looked at CSE as a mediating variable between constructive leadership and subordinates' innovation. As an example, several previous research papers have discovered the mediation of CSE in connection to TL (transformational leadership) and worker's creativity, implying that CSE has a significant impact on subordinates' originality, creativeness and innovations (Gong et al., 2009). Besides, according to Seo et al. (2015), CSE influences a person's creativeness positively with the assistance of exploitation, and exploration. Noticeably, these two innovative activities are intertwined, and maintaining poise among these two information-enhancing actions is needed (Lavie et al, 2010). From a technological perspective, CSE is critical in encouraging workers to indulge in both exploitative and explorative activities and take benefit of existing and emerging technologies to increase their productivity (Zhou & Wu, 2010). Schmitz et al. (2016) discovered that people with greater computer SE have upper adaptation in exploiting technology and therefore their readiness is higher in regards to exploratory alteration activities, based on adaptive structuration theory. Furthermore, Seo et al. (2015) established that innovative self-efficacy has an affirmative and constructive (positive) influence on exploration versus exploitation in IT environments such as telecom. As a result, the following hypothesis is proposed.

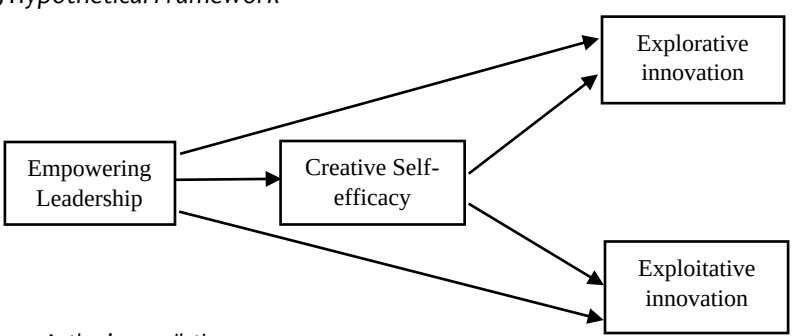
H: 4 CSE is positively associated with employees' explorative innovation of telecoms in Afghanistan

H: 5 CSE is positively associated with employees' exploitative innovation of telecoms in Afghanistan

H: 6 CSE mediates between EL and employees' explorative innovation of telecoms in Afghanistan

H: 7 CSE mediates between EL and employees' exploitative innovation of telecoms in Afghanistan

2.5 Hypothetical Framework



Source: Author's compilation

Research Methodology

Sample and Procedure

The research employed positivism philosophy, deductive approach and quantitative methodology. Furthermore, Individuals were the units of analysis in this research, which were all the employees of telecommunication companies working in Afghanistan, or mobile network operators (MNOs). The total population of the telecom sector in Afghanistan was

20000 (Baharustani, 2013) and the sample size (377 employees) was calculated with the help of an online statistical calculator (https://www.calculator.net).

Additionally, as the population under study (telecom employees) was homogeneous therefore the easiest method of sampling used in this research is convenience sampling. According to mentioned method individuals were selected randomly (line of online questionnaire shared indiscriminately) to make the sample and everyone in the population was given an equal chance to be picked.

Accordingly, the author used a pre-structured (adopted) feedback form (questionnaire) for the assemblage and collection of information from the employees of MNOs in Afghanistan. Since almost all employees of these telecoms were well educated and understood (read, write and speak) the English language so there was no need to translate them into local languages. A questionnaire was distributed online (by using google forms) to various employees of telecom companies (AWCC, MTN, Etisalat, Salam and Roshan) randomly. The employees included were low, middle and top-level employees of these companies.

Measurements

In the present descriptive designed research paper, the author adopted questionnaires as well as utilized a close-ended questionnaire using 5 points Likert scale. Furthermore, the scale (5-point Likert) was used in the form of strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5).

The total questionnaire comprised of 27 items. From the total of 27 items, EL was measured for below 10 items according to the scale established by Zhang and Bartol (2010).

	Empowering Leadership
1	My manager helps me understand how my objectives and goals relate to that of the company
2	My manager helps me understand the importance of my work to the overall effectiveness of the company
3	My manager helps me understand how my job fits into the bigger picture
4	My manager makes many decisions together with me
5	My manager often consults me on strategic decisions.
6	My manager solicits my opinion on decisions that may affect me
7	My manager believes that I can handle demanding tasks
8	My manager believes in my ability to improve even when I make mistakes
9	My manager expresses confidence in my ability to perform at a high level
10	My manager allows me to do my job my way

Source: Zhang & Bartol (2010)

Likewise, ambidextrous innovation is composed of two variables and each had 7 items for measurement (14 in total) that was established by Jansen et al. (2006).

	Exploratory Innovation
1	Our company accepts demands that go beyond existing products and services
2	Our company invents new products and services
3	Our company experiments with new products and services in our local market
4	Our company commercializes products and services that are completely new to our unit
5	Our company frequently utilizes new opportunities in new markets
6	Our company regularly uses new distribution (supply) channels
7	Our company regularly searches for and approaches new clients in new markets

	Exploitative Innovation
1	Our company frequently refines the provision of existing products and services
2	Our company regularly implements small adaptations (changes) to existing products and services
3	Our company introduces improved, but existing products and services for our local market
4	Our company improves our provision's efficiency of products and services
5	Our company increases economies of scale in existing markets
6	Our company expands services for existing clients
7	Lowering costs of internal processes is an important objective in our company

Source: Jansen et al. (2006)

And finally, CSE was measured and operationalized for 3 items that were prepared by Tierney and Farmer (2002) as below.

	Creative Self-Efficacy
1	I have confidence in my ability to solve problems creatively
2	I feel that I am good at generating novel ideas
3	I have a knack for further developing the ideas of others

Source: Tierney & Farmer (2002)

Results and Analysis

Respondents' Profile

In addition to the questions associated with the main variable under study, it also contained some basic questions related to respondents' age, gender, education level, association with Telecom Company and position in the company. As stated, the study was conducted among five big players in the telecommunication sector of AWCC, MTN, Salam, Etisalat and Roshan. The response percentage of AWCC employees was relatively higher (35.6%, n = 108) when compared to the other 4 operators. MTN employees made 22% (n = 67) of the respondents, Roshan 17.5% (n = 53), Etisalat 13% (n = 39) and Salam was the lowest with 12% (n = 36).

The data in regards to the gender of the respondents indicated that 88.4 percent (n = 268) were male employees and only 11.6 percent (n = 35) were female employees. In any study it is of paramount importance to study male and female in equal proportions, however, due to the current crises in Afghanistan, access of females to jobs have reduced in great numbers and therefore the researcher could not get more responses from female employees. Furthermore, the respondents were divided into four groups based on their age. Age was around 53% (n = 161) of the respondents age was between 31 to 40 years, 21% (n = 64) age was 20 to 30 years, 20% (n = 61) age was 41 to 60 years and the remaining 6% (n = 17) were 61 and above years old.

As the telecommunication industry is linked with technology and educated people thus the respondents were separated into three groups based on their education as school graduates, university graduates and masters' graduates. The biggest group of respondents was found to be the university graduates contained 63 percent (n = 191) of all respondents, master's graduates were the second big group making up around 24.8 percent (n = 75) of the total and the remaining 12.2 percent (n = 37) respondents were school graduate.

Besides, the respondents were further divided into four categories based on their positions, directors, managers, supervisors and others. A majority (34.3 percent, n = 104) of the respondents were managers in their respective departments and sections. 26.4 percent

were supervisors and 10% were directors and the remaining 28% were in the other category. The "other" category was most professional in their fields (engineers, technicians, salespeople etc.).

Descriptive Statistics

Table 1 shows the descriptive statistics for all four variables under study. It includes, mean, standard deviation of the mentioned variables. Additionally, the table also contains correlation analysis outcomes. EL was found to have positive and significant association with CSE (r = 0.433, p =.000), exploratory (r = 0.408, p =.000), and exploitative innovation (r = 0.402, p =.000). Likewise, CSE also had positive and moderate relationship with exploratory innovation (r = 0.597, p =.000) while relatively weaker but positive and significant relationship with exploitative innovation (r = 0.396, p =.000). Similarly, both dependent variables (exploratory and exploitative innovations) also had a positive and significant relations (r = 0.468, p =.000) too.

Table 1: Mean, Standard Deviation and Correlations

	Variables	M	SD	1	2	3	4
1	EL	4.0843	.54330				
2	CSE	4.1573	.54507	.433**			
3	Exploratory Innovation	4.0901	.46723	.408**	.597**		
4	Exploitative Innovation	4.0431	.49633	.402**	.396**	.468**	

Source: Data output from SPSS v 28.0

Data Reliability and Normality

The reliability of the data shows its consistency and it is found with the help of Cronbach's Alpha (α). Table 2 indicates that Cronbach's alpha for EL is great than .7 (.838) and thus it is accepted as reliable. Cronbach's alpha for other variables CSE, exploratory innovation and exploitative innovation are also greater than .07 which are .721, .831 and .788 respectively and are therefore acceptable and reliable.

Moving forward, the skewness and Kurtosis approach was used to find out the normality of the data as the researcher is required to apply different tests for normal (parametric) and non-normal (non-parametric) data. For this purpose, the author used an online statistical calculator (https://webpower.psychstat.org/models/kurtosis) to examine univariate and multivariate skewness and kurtosis.

According to Mardia (1970) multivariate analysis, both skewness (3.728147) and kurtosis (37.766494) were greater than the range for normal data (skewness +-3 & Kurtosis +-10). Thus, the result suggested that the data was non-normal and non-parametric tests could be applied.

Table 2: Reliability Statistics

Variables	Number of items	Cronbach's Alpha
EL	10	.838
CSE	3	.721
Exploratory Innovation	7	.831
Exploitative Innovation	7	.788

Source: Data output from SPSS v 28.0

Measuring Model

Since the data did not qualify the normality criteria; therefore, the study used the Smart-PLS (version 3.2.8) software (Ringle et al. 2015), a non-parametric analysis that uses partial least squares to analyze a research model, which is also used when the sample size is small (Hair et al.,2017). PLS-SEM path modeling is comprised of two parts. The first is the measurement model and the second is the structural model. The measurement model is also known as the outer model while the structural model is known as the inner model in PLS-SEM (Hair et al., 2017). Measurement model or outer model shows the relationship between the construct and indicators while the structural model shows the relationship between the constructs.

Measurement Model Assessment

As the present study has a reflective measurement model, therefore, the measurement model was assessed through individual item reliability, convergent and discriminant validity and internal consistency (Henseler, Ringle & Sarstedt, 2015).

Following the rule of thumb described by Hair et el. (2017) that item loading should be greater than 0.7, however, items having loading between 0.4 to 0.7 can also be retained. Therefore, by following the stated rule of thumb in this study, out of 36 items of all variables, 8 items were dropped due to low loading. Four items from empowering leadership (i.e., EL5, EL8, EL9, and EL10), three items from explorative innovation (i.e., explorative 2, explorative 3, and explorative 4), and one item from exploitative innovation (i.e., exploitative7).

The convergent validity in the present study was assessed based on average variance extracted (AVE) with a cutoff value of 0.5 as suggested by Hair et al. (2017). As it is evident from Table 4 that the AVE of all constructs is higher than the cutoff value, thereby establishing the convergent validity. In addition, the internal consistency was measured through the composite reliability (CR) coefficient technique with a threshold value of 0.70 (Hair et al., 2017). The following Table4 depicts that the CR value for all constructs is higher than the above-stated threshold value. Thus, the measurement scales used in the present study are reliable.

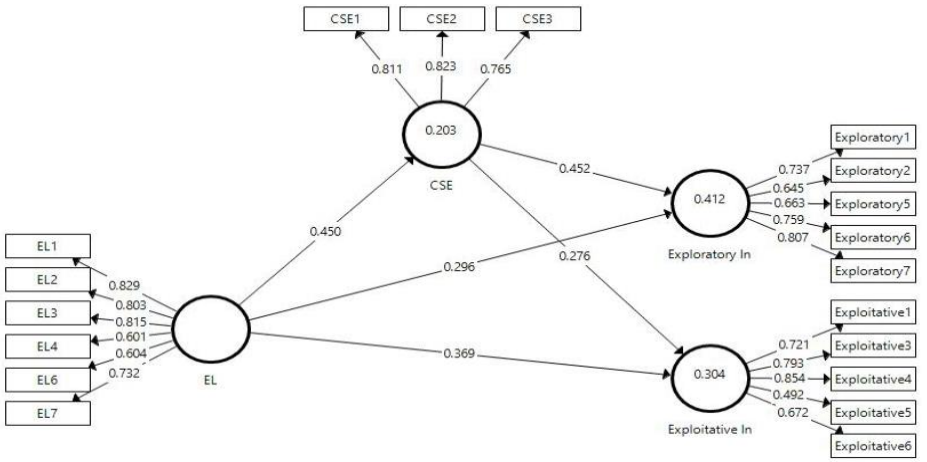
Table 3: Convergent Validity and Internal Items Consistency

Latent Variable	Items	Factor loadings	AVE	CR
Empowering Leadership	EL1	0.829	0.543	0.875
	EL2	0.803		
	EL3	0.815		
	EL4	0.601		
	EL6	0.604		
	EL7	0.732		
Creative self-efficacy	CSE1	0.811	0.640	0.842
	CSE2	0.823		
	CSE3	0.765		
Exploitative Innovation	Exploitative1	0.721	0.514	0.837
	Exploitative3	0.793		
	Exploitative4	0.854		
	Exploitative5	0.492		
	Exploitative6	0.672		
Explorative Innovation	Explorative 1	0.737	0.525	0.846
	Explorative 2	0.645		
	Explorative 5	0.663		
	Explorative 6	0.759		

Explorative 7	0.807

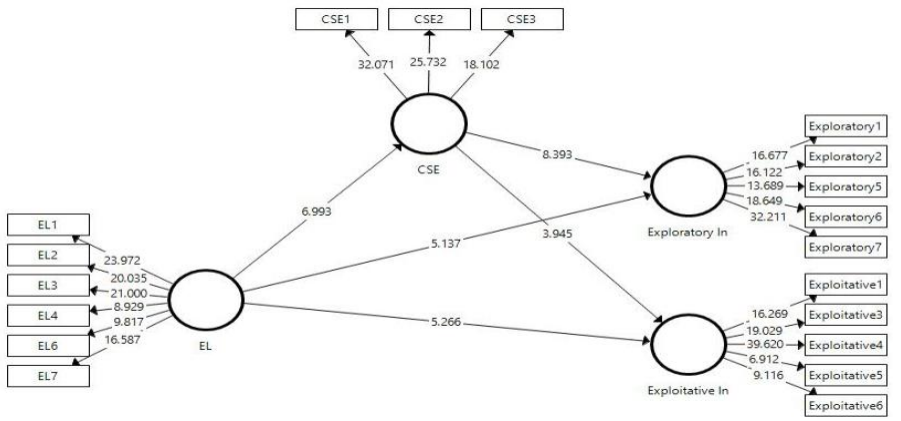
Note: AVE = Average Variance Extracted; CR = Composite Reliability Cut of values: FL> 0.5; CR>0.7; AVE > 0.5
Source: Data output from Smart-PLS v 3.2.8

Figure 1: Measurement Model



Source: Data output from Smart-PLS v 3.2.8

Figure 2: Structural Model after Bootstrapping Procedure



Next to it, discriminant validity was by using Fornell and Larker (1981) method. According to this method, the square root of AVE should be greater than the squared correlation between the latent reflective constructs (Hair et. al., 2017). More precisely, to create a satisfactory discriminant validity coefficient or diagonal element should be higher than the off-diagonal coefficient and elements in the corresponding columns and rows. The outcomes of discriminate validity by using the method of Fornell and Larker (1981) are depicted in Table 4 which shows that all the squared AVE is higher than the off-diagonal coefficient of elements, thus, achieving discriminant validity.

Table 4: Discriminant Validity: Fornell and Larker (1981) Criterion

Constructs	Creative self-efficacy	Empowering leadership	Exploitative innovation	Explorative innovation

Creative self-efficacy	**0.800**			
Empowering leadership	0.450	**0.737**		
Exploitative innovation	0.442	0.493	**0.717**	
Explorative innovation	0.585	0.499	0.514	**0.725**

Note: Diagonal shows the square root of AVE and off-diagonal shows the correlation.
Source: Data output from Smart-PLS v 3.2.8

4.6 Assessment of Structural Model

After validation of the measurement model, the proposed hypotheses in the present study were tested through path analysis. The structural model was evaluated by performing a non-parametric bootstrapping procedure with a resample of 5,000 to generate the β and corresponding t-values. In line with the suggestion by Hair et al. (2017), this study also reported the coefficient of determination (R2), predictive relevance (Q2) and effect sizes (f 2). The cross-validated redundancy index (Q2) being greater than 0 is the implication that the model possesses predictive relevance. Furthermore, reporting f2 has enabled the researcher to know the size of an effect, which is not inferable based on the p-value alone (Sullivan & Feinn, 2012).

Table 5 reports the results of structural model. The results show that EL has a significant positive relationship with explorative innovation (β=0.499, t=9.135, p=0.000, f2= 0.119), supporting H1. However, EL was found to have a significant positive relationship with exploitative innovation (β= 0.493, t=7.686, p= 0.000, f2= 0.156), thus rejecting H2 as the developed hypothesis based on literature was negative. Further, EL was also found to have a significant positive relationship with CSE (β= 0.450, t=6.993, p= 0.000, f2= 0.254). Similarly, the study also found a significant positive relationship of CSE with explorative innovation (β=

Table 5: Effects on Endogenous Variable

Hyp.	Relationship			β	CIBC		t	p	Decision	f^2	R^2	Q^2
					2.5%	**97.5%**						
H1	EL	→	EI	0.499	0.373	0.592	9.135	0.00	S	0.119	0.412	0.192
H2	EL	→	EI	0.493	0.353	0.603	7.686	0.00	R	0.156	0.202	0.127
H3	EL	→	CSE	0.450	0.312	0.561	6.993	0.00	S	0.254	0.304	0.112
H4	CSE	→	EI	0.499	0.342	0.551	9.135	0.00	S	0.277		
H5	CSE	→	EI	0.276	0.135	0.411	3.945	0.00	S	0.087		

0.499, t=9.135, p= 0.000, f2= 0.277) and exploitative innovation (β= 0.276, t=3.945, p= 0.000, f2= 0.087), which are in support of H3 and H4, and H5 respectively.

Notes: EL= Empowering leadership, CIBC= Confidence Intervals Bias Corrected (based on n= 5,000 subsamples). p<.001 (One-tailed test) S= supported, R=rejected and EI= Explorative Innovation
Source: Data output from Smart-PLS v 3.2.8

4.7 Mediation Analysis

To test for the mediation hypotheses i.e., H6 and H7, this study applied the analytical approach as described by Nitzl et al. (2016). First, by utilizing the bootstrapping procedure with a resample of 5,000, the 95% bias-corrected bootstrap confidence interval of the indirect effects was generated to test the existence of the mediation effect of CSE (Preacher & Hayes,

2008). In Table 6, the values of the 95% bias-corrected bootstrap confidence interval did not straddle a 0 in between, indicating the presence of mediation. To confirm that it is a

partial or full mediation, the variance accounted for (VAF) index was computed to determine the size of the indirect effect (i.e., CSE) about the total effect (EL → explorative innovation and EL→ exploitative innovation). The resulting value (VAF) of 73.3 percent and 62.3 percent, which are within the range of 20–80 percent, indicates a partial mediation, thereby supporting H6 and H7.

Therefore, it can be concluded that CSE partially mediates the relationship between empowering leadership and explorative innovation and further between empowering leadership and exploitative innovation.

Table 6: Test of Mediating Effect

DE	Path	t	CIBC		IE	Path	t	CIBC		Decision	VAF
EL → EI	0.493**	9.135	0.156	0.272	EL → CSE → EI	0.204**	5.58	0.136	0.272	S	73.3
EI → EI	0.499**	7.686	0.051	0.212	EL → CSE → EI	0.124**	2.88	0.051	0.212	S	62.3

*Notes: DE = Direct Effect, t= t-value, IE= Indirect Effect, EL= Empowering leadership, CIBC= Confidence Intervals Bias Corrected (based on n= 5,000 subsamples), ** p<0.01, * p<0.05 (one-tailed test) EI= Explorative Innovation, S= Supported*
Source: Data output from Smart-PLS v 3.2.8

Discussions

According to Zuraik and Kelly (2018), choosing the correct type of leadership style is critical to boosting employees' innovation potential. Certain leadership styles promote staff innovation and creativity (positive styles) and EL is one of them, while some other styles discourage it (negative styles). In comparison to other leadership styles, the literature on EL style and its impact on ambidextrous creativity, as well as the mediating and moderating aspects that improve their relationships, had not been widely examined.

EL is one of the leadership styles that encourages creativity and innovation (Siachou & Gkorezis, 2018). Though, previous research indicated that EL was positively associated with exploratory innovation (explorative innovation is associated with the acquisition of new knowledge and skills to meet emerging customers' requirements) while it was negatively linked (Wu and Peng 2019) with exploitative innovation (Exploitative innovation is associated with the improvement of current knowledge, expertise, and processes). Nonetheless, the current investigation in the telecom industry of Afghanistan discovered a favorable linkage between EL and exploratory and exploitative innovation. It is worth mentioning that EL's effect on the employees' exploratory innovation and exploitative innovation were almost similar.

Furthermore, the existing study underlines the importance of CSE's mediating function in ambidextrous innovation by employees. Employees with higher CSE will engage in more innovative and creative jobs compared to those with no or lower CSE. Besides, CSE's indirect effect as a mediator is higher on explorative innovation in comparison to exploitative innovation. The findings of this research are especially useful for MNOs (though it is also useful for other businesses), as they must incorporate both types of innovation in their operations to remain competitive in the market. Furthermore, because the study was conducted in Afghanistan's specified sector, it provides solid factual evidence for them to use in the form of adopting empowering leadership style and increasing employees' creative self-efficacy by creating a favourable atmosphere.

Theoretical Implications

The novel objective of the paper was to examine the indirect relationship, in addition to testing the direct associations, between EL and ambidextrous (explorative and

exploitative) innovation through CSE as a mediator in the telecom sector of Afghanistan. Social exchange theory was the foundation for analysis. The significance of EL in exploitative (Zhang & Bartol, 2010) and explorative innovations had been well understood; though, there was very little research on the link concerning EL and exploitative and exploratory innovations in the published literature. As a result, the researchers generated and evaluated the hypothesis that EL is positively connected to exploratory innovation while negatively connected to exploitative innovation in this research. Besides, the research disclosed a positive relationship between EL and CSE, confirming the literature. Staff connects and interacts to continually increase their skills in an atmosphere where empowered leaders establish a participative decision-making environment (SET). And while EL is related to setting inspiring as well as purposeful aims and creating high standards for performing tasks, the power of this EL rests mainly in realizing the circumstances whereby the responsibility and authority are combined with staff members, such that the staff perceives fully accountable and capable to decide and then undertake and revise their effectiveness to be successful. Undoubtedly, EL entails asserting positive employee relations, allowing them to participate in decision-making, as well as giving them independence and autonomy by discarding administrative barriers (Zhang & Bartol, 2010). Also, traditional EL behaviors include expressing support, coaching, leading by example and information sharing (Arnold, et al., 2000).

Consequently, this research confirms the result of previous research conducted on the direct relationship between EL, CSE and exploratory innovations, while rejecting the negative association of EL with exploitative innovation. Furthermore, the indirect effect of CSE between EL and exploratory and exploitative innovation is entirely novel and contributes to the literature.

Practical Implications

The present study's findings provide numerous insights for telecommunications executives. If the CEOs and top management of telecom companies want their people to be creative and innovative, they need to adopt empowering leadership style themselves as well as prepare their managerial level employees to embrace empowering leadership. To thrive in today's severe competitive market, telecommunication companies must be ambidextrous in their innovation. According to the findings, an empowered leadership style is linked to both explorative and exploitative innovation. Employees that are empowered will participate in both types of innovations. Exploitative innovation is concerned with a company's short-term growth and sustainability, whereas exploratory innovation is concerned with a company's long-term performance and competitiveness (Schamberger et al., 2013). Telecom firms will pave the route for short- and long-term survival and growth by empowering their staff. Companies that want to foster ambidextrous innovation should allow their employees to make more independent decisions about how to organize their time, such as when to engage in exploitative and exploratory activities.

CSE is also important for employees' innovation and creativity in the workplace. To inspire employees to engage in innovative activities, they need to have a high level of self-confidence (Tierney & Farmer, 2002). Empowering leadership style has a significant effect on the outcome of employee creativity in the workplace, in addition to many other good leadership styles. Corresponding to the literature, the current study shows that there is a favorable link between empowering leadership style and CSE. For example, enabling teams and tasks, as well as appreciating imagination (creativity) and the ability to initiate, as well as general motivation and affirmation, as well as supportive types of leadership involving

"interpersonal support," have a positive impact on creative SE (Tierney & Farmer, 2002). Telecommunications executives should recognize that by empowering employees, they are increasing their CSE and, as a result, improving their creativity and innovation.

Most importantly, telecom executives should be encouraged by the indirect effect that CSE has on EL and explorative and exploitative innovations. Employee CSE and morale are improved through EL. In the literature, the direct relationships of CSE with explorative, and exploitative innovation were well-established facts. CSE, on the other hand, performs as a mediator between EL and innovative actions and behaviors is a new development for organizations. CSE is crucial from a technological standpoint in motivating workers to engage in both exploitative and exploratory activities, as well as to take advantage of existing and upcoming technologies, to boost their productivity (Zhou & Wu, 2010). Schmitz et al. (2016) discovered that people with a higher computer SE (self-efficacy) have a better level of adaption when it comes to utilizing technology, and hence are more prepared to engage in exploratory modification activities. Because the telecom business is completely reliant on technology, which is continually evolving, telecom companies must continue to improve existing products and services while also aggressively seeking out wholly new products and services that meet the needs of present and future customers. Employing an EL style in their organization and encouraging and facilitating a high CSE of employees can stimulate exploration and exploitation as a source of creativity and innovation.

Limitations and Future Prospects

As discussed earlier, though the research has confirmed direct and indirect positive associations among EL, CSE, explorative and exploitative innovations, yet there are some limitations of this study. First, the convenience sampling (or random sampling of probability sampling) technique employed which could obstruct the generality of the outcomes. There are various departments in telecom companies, some of them are required to be innovative while others are just following the rules and regulations. Future studies may solely collect the data from the employees of those departments within telecom companies that are closely linked to innovation. Second, as the research used a self-reported survey methodology, typical method variation is likely to be a concern when it comes to generalization. Third, the research utilized a cross-sectional approach, in which data was collected in a single instant. As a result, it has limits in terms of collecting data at a specific moment in time. Future studies may use longitudinal research methods for collecting data at varying moments in time to determine the mediating role of CSE in the relationship between the variables investigated in this paper. Furthermore, replica research to examine if the results of the study can apply to a variety of contexts and industries, including banks, airlines, senior management firms, tourism, hotels, and various countries, is considered to be extremely desirable in future research.

Conclusion

The study’s findings, based on data from five of Afghanistan's biggest telecom organizations, showed that empowered leadership has a favourable impact on followers' creative behaviours such as exploration and exploitation. Above and beyond, the leadership should also focus to develop the CSE of employees as it further helps them in their innovation and creativity indirectly.

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