



The Effect of Job Embeddedness on Creative Performance: An Empirical Study on Mobile Telecommunication Companies in Egypt

Research extracted from a Master thesis of Business Administration

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The Effect of Job Embeddedness on Creative Performance: An Empirical Study on Mobile Telecommunication Companies in Egypt

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Abstract

This study aims to examine the effect of job embeddedness on creative performance. A questionnaire was used to collect data from 381 employees of mobile telecommunication companies in Egypt. The hypothesized relationship was tested by using the partial least squares structural equation modeling technique (PLS-SEM). The results indicate that job embeddedness dimensions, namely links, fit, and sacrifices have a significant positive effect on creative performance. These findings show that strengthening employee's links with co-workers, supervisors, and customers, ensuring a good fit with the job, and preventing the sacrifice of organizational benefits can improve creative performance. This research integrates philosophies from job embeddedness theory and previous management studies into a more employee-centered approach. Thus, this paper contributes to the existing literature by providing evidence that job embeddedness enhances employees' creative performance. Theoretical and practical implications are discussed. In addition, limitations and future research directions are presented.

Keywords: Job embeddedness theory, Job embeddedness, Creative performance.

Introduction

In turbulent times, organizations face disruptive changes. To cope with uncertainty and crises in this business environment, creativity is required, which can be fostered by adopting new things (Tonnessen et al., 2021). Thus, creativity and innovation are important for organizations to survive challenging situations and enhance organizational performance (Bishop, 2021). Similarly, to better deal with a dynamic environment, job embeddedness is a strong predictor of behavioral outcomes. This is achieved through examining situational conditions that make an employee feel stuck with the job, as there is increasing evidence of the higher costs of employee turnover. Thus, there is a need to focus on factors that encourage employees to stay with the organization (Darrat et al., 2017).

Moreover, previous studies in the literature revealed that managers and employees have a dyadic relationship that plays a significant role in the development of employee's attitudes and behaviors (Akgunduz et al., 2023). That is why it is now more critical than ever to study how companies can develop creative performance in these challenging times. Therefore, managers need to develop strategies to ensure that employees can effectively achieve the generation of innovative and creative tasks for business profitability and competitive standing while working in unpredictable and chaotic environments (Bishop, 2021).

Karatepe (2016) stated that creative and empowered employees could help in solving problems caused by challenging environments. Therefore, retaining skilled and responsive employees is crucial to meet these challenges since they can improve overall organizational performance. Additionally, Teng et al. (2021) acknowledged the critical role of retaining highly skilled employees to ensure business success, as they stated that the retention of these talents is one of the biggest challenges facing organizations. This highlights the critical role of job embedding as a force that contributes to employee retention.

Furthermore, Khalid et al. (2021) noted that job embeddedness is one of the key strategies that organizations should adopt to retain talented employees. It can help enhance employees' performance through fit, links, and sacrifices while also helping the organization achieve its desired goals and output. Since job embeddedness affects employees' withdrawal in a broader sense and therefore improves opportunities for the display of in-the-role and extra-role behaviors, job embeddedness is linked to employee performance (Sekiguchi et al., 2008).

With growing expectations, job embeddedness functions involve individuals performing different organizational activities and increasing their extra-role behaviors such as creative performance (Zhang et al., 2012; Karatepe, 2016), thus, job embeddedness comprises a wide variety of internal and external incentives that encourage people to stay in the organization and show their best performance (Murphy et al., 2013). Consequently, this study seeks to identify the effect of job embeddedness and creative performance.

Literature Review

Job Embeddedness

Mitchell et al. (2001) introduced the concept of job embeddedness to explain why employees stay in their jobs. The term embeddedness is a sociological concept referring to how social relationships influence and limit economic actions. In this context, social networks can act as a constraint (Sekiguchi et al., 2008). According to Mitchell et al. (2001), job embeddedness refers to the various psychological, social, and financial factors that influence employee retention. It is an interesting concept that sheds light on the complexity of the employment relationship. These influences are described as a web of strands that attach individuals to their organizations and are evident both on the job and beyond the employee's role in the work environment. The more of these strands an employee has, the stronger his/her attachment to the organization becomes, making it difficult to leave his/her job (Zhang et al., 2012; Bambacas & Kulik, 2013).

However, Shah et al. (2020) described job embeddedness as a state of mind where the employee decides to stay with his current organization, and this is due to certain organizational-related factors. These factors include on-the-job embeddedness and off-the-job embeddedness and affect both the employees' performance and turnover. Job embeddedness is the social involvement of a person within their organization (Ali et al., 2022).

More recently, Mayers (2021) stated that job embeddedness is not an accurate measure of the connection between employees and their organizations. Instead, employees consider two dimensions when assessing their connection: organizational and community dimensions. Thus, job embeddedness theory states the driving factors within each dimension that add to the employee's degree of organizational commitment. In addition, the introduction of the embeddedness theory helped in defining the factors contributing to the employee's decision to stay with the current organization.

Additionally, employees become embedded with the organization due to certain factors, specifically the links they have established, their fit with the organization, and the benefits they would sacrifice, these factors motivate them to stay with their organizations (Thakur & Bhatnagar, 2017). For employees with a prominent level of job embeddedness, their values, skills, career goals, and plans typically line up with those of the organization (Bambacas & Kulik, 2013). Accordingly, employees who are embedded in their organization are more likely to show a stronger psychological connection to the organization this is because they are familiar with the organization, fit well with its culture, and can demonstrate their knowledge and skills at work (Park et al., 2021).

Furthermore, if an employer can provide resources to embed employees in the organization, community, or family, the employees are more likely to stay. However, the length of their stay would increase if employers were able to identify and satisfy the future needs of employees. Therefore, HR managers need to identify and assess the desires of their workforce (Tews et al., 2015; Thakur & Bhatnagar, 2017).

In addition, Eslamlou et al. (2021) stated factors that could foster job embeddedness such as task characteristics, organizational support, employee advocacy, intrinsic motivation, supervisor support, and co-worker socializing, on the other hand, ostracism, work overload, and family-work conflict could weaken job embeddedness.

Job Embeddedness Dimensions

Previous studies indicated that job embeddedness includes three dimensions: links, fit, and sacrifice. Each dimension is categorized into two sub-dimensions (i.e., organization and community) based on whether the influences occur on-the-job or off-the-job (Zhang et al., 2012). This three-by-two matrix suggests six dimensions: links, fit, and sacrifice associated with an employee's organization and with his or her community (Mitchell et al., 2001). Later, job embeddedness was described as a key construct linking organizational elements or resources to the employee's attitudinal and performance consequences (Eslamlou et al., 2021).

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Therefore, these three dimensions of job embeddedness can be explained as follows: First, *links* are formal or informal ties between a person and organizations or other people. Job embeddedness theory suggests that several strands connect an employee and his or her family in a social, psychological, and financial network that includes work and non-work friends, groups, and the community and the physical environment in which he or she lives. The higher the number of links between the person and the web, the more she or he is bound to job and organization (Mitchell et al., 2001; Lee et al., 2004). Thus, people have many links among the various aspects of their lives, leaving their jobs and their homes can break or require the rearrangement of some of these links. More recently, Mayers (2021) described the links as the roots of the employee, which promote loyalty and organizational commitment that could influence the employee's perceived link to the organization.

Second, *fit* denotes an employee's perceived compatibility or comfort with an organization and with his or her environment (Mitchell et al., 2001; Lee et al., 2004). Good person-organization fit occurs when an employee's values, career goals, knowledge, skills, and abilities align with the organizational culture and the requirements of his or her job (Zhang et al., 2012). All aspects of the employee's personal life must fit in with the organizational culture and current work tasks (Mayers, 2021). In addition, a person will consider how well he or she fits in with the community and surrounding environment such as climate, weather conditions, religious beliefs, and entertainment activities. Job embeddedness theory suggests that the better the fit, the higher the likelihood that an employee will feel professionally and personally tied to an organization (Mitchell et al., 2001).

Third, *sacrifice* is the perceived cost of material, social, or psychological benefits that may be sacrificed by leaving a job. For example, leaving an organization implies personal losses like losing colleagues, interesting projects, or benefits. The more an employee gives up when leaving, the more difficult it will be for him or her to sever employment with the organization (Mitchell et al., 2001). Sacrifice evaluation helps the employee determine if the perceived loss outweighs the continued benefits of staying with the current organization (Mayers, 2021). Off-the-job sacrifices (as well as links and fit to some extent) are also a concern if one must relocate. Leaving an attractive and safe community in which one is liked or respected can be challenging. Of course, one can change jobs but stay in the same community. Even then, employees may lose various conveniences, like an easy commute or the ability to be home at certain times owing to flextime by changing jobs (Mitchell et al., 2001).

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Eslamlou et al. (2021) indicated that management should pay more attention to the hiring procedure. This helps provide candidates with detailed information about the job requirements, career opportunities within the organization, and the presence of formal and informal ties with other employees in the organization. Otherwise, it would not be possible to find the right person whose knowledge, skills, capabilities, and values fit the job requirements.

Creative Performance

According to Ikhida et al. (2023), creativity is characterized by its ability to produce something that is new, engaging, and valuable. In addition, they mentioned the importance of employee creativity, which involves generating innovative and practical ideas, processes, or products and effectively implementing them.

Moreover, Tonnessen et al. (2021) defined creative performance as a type of employee creativity that involves taking risks, adopting new ways of thinking, and doing things, and initiating changes. According to existing social psychology research, it is best to think of creativity not as a personality trait or general ability, but as a behavior that results from a combination of personal characteristics, rational abilities, and social environments. This means that creativity is obvious in the products or other outcomes that result from the interaction between an individual's personality and cognitive abilities and the environment in which they operate (Wang & Netemeyer, 2004).

Accordingly, creative performance can be defined as the employees' behavioral display of creativity, which refers to the generation of ideas, procedures, and products that are both original and useful (Zhou & George, 2001; Fluegge, 2014; Wang & Netemeyer, 2004; Karatepe, 2016; Bishop, 2021; Tonnessen et al., 2021). Creative performance is determined by the degree of effort and time spent to achieve creativity and fulfilling it in the organization (Rahimnia et al., 2019). Creativity does not mean only originality but also usefulness (Zhou & George, 2001; Damadzic et al., 2022). Thus, an idea to be considered creative must be both original and useful.

On the contrary, an idea can be of high quality but not original and therefore not creative. Employees must generate original designs, products, services, procedures, and innovative process ideas to meet the creative performance goals of high quality and profitability (Bishop, 2021).

According to Damadzic et al. (2022), the creative process usually consists of four stages; problem identification, information gathering (gathering relevant details related to the problem), idea generation (formation of solutions to solve the problem), and idea evaluation (comparing the developed ideas to existing standards). Hence, achieving effective results from creative performance requires a degree of self-judgment on the part of the employee to perform a job according to the standards (Khan & Abbas, 2022). Dynamic organizations expect their employees to identify the problem clearly, then search for and encode relevant information that can be embedded in their cognitive plans and produce a unique and applicable set of solutions for their organization (Tonnessen et al., 2021).

Additionally, Wang and Netemeyer (2004) argued that creative ideas could improve the efficiency and effectiveness of daily tasks, help expand the customer base, and increase customer satisfaction, thereby contributing to overall sales performance. From their interviews with sales managers and executives from various industries, they found that creativity is evidenced when employees generate and evaluate novel solutions for old problems, see old problems from a unique perspective, define and solve a new problem, or spot neglected problems.

Previous research has denoted that employees' innovation-related behaviors are important for improving organizational productivity and emphasized the role that employees' innovation-related behaviors play in helping organizations adapt to rapidly changing business environments (Ng & Feldman, 2010). To overcome the challenge of today's rapidly changing environment, organizations seek to increase employees' creativity, given its vital role to gain a sustained competitive advantage (Liu et al., 2022) and achieve organization's financial objectives (Tang & Sun, 2021).

In addition, Liu et al. (2022) argued that a strong emphasis on creative performance could result in both bright and dark sides. For example, Li et al. (2017) stated that it could convey the message that creativity is needed which would lead to employees' recognition, respect, and personal development by creating innovative ideas. On the other hand, it could also create significant pressure on employees, as they might feel the need to continuously generate new and useful ideas, products, services, and organizational processes (Shalley & Gilson, 2004). However, Liu et al. (2022) contended that leaders can adopt strategies to manage this pressure, such as highlighting the benefits of creative performance and creating a supportive environment that encourages risk-taking and learning opportunities.

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More recently, Ikhide et al. (2023) mentioned two components that affect the overall employee's problem-solving, idea generation, and creative process: (1) the employee component; (2) the external social context; and (3) the environmental component. The employee components include motivation (i.e., enjoyment, challenging work, teamwork, and reward), work-related skills (i.e., expertise, knowledge, talent, and intelligence), and creativity-related skills (i.e., personality characteristics, rational style, and risk-taking), which are conducive to idea generation. Several organizational and environmental factors influence the creative performance of individuals, including but not limited to perceived job security and flexibility (Rahimnia et al., 2019; Damadzic et al., 2022).

Extant studies suggested the antecedents and causes of creative performance of individuals and teams in organizations (Carmeli et al., 2013). For instance, Tonnessen et al. (2021) stated that the innovative climate of the organization plays a vital role in shaping the creative performance of its employees. This innovative climate includes openness to challenging traditional ways of doing things, encouraging idea exploration, and learning from both internal and external resources.

Without considering additional information, conducting an information search, and encoding, innovative ideas will resemble old ideas, resulting in less creativity. On the contrary, the availability of various cues and diverse information leads to enhanced creativity in the solutions generated. Employees need to acquire new knowledge and develop their skills to achieve a higher level of creative performance (Liu et al., 2022).

In conclusion, a comprehensive review of the existing literature reveals that job embeddedness is of great importance and involves different measurements (Rahimnia et al., 2019). Yet, there is a lack of consensus on the dimensions of job embeddedness. Previous studies have focused on both on-the-job and off-the-job embeddedness dimensions (Mitchell et al., 2001; Lee et al., 2004; Mayers, 2021), while other research has examined on-the-job embeddedness dimensions (Allen, 2006; Shah et al., 2020; Park et al., 2021). Similarly, job embeddedness influences significant organizational outcomes beyond turnover (Lee et al., 2014). In addition, scholars have stated that creative performance plays a key role in enhancing organizational performance and survival during turbulent times (Karatepe, 2016).

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Without understanding the causality between job embeddedness and creative performance, or even whether a link exists at all, managers cannot effectively influence the behavior and experiences of their employees. Furthermore, only a few studies have investigated the relationship between job embeddedness and creative performance. Moreover, previous studies have primarily focused on the context of developed countries. Thus, in response to this gap in the literature, more empirical studies are needed to examine the influence of job embeddedness on creative performance in various contexts (Shehawy et al., 2018).

To identify the research problem, a pilot study has been conducted on a sample of 30 employees from the four mobile operators in Egypt (Vodafone, Orange, Etisalat Egypt, and WE). The results of the exploratory study revealed that 33.3% of the employees stated that they perform their work creatively. Accordingly, the research problem can be concluded as the reasons for employees to embed with the job were not clearly identified, and besides, there was a decrease in the levels of employees' creative performance. Which may be caused by employees' shortage of links to other people or activities, their job did not fit their life space and they would easily sacrifice and give up on their organization's benefits.

Thus, the current study aims at addressing the following research question:

RQ: What is the effect of job embeddedness on employees' creative performance?

Therefore, this study aims to:

Examine the effect of job embeddedness on employees' creative performance in mobile operators in Egypt.

Hypotheses Development

Building on the extant literature on job embeddedness and creative performance, the following relationships have been examined:

The relationship between job embeddedness and creative performance

Whereas most previous research considered job embeddedness as a retention strategy, other studies demonstrated that it also influences employees' performance. They claimed that job embeddedness improves performance due to resource availability because of their embeddedness with work (Ali et al., 2022). Shah et al. (2020) considered that embeddedness-related decision criteria are of crucial importance if organizations wish to find appropriate ways to maximize employees'

performance and retention. For instance, job embeddedness is found to transmit the effect of meaningful work to induce career satisfaction among employees (Dechawatanapaisal 2021).

Eslamlou et al. (2021) stated that job embeddedness enriches several organizational outcomes such as task performance, organizational commitment, creative performance, and extra-role performance; in addition, it decreases quitting intentions.

However, researchers found that the on-the-job dimension better predicts employees' behaviors or retention than the off-the-job dimension (Allen, 2006; Lee et al., 2004). Lee et al. (2004) found that on-the-job embeddedness (organizational embeddedness) is more strongly related to task performance and organizational citizenship behaviors than off-the-job embeddedness (community embeddedness). Additionally, on-the-job embeddedness, which is caused by work-related links, fit, and sacrifices, interacts more with other work-related variables than off-the-job embeddedness.

Shah et al. (2020) suggested that on-the-job embeddedness has significantly reduced voluntary turnover, and practices that enhanced on-the-job embeddedness encouraged more creative performance, whereas off-the-job embeddedness practices have an insignificant impact. Park et al. (2021) focused more on the on-the-job dimensions of job embeddedness for two reasons. First, they were interested in exploring the factors that organizations can control. Second, the evidence from the literature review and empirical studies indicated that on-the-job embeddedness, rather than off-the-job embeddedness, has more power in predicting job outcomes. Others argued that off-the-job embeddedness as a resource may be perceived as less influential in the fulfillment of work-related goals and thus have a smaller effect on turnover (Kiazad et al., 2015).

According to the existing literature on job embeddedness theory, job embeddedness positively affects job performance, creative performance, and innovative work behavior (Karatepe, 2016). In fact, job embeddedness focuses on antecedents, factors and reasons that increase employees' extra-role behavior (e.g., creative performance). For instance, employees who have higher levels of job embeddedness are willing to embed with the organization and try to involve themselves in creative tasks or activities more eagerly and readily (Rahimnia et al., 2019).

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Karatepe (2016) noted that frontline employees who become embedded during their employment could display in-role and extra-role performances. Such employees can also contribute to the organization via prominent levels of creative performance.

Ng and Feldman (2010) stated that because innovation-related behaviors are often unrestricted, they tend to be strongly affected by the nature of the binding forces between employers and employees; that is, when individuals feel closely tied to an employer due to job embeddedness, they might be particularly motivated to generate, spread, and implement innovation on the organization's behalf.

The relationship between on-the-job links and creative performance

According to Karatepe (2016), since job embeddedness creates links, a feeling of compatibility with work, and valuable resources that might be destroyed due to employee displacement, employees become motivated to perform more creatively. Highly embedded employees might be more motivated to engage in innovation-related behaviors because creativity is often a key criterion for pay raises and promotions (Ng & Feldman, 2010).

Based on job embeddedness theory, employees with a prominent level of job embeddedness usually have strong ties with their coworkers and supervisors (Links) and involve themselves with the organization's business responsibilities, which help them obtain work-related knowledge and achieve a prominent level of creativity in their jobs (Shah et al.,2020).

The relationship between on-the-job fit and creative performance

Lee et al. (2004) highlighted that employees who have been embedded in their duties and working responsibilities would make a good fit with the job and the organizational culture, which would eventually increase their motivation toward creative performance. Moreover, the employees who have been embedded with their jobs would perform better beyond their main roles (creative performance), which leads to the improvement of innovative performance levels in the organization. In line with this argument, Rahimnia et al. (2019) stated that when employees believe that by staying in the organization, they can achieve moral and material interests, they become more interested in becoming embedded in their job and show extra-role behaviors such as creative performance. Moreover, employees who become embedded in their organization and job responsibilities become fit with the job and the organizational culture (Fit) which will motivate them to increase their creative performance (Ng & Feldman, 2010).

The relationship between on-the-job sacrifices and creative performance

Rahimnia et al. (2019) proposed a positive correlation between job embeddedness and employees' creative performance. According to their study, when employees feel more linked to an organization, they are more likely to engage in extra-role behavior and show higher levels of creative performance. This is because they perceive their skills and capabilities as fitting with organizational goals and possess valuable resources that are difficult to sacrifice. Additionally, higher organizational support in terms of embeddedness can encourage employees to share their knowledge, leading to even higher levels of creativity in their roles (Ng & Feldman, 2010). In this respect, Shah et al. (2020) argued that employees with a low level of creative performance will lose organizational benefits.

Accordingly, based on the literature review and the examined relationships, this study investigates the effect of job embeddedness on creative performance. The proposed model includes on-the-job links, on-the-job fit and on-the-job sacrifices as dimensions of job embeddedness. We expect these dimensions to impact employees' creative performance.

Therefore, building on previous studies, this study hypothesizes:

H1: Job embeddedness has a positive effect on creative performance.

This hypothesis is further divided into the following sub-hypotheses:

H1a: On-the-job links have a positive effect on creative performance.

H1b: On-the-job fit has a positive effect on creative performance.

H1c: On-the-job sacrifices have a positive effect on creative performance.

Consequently, this study suggests the following framework for the relationship between job embeddedness and employees' creative performance as shown in figure 1.

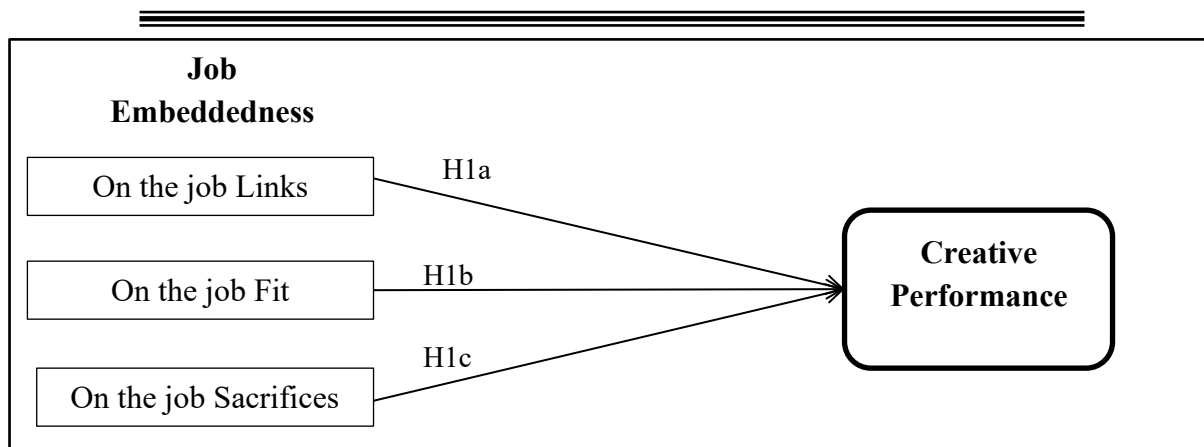


Figure1. Conceptual Framework prepared by the researchers based on the literature review.

Research Methodology

Sample and data collection

The target population of this study consists of four mobile telecommunication employees (Vodafone, Orange, Etisalat Egypt, and We) in Egypt. The data were collected using a self-administered questionnaire sent to employees of mobile telecommunication companies in Egypt. In this study, non-probability sampling using the convenience method was utilized to select respondents for the study. The questionnaire was sent by email and on LinkedIn accounts using an online Google Form to the employees of four mobile network operators in Egypt from September to December 2023. Out of 725 surveys sent, 381 valid and usable responses were collected during that period, as shown in Table 1.

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Table (1) Sample characteristics

Demographic characteristics	Frequency	Percentage
Gender		
Male	245	64.3%
Female	136	35.7%
Total	381	100%
Age		
Less than 30 years	235	61.6%
30-40 years	112	29.4%
41-50 years	33	8.7%
More than 50 years	1	0.3%
Total	381	100%
Organizational Tenure		
Less than 3 years	211	55.4%
3-7 years	104	27.3%
More than 7 years	66	17.3%
Total	381	100%
The company		
Vodafone	150	39.3%
WE	89	23.4%
Etisalat Egypt	73	19.2%
Orange	69	18.1%
Total	381	100%

Measures

This study uses a self-administered questionnaire to collect data from employees in mobile telecommunication companies. The questionnaire was designed based on extant literature, so the instruments used to measure the constructs were taken from validated scales.

The measurement items were developed from prior research and were adapted to fit the mobile telecommunication context in addition they were validated by an academic expert panel. Moreover, to ensure items validity and reliability, a pilot study was conducted on thirty employees of mobile telecommunication companies (Vodafone, Orange, Etisalat Egypt, and WE). Based on the feedback from the experts and the pilot study results, the questionnaire was refined.

All variables were measured using a five-point Likert Scale, ranging from (1 = strongly disagree) to (5=strongly agree). Nine items, adapted from Holtom and Inderrieden (2006), were used to measure the three dimensions of job embeddedness: on-the-job links, fit, and sacrifices. Creative performance was measured using six items, adapted from Wang and Netemeyer (2004) (See Appendix). The other section collected general information from the respondents, including the employee's workplace, tenure, gender, and age.

Data Analysis and Results

Data Analysis Techniques

In this study, we used Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the data. This approach is widely used due to its high predictive validity, making it appropriate for our research goal of predicting key target constructs and identifying key driver constructs. PLS-SEM is also suitable for non-normal data, smaller sample sizes, and higher-order models (Hair et al., 2019). The PLS-SEM analysis is divided into two main models: the measurement model and the structural model. WrapPLS 7 software was used for statistical analysis.

Measurement Model Assessment

Measurement model assessment is concerned with the validity and reliability of constructs. This can be achieved through four steps. The first step is estimating indicator loading for individual items in each construct. The second step is to assess the internal consistency of construct items, internal reliability was examined by testing Cronbach's alpha (α) and composite reliability (CR), both of which should exceed 0.7, the third step is to assess the construct convergent validity through average variance extracted (AVE) and finally the construct's discriminant validity assessment (Hair et al., 2019).

All the items' indicator loading exceed the suggested threshold of 0.70, representing high indicator reliability. The convergent validity was also measured by examining the factor loadings and the Average Variance Extracted (AVE). The AVE should be equal or greater than 0.50 (as shown in table (2) AVE is above 0.50 for all constructs showing an acceptable convergent validity as each construct explains on average more than 50 % of the variance of its items (Hair et al., 2019).

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Table (2) The items' factor loading, CR, Cronbach's alpha, AVE

Construct	Item Code	Mean	SD	Loading	α	(CR)	AVE
Job Embeddedness							
On-the-job Links					0.943	0.964	0.899
	L1	3.908	0.849	0.782			
	L2	3.966	0.825	0.807			
	L3	4.003	0.869	0.816			
On-the-job Fit					0.905	0.940	0.841
	F1	3.969	0.903	0.796			
	F2	3.570	1.038	0.877			
	F3	3.412	1.115	0.828			
On-the-job Sacrifices					0.899	0.937	0.832
	S1	3.278	1.138	0.820			
	S2	3.567	1.095	0.707			
	S3	3.672	1.107	0.773			
Creative Performance					0.958	0.966	0.826
	CP1	3.772	0.933	0.847			
	CP2	3.822	0.891	0.872			
	CP3	3.903	0.848	0.901			
	CP4	3.772	0.939	0.897			
	CP5	3.829	0.879	0.896			
	CP6	3.848	0.919	0.904			

Notes: Loading shown in bold represents items loading on their respective construct

According to Hair et al. (2019), discriminant validity is the extent to which a construct is empirically distinct from other constructs in the structural model. For a variable to be distinct from other variables, its square root value of AVE should be more significant than the inter-correlations with any other constructs in the model based on Fornell and Larcker's (1981) criterion as shown in Table (3), all the square roots of the AVE of each latent construct are higher than their corresponding inter-correlations. Thus, the assessment of validity suggests that the measurement model is satisfactory.

Table (3) Factor Correlation Matrix with Square Roots of AVE

	Links	Fit	Sacrific	CreaPer
Links	0.948			
Fit	0.823	0.917		
Sacrific	0.741	0.820	0.912	
CreaPer	0.749	0.779	0.714	0.909

Notes: Links=On-the-job links, Fit= On-the-job fit, Sacrific= On-the-job sacrifices, CreaPerf=Creative Performance

*Diagonal elements (values in bold) represent the square root value of the average variance extracted (AVE)

* Off diagonal elements are correlations among constructs

The previous results showed that all the study constructs are reliable and valid. In other words, the measurement model (outer model) assessment was supported. The following step is to test the study hypotheses by assessing the structural model.

Structural Model Assessment

The purpose of this step is to examine the cause-and-effect relationship between independent variables and dependent variables by testing the significance of research hypotheses. In addition, the structural model must be rigorously evaluated before drawing any conclusion. Collinearity is a potential issue in the structural model and that variance inflation factor (VIF) value of five or above typically indicates such problem (Hair et al., 2019). The collinearity assessment results are 3.491 for links, 4.891 for fit, 3.266 for sacrifices, and 2.877 for creative performance respectively. All the VIF values are less than five, suggesting that there is no indicative of collinearity between predictor variables.

In this study the structural model assessment will be based on the coefficient of determination R^2 , the predictive relevance (Q^2) and path coefficients (β) and their corresponding significance coefficients to test the hypothesized relationships.

Also, researchers should use effect sizes (f^2) for assessing the impact degree of the independent latent variables on the dependent variables, the values of effect sizes might be 0.02, 0.15 and 0.35 representing small, medium, and large, respectively.

Finally, cross-validated redundancy (Q^2) value could be used for the reflective model to assess the prediction relevance of assessing the inner model's predictive relevance. Specifically, a Q^2 value larger than zero for a particular endogenous construct indicates the path model's predictive relevance for this construct (Hair et al., 2014). Table (4) summarizes the path coefficients and levels of significance for the research hypothesis.

Table (4) Hypothesis testing results

H	Exogenous constructs	Endogenous construct	Path coefficients	P-value	f^2	Q^2	R^2	Results
H1a	On-the-job links	Creative Performance	0.320	<0.001	0.246	0.667	0.669	Supported
H1b	On-the-job fit		0.382	<0.001	0.301			Supported
H1c	On-the-job sacrifices		0.168	<0.001	0.122			Supported

Notes: *** $p < .001$

Regarding the sub hypothesis H1a, On-the-job links have a positive effect on creative performance where the path coefficient is 0.320, it is significant at <0.001 level, and its effect size was medium ($f^2 = 0.246$). Therefore, H1a is strongly supported. It means that increasing on-the-job links can lead to an increase in creative performance.

Regarding the sub hypothesis H1b, On-the-job fit has a positive effect on creative performance where the path coefficient is 0.382, it is significant at <0.001 level, and its effect size was medium ($f^2 = 0.301$). Therefore, H1b is strongly supported. As a result, increasing on-the-job fit leads to an increase in creative performance.

Regarding the sub hypothesis H1c, On-the-job sacrifices have a positive effect on creative performance where the path coefficient is 0.168, it is significant at <0.001 level, and its effect size was small ($f^2 = 0.122$). Therefore, H1c is strongly supported. This means increasing on-the-job sacrifices lead to an increase in creative performance.

Additionally, The R^2 value in table 4 shows the explained variance of creative performance. the R^2 value (0. 669) refers to that job embeddedness explains about 66.9% in the variance of the dependent variable creative performance indicating satisfactory predictive power (Hair et al., 2019). In addition, Q^2 Value is (0. 667) which is greater than zero and indicates a predictive relevance of the model. According to the previous statistical results, the study hypothesis H1 is supported.

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To summarize the findings, it can be concluded that job embeddedness influences creative performance. These results are consistent with several studies that indicated that job embeddedness positively affects creative performance (Ng & Feldman, 2010; Rahimnia et al., 2019; Shah et al., 2020). Additionally, among the coefficients, on-the-job fit has the highest value of 0.382, while on-the-job sacrifices have the lowest at 0.168. This suggests that on-the-job fit has the strongest effect, followed by on-the-job links, with on-the-job sacrifices having the least impact.

Discussion

This study examined the effect of job embeddedness on enhancing employees' creative performance. Specifically, all the study hypotheses were supported. This indicates that job embeddedness among employees in mobile telecommunication companies in Egypt has a significant, direct, and positive impact on their creative performance. These findings can be explained in the context of job embeddedness theory.

Employees with a prominent level of job embeddedness have strong ties with their coworkers and supervisors and involve themselves with the organization business responsibilities, which help them to obtain work-related knowledge and achieve a prominent level of creativity in their jobs (Links). Moreover, employees who become embedded in their organization and job responsibilities become fit with the job and the organizational culture (Fit) which will motivate them to increase their creative performance. As a result, the employee will be aware of the losses of leaving this job, which cannot be easily sacrificed for an alternative (Sacrifices). So, when the employees believe that by staying in the organization, they can achieve moral and material interests, they become more embedded in their job and show extra-role behaviors such as creative performance.

The results suggest that job embeddedness enhances employees' creative performance. It appears that employees who are more embedded in their organization are better equipped to generate innovative ideas and devise creative solutions to customer problems. This is particularly important in the mobile telecommunications industry. The idea that job embeddedness is a key variable linking on-the-job variables to employee outcomes is certainly worth considering in the context of organizational effectiveness and employee well-being (Mitchell et al., 2001). Following the common frame of reference in the literature, this research findings confirm the positive relationship between job embeddedness and creative performance in an organization.

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In addition, the findings of this study provide valuable insights for senior managers who develop their organizational strategy on innovation. Strengthening the embeddedness of individuals within the organization creates a positive environment that encourages employees to generate innovative ideas and reveal their creativity. This environment is a crucial factor for fostering creative performance, which can help organizations achieve their goals more efficiently. These findings are consistent with the results of previous research (Ng & Feldman, 2010; Rahimnia et al., 2019; Shah et al., 2020). Specifically, this study recommends that organizations should focus on the job fit, links and sacrifice constructs to embed the employees and subsequently enhance their creativity.

Overall, these results indicate that employees who have higher levels of job embeddedness are prepared to embed in their organization and become more willing to involve themselves in creative tasks or activities. When employees are highly embedded in an organization, they tend to be more motivated to advance the organization's best interests. They may also be more ready to share new ideas that could help the company stay competitive in the market. Additionally, because they are more integrated into the organizational networks, highly embedded employees may have a better understanding in terms of implementing novel concepts successfully.

Implications

Theoretical Implications

This study contributes to the existing literature in several ways. First, the results indicate that job embeddedness increases an employee's creative performance. This is particularly significant as organizations strive to enhance creative performance due to its crucial role in gaining a sustained competitive edge and achieving financial objectives. Furthermore, retaining these high-performing employees is of paramount importance.

Second, researchers have shown a growing concern regarding cultural influences on job embeddedness. According to Shehawy et al. (2018), only three studies have been conducted on samples outside the U.S. Similarly, most of the prior studies on job embeddedness are largely western based (Karatepe, 2016). Hence, the results of this study contribute to job embeddedness literature by examining its positive effect on employees' creative performance in Egypt.

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Finally, this study further clarifies how job embeddedness can predict creative performance. Therefore, it is among a limited number of studies that reveal the importance of job embeddedness in fostering creative performance.

Managerial Implications

This study shows significant findings that are of practical interest. Based on the results of this research, suggestions are made for managers.

The empirical findings suggest that organizations can enhance the job embeddedness of their employees through: (a) link-building activities that connect employees with each other and with projects within the organization, (b) selection and training processes that ensure employees are a good fit for their job and the organization, and (c) financial incentives and benefits that are tied to long-term employment.

Providing candidates with detailed information about job requirements, career opportunities within the organization, and the existence of formal and informal ties with other employees in the organization is beneficial. Without this information, it may be challenging to find the right individual whose knowledge, skills, capabilities, and values align with the job requirements.

Limitations and Future Research

Despite the contributions of this study, there are several limitations that should be highlighted to provide direction for future research. *First*, the current study did not examine the effect of off-the-job embeddedness on the employees' creative performance.

Second, scholars recommend that job embeddedness requires further investigation and study with other constructs, for instance, employee turnover.

Third, the current research implemented a cross-sectional research design. Future studies should consider adopting a longitudinal research design. *Finally*, the current study targeted only employees in the mobile telecommunications industry in Egypt. Therefore, the findings cannot be generalized to employees in other industries. Future research could extend data collection to samples from other sectors in different cultural contexts to capture broader perspectives.

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APPENDIX
Questionnaire Items

Job Embeddedness

#	Statement
On-the-job Links:	
1	I am a member of an effective work group.
2	I work closely with my coworkers.
3	On the job, I interact frequently with my work group.
On-the-job Fit:	
4	My job utilizes my skills and talents well.
5	I feel like I am a good match for my organization.
6	If I stay with my organization, I will be able to achieve most of my goals.
On-the-job Sacrifice:	
7	I have a lot of freedom on this job to pursue my goals.
8	I would sacrifice a lot if I left this job.
9	I believe the prospects for continuing employment with my organization are excellent.

Creative Performance

#	Statement
1	I carry out my routine tasks in ways that are resourceful
2	I come up with new ideas for satisfying customer needs
3	I generate and evaluate multiple alternatives for novel customer problems
4	I have fresh perspectives on old problems
5	I improvise methods for solving a problem when an answer is not apparent
6	I generate creative ideas for service delivery

تأثير الرسوخ الوظيفي على الأداء الإبداعي: دراسة تطبيقية على شركات اتصالات المحمول في مصر

ملخص البحث

تهدف هذه الدراسة إلى فحص تأثير الرسوخ الوظيفي على الأداء الإبداعي. اعتمدت الدراسة على قائمة الاستقصاء لجمع البيانات من موظفي شركات الاتصالات بمصر، وقد بلغت عدد القوائم الصحيحة ٣٨١ وتم الاعتماد على نمذجة المعادلات الهيكلية بالمربعات الصغرى الجزئية (PLS-SEM) لاختبار العلاقة بين الرسوخ الوظيفي والأداء الإبداعي، وأشارت نتائج الدراسة إلى وجود تأثير معنوي إيجابي لأبعاد الرسوخ الوظيفي (الروابط، الموائمة، والتضحيات) على الأداء الإبداعي. كما أوضحت النتائج إمكانية تحسين الاداء الإبداعي للموظف من خلال تقوية روابطه مع زملائه في العمل والمديرين والعملاء، بالإضافة إلى التأكيد على ضرورة الموائمة بين الموظف وعمله، وأيضا تقديم مزايا تنظيمية يصعب على الموظف التضحية بها. كما تجمع هذه الدراسة بين الفلسفات الخاصة بنظرية الرسوخ الوظيفي والدراسات الإدارية السابقة في نهج أكثر تركيزاً على الموظف. وبذلك قد ساهمت هذه الدراسة في الأدبيات الحالية من خلال تقديم الدليل على أن الرسوخ الوظيفي يعزز الأداء الإبداعي للموظف. كما تمت مناقشة الآثار النظرية والعملية لنتائج الدراسة وبالإضافة إلى ذلك، تم عرض حدود البحث و مقترحات الدراسات المستقبلية.

الكلمات المفتاحية: (نظرية الرسوخ الوظيفي، الرسوخ الوظيفي، الأداء الإبداعي).