

KNOWLEDGE DISCOVERY AND EMPLOYEE ADAPTIVE PERFORMANCE IN TELECOMMUNICATION COMPANIES IN RIVERS STATE

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ABSTRACT

The study examined the relationship between knowledge discovery and employee adaptive performance in telecommunication companies in Rivers State. The study was had knowledge discovery as the predictor variable and employee adaptive performance as the criterion variable, which was measured by stress management and interpersonal adaptability. The baseline theories which were used to underpin the study were the human capital theory and the social exchange theories. The cross sectional and correlation research design was adopted for the study with primary data collected and analyzed. The population of this study covers 189 staff of the telecommunication companies in Rivers State. The sample size was 128 calculated using the Taro Yamane Sample size determination formula. The descriptive statistics and inferential statistics were used, more specifically; the Spearman Ranking Order Correlation Coefficient was used to analyze the data to make the inference on the telecommunication companies in Rivers State. From the data generated and analyzed, it was empirically found that there is a significant and strong positive relationship between knowledge discovery and the three measures of employee adaptive performance (work stress management, interpersonal adaptability and employee creativity) in the telecommunication companies in Rivers State. Hence, the researcher recommended that managers of telecommunication should enshrine policies relating to knowledge discovery and management so as to reduce work stress and increase employee interpersonal adaptability and creativity in their organizations.

Key words: Knowledge management, knowledge discovery, employee adaptive performance, work stress management, interpersonal adaptability, employee creativity.

INTRODUCTION

Adaptive performance has become of growing interest and importance for organizations, insofar as new technologies and the restructuring of firms in response to financial crises mean that employees increasingly need to be able to adapt to changing work systems and roles (Koopmans et al., 2011; Landy & Conte, 2016). Pulakos et al. (2000) defined adaptive performance as the ability of individuals to adapt their behavior to a changing environment or the demands of a new situation or event, and they proposed what is regarded as

the most rigorous theoretical model of the concept to date (Baard et al., 2014). Based on this model, Charbonnier-Voirin and Roussel (2012) developed a scale for measuring adaptive performance that showed adequate psychometric properties. The scale considers five dimensions of adaptive performance applicable to all types of jobs within the framework of a solid conceptual model (Pini & Mariani, 2014; Walker, 2015).

Charbonnier-Voirin and Roussel (2012) developed their scale to overcome the limitations of the existing instruments. Alternative measures of adaptive performance are either too long or too short to adequately assess this domain; the items are not available, information on their psychometric properties is lacking, they focus on a very specific context, or they are not generalizable to all types of positions. Therefore, knowledge discovery through knowledge management practices is a key to employee adaptive performance (Zwain, Teng and Othman 2012). It is on this premise that knowledge management is considered a formidable managerial weapon for employee empowerment and organizational stability. The foundation of organization's knowledge management agenda begins with effective knowledge discovery. This is because a manager cannot manage or utilize what he or she is not aware of its existence.

Therefore, knowledge discovery is the process of identifying the existence and location of particular knowledge within the organization with a view to making it organizational asset. Because knowledge discovery affords the organizational leaders the opportunity of capturing the location and carrier certain knowledge in the organization, it is viewed as an indispensable element in knowledge management. This supports the view of Zwain, Teng and Othman (2012) that knowledge capturing provides room for organization to capitalize on the importance of a much needed knowledge and the value of such knowledge to the organization's operations. Knowledge discovery initiative may have several drives, but the most common is to provide physical confirmation of what knowledge the organization wants, where the knowledge is located, how it is being used, what problems and difficulties is associated with it, and what improvements can be made on it. Practically, in modern organization management, one seamless approach in which knowledge can easily be discovered within the organization is through employee appraisal. This

is because during employees' appraisal, information relating to each individual worker is uncovered and from which individual workers' currently possessed knowledge is located. Therefore, validating the view of Armstrong (2009) that appraisal is focuses on gathering, analyzing and recording information that explains the relative worth of the employee to the organization. Therefore, the worth of an individual worker is measured in relation to knowledge possessed Aliand Hassan (2012) confirmed that the importance of Knowledge discovery in its capacity to capture the qualification and measurement of both tacit and explicit knowledge of the organization, and knowledge networks within the organization.

Knowledge discovery is a phenomenon that is applicable to various spheres of life; however, this study's focus is on business organizations and specifically telecommunication companies. These companies provide special services such as providing airtime for calls, data bundle for blousing the internet and other internet and call related services. In the midst of Africa's fastest-growing telecommunications market, Nigeria has one of the biggest telecommunication markets in the world. The country has millions of telecommunication subscribers from all across the nation. The Nigerian telecommunication industry has witnessed the greatest change in terms of development, market formation, and technological advancement over the last decade, which requires knowledge discovery to meet the growing demand for services and at the same time being competitive.

Though knowledge management had been examined with the concepts or variables by several scholars in the past, such as the study carried out by Torabi *et al* (2016), Mustapa and Mahmood (2016), Khanal and Santosh (2017), Mohammad and Ahmad (2015), DesiPutriWijay and Didi Sundiman (2017), Allworth and Hesketh (1999), Griffin and Hesketh (2005), Hesketh and Neal (1999), and Pulakos (2012), from extensive search it is rare to find literature on knowledge discovery and employee adaptive performance, by linking knowledge discovery to measures of employee adaptive performance, such as work stress management, interpersonal adaptability and employee creativity in the telecommunication industry. Hence, the purpose

of this study was to bridge, this gap, by examining the relationship between knowledge discovery and employee adaptive performance in the Telecommunication companies in Rivers State.

Conceptual Framework

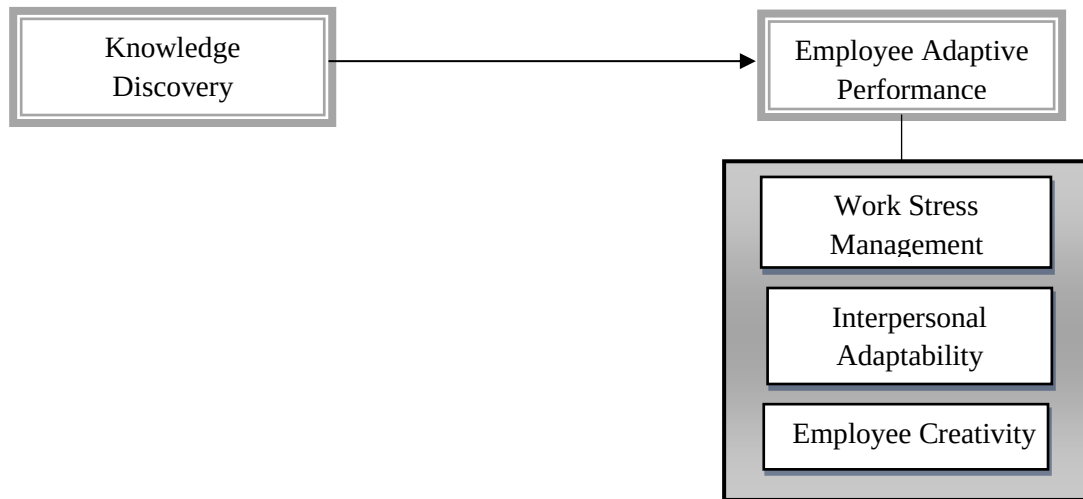


Figure 1: Conceptual framework of knowledge management and employee adaptive performance of Telecommunication companies in Rivers State.

Source: Researcher's desk (2023), The dimension was sourced from Becerra-Fernandez & Sabherwal (2010), while the measures were from Gungor, (2011), Deadrick & Gardner's (1997).

Furthermore, this study was also guided by the following research questions:

1. What is the relationship between knowledge discovery and work stress management of Telecommunication firms in Rivers State?
2. What is the relationship between knowledge discovery and interpersonal adaptability of Telecommunication firms in Rivers State?
3. What is the relationship between knowledge discovery and employee creativity of Telecommunication firms in Rivers State?

LITERATURE REVIEW

Theoretical foundation

Knowledge discovery and employee adaptive performance was underpinned with the Human Capital theory and the Social Exchange Theory. These theories were used because they have been widely used by scholars on related studies.

Human Capital Theory

This study rests on Human Capital Theory. Human Capital theory as proposed by Adam Smith in 1723-1790 (Teixeira, 2002) has the central idea that people are fixed capitals just like machine because they have skills and useful abilities that has genuine cost and yields profits. The premise in the human capital theory. Human Capital Theory was adopted as the framework within which this work was conducted, as well as the background against which this work rests. It is important to invest in knowledge management whether formal or informal, in order to enhance employee's productivity and adaptive performance. Fitzsimons (2015) defines human capital as the total health, knowledge, abilities, and skills acquired by an individual over a period of time. The Human Capital theory is an economic theory which explains that the summation of an individual's skills, abilities, competencies etc. within a given organization will lead to employee efficiency, commitment, participation, and adaptive performance. In fact, according to Gulaliyev *et al.* (2019), a deep correlation exists between knowledge management and employee adaptive performance This indicates that employee task performance and contextual performance largely depend on the degree of development of its human capital. In this same vein, when narrowed down to the organizational level, the term 'human capital' is synonymous with a firm's human resources (employees). The nurturing and development of these resources to improve employee performance, is what gives a employees more skills and knowledge and leads to overall employee adaptive performance. Fitzsimons (2015) states that the employee adaptive performance is a function of their education and training. Human capital theory focuses on the effects of the variance in employee skills on performance. The theory of human capital was adopted

for this study because it focuses directly on the knowledge discovery in an organization, and its correlation with employee adaptive performance as the business environment changes.

Social Exchange Theory

A social exchange between the agency and the worker will support the preservation of positive working relationships and could elicit superb feelings like pleasure, commitment, and trust in personnel. The theory proposes that employees exhibit positive or negative behaviour as a response to the treatment they receive from their employers. According to Greenberg and Scott (1996), the central aspect of this theory is the norm of reciprocity. A strong social exchange relationship between the employer and employee will help maintain positive working relationships and would elicit positive sentiments such as satisfaction commitment and trust in employees, which in turn will enhance employee adaptive performance. Social exchange theory proposes that the relationships organization chooses to create and maintain through knowledge management practices are the ones that maximize employee effectiveness and adaptive performance. According to this, employees are more self-centered and not necessarily concerned with equality. The basic idea is that relationships that give employees the most benefits for the least amount of effort are the ones that are valued most and are likely to keep long term. Maslach & Leiter, (2016) assert that the social exchange theory is most commonly used by the studies in predicting work behaviour in the field of organizational behaviour.

Employers need to treat their employees fairly such that they can reciprocate the good gesture in the form of behaviour such as organizational citizenship behaviour which contributes their adaptive performance. Knowledge management through knowledge discovery, in an organization, has a way of influencing the behaviour of employees towards their job and the organization as a whole, and such, employee reciprocate positive attitude towards their task, thus, enhancing their adaptive performance in times of difficulties, complexity in job and change the the organization and business environment (Richardson & Rothstein, 2008). They develop between the organization and their employees, has a way of improving employee behaviour, and thus enhancing, there commitment, job satisfaction, affection, involvement, motivation and

adaptive performance, which in turn result to increased organizational performance and effectiveness. Thus, the human capital theory and the social exchange theory underpin the nexus between knowledge management and employee adaptive performance.

Conceptual Review

Knowledge Discovery

In today's knowledge centered economy, to remain operationally sustainable, managers and administrators must pay critical attention organizational knowledge management more especially in knowledge generation centers like tertiary education institutions (Wobodo, 2022). This is because effective application of knowledge is the foundation on which organization goal execution is made pure and simple. It is on this premise that knowledge management is considered a formidable managerial weapon for employee empowerment and organizational stability (Wobodo, 2022). According to him, the foundation of organization's knowledge management agenda begins with effective knowledge discovery. This is because a manager cannot manage or utilize what he or she is not aware of its existence. Therefore, knowledge discovery is the process of identifying the existence and location of particular knowledge within the organization with a view to making it organizational asset. Because knowledge discovery affords the organizational leaders the opportunity of capturing the location and carrier certain knowledge in the organization, it is viewed as an indispensable element in knowledge management. This supports the view of Zwain, Teng and Othman (2012) that knowledge capturing provides room for organization to capitalize on the importance of a much needed knowledge.

Practically, in modern organization management, one seamless approach in which knowledge can easily be discovered within the organization is through employee appraisal. This is because during employees' appraisal, information relating to each individual worker is uncovered and from which individual workers' currently possessed knowledge is located (Wobodo, 2022). Therefore, validating the view of Armstrong

(2009) that appraisal is focuses on gathering, analyzing and recording information that explains the relative worth of the employee to the organization.

Going by this, it is very clear that appraisal exercise promotes timely discovery of knowledge within the organization. It is upon this discovery that managers develop strategies to extract, share and store such knowledge for the greater good of the organization (Wobodo, 2022). Knowledge discovery initiative may have several drives, but the most common is to provide physical confirmation of what knowledge the organization wants, where the knowledge is located, how it is being used, what problems and difficulties is associated with it, and what improvements can be made on it. Aliand Hassan (2012) confirmed that the importance of Knowledge discovery in its capacity to capture the qualification and measurement of both tacit and explicit knowledge of the organization, and knowledge networks within the organization.

Employee Adaptive Performance

Previous perspectives on work performance have not captured the full range of individual behaviors that contribute to job effectiveness in uncertain and interdependent systems (Campbell, McCloy, Oppler & Sager, 1993; Murphy & Jackson, 1999). As a result, adaptive performance, defined as employees' capability to adapt to rapidly changing work situations (Hesketh & Neal, 1999), has gained attention as a way to better understand the dynamic nature of employee performance in the current rapidly changing business environment (e.g., Allworth & Hesketh, 1999; Griffin & Hesketh, 2005; Hesketh & Neal, 1999; Pulakos *et al*, 2002). Adaptive performance reflects the need to clearly address employees' adaptability to the changes in the work environment. At the individual level, adaptive performance can facilitate positive outcomes such as enhanced performance capability and career success (Griffin, Neal, & Parker, 2007; Shoss, Witt, & Vera, 2012). Employees' adaptive performance can also lead to organizational outcomes including managing change, organizational learning, and keeping up with changing customer expectations (Dorsey, Cortina, & Luchman, 2010).

Adaptive performance comprises the collection of behavioural responses in which individuals engage when anticipating or experiencing uncertainty. Adaptive performance has been shown to be related with employee individual characteristics such as attitudes, personality, intelligence and self-efficacy (e.g., Pulakos *et al.*, 2000, 2002). Research has also found a positive relationship between adaptive performance and learning, climate for innovation (Han & Williams, 2008) and transformational leadership (Charbonnier-Voirin, Akreimi, & Vandenberghe, 2010). Additionally, research has found evidence suggesting that adaptive performance can be enhanced through training. For instance, Chen, Thomas and Wallace (2005) suggested that receiving training in regulatory processes (i.e., action, transition and interpersonal processes) is positively related with adaptive performance. Building on these contributions, the current research tested the new assumption that adaptive performance can be developed through self-leadership training.

Work Stress Management

Stress has been identified as one of the phenomena inherent in today's ever-changing work environment. According to Bamba (2016), stress is related to people's unfavourable reactions to strong pressures or other sorts of demands placed on them. Similarly, Ashfaq and Mohammed (2013) believe that it is an unwanted response that individuals have to severe burdens or other sorts of demands placed on them. Furthermore, Kreitner and Kinicki (2005) demonstrate that stress is an adaptive response aspect related to an individual's emotional process as a result of any external action, circumstance, or event that places demands on a psychological or physical reaction. In our opinion, stress is any unwanted strain on an individual that has the potential to impair his or her bodily and mental health over time.

Many academics and practitioners have voiced concerns about the harmful nature of stress when it exceeds a certain threshold. For example, Jack Barchas, a neurochemist at Stanford University, believes that "a certain level of stress is a beneficial and joyful thing that contributes to productivity in the human race." Similarly, Selye (2019); quoted in Kinyita & Hannah, (2015) contends that not all levels of stress are deleterious. He went on to distinguish "Eustress" (good stress) from "distress" (bad stress). Stress is

considered a good stress because it instils in individuals a persevering attitude to rise above or conquer problems that they may face in order to be successful in life. However, distress is considered a bad stress since it leads to poor performance. This is to state that as humans, we all feel some amount of stress as we go about our everyday activities, which is also beneficial to our mental and physical health, but stress becomes destructive and dysfunctional when it becomes out of control. Stress may be caused by a variety of sources, both inside and outside of the company. For example, Gangster and Loghan (2015) state that a variety of crucial characteristics, including work environment, management support, and work load, may be utilised to determine how stressful a job is and its impact on employee physical and mental health.

While Anderson (2012) proposes work-family problems as a forerunner of stress among organisational personnel. As a result, in today's industry, given the importance of human capital, the perceived harmful consequences of stress on employee well-being necessitates stress management on the part of management. This is because, according to Adim et al. (2018), the harmful and costly consequences of stress necessitate strategies to limit stressors within the organisation; particularly, businesses that fail to adopt stress management and mitigation strategies risk losing employees to competitors. Thus, stress management entails tactics for reducing stress, generating thoughts, releasing bodily and emotional tension, and knowing how to make adjustments to our surroundings (or circumstance) wherever feasible (Bruce, 2003). According to Baridam (2006), it encompasses a variety of approaches and psychotherapies targeted at managing an individual's level of stress, particularly chronic stress, with the goal of enhancing daily functioning.

However, Okebukola and Jedge (2017) defined occupational stress as a condition of physical and mental exertion which brought about as a result of dissatisfying factors, harassing events or general characteristics of the working environment. Kyriacou (2007), defined stress as the experience of a teacher going through unpleasant emotions such as frustration, anger, depression and tension resulting from aspects of his or her work as a teacher Borg (2019), concluded teacher's stress as a negative and harmful element to teachers'

health. The major element was teachers' perception towards threat, which was based on the following three aspects of his/her job responsibilities: 1. Expectations are continuously increasing from him/her. 2. He/she is not able to fulfil the needs of the demand at the workplace. 3. As a result, s/he is facing mental and physical problems at the same time.

Interpersonal Adaptability

Interpersonal adaptability has been conceptualized as a distinct component of individual adaptability (Ployhart & Bliese, 2006; Pulakos, *et al.*, 2000). Adaptability refers to the "an individual's ability, skill, disposition, willingness, and/or motivation, to change or fit different tasks, social, and environmental features" (Ployhart & Bliese, 2006). Interpersonal adaptability can include the flexibility to act more or less dominant and friendly depending on the situation (Paulhus & Martin, 1988), adjust to a new reporting structure within a team (Kozlowski, Gully, Nason, & Smith, 1999), and adjust one's selling strategy to suit the demands of a customer (Spiro & Weitz, 1990).

The commonalities between these definitions is that interpersonal adaptability is a conceptualization of interpersonal effectiveness that takes into account the appropriateness of individuals' interpersonal thoughts, and feelings of the person within specific interpersonal interaction. We define interpersonal adaptability as the fit of an individual's interpersonal behavior, thoughts, and emotions within an interpersonal interaction in order to achieve the goals afforded by the situational demands of the interaction. This definition highlights five key components of our definition of interpersonal adaptability. 1. Interpersonal adaptability is a functional construct. 2. Interpersonal adaptability is multidimensional. 3. Interpersonal adaptability occurs within an interpersonal interaction. 4. Situational demands can be conceptualized by the goals that they afford.

We discuss these components below. First, as a functional construct, interpersonal adaptability assesses interpersonal processes and skills within the context of situational demands. This is consistent with Kurt Lewin's (1946) famous equation $B = f(P, E)$ (i.e., (B)ehaviour is a function of (P)erson and (E)nvironment.

Examples of these situational features abound. Being 'adaptive' can be measured as individuals' performance when working on a task that has been changed or altered (e.g., LePine, Colquitt, & Erez, 2000), generalization of knowledge and skills to a new task (e.g., Kozlowski et al., 2001), interpretation of situational demands, selection of the situation-appropriate goals, and strategy selection for goal achievement within the situation (e.g., Yang, Read, & Miller, 2009), coping or reacting to a stressful situation (e.g., Pulakos *et al.*, 2000), proactively initiating change to a stable environment (e.g., Crant, 2000). Thus, situational demands must be accounted for in order to evaluate the appropriateness and effectiveness of interpersonal processes and interpersonal skills. Interpersonal adaptability is multi-dimensional. Drawing upon Ployhart & Bliese's (2006) framework for individual adaptability, we conceptualize interpersonal adaptability as being a function of both interpersonal skills and interpersonal processes, such as situation perception and appraisal, and strategy selection. This is consistent with Klein & colleagues' (2006) framework of interpersonal skills, which also conceptualized perceptual and cognitive filtering processes as key mediating variables for the execution of interpersonal skill.

Employee Creativity

Creativity can be explained as production of new ideas; a creative employee is one who can come up with new suggestions/ideas for the services to be constructed, the flood of the communication and understanding it in the same way which would affect the work done by the employee during his working hour (Amabile, 1988). Creativity is explained as a design in which the employee makes such innovative construction in which the work related problems are resolved in rightful manner with step by step process, some explain it as the ability of the individuals how they can develop useful solution to meet the challenges and overcome the problem them self individually (Amabile, 1988; Young, 1994). A creative employee is one who has the ability to be aware of the organization and must be sensitive so that he can tackle the problem, he must have sharp mind so he is able to remember his task for long time, and he must be adaptive, it is because due to Globalization there is rapid change in the technology as well the culture so a creative employee would be one who is able to adapt all the changes before time, in this way he would be termed as creative (Evans,

1991). It has been long observed that employee's creativity is mostly seen by the large organization and team. Creativity is mostly involved in the generation of change in product, due to working in team the employee are constantly engaged in learning new knowledge, skills which are the necessary requirements needed by the organization from the employee so they can achieve timely goals (Amabile, 1988, 1996).

Creativity can be explained as introducing new techniques by individual or group of people in organization for achieving the maximum potential of human labor which will result in achieving goals effectively, due to innovation and globalization if a firm wants to compete with its competitor they must hire creative employee who are extroverts, feeling easy to work in groups. Employees with proactive personalities are the one which are mostly admired to make constructive change (Zhou and George 2001).

Employee's creativity can be most commonly be referred to an individual who has new ideas for his work & working style, he must be flexible in order to work in team rather than individually completing a project, a creative employee is one who has better skills of understanding and is adaptable in order if new technology is introduced in the firm so he should be able to use it in no time, all these values indicate employee's are empowered so they can complete the task as they are feeling comfortable all these characteristics would help in getting to know new opportunities, use of advance technology all these changes are part of everyday life (Runco, 2004). Creativity is adapted by the individual to do production with new ideas. The creativity may depend on the employee or situation; an employee may want to be in contact at highest or lowest level although he or she has great potential. Employee may use all of his/her capabilities, skill knowledge in effort to produce creative outcomes (Drazin et al., 1999).

Empirical Review

Knowledge Discovery and Employee adaptive performance

Discovery of new knowledge is considered as a very important strategy for improved employee adaptive performance. Stoner, Freeman and Gilbert (2013) effective knowledge identification is crucial for employee motivation and satisfaction on the job. This is why Robbins et al. (2011) posit that knowledge management promotes employees' knowledge of the organizations inside workings, especially in the face of complexities. Hence, when employees are carriers of requisite operational knowledge of their job as discovered and shared to all in need, among other things, their motivation and commitment to do the job will increase (Wobodo, 2022). This finding also aligns with Sarawanwong, Tuamsuk, Vongprasert and Khiewyoo (2009) study which states that identifying knowledge need is necessary to support employees improve and carry out their respective duties effectively. This finding also affirms Wang, Ashleigh and Meyer (2006) wherein the author maintains that effective knowledge management processes such as knowledge discovery provides organizational employees with the required knowledge at the right time to support the right action. From the foregoing, the following hypotheses were formulated:

Wobodo (2022) theoretically examined Knowledge Discovery and Employee Resilience. In doing this, the study adopted adaptability and interpersonal competence as measures of employee resilience. After extant literature review on the study variables, it was found that the essentiality of knowledge resource in the current industrial economy is the premise on which leaders of organizations are aggressively seeking for the location, acquisition and retention of immutable knowledge within and outside the organization. Consequently, the paper concludes that knowledge discovery is a managerial tool through which employee resilience is activated for better performance at the workplace. Therefore, it was recommended that to remain competitively vibrant in the face of rapidly changing work processes managers of organizations should effectively incorporate knowledge discovery practice into their corporate strategy as this will help the organization to sustainably have access to rare industry-driven knowledge that will not only promote

performance but also foster resilience behavior among the employee.. From the foregoing, it was hypothesized that:

Ho₁: There is no significant relationship between knowledge discovery and work stress management of Telecommunication firms in Rivers State.

Ho₂: There is no significant relationship between knowledge discovery and interpersonal adaptability of Telecommunication firms in Rivers State.

Ho₃: There is no significant relationship between knowledge discovery and employee creativity of Telecommunication firms in Rivers State.

METHODOLOGY

This study adopted the Cross- Sectional Survey Research Design. A cross sectional study is one where a researcher seeks to collect data from the field across different cross sections once per time with a well structured questionnaire. It is also called a one shot study (Simon & Goes, 2015). In line with this, the population for this study was comprised of a total of 189 full-time employees of the head offices of the four major GSM telecommunication companies (MTN, Globacom, Airtel and 9Mobile) in Rivers State, based on their wide broadband coverage and number of users. These companies are recognized by the Nigerian Communications Commission in Nigeria and the population size was sourced through field survey of the head office of these four major telecommunication companies within Rivers State. The Taro Yamane formula was used to arrive at sample size one hundred and twenty-eight (128) respondents for the study. Primary data was collected using a self-administered questionnaire that featured closed-ended questions on a five point Likert scale ranging from strongly disagree to strongly agree. The research questionnaire was validated using the content validity technique while reliability was tested with the use of Cronbach's Alpha Correlation Coefficient with coefficients of all the study variables greater than 70%, as the threshold. The study applied both descriptive and inferential statistical analysis; the hypotheses were tested using the

Spearman Rank-Order Correlation Coefficient with aid of the Statistical Package for Social Sciences (SPSS).

DATA ANALYSIS AND RESULTS

Data Presentation

Table 1: Field Report

S/N	Details	Frequency	Percentage (%)
1	Number of Copies Distributed	128	100
2	Number of Copies Retrieved	122	95.3
3	Number of Copies not Retrieved	6	4.7
3	Number of Copies not correctly filled	10	8.2
4	Number of Copies used for Analysis	112	91.8
	Total	128	100

Source: Field Survey, 2023

The above table 1 indicates copies of questionnaires distributed to the targeted GSM telecommunication companies under study through a single and authenticated contact person in each of the organizations. Out of 128 (100%) copies of questionnaires distributed, only 122 (95.3%) copies of questionnaires were retrieved, while 6(4.7%) of the copies were not returned. However, after discard copies and missing values were undertaken, 10 (8.2%) of the copies were incorrectly filled, leaving 112 (91.8%) copies usable for data analysis in the study to make generalizations and draw conclusions.

Univariate Analysis

Table 2: Descriptive Statistics for Knowledge Discovery

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge Discovery	112	1.00	5.00	3.7232	1.26916
Valid N (listwise)	112				

Source: Research Data 2023, (SPSS output version 25.0)

Table 2 illustrates the descriptive statistics for knowledge management, which are knowledge discovery, with mean scores of 3.7232. Which implies that most of the respondents were in the agreed range of the measurement scale of the application of knowledge discovery in the GSM telecommunication companies in Rivers State.

Table 3: Descriptive Statistics for Employee Adaptive Performance

	N	Minimum	Maximum	Mean	Std. Deviation
Managing Work Stress	112	1.00	5.00	3.9732	1.28766
Interpersonal Adaptability	112	1.00	5.00	3.7143	1.21545
Employee Creativity	112	1.00	5.00	3.7589	1.19304
Valid N (listwise)	112				

Source: Research Data 2023, (SPSS output version 25.0)

Table 3 above illustrates the descriptive statistics for employee adaptive performance, which are managing work stress, interpersonal adaptability and employee creativity with mean scores of 3.9732, 3.7143, and 3.7589 respectively, which implies that most of the respondents were in the agree range of the measurement scale.

Table 4: Descriptive Statistics for study variables

	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge Discovery	112	1.00	5.00	3.7277	1.24962
Employee Adaptive Performance	112	1.00	5.00	3.8155	1.22231
Valid N (listwise)	112				

Source: Research Data 2023, (SPSS output version 25.0)

The data in table 4 illustrates the descriptive statistics summary for the study variables which are knowledge management (independent variable), and employee adaptive performance (dependent variable) with mean score of 3.7277 and 3.8155 and standard deviation of 1.24962 and 1.22231.

Bivariate Analysis

Test of Hypothesis 1

H_{01} : There is no significant relationship between knowledge discovery and managing work stress in the telecommunication companies in Rivers State.

Table 5: Relationship between knowledge discovery and managing work stress
Correlations

			Knowledge Discovery	Managing Work Stress
Spearman's rho	Knowledge Discovery	Correlation Coefficient	1.000	.657**
		Sig. (2-tailed)	.	.000
		N	112	112
	Managing Work Stress	Correlation Coefficient	.657**	1.000
		Sig. (2-tailed)	.000	.
		N	112	112

** . Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS 25.0. Output based on 2023. Field survey data

From the results in table 5, the correlation coefficient shows that there is a strong positive relationship between knowledge discovery and managing work stress. The correlation coefficient of 0.657 confirms the magnitude and strength of this relationship and it is statistically significant at $p = 0.000 < 0.05$. The correlation coefficient represents a strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between knowledge discovery and managing work stress of the telecommunication companies in Rivers State.

Test of Hypothesis 2

H₀₂: There is no significant relationship between knowledge discovery and interpersonal adaptability of the telecommunication companies in Rivers State.

Table 6: Relationship between knowledge discovery and interpersonal adaptability

			Knowledge Discovery	Interpersonal Adaptability
Spearman's rho	Knowledge Discovery	Correlation Coefficient	1.000	.575**
		Sig. (2-tailed)	.	.000
		N	112	112
	Interpersonal Adaptability	Correlation Coefficient	.575**	1.000
		Sig. (2-tailed)	.000	.
		N	112	112

** . Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS 25.0 Output based on 2023. Field survey data

From the results in table 6, the correlation coefficient shows that there is a moderate positive relationship between knowledge discovery and interpersonal adaptability. The correlation coefficient of 0.575 confirms the magnitude and strength of this relationship and it is statistically significant at $p = 0.000 < 0.05$. The correlation coefficient represents a moderate relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between knowledge discovery and interpersonal adaptability of the telecommunication companies in Rivers State.

Test of Hypothesis 3

H₀₃: There is no significant relationship between knowledge discovery and employee creativity of the telecommunication companies in Rivers State.

Table 7: Relationship between knowledge discovery and employee creativity

Correlations			Knowledge Discovery	Employee Creativity
Spearman's rho	Knowledge Discovery	Correlation Coefficient	1.000	.772**
		Sig. (2-tailed)	.	.000
		N	112	112
	Employee Creativity	Correlation Coefficient	.772**	1.000
		Sig. (2-tailed)	.000	.
		N	112	112

**. Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS 25.0 Output based on 2023 Field Survey Data

From the results in table 7, the correlation coefficient shows that there is a strong positive relationship between knowledge discovery and employee creativity. The correlation coefficient of 0.772 confirms the magnitude and strength of this relationship and it is statistically significant at $p = 0.000 < 0.05$. The correlation coefficient represents a strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between knowledge discovery and employee creativity in telecommunication companies in Rivers State.

DISCUSSION OF FINDINGS

The tests of hypotheses from tables 5, 6 and 7 revealed that there is a significant positive relationship between knowledge discovery and managing work stress, knowledge discovery and interpersonal adaptability and knowledge discovery and employee creativity, with coefficient of correlation of 0.657, 0.575 and 0.772 respectively, and statistical significant at $p < 0.000 < 0.05$ of knowledge discovery and measures of employee adaptive performance of the telecommunication companies in Rivers State. This finding agrees with the assertions of Freeman and Gilbert (2013) effective knowledge discovery is crucial for employee motivation and satisfaction on the job. Similarly, Robbins et al. (2011) posit that knowledge discovery promotes employees' knowledge of the organizations inside workings, especially in the face of complexities. Tuamsuk, Vongprasert and Khiewyoo (2009) study which states that knowledge discovery is necessary to support employees improve and carry out their respective duties effectively. This finding also affirms Wang., Ashleigh and Meyer (2006) wherein the author maintains that effective knowledge discovery processes increase employee's performance.

CONCLUSION AND RECOMMENDATION

The purpose of this study was to explore the link between knowledge discovery and employee adaptive performance of telecommunication companies in Rivers State. Based on the findings of this study, the researchers thus concluded that; there is a strong and positive relationship between knowledge discovery and employee adaptive performance of telecommunication companies in Rivers State. Also, there is a strong and positive relationship between knowledge discovery and work stress management, interpersonal adaptability and employee creativity of telecommunication companies in Rivers State. Hence, it was recommended that: Telecommunication companies should use knowledge discovery to increase the skills and potentials of employees, in order to increase their commitment, flexibility and adaptive performance, and in addition, managers of telecommunication companies should put up policies and programs that will

result to the discovery of more knowledge for the organization and in the organization in order to reduce work stress, increase employee interpersonal adaptability and creativity.

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