

Impact of Employee Skills on Service Performance

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Abstract: *This paper has a purpose to reveal the results of investigation about the impact of employee skills on service performance. This paper is a part of PhD. thesis (Impact of Employee Competencies on Service Performance); the original work has examined skills, attitude and knowledge as the key employee competencies that affect service performance. The study is a descriptive, cross-sectional; a quantitative method has been used and self-completion questionnaire developed by the researcher, using convenient sampling technique has been distributed to the customers of Sudanese telecommunication companies (Khartoum State was study area), to test the relationship between employee competencies and service performance from the standpoint of customers based on customer experience. The findings reveal that employee competencies have a direct impact on the service performance and customer experience and it is significant, and that customer experience has a direct impact on service performance, findings also reveal that customer experience has a mediating effect although it is not significant. Skills have a significant positive and direct impact on service performance. The role of customer experience as a mediator between employee competencies and service performance is not significant. Employee skills are vital for better performance in service business. Managers need to pay more attention for employee skills to ensure successful service performance. Previous studies have used employee self-reports or manager reports of employee competencies, both of which have major weaknesses when used to predict customer outcomes. This research investigates employee competencies from the customer standpoint. We adopted a customer perspective of employee competencies and used customer experience to predict the customer outcomes.*

Keywords: Employee competencies, Employee Skills, Service performance and Customer experience

1. Introduction

The idea behind conducting this research is to answer the questions of how and to which extent the service performance is depend on the employee competencies and to explore if there is a mediating role of customer experience in this relationship. Answering these questions will allow us to achieve the objectives of the study that mainly describing empirical phenomena in the field of business administration which is the interactive relationship between employee competencies, service performance and customer experience.

Employees as well as customers are playing an important role in determining level and quality of performance of services in the service organizations. Competent employee has been considered as more likely to succeed in satisfying customer and providing good service. However, the relationship between employee competencies, service performance and customer experience has not been well empirically examined. This paper is focusing on the part of the research that deals with the impact of employee skills, as one of the key employee competencies, on the service performance.

The research problem is representing our interest in studying the impact of employee competencies on service performance. This problem is derived from previously reviewed research works and recommendations made by many researchers to have more in depth investigations about the relation between these factors.

We attempt to answer some questions as; did the level of employee competencies determine the tendency of customer experience and the level of service performance? And whether this effect is direct? And did customer experience have a role of mediator factor in relationship between employee competencies and service performance?

Service performance as a core outcome of business administration and marketing management needs to be study in depth and to look for factors that affect it and determine its quality. Service performance is also a subject of interest of many researchers and marketers as a vital factor for business success especially in service's organizations.

The main objective of this research is to examine the impact of employee competencies on service performance and to find the mediating role of customer experience in this relationship; and to define those competencies from customer's standpoint. We also attempt to indicate the core employee competencies that affect service performance and customer experience in Sudanese business environment. Since the term employee competency has no globally accepted definition in the marketing literature [1], one of the objectives of this research is to provide a theoretical contribution about this concept.

My ten years practical experience in a leading telecommunication company helped me to recognize the practical gaps in this field and to know well the significance of the relationship between employee competencies and service performance. I noted the impact of the personal skills of an employee on his performance, and this drove me to think of conducting such a research hoping that it may represent a valued theoretical and practical contribution.

2. Literature Review

Service performance has been taken into two levels, the organizational level of performance which includes all organizational works and the individual level related to personal performance or employee performance [2]. This study is targeting the personal level of performance related to employees and its relationship with employee competencies and customer experience. The level of service performance is always reflecting by employee competencies, as per Xu and Ye 2014, [3] who find that Job performance

has significant positive correlation with employees' competency; in other words to which the employee is competent to that the service is good. From other hand as it has been mentioned in several research works earlier; the level, speed and way of performance is strongly related to customer perception, satisfaction and loyalty or customer experience. This relation indicates a mediating role of customer experience and this study conceptualize customer experience as a mediating variable between the independent variable employee competencies and the dependent variable service performance.

This paper has a target to explore the impact of employee skills as core competency on service performance. Numerous researchers considered this relationship; for example, Bowen 2016 [4] looked for the required competencies that employees must have to fill their roles, Chang and Huang 2010 [5] think that, future studies might also explore the relationship between employee competencies, internal customer satisfaction and organizational effective performance, some authors [6] end to that, dominance behavior of sales employee, influence customer satisfaction, they suggest further research to take the question of the impact of sales employee competent behavior on the level of customer satisfaction, other authors [7] recommend future research about the impact of frontline employee competencies on service performance, they stated that, employees obtained exclusive and highly context-dependent knowledge which make them have high abilities for innovation and influence on customer satisfaction and organizational performance.

2.1 Definition and Conceptualization of Employee Competencies

The growth of services marketing presents new roles and definitions for concepts as employee and customer. Marketing evolved from simple function of promoting goods to complex of various processes, the marketing theory developed from four Ps to the four Cs and sometimes to six Cs. Customer is shifted from the simple perspective of consumer and buyer to customer who feedback and share the decisions of production and quality. Employee as well is not only that provider, who just provide the service with no more responsibilities, as per some academic researchers [4], employees now are playing roles of innovators, differentiators, enablers and coordinators, for Bowen the employee attitude and behavior could dramatically affect the customer experience.

According to Business Dictionary, competencies means, a group of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation [8]. Competence shows sufficiency of knowledge and skills that enable someone to act in a wide variety of situations. For Hager and Goncsi 1996, [9] employee competence is the ability for satisfactory accomplishment of some task or competent performance, this ability includes 'knowledge', 'skills' and 'attitudes' or the personal characteristics that cause competent performance. Recent researches specialized in health and therapeutic care grouped competencies into four domains as professional practice, critical thinking and analysis,

provision and coordination of care, and collaboration and therapeutic care [10]. The question of employee competencies has been considered even earlier, competence is a combination of some characteristics of knowledge, skills, and attitudes; with the ability to make professional decision and to perform intelligently in particular positions. Many authors [11], [12], [13], [14], and [15] discuss the difference between skills, values, personality traits and competencies, they describe competencies as a combination of related knowledge, attitudes and skills that affect performance of the job and that can be improved by training and development. Regarding managers' competencies, three main competency groups have been defined as necessary for managers, namely communication competency, managerial competency and job knowledge competency [16] specifies. Different studies argue that competence reveals someone's cognitive approach to a task, attributes of knowledge, skills and attitudes [17] and [18]. Functional definition in the area of tax, auditing and accounting mentioned communication skills, interpersonal skills, problem-solving skills, general business knowledge, accounting knowledge, information technology, personal attitudes and capabilities, and computer skills as core dimensions needed for the employees [19]. Many other skills are required to be grabbed like human resource skills, business skills, leadership skills, and learning skills [20]. Competency is the invention of McClelland (1973) [21] who suggested that amount of education or grades are related to abilities and personal qualifications, and when behavior competencies increased the ability to perform is increases [22].

As a concept employee competencies, has been viewed through two main approaches, according to Human Resource approach, competencies are defined as the capacities that a person has and which predict superior performance [23], they are usually seen to include a person's knowledge, skills, attitudes and behaviors which expect competent performance in a certain job. According to Knowledge Management approaches, competencies usually means employees' technical or professional knowledge, like when predicting whether an employee will successfully solve a given task, or effectively complete a given project assignment [23].

As per some authors [24] there are four core competencies important for organizations, and that are functional, leadership, communication and cognitive competency; they stated that, regardless of different positions, tasks, and nature of service-based businesses, these core competencies playing a leading role for organizational excellent performance. They consider employee attitude and knowledge as vital for service-based business.

The definition of Business Dictionary, mentioned the elements of competencies as, abilities, commitments, knowledge and skills, with focus on knowledge and skills in relation with job performance. HR approach named knowledge, skills, attitudes and behaviors relating them with competent performance. Knowledge management approaches put competencies as equivalent to professional knowledge linking it with performance as end outcome. Using job analysis to identify core competencies another authors [25] pointed fourteen elements as core and specific

competencies, when we look carefully to these fourteen elements, we can easily regrouped them into the three elements named by HR approach which are knowledge, skills, attitudes and behaviors

2.2 Dimensions of Employee Competencies

As it has been explored above employee competencies include various elements. The main target of this study is to examine the perception of customers about employee dominant and leading competencies; The number of elements that representing dimensions of employee competencies vary in a wide range from three in the most of cases up to fourteen as per (Patterson, Ferguson et al. 2008) and others. These variations refer to the different approaches, targets and scope of specialty of the different authors. This review covered 17 research works and many authors in a wide range of time that extended between 1984-2016 beside some works from earlier time such as McClelland from 1973. The most accepted and frequently repeated dimensions in the reviewed literature are knowledge, skills and attitude; they have been considered as core employee competencies by almost all authors. Authors who itemized bigger number of dimensions are either detailed the main dimensions like putting skills into three or more types of skills, or they targeted some specific elements related to one profession or job, like required competencies for nurses (Council 2006), or for accountants and auditors (Palmer, Ziegenfuss et al. 2004). Finally we end to that the main competencies that have recently been accepted as important dimensions of employee competencies and are vital for organizational excellence are knowledge, skills and attitude; these three dimensions will represent our conceptual frame work and stand for core dimensions of employee competencies.

Knowledge

Knowledge has been adopted as a dimension of employee competencies by (Messick, 1984) [11] in (The Psychology of Educational Measurement). This dimension has also been developed by several authors as [12], [14], [13], [9], [15], [17], [19], [23], [16], [25], [18], [8], [10], and [24].

Skills

Several authors consider skills, as core employee competency that affects service performance and organizational excellence. From other side Junaidah (2008) [16], accept communication competency and managerial competency with job knowledge as dimensions for employee competencies, but at the last analysis communication and managerial competencies are also elements of the skills. Some of authors who accept and developed skills as core employee dimension are [12], [14], [13], [9], [15], [17], [19], [23], [16], [25], [18], [8], [10], and [24].

Attitude

Attitude as core dimension of employee competencies has also been accepted developed by several authors as [12], [14], [13], [9], [15], [17], [19], [23], [16], [25], [18], [8], [10], and [24].

2.3 Definition and conceptualization of Service performance

Different approaches look at service performance from different points of view. Some authors consider service performance as organizational outcome, another accept it as individual (employee) outcome, while one other approach look at it as a combine individual and organizational outcome.

The approach that combine individual and organizational outcomes is dividing the antecedents of service performance into two levels as individual level and store level [2]; suggesting the following dimensions for personality as main components of individual level (conscientiousness, neuroticism, extroversion and agreeableness), and accept store level as human resource practices that include employee involvement, service training and performance incentives and service climate in other side. Making difference between two performance outcomes (Schepers, Nijssen et al. 2016) [26] mentioned efficiency performance and quality performance, the first measures the extent to which the frontline employee completes service encounters within set time standards; while the second one measures the extent to which the frontline employee provides a durable solution to customer problems. Service performance has also been considered as a form of task excellence in a service context [27]. Also other research works indicate network-based service performance, retailer-related process performance and network operator-related process performance as three main dimensions for service performance in the mobile communication service [28]. Another group of authors [29] mentioned the use of service quality perceptions, customer satisfaction, and loyalty as relevant indicators to measure service performance. Another five factors have been suggested [30] as crucial dimensions that affect the performance of service and customer satisfaction, that are customer service, physical facilities, complaint resolving, service capacity and convenience perception. Physical facilities, service capacity and convenience perception have also been mentioned as crucial factors affecting service performance [31]. The employee personality has also been consider as the most important factor that affects employee service performance, which includes service performance which are, conscientiousness, agreeableness, extraversion, emotional stability and openness to new experience. Different factors have been considered as measures for performance just like customer satisfaction, productivity and administrative effectiveness [32], also organization values, managerial practices and service climate have been taken as important factors for service performance [33], the same views about organizational factors as important factors for service performance has been mentioned by other authors [34].

2.4 Dimensions of Service Performance

Dimensions of services performance have also been subject to different itemization. Some authors considered two core elements for the service performance as efficiency performance, which defined as completing service within set time standards, and quality performance defined as providing a durable solution to customer problems [26].

Many authors [28, 31, 32, 35-38] classified and mentioned dimensions of the service performance in their works. These dimensions have also been shaped as convenience perception, service capacity, physical facilities, customer service and resolving complaints, putting as indicators for performance in logical sequence [39]. This review covers many research works and authors in wide range of time that extended between 1990 -2016. Summarizing previous research works logically and considering latest trends in the marketing literature and practice we came to conceptualize three factors as the core service performance dimensions and that are convenience perception, complain resolving and customer service. These three dimensions have been accepted as key dimensions for service performance since 1990 [30], they have also been developed recently by as factors affecting performance enhancing customer service [39].

Convenience Perception

Convenience perception is the perception of customer resulted from convenient performance of the service that fit customer expectations; it has been accepted as an important dimension and measure of service performance by [30], [31], and [39].

Complain Resolving

This dimension represents the ability of employee to maintain customer satisfaction and avoid negative results during service performance process it has been adopted by several authors as vital dimension of service performance. This dimension has appeared developed by several authors, [30], [31], and [26] as core of service performance.

Customer Service

Customer service is the process of ensuring customer satisfaction with a product or service. It is usually takes place while performing a business deal for the customer, such as making a sale or returning an item. Customer service is an indicator for actual received service, it is a vital dimension that measure perceived service and it has also been accepted and developed by several authors [30] and [39].

3. Conceptual Framework

The main idea of this research could be conceptualized as follow, that there is a direct and positive relationship between employee competencies, customer experience and service performance. According to our proposed theory, Employee Competencies as Independent Variable have an impact on both customer experience and service performance; Employee Competencies are playing an influential role in this relationship. Service Performance as Dependent Variable is influenced significantly by the level of competencies of the service employee and customer experience playing a role of mediator between employee competencies and service performance.

We assume that employee competencies enhance service performance; so the level of service performance is always affected by employee competencies. Many authors find that Job performance has a significant positive relation with

employees' competency; so that to which the employee is competent to that the service is good [3].

We can hypothesize that as follow: employee service performance is depends on his knowledge, skills and characteristics or by other words it depends on his competency. As it has been stated earlier, employee now is not just a provider of service or good, yet he playing a vital role of innovator, coordinator and person who enhance the quality and could add a value to the service [40]. Employee competencies like knowledge, skills and attitude influence the dimensions of service performance like core service or service quality, convenience, speed and service process. Therefore the level of service performance would strongly influence by the level of employee skills and other employee competencies.

3.1 Underpinning Theories

Many authors study this relationship from different perspectives. Hereafter we explore some of these theories.

- The Role Theory (Anne J. Broderick 1998) [41], suggests role management as a decisive factor that affects service performance. Such theories overestimate the role of managers as key players while overlooking the essential role of frontline employees who are in touch and direct interaction with customers.
- The Service Profit Chain Theory/ model of (Heskett and Schlesinger 1994) [42], explaining the employee-customer relationship essence. This model focuses on the importance of understanding of the relationships between employee, customer and organizational performance. This theory focuses on quality as outcome; new version may consider the performance as well.
- The theory of (Razali, Ramlan et al. 2016) [43], Personality Factors and Employee Service Performance premise and confirm direct relation and effect of employee competencies on service performance, according to this theory, companies stress on employee competencies to maximize service quality and customer satisfaction. This theory found that employee competencies play vital role in relation with employee service performance especially front desk employees.
- The Multilevel Model of Service Performance a theory of (Liao and Chuang 2004) [2], stems from the premise that both individual and store-level factors are significantly associated with employee service performance; and that, employee competencies significantly impact service performance.

3.2 Research Model

We conceptualize employee competencies as an independent variable, service performance as a dependent variable and customer experience as a mediating variable. In some previous paragraphs, we illustrated and discussed the dimensions of these variables according to the published literature. Here we propose a model to serve as a conceptual framework when explaining the results, conducting the analysis and drawing conclusions. The significance of this model is in what it illustrates; which is how employee competencies influence customer experience and service performance and how this relationship works.

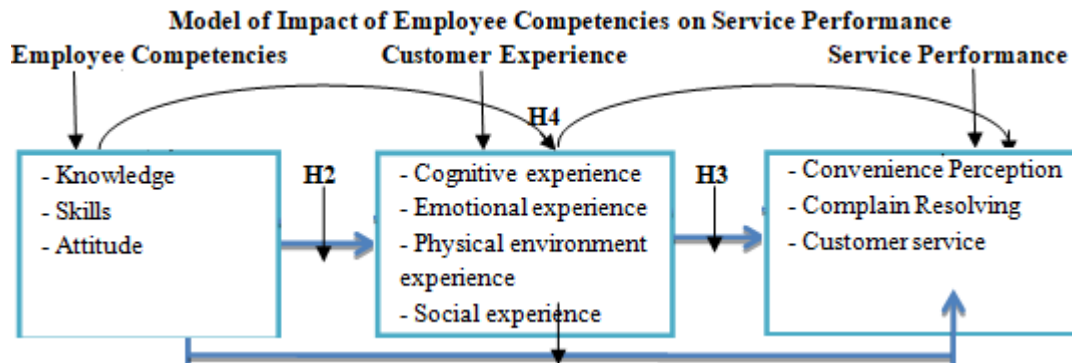


Figure 1: Conceptual Framework of the Study

3.3 Hypotheses

The proposed model illustrates study hypotheses which could be displayed as follow:

- H1. Service performance is positively depend on employee competencies in direct relationship
- H2. Employee competencies have a positive impact on customer experience
- H3. Customer experience has a positive impact on service performance
- H4. Customer experience plays a role of mediating variable between employee competencies and service performance.

4. Methodology

4.1 Sampling

Quantitative approach and non probability convenience sample have been used Customers of the mentioned three Sudanese telecommunication companies were the population of this study. Targeted respondents were individual customers rather than corporate in order to obtain more accurate evaluation of customer experience; only adult customers were chosen as respondents to ensure more valuable results. Cases were selected to reach a significant degree of heterogeneity in terms of gender and age; a number of 384 questionnaires were distributed 335 the valid questionnaires with useable response rate of 87%.

4.2 Development of the survey instrument

The instrument used for data collection is a questionnaire developed by the researcher. The sources of this instrument are found as follow: for respondent profile (Titko and Lace 2012) [44]. For customer experience (Fleming 2002) and (Cowin, Hengstberger-Sims et al. 2008) [45] and [1]. For employee competencies (Walter, Edvardsson et al. 2010) [46]. And for service performance (Hoang, Chi et al. 2016) [39].

This questionnaire consists of four sections containing 67 items that exactly meets the targets of this research. Questions in section A are for the demographic data and in the three last sections B, C and D are rated on a 7-point Likert type scale to test the three main variables of the study.

Corrections and remarks of the reviewers have been taken into consideration. A pilot survey questionnaire containing 67 items rated on a 7-point Likert-type scale was distributed to test the validity and reliability of the study instrument.

Statistical analysis for the pilot survey has been carried out and final corrections have been completed to confirm the most possible reliability and validity for the questionnaire.

Data collection

Administrated survey was used, a total of 384 questionnaires were distributed, the useable response rate was 87% this was considered as high rate due to that the questionnaires was given one by one to respondents.

5. Findings

By analyzing results obtained from the respondent profile, using analysis of variance and T- test for gender factor, we found that there is no significant differences in responses regarding the gender of respondent, which is mean that gender factor has no significant effect on the investigated relationship. Using one-way (ANOVA) test for education factor, we found that the level of education has an impact only when it comes to evaluation of employee competencies (IV) and service performance (DV) but it has no significant effect on the customer experience (MV). Findings from one-way (ANOVA) test for profession factor indicate that profession has an impact in relation with employee competencies IV and service performance DV but it has no significant effect in relation with customer experience MV. Results of one-way (ANOVA) test for age group affirm that there is no significant effect for the age group as a factor in regard with the investigated variables. Results of one-way (ANOVA) test indicate that marital status factor has no significant influence regarding investigated relationship. According to statistical analysis variances between means of the three companies are not significant they are all lay in the range between 5.0 and 5.5 which indicate that customers didn't find significant differences between the three companies. Confirmatory factor analyses carried out for the research model prove the consistency and validity of the conceptual framework of this study. The model has been modified and fitted (figure 4 and table 10); hypotheses have also been restated, modified and confirmed. The hypothesis of direct effect of IV on DV H1 and the hypotheses linking the dimensions of IV with DV have also been confirmed at hypothesis testing of direct effect. The hypothesis of mediation effect of MV has also been tested in the hypothesis testing for mediation effect and findings reveal that, this mediation is not significant.

In General, the findings of this study indicate that employee competencies namely knowledge, skills and attitude have

significant direct and positive impact on service performance from the stand point of customers which confirm the main hypotheses of direct effect of employee competencies on service performance H1. Findings also confirm H2 that employee competencies have direct positive impact on customer experience, and H3 that customer experience has a positive impact on service performance. We also found that customer experience has a mediation effect in this relationship while it is not always significant H4. Questions of the research have been answered by finding a significant correlation between the three examined variables. Validation of the instrument and subsequent survey indicate that knowledge, skills and attitude are the key dimensions of employee competencies in this environment.

Pearson Correlation indicates the presence of high significant correlation between examined variables and positive direction of the relationship. We observed fairly normal distribution for our indicator of latent factor, and for all other variables in terms of skewness; however, we observed mild kurtosis for our variable ranged gently to 3 while this does violate strict rules of normality, it is within more relaxed rules 3.3 suggested as the upper sill for normality [47]. The assessment of descriptive statistics shows that all the variables fall within the predefined important values.

We used exploratory factor analysis (EFA) and (CFA) confirmatory factor analysis to test the reliability and validity of the variables of this study to find the goodness of measures in the study constructs. We found that, the value is of the significance level 0.000 for the all three variables which indicate that our variables and dimensions are useful for the study. Results confirm that factor analysis is useful with data for this study. Exploratory factor analysis and convergent validity of Employee Competencies IV table (1), shows high correlation within the variable and that all items have more than recommended value of at least 0.5 in measure of sample adequacy (MSA) with (KMO).

Table 1: Exploratory Factor Analysis for Employee Competencies

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.922
Bartlett's Test of Sphericity	Approx. Chi-Square	3751.807
	Df	153
	Sig.	.000
	know his responsibilities and priorities	.929
maintain a positive frame of mind	.853	
try new approaches	.617	
display knowledge of products	.710	
respond effectively	.576	
accept feedback on performance	.841	
tolerant to different points of view	.859	
able to resolve conflict effectively	.896	
positive resolutions to problems	.598	
take the initiative to resolve issues	.791	
cooperative and willing to collaborate	.644	
pay attention to details	.690	
respond quickly	.656	
Not to dominate others	.572	

sensitive to the feelings of others	.732
friendly, courteous manner	.679
positive self-image	.769
concern for the needs of others	.800

Discriminant validity of employee competencies shows that skills have high correlation with the other factors within the same variable which is 0.614 with attitude, 0.611 with professional knowledge and 0.605 with general knowledge as shown in table (2).

Table 2: Discriminant Validity of Employee Competencies

Component	Skills	Attitude	Professional Knowledge	General Knowledge
Skills	1.000	.614	.611	.605
Attitude	.614	1.000	.487	.519
Professional Knowledge	.611	.487	1.000	.538
General Knowledge	.605	.519	.538	1.000

Using exploratory factor analysis for Customer Experience MV, results in table (3), show that all items has more than the recommended value of at least 0.45 in measure of sample adequacy (MSA) with (KMO) (above the recommended minimum level of 0.60), and Bartlett's test of sphericity is significant ($p < .01$). Thus, the items are appropriate for factor analysis. Convergent validity of Customer Experience shows that Variables within this factor are highly correlated with more than 0.5.

Table 3: Exploratory Factor Analysis of Customer Experience

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	2840.233
	Df	91
	Sig.	.000
Information found easily on web		.861
many forms of good support		.762
satisfied of the services	.916	
Overall satisfaction	.961	
representatives act in my best interest	.680	
comfortable to deal with this company	.657	
Physical facilities in the workplace are suitable	.612	
friendly service environment	.792	
physical environment attract customers' attention	.887	
Sensory elements of the physical environment making customers feel at ease	.914	
presentation of service is visually appealing		.753
Employees are attentive		.781
Employees show knowledge and skills		.872
Employees are listening and solving complaints		.804

Variables loaded significantly on factor with Coefficient of at least 0.5, * Items deleted due to high cross loading.

Table 4: Discriminant Validity of Customer Experience

Component	Emotional Experience	Physical Experience	Social Experience	Cognitive Experience
Emotional Experience	1.000	.570	.582	.547
Physical Experience	.570	1.000	.650	.468
Social Experience	.582	.650	1.000	.507
Cognitive Experience	.547	.468	.507	1.000

Exploratory factor analysis for Service Performance IV table (5), shows that all items have more than recommended value of at least 0.5 in measure of sample adequacy (MSA) with (KMO) (above the recommended minimum level of 0.60), and Bartlett's test of sphericity is significant ($p < .01$). Thus, the items are appropriate for factor analysis. Convergent validity of service performance shows that variables within this factor are highly correlated with more than 0.5.

Table 5: Exploratory Factor Analysis of Service Performance

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.942
Bartlett's Test of Sphericity	Approx. Chi-Square	3201.864
	Df	105
	Sig.	.000
Transaction network and coverage are wide		.694
Service points located in a convenient place		.722
Advisory service hotline is good		.776
many products and services, which are rich and diversified		.785
Companies notice the convenience for customers in transaction		.735
requests and customer feedback quickly		.789
various forms of assistance and information		.815
answering complaints are convenient		.787
resolving arising issues is to ensure customer benefits		.740
The services and products are always improving		.751
Placing service and online payment is easy		.713
Cancellation or change of service is well-done online		.758
This company providing high quality service		.775
The customers' honoring programs are good and regular		.720
Greetings and gifts		.582

Variables loaded significantly on factor with Coefficient of at least 0.5, * Items deleted due to high cross loading.

The results show that our model is reliable according to cronbach's alpha analysis. The value of cronbach's alpha for all the constructs as shown in table (6) below is above the threshold limit of 0.60. The internal reliability of the model items was assessed by computing the total reliability scale which is 0.95 for this study. Results reveal that the items of the model are accepted for analysis.

Table 6: Cronbach's Alpha for Variables and Dimensions

Construct	Variables	Items	Number of items	Cronbach's alpha
Employee Competencies	Professional knowledge	1-4	4	.846
	General knowledge	6-8	3	.874
	Skills	10-15	5	.869
	Attitude	22-26	5	.852

Customer Experience	Cognitive experience	4-5	2	.615
	Emotional experience	6-9	4	.879
	Physical environment ex	11-14	4	.867
	Social experience	15-18	4	.869
Service Performance	Service performance	1-15	15	.942

Source: prepared By Researcher.2018

Confirmatory Factor Analysis (CFA) has been used to estimate measurement adequacy. In the context of present study, following criteria in table (7) below has been adopted for the measurement and validation of various constructs:

Table 7: Criteria for the measurement and validation of various constructs

S. No.	Parameter	Criteria
1	Normed Chi-square (ratio of Chi-square to degrees of freedom)	Less than 3
2	Goodness-of-Fit Index (GFI)	At least .90
3	Adjusted Goodness-of-Fit Index (AGFI)	At least .90
4	Normed Fit Index (NFI)	At least .90
5	Comparative Fit Index (CFI)	At least .90
6	Root Mean Square Residual (RMR)	Less than .10
7	Root Mean Square Error of Approximation (RMSEA)	Less than .08
8	Standardized Residuals	Less than 2.5
9	Standardized factor loadings (SFL)	At least .50
10	Average Variance Extracted (AVE)	At least .50
11	Composite Reliability (CR)	At least .70

Measurement and Validation of Employee competencies

To assess the degree of correspondence between the manifest variables and latent construct a uni-dimensional CFA model (Figure 2) has been conceptualized and tested for the all three variables, hereafter we exhibit the results for employee competencies IV and service performance DV.

Measurement and Validation of Employee Competencies

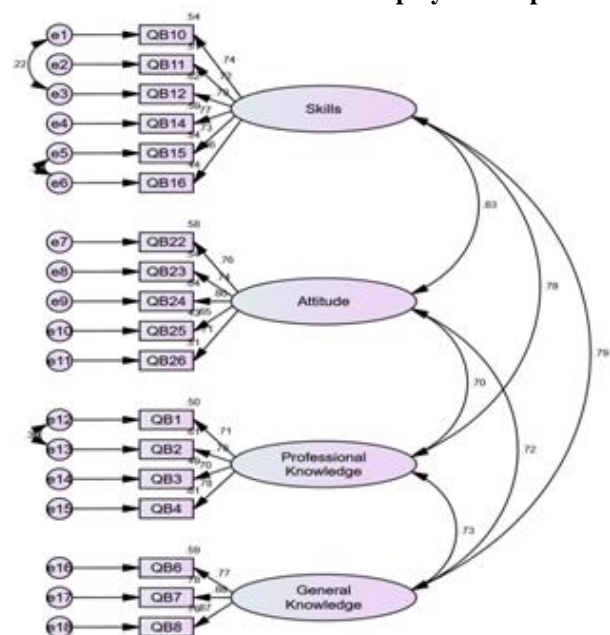


Figure 2: Shows Confirmatory Factor Analysis for Employee Competencies

Table 8: Shows Model Fit Indices of Employee Competencies

Measure	Estimate	Threshold	Interpretation
CMIN	393.765	--	--
DF	126	--	--
CMIN/DF	3.125	Between 1 and 3	Acceptable
CFI	0.927	>0.95	Acceptable
SRMR	0.048	<0.08	Excellent
RMSEA	0.080	<0.06	Acceptable
P Close	0.000	>0.05	Terrible

Unfortunately, your model fit could improve

The convergent validity of the construct of IV has been assessed; AVE and CR, (table 9) shows that standardized factor loadings for all items were above the suggested cut-off of 0.50, with a minimum of 0.65 and were all significant

Table 9: Shows the Psychometric Properties of Employee Competencies

	CR	AVE	MSV	ASV			
Professional Knowledge	0.596	0.588	0.549	0.489	0.767		
Skills	0.686	0.556	0.672	0.609	0.741	0.746	
Attitude	0.649	0.539	0.672	0.546	0.664	0.820	0.734
General Knowledge	0.655	0.710	0.605	0.535	0.690	0.778	0.724

at 1% level of significance. The AVE of 0.619 meets the criterion of .50; the high score of CR (i.e. 0.918) confirms the internal consistency of the scale items. CR indicates the internal consistency of the instrument, any value of 0.7 or higher affirms high degree of internal consistency between different scale items. CR for all items is less than 0.7; reliability is not high. AVE for all variables is more than 0.5 which affirms the higher amount of explained variance. The mean success volume after cutoff, MSV is also significant with more than 0.5 for all items. ASV is more than 0.5 for all items except professional knowledge which is at the edge with 0.489%. The table below shows the Psychometric Properties of employee competencies.

Measurement and Validation of Service Performance

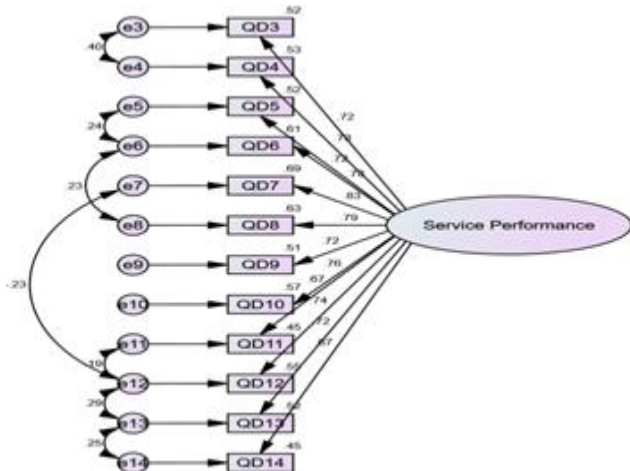


Figure 3: Confirmatory Factor Analysis of Service Performance.

Congratulations, your model fit is acceptable. Unfortunately, your model fit could improve

The convergent validity of the construct of DV has been assessed, AVE and CR, reveals that standardized factor loadings for all items were above the suggested cut-off of 0.50 [48], with a minimum of 0.65, and were all significant at 1% level of significance. The AVE of 0.619 meets the criterion of .50. High score of CR (i.e. 0.918) confirms the internal consistency of the scale items. We found that service performance has only one latent variable so there is no correlation matrix or MSV. No validity concerns here table (11).

Table 11: Psychometric Properties of Service performance

	CR	AVE	Max R(H)	Service Performance
Service Performance	0.937	0.555	0.939	

Table 10: Shows the Fit Indices of Service Performance

Measure	Estimate	Threshold	Interpretation
CMIN	115.893	--	--
DF	47	--	--
CMIN/DF	2.466	Between 1 and 3	Excellent
CFI	0.973	>0.95	Excellent
SRMR	0.035	<0.08	Excellent
RMSEA	0.066	<0.06	Acceptable
P Close	0.039	>0.05	Acceptable

Model Fit and Hypotheses Testing

According to the results of factor analysis, the previous conceptual framework has been modified to the following below. Hypotheses have been developed they became all 40 hypotheses as it shown in the figure (4) below.

Modified Research Framework

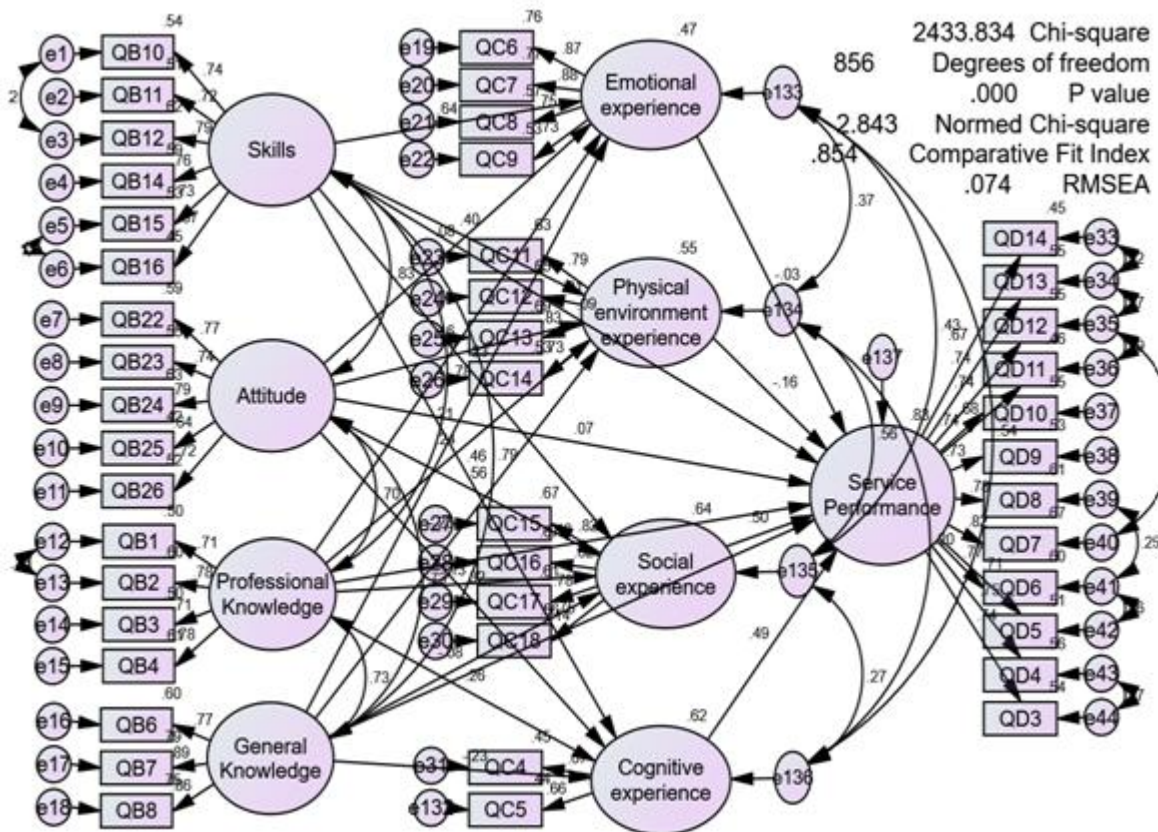


Figure 4: Shows Model Fit After Modification of the Research Model

Table 12: Shows the Model Fit Indices

Measure	Estimate	Threshold	Interpretation
CMIN	2433.834	--	--
DF	856	--	--
CMIN/DF	2.843	Between 1 and 3	Excellent
CFI	0.854	>0.95	Need More DF
SRMR	0.053	<0.08	Excellent
RMSEA	0.074	<0.06	Acceptable
P Close	0.000	>0.05	Terrible

Confirmatory factor analysis illustrates that all dimensions of employee competencies have a direct and positive impact on service performance and that this impact is significant. This confirms the target of this paper that skills as dimension of employee competencies have a significant direct and positive impact on the performance of service employee.

The assumed mediation of customer experience is not confirmed; since the CFA show that the effect of customer experience dimensions as mediators is not significant, except the emotional experience that mediate the relationship between skills and service performance with significant full mediation, while attitude and knowledge have no any mediation effect.

Discussion

The carried analyses confirmed the significant relation between employee competencies and service performance in support for the main hypothesis H1 we find a significant positive relationship between employee competencies and service performance with coefficient of correlation 0.760. In relation with previous theories our results confirmed the findings of the Theory of Relationship between Personality

Factors and Employee Service Performance (Razali, Ramlan et al. 2016). Our findings also agree with the Theory of Multilevel Model of Service Performance of (Liao and Chuang 2004) and in general with The Service Profit Chain Model of (Heskett and Schlesinger 1994).

From other side our findings oppose the main assumption of The Role Theory of Anne J. Broderick, (1998) which proposes the role management as a decisive factor in the relation with service performance as core factors that affect this relationship.

The analyses of relationship between employee competencies and customer experience H2 confirm the presence of a significant positive relation between the constructs in general. Our findings confirm the presence of direct positive relationship which is significant for some dimensions between employee competencies and customer experience, and that support the second main hypothesis and prove the results of some mentioned theories that have the same premises, such as, (Hanzaee and Mirvaisi 2011), (Esmailpour, Zadeh et al. 2012), (Evanschitzky, Sharma et al. 2012), (Ranjbarian, Dabestani et al. 2001), (Titko and Lace 2012), and (Jeon and Choi 2012) indicate how behavior of an employee who is customer oriented could affect customer experience and increasing service quality.

The regression weight of relationship between customer experience and service performance H3 shows that the relationship of emotional experience and physical environment experience with service performance is not significant while social experience and cognitive experience have a significant relationship with service performance. In general our findings support the third hypothesis H3 which states that there is direct relationship between customer

experience and service performance and agree with the mentioned previous theories as, (Fazlzadeh, Faryabi et al. 2012), (Cudney, Elrod et al. 2012), (Gocek and Beceren 2012), (Palmer 1994), (Ifejionu and Toyosi 2011), (Anderson, Fornell et al. 1994), (Hirschman 1970), and (Sivadas and Baker-Prewitt 2002).

Regarding the mediation effect of customer experience H4; although the results of correlation analysis show that customer experience fulfilled the conditions for mediation effect as suggested by (Baron and Kenny 1986), but the further AMOS analysis explains that the effect of customer experience dimensions as mediators is not significant for most of the cases, which do not support our fourth hypothesis H4.

6. Implications

We have been able to confirm the impact of employee competencies on service performance and to find a kind of mediation of customer experience in this relationship. We think that our study answers the questions recommended by the theory of Personality Factors and Employee Service Performance of (Razali, Ramlan et al. 2016), and the recommendations made by Multilevel Model of Service Performance of (Liao and Chuang 2004), and those by (Delcourt, Gremler et al. 2016)

We suggest measuring employee competencies from customer point of view instead of employee or supervisors evaluation. This method offer more objective evaluation it also relates social dimension with service literature. Another positive approach of our method is that we draw attention to limitations of existing measures of employee competencies such as employee self-reported measures and supervisor-reported measures of employee competencies which are subject to biases and unfairness and do not measure actual employee behaviors during service encounters.

Our finding that employee competencies increase customer experience which in turn enhances service performance, may improve managers' understanding of why employee competencies matters. Our finding that customer experience has a mediating role in the relation between employee competencies and service performance, although it is not significant may also enhance managers' understanding and consideration for the role of customers in marketing process. Measuring employee competencies from the customer standpoint rather than employee self test or managers evaluation may draw attention to strengths of this method.

7. Limitations

One of the limitations is that, this study was conducted in a specific business area, namely communication, which is characterized by a dynamic interaction between employees and customers, this condition may not correspond to conditions in other services. Another limitation is that, this study was conducted in Khartoum State the most urbanized center in Sudan, where different types and levels of telecom services provided. Another limitation that should be

considered is the cultural variation of customer's perceptions about employee competencies in and out the country.

8. Suggestions for Further Research

However, the above limitations are less significant compared to the importance of carrying out this type of study. Such a study should be carried out frequently in order to monitor service performance and find out experience levels of customers and hence make necessary adjustments in case of any weaknesses or strengths.

Further research should be carried out in to improve the understanding of the role of employee competencies in service business. More studies should also be conducted taking into consideration cultural traits and characteristics of local business environment.

Business experts and researchers are used to investigate employee-perceived employee competencies, whilst in our study customers report on their perceptions of employee competencies. Further research could investigate employee and customer perspectives together to develop a dyadic perspective on employee competencies.

We found that customer experience mediates the relationship between employee competencies and service performance. We recommend researchers to investigate the mediating role of customer experience in longitude study, and to look for other mediators linking service performance and employee competencies.

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