

# Importance-Performance Matrix Analysis (IPMA) of Service Quality and Customer Satisfaction in the Ghanaian Banking Industry

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## **ABSTRACT**

*Drawing from the Importance-Performance Matrix Analysis (IPMA), this paper sought to examine service quality and customer satisfaction in the Ghanaian banking industry. A quantitative approach using questionnaires was adapted to survey 476 bank customers for the study. Data were analysed using structural equation model (SEM) - Partial Least Square (PLS). We found that except tangibility, the remaining four service quality dimensions - reliability, assurance, empathy, and responsiveness - have a significant influence on customer satisfaction. Meanwhile, the Importance Performance Matrix Analysis (IPMA) identified service reliability as the most important service quality dimension valued by customers but the highest service performance belongs to service tangibility. Performing well on tangibility dimension instead, the findings indicate a mismatch between customers' interests and banks' efforts. We recommend that the banks give the highest priority to service reliability and responsiveness by shifting their resource allocation focus from service tangibility, which appeared to be the least relevant service quality dimension from their customers' perspective. The study contributes to the development and relevance of service quality dimensions towards improving banks' service quality delivery practices in emerging economies.*

**Key Words:** Service Quality, Customer Satisfaction, Importance-Performance Matrix Analysis, Ghanaian Banking Industry, Loyalty.

## **1. Introduction**

Due to the unpredictable nature of the competitive environment, delivering high service quality has become an integral ingredient for survival and for satisfying and delighting customers profitably. Service quality is now closely associated with customer satisfaction. The

bedrock of any successful business is satisfied customers, as they tend to be loyal, repeat purchase, and even engage in customer evangelism (positive word of mouth) for the firm. Ladhari, Souiden, and Ladhari (2011) postulated that perceived service quality is one key driver of customer recommendation. Again, as hinted by Wicks and Roethlein (2009), organizations that enjoy higher retention levels and greater profitability are as a result of increasing customer loyalty and customer satisfaction.

Hansemark and Albinson (2004) posit that regarding the fulfilment of some needs, goals or desire, satisfaction is an overall customer attitude towards a service provider or an emotional reaction to the difference between what customers anticipate and what they receive. The outcome felt could be positive or negative, which could have a bearing influence on how the company is perceived by outsiders, and as satisfied or dissatisfied customers will likely share their experiences with others. Indicatively, customer satisfaction is as a result of managing and delivering service quality. In line with the above sentiment, Kabadayi (2016) noted that customer dissatisfaction significantly reduces a financial institution's customer base, and affects its corporate reputation and image. Turban (2002) hints that when price and other elements are held constant, customers prefer service quality.

Literature is replete with many empirical and theoretical findings on customer satisfaction and service quality in Ghana's economy (Agyapong 2011; Asante and Kwasi 2012; Ojo et al. 2014; Abane, 2011; Poku-Boansi and Adarkwa 2011; Quachie 2014). However, none of these studies employed Importance-Performance Matrix Analysis (IPMA) to examine areas where companies are underperforming or over-performing towards efficient and effective resources allocation. IPMA yields insight into which market offering attributes require firm's managerial attention to achieve customer satisfaction (Martilla and James 1977). We, therefore, argue that mere testing of hypotheses or establishing significance between phenomena of a study is not enough for a considerable managerial decision as the studied company should know where much attention is needed in its service quality delivery. As Slack (1994) noted, "a finer analysis has to be undertaken, because besides the impact of the independent variables on dependent variables (in his case brand loyalty), the relative importance of the predictors has to be taken into account and one way to do so is to rely on the importance-performance matrix analysis (IPMA)" (Slack, 1994. P. 2).

*The present study is pioneering in that despite the plethora of studies on service quality and customer satisfaction, this study is the first to have uniquely employed Structural Equation Model-Partial Least Square (SEM-PLS) tool in its methodological analysis to examine service quality and customer satisfaction. In addition, the present study contributes to theory and knowledge, because notwithstanding the growing studies on service quality and customer satisfaction, till date, the findings on the service quality dimension that is of highest priority to customers is still anecdotal. That being said, the study, therefore, fills this lacuna in the service quality and customer satisfaction literature in the banking industry. This way, the current study theoretically contributes to increasing the knowledge insight in the field of marketing, specifically on service quality and customer satisfaction, and contextually, provides the managers of the banks with the right understanding of the service quality dimensions that warrant maximum attention.*

### **1.1 Snapshot of Ghana's Banking Industry**

The commerce of banking in Ghana began in the then Gold Coast during the colonial period. Back then, the sole purpose of the banks was to offer financial services to the British enterprises and the colonial administration (<http://citifmonline.com>). The Bank of the British West Africa, now Standard Chartered Bank, opened its first branch in Accra in 1896. The attractiveness of the sector inspired many foreign banks such as Barclays bank, Anglo-Egyptian bank etc. to begin operation in the then Gold Coast. Soon after the independence in 1957, the Bank of Ghana was established to oversee the management of the country's currency. Since then, the fierce but healthy and open competition in the sector has led to tremendous growth and development in both information and communication technology.

Presently, the sector had 139 rural and community banks, 29 universal banks (deposit money banks), 61 Non-Bank Financial Institutions (NBFIs) and 555 Micro Finance Institutions (MFIs) ([www.icagh.com](http://www.icagh.com)). The present study, however, concentrated on the universal banks/commercial banks. These banks deal in a wide range of products and services including debit cards, credit cards, mortgages loans, savings, checking, and investments to individuals, large organisations, parastatal companies, and small and medium enterprises. Bawumia, Owusu-Danso, and McIntyre (2008) also hint that the banking sector accounts for about 70% of the financial sector, and its role in capital concentration and distribution is phenomenal. Again, the sector controls price stability, lowers inflation and supports government economic objectives to ensure sound macroeconomic stability.

According to the Ghana Banking Survey (2014), there was a slowdown in deposit mobilisation by the industry, despite the growth in the industry's total assets by 33% in 2013 compared to the five years historic (2008 – 2012) average growth rate of only 26%. Notwithstanding these odds, the banks have managed not only to survive but to thrive. Ghana's banking sector has been bedevilled with poor service delivery including, but not limited to impolite staff attitude, long queues, poor waiting times, limited access to loan and overdraft facilities, faulty automated teller machines (ATM) and incessant network problems. Thus, it is hoped that the fine-grained analysis of this study and the insightful recommendations would go a long in abetting the banks to provide first-class customer service to their respective customers, reduce the poor service delivery rate, boost productivity, and enhance economic growth and development.

This paper follows this structure: introduction; literature review; methodology; discussion of findings; conclusions and implications.

## **2. Literature Review**

### **2.1 Service Quality and Service Quality Models.**

Quality has been defined as a subjective phenomenon, and (Oliver 1993; Parasuraman, Zeithaml, and Berry 1993) opine that service quality only differs in wording, but characteristically embroils defining whether perceived service delivery meets, exceeds or fails to meet customers' expectation. Whereas Zeithaml, Berry, and Parasuraman (1996) define service quality as how well and consistent the service meets or exceeds the customers' expectations, Alok (2013) defines service quality as 'the extent to which the service, the service

process, and the service organization can satisfy the expectations of the user'. Service quality is 'the consumer's overall impression of the relative inferiority/superiority of the organization and its services' (Angelova and Zekiri 2011). Service quality is, therefore, the degree to which service delivered matches customer's expectation, and as such satisfying and delighting customers is key to superior service performance.

Studies have established service quality as an important indicator of customer satisfaction "Spreng and Machoy (in Agyapong, 2011 p.3) and Parasuraman et al. (1988) stipulated that the three features which are unique to services include intangibility, heterogeneity, and inseparability of production and consumption. Gronross (1983) also asserted that a satisfaction that a customer derives from service quality can be evaluated in two ways; functional and technical quality. However, due to inadequate customer information about technical quality, functional quality appears to be the relevant factor for evaluating service quality (Donabedian 1982). Consequently, researchers and scholars had to develop means of measuring service quality, and Sachdev and Verma (2004) argue that in terms of measuring service quality, variables such as customer satisfaction, customer perception, customer loyalty, customer expectation, and customer attitude can be used. In this regard, our current study sought to measure service quality using customer satisfaction.

Prominent models in literature for measuring service quality and customer satisfaction include SERVQUAL, Kano, American customer satisfaction index (ACSI), HOTELZOT, and SERVPERF. The SERVQUAL model, developed by Parasuraman et al. (1988, 1990) is employed for this study, as it tends to measure customers' expectations and perceptions of the actual performance of service from five dimensions – assurance, tangibility, reliability, empathy, and responsiveness.

*Tangibility* addresses the physical characteristics associated with the service encounter and how they resonate to convey the image and signal quality (Parasuraman et al. 1988), including the physical surroundings, as represented by objects (for example, interior design) and subjects (for example, the appearance of employees). *Reliability* addresses the consistency with which service providers offer accurate, right and dependable services, including keeping and honouring promises. *Responsiveness* refers to the firm's willingness to offer fast and efficient service performances and employees' enthusiasm to address customers' complaints efficiently and professionally. *Assurance* looks at the features that provide and enhance confidence in customers (such as employees' trustworthy behaviour). *Empathy* looks at the service provider's willingness and readiness to offer personalized service(s) and involves making the customer feel unique and special (Asad and Chris 2005).

### 2.2.1 Customer Satisfaction and the Disconfirmation Theory

Lévy and Varela (2006) posit that the feeling of welfare resulting from the experience of use explains customer satisfaction. Bitner and Zeithaml (2000) also define it as the response of completion of consumers' needs. Customer satisfaction is considered as a service characteristic that gives a happy fulfillment of consumption-related factors, and a key factor formation of customer's desires for future purchase (Mittal and Kamakura, 2001). The elements of customer satisfaction include, but not limited to commitment, conflict handling, service quality, trust,

communication, and service satisfaction (Ndubisi 2006). Eboli and Mazzulla (2012) opine that as one of the determinants used to measure the quality of service, service quality and customer satisfaction have been conceptualized as a distinct, but closely related constructs (Siddiqi 2011), and service quality leads to customer satisfaction (Kassim and Abdullah 2010). In another example, Ndubisi (2006) stated that a high level of customer satisfaction is a crucial factor of relationship quality. Van-Doorn, Leeflang, and Tjits (2013) show that customer satisfaction is an important determinant of a firm's future performance. Yeunga et al. (2013) study results show that the importance of satisfied customers does not benefit only the company but the economy as a whole and that effort to enhance customer satisfaction should be a national concern. This implies that the high the satisfaction of customers, the higher the likelihood of high economic growth and development in an economy.

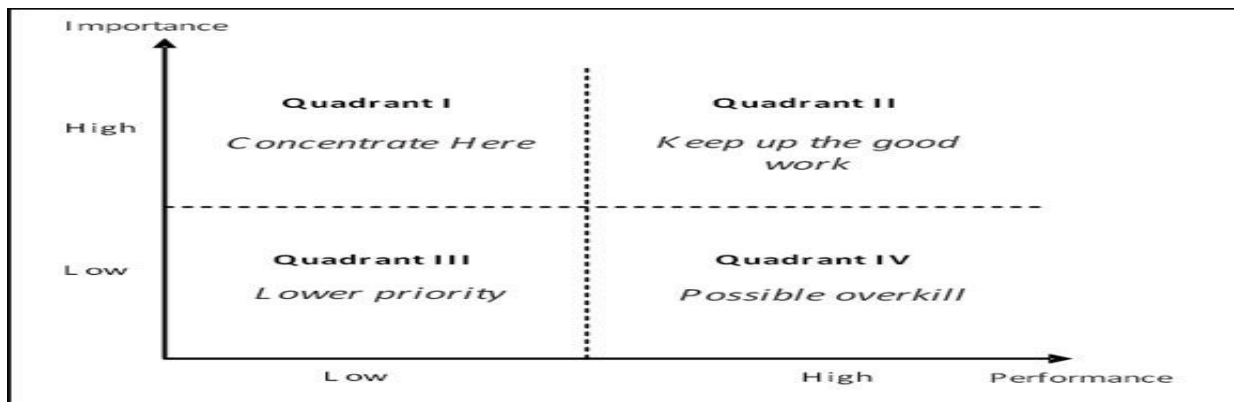
Developed by Oliver (1981), the disconfirmation theory proposes that satisfaction level derived is as a result of the difference between expected and perceived performance. Supportively, Ekinci and Sirakaya (2004) cites Oliver's definition of the disconfirmation theory, which states that "satisfaction is the guest's fulfilment response". According to Mattila and O'Neill (2003), the disconfirmation theory argues that satisfaction is connected to the size and direction of the disconfirmation experience arising from comparing service performance against expectations. Positive disconfirmation (satisfaction) occurs when market offerings are better than expected and negative disconfirmation (dissatisfaction) occurs when a performance is worse than expected. A meta-analysis study conducted by Szymanski and Henard (2001) found that customers perceive disconfirmation paradigm as the best predictor of satisfaction.

### **2.2.2. The Importance Performance Matrix Analysis (IPMA)**

IPMA is a simple and useful technique for identifying those attributes of a product or service that are most in need of improvement or that are candidates for the possible cost-saving condition without significant detriment to overall quality (Abalo, Varela and Manzano 2007). The IPMA methodology identifies satisfaction as the utility of two elements: the importance of a product or service to a customer and the performance of a firm in offering that service or product (Martilla and James 1977). Accordingly, Silva and Fernandes (2010) noted that IPMA assesses not only the performance of an item but also the importance of that item as a defining factor in satisfaction to the customer. Abalo et al. (2007) stressed that IPMA aims to facilitate identification of product or service attributes for which, given their importance, the product or service underperforms or over performs. This implies that the IPMA graphical tool is a useful technique for unearthing an essential product or service attributes in terms of their need for managerial decisions and for developing effective and innovative marketing programs to achieve an advantage over rivals and serve customers profitably, as well.

The IPMA is graphically presented on a grid divided into four quadrants. This is shown in Figure 1. The importance measure represents the vertical axis while the performance measure represents the horizontal axis.





**Figure 1: IPMA Grid (Martilla and James, 1977)**

In Figure 1, the grid has four quadrants: Quadrant I, Quadrant II, Quadrant III, and Quadrant IV. Each quadrant calls for a different firm's marketing strategy. *Quadrant I: Concentrate here* - high importance, low performance: This area requires immediate managerial attention for improvement and are major weaknesses. Service attributes are perceived to be very important to customers, but performance levels are fairly low. *Quadrant II: Keep up with the good work* - high importance, high performance: The firm seems to be performing very well within this zone as these zone signposts opportunities for achieving or maintaining competitive advantage and are major strengths. Attributes are perceived to be very important and at the same time, the firm seems to have a high level of performance in these activities. *Quadrant III: Low priority* - low importance, low performance are minor weaknesses and do not require additional effort. The firm is better off diverting resources from this area to other areas of strategic importance. *Quadrant IV: Possible overkill* - low importance, high performance: business resources committed to these attributes would be overkill and should be deployed to other areas in the organisation. Here, the firm matches its resources and capacities to product or service attributes that are of no value to its customers. The firm is better off in shifting resources to other areas of major concern, for instance to Quadrant I. For service firms, service attributes displayed in these quadrants help managers to identify areas with effective performance and prioritize areas needing improvement (Shieh and Wu 2009).

Originally devised as a tool for marketing practitioners and researchers, IPMA has now extended to a wide range of fields. IPMA has been applied in profile marketing (Crompton and Duray 1985), operations and engineering services (Slack, 1994), retail (Shieh and Wu 2009), education services (Ford, Joseph and Joseph, 1999), financial services (Matzler, Sauerwein, and Heischmidt 2003), airport services (Tsai, Hsu, and Chou, 2011), human resources (Eskildsen and Kristensen, 2006), hotels (Deng, Kuo, and Chen 2008), tourism (Taplin 2012), restaurants (Ma, Qu, and Njite 2011), other service sectors (Bacon 2003), and supply chain management (Teller, Kotzab and Grant 2012). These reviews pinpoint that IPMA is not just a tool for only marketers, but could be of useful use to a wide range of firms for examining performance and important attributes of a product or service. Despite the minor modification to the model by various researchers over the years, (Bacon 2003; Abalo et al. 2007) reiterated that the basic application of the model has largely remained unchanged, and thus, its fundamental application could be utilized by scholars from all walks of life.

Gleaning from scholars argument that this model is largely grounded in service theories, which concentrates on methods for measuring and interpreting service quality/performance and gaps therein (Parasuraman, Zeithaml and Berry 1985 and 1998), as well as its ability to succour service and other firms in prioritizing areas for service improvement when resources are limited, we adapted this framework to assess the service quality attributes that are essential for customer satisfaction in the Ghanaian banking industry.

In literature, the relationship between service quality dimensions and customer satisfaction have established different findings. Rahaman, Abdullah, and Rahman's (2011) study that examined service quality of the private commercial banks in Bangladesh found that service quality significantly influences customer satisfaction in terms of reliability, assurance, and responsiveness. Sackey et al. (2012) study which also employed SERVQUAL model to examine the effects of service quality on customer satisfaction, loyalty, and retention at Barclays bank in Ghana, established a significant relationship between tangibility assurance, , and reliability, but no significant relationship was found between empathy, responsiveness, and customer satisfaction, even though the bank practices all the five service quality dimensions.

Kheng, Mahamad, and Ramayah (2010) also conducted a similar study using the SERVQUAL model to assess the impact of service quality on customer loyalty among Malaysian bank customers, established that reliability, empathy, and assurance have a significant influence on customer satisfaction. El-Saghier and Demyana's (2013) study on service quality dimensions and customers' satisfactions of Egyptian banks also disclosed that customer satisfaction is significantly affected by reliability, empathy, assurance, and responsiveness, but found no significant correlation between tangibility dimension of service quality and customer satisfaction. Examining the effects of customer service management (CSM) on business performance, Wei and Nair (2006) indicated that in order to improve their competitive positions, Malaysian banks should give high priority to all the service quality dimensions.

Duodu and Amankwah (2011) in their study also found that responsiveness and reliability are functional quality dimensions that have a significant impact on customer satisfaction, whereas Loke, Taiwo, Salim, and Downe (2011) also found that responsiveness, assurance, reliability, and empathy significantly influenced customer attitudes in terms of customer satisfaction. Sriyam (2010) also found that, specifically, the assurance dimension raised the highest level of expectation, whereas tangibility fulfilled the highest level of perception, and concluded that in determining customer satisfaction, tangibility was the most important dimension. The study of Agbor (2015) also revealed reliability, responsiveness, and empathy as the main dimensions of service quality that bring customer satisfaction. Quachie (2012) found reliability and tangibility as service quality dimension that brings customer satisfaction. Jumbo (2016) also discovered in his study that tangible service dimension is considered by customers as the least important service factor influencing the perception of service quality and satisfaction.

These empirical reviews have divulged that though the various studies used the same service quality dimensions as predictors of customer satisfaction, some studies have used statistical tests including regression, correlation, ANOVA, and descriptive statistics for their analysis (Agbor 2015; Salim and Downe 2011; El-Saghier and Demyana 2013; Rahaman,

Abdullah, and Rahman 2011). Uniquely, this current study employs the Structural Equation Model – Partial Least Square for its analysis, and more importantly, undertake IPMA analysis, which has been silent in previous studies, to identify service attributes of top most priority.

In the light of the aforementioned analysis, the following hypotheses are thus formulated:

H1: There is no significant relationship between service reliability and customer satisfaction

H2: There is no significant relationship between service assurance and customer satisfaction

H3: There is no significant relationship between service empathy and customer satisfaction

H4: There is no significant relationship between service responsiveness and customer satisfaction

H5: There is no significant relationship between service tangibility and customer satisfaction

### **3. Research Methodology**

This study employed a quantitative research approach to determine the inferences that can be made about some characteristic, attitude, or behaviour of the population (Creswell, 2009), describe and examine relationships, and determine causality among variables. According to Mark, Philip, and Adrian (2009), descriptive research portrays an accurate profile of persons, events or situations, hence its adoption for this study. Saunders (2003) hint that descriptive survey research gives more control for the research process. This design enabled the authors to identify and statistically explain the variables that affect customer satisfaction. The questionnaire was the main instrument for data collection and adapted a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The items were adapted from the SERVQUAL model and slightly modified to suit the present study's context. In all, the scale comprised 36 items (for service quality) and 7 items (for measure customer satisfaction).

Drawing from a population of about 4650, the study employed the convenience sampling method to select 500 customers of the universal banks/commercial banks, who were readily available and willing to respond to the questionnaire items. As hinted by McQuitty (2004), achieving the desired level of statistical power with a given model prior to data collection requires the determination of the minimum sample size. As a rule of thumb, any number above 200 is understood to provide sufficient statistical power for data analysis, and some authors (Garver and Mentzer 1999; Hoelter 1983) have proposed a 'critical sample size' of 200, despite the little consensus on the recommended sample size for SEM (Sivo et al. 2006). To test the research model, IPMA, which is an extension of Partial-Least Square-Structural Equation Model (PLS-SEM), the SmartPLS software version 2.0, was used for the simultaneous assessment of the measurement model and the structural model.

### **4. Discussions of Results**

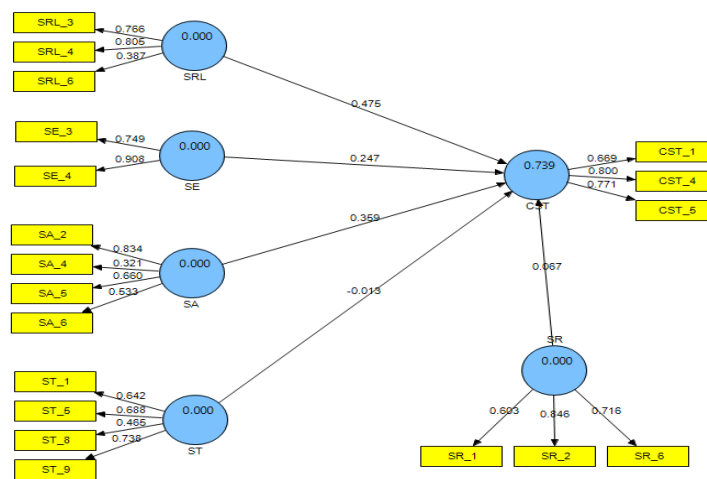
#### **4.1 Demographic Information of Respondents.**

The study recorded a response rate of 476 (95.2%) was recorded, implying that 24 questionnaires were not returned. The background data collected from the respondents were gender, age, educational level, and the numbers of years of operating account with the banks. Results from the analysis show that 255 (53.6%) were male while 221 (46.4%) were female. This



implies that majority of the views shared in this study emanated from males. The majority of the participants were between the ages of 25-30 years old (43.2%). The others recorded 31-36 age group (23.3%), below 25 years old (20.5%), and then 36 and above years old (13%). Among the respondents, 46% were undergraduate students, 25% were master degree holders, 20% were Ph.D holders, with SSCE/WASCE candidates scoring low, with 9%. Regarding respondents number of years operating an account with the bank, the study recorded the majority from 6-10 years (49.2%); 10 years and above (23.8%); less than 6 years (27%). The next section presents the result from the PLS-SEM analysis.

The PLS model analysis consists of two phases which involve the assessment of reliability and validity of measurement model and evaluation of the structural model. We begin by initially analysing the reliability and validity of the measurement model.



By employing bootstrapping to evaluate the path coefficients' significance, seventeen (17) manifest variables were removed because their coefficients were less than 1.96 and, hence, these variables did not load properly (Hair, Ringle, and Sarstedt 2011). This is why such variables as Service Reliability-SRL\_2: SRL\_1;; SRL\_5: SA\_1;; SA\_3;; Service Empathy-SE\_1;; SE\_2: Service Tangibility-ST\_2;; ST\_3;; ST\_4;; ST\_6; Service Reliability-SR\_3;, SR\_4;; SR\_5; Customer Satisfaction-CST\_2;; CST\_3;) are not found in the structural equation model. The results is depicted in Table 1.

**Table 1: Results Summary for Reflective Outer Models**

Construct	Cross Loading	Composite Reliability	$R^2$	Average Variance Extracted (AVE)
<b>Reliability</b>		<b>0.7032</b>		<b>0.6611</b>
SRL_3	0.7657			
SRL_4	0.8045			
SRL_6	0.8867			
<b>Assurance</b>		<b>0.6895</b>		<b>0.5794</b>
SA_2	0.8338			
SA_4	0.6314			
SA_5	0.6596			
SA_6	0.6329			
<b>Empathy</b>		<b>0.8169</b>		<b>0.6925</b>
SE_3	0.7492			
SE_4	0.9075			
<b>Tangibility</b>		<b>0.7316</b>		<b>0.5116</b>
ST_1	0.6475			
ST_5	0.6887			
ST_8	0.7451			
ST_9	0.7379			
<b>Responsiveness</b>		<b>0.7693</b>		<b>0.5311</b>
SR_1	0.6033			
SR_2	0.8464			
SR_6	0.7161			
<b>Customer Satisfaction</b>		<b>0.7922</b>		<b>0.5621</b>
CST_1	0.6692			
CST_4	0.8002			
CST_5	0.7712			
			<b>73.91</b>	

Source: Field Survey, (2016) \*SRL: Service Reliability; SA: Service Assurance; SE; Service Empathy; ST: Service Tangibility; CST: Consumer Satisfaction.

It is evident from Table 1 that the coefficient of determination ( $R^2$ ) of 73.91% is achieved by our model. This means that 73.91% of the variance in customer satisfaction is explained by the service quality dimensions employed in this study. This is strong or substantial for us to conclude that our model is fit. Second, all the indicators have individual indicator reliability

values much larger than the minimum acceptable level of 0.4 and to the preferred level of 0.7 (Bagozzi and Yi 1988). Third, the internal consistency reliability criterion is met by our model. From Table 1, the composite reliability, which measures the internal consistency, has values larger than 0.6, so we can conclude that a high level of consistency, reliability is demonstrated among all the five reflective latent variables. Finally, the Average Variance Explained (AVE), which measures the convergent validity, has values that approximately surpasses the 0.5 threshold (Fornell and Larcker 1981), which allow us to conclude that our model's convergent validity is confirmed. The discriminant validity criterion is presented in Table 2.

**Table 2: Discriminant Validity**

Latent Correlation	CST	SA	SE	SR	SRL	ST
CST	<b>0.7489</b>					
SA	0.7335	<b>0.7611</b>				
SE	0.5151	0.5233	<b>0.8321</b>			
SR	0.3787	0.3205	0.3938	<b>0.7287</b>		
SRL	0.6915	0.4847	0.1262	0.2149	<b>0.8130</b>	
ST	0.4437	0.527	0.5002	0.2192	0.2713	<b>0.715262</b>

Source: Field Survey, (2016) \*SRL: Service Reliability; SA: Service Assurance; SE; Service Empathy; ST: Service Tangibility; CST: Consumer Satisfaction.

The discriminant validity is well established by our measurement model. This is done by the comparing the square root of AVE (Table 1) against the corresponding latent variable correlations. In order to meet the discriminant validity criterion, Roldan and Sanchez-Franco (2012) hinted that the diagonal elements should be significantly greater than off-diagonal elements in the corresponding rows and columns. The result of PLS-SEM of the relationship between the variables is presented in Table 3.

**Table 3: Result of PLS-SEM**

Hypotheses	T-Statistics	P-Value	Support
SA -> CST	9.7236	1.66575E-20	Reject
SE -> CST	5.7544	1.55871E-08	Reject
SR -> CST	2.3876	0.017347964	Reject
SRL -> CST	14.4449	1.76616E-39	Reject
ST -> CST	0.442	0.658689948	Accept

Source: Field Survey, (2017) \*Significant at 0.05 alpha level

As indicated in Table 3, the hypothesis (H1) that there is no significant relationship between service reliability (SRL) and customer satisfaction is rejected at 0.05 alpha levels with a p-value of 1.76616E-39. Thus, we reject the nullity of the relationship between service reliability and customer satisfaction. This implies there is a significant relationship between banks' service reliability and customer satisfaction. This finding supports prior literature (Kheng et al. 2010; Saghier and Demyana 2013; Wei and Nair 2006) that the reliability dimension of service quality positively influences customer satisfaction. This implies that the banks' ability to perform their service accurately and dependably, right at the first time, free from errors, and at the time promised, is predicted to significantly influence the customer satisfaction. This finding,

more importantly, supports the positive disconfirmation aspect of the disconfirmation theory that satisfaction occurs when the service performance is better than expected, which reinforces a desire in the customer to reconsider the service in the future.

The second hypothesis (H2) that there is no significant relationship between service assurance and customer satisfaction is also rejected at a p-value of 1.66575E-20. This implies that there is a positive correlation between service assurance and customer satisfaction. This finding is in line with erstwhile related studies (Kheng et al. 2010; Saghier and Demyana 2013; Wei and Nair, 2006; Kwadwo-Duodu and Amankwah 2015; Loke et al. 2011) and proffers additional evidence to support the relevance of service assurance in satisfying customers in the banking industry. Thus, employee's ability to demonstrate consistent politeness, in-depth knowledge, banking skills, provide financial advice and instil confidence in the customers has the large tendency to influence the customer satisfaction.

Again, the hypothesis (H3) that service empathy does not significantly influence customer satisfaction is supported at a p-value of 1.55871E-08. This finding confirms previous findings (Rahaman et al. 2011; Loke et al., 2011; Sriyam 2010; Agbor 2015) that service empathy influence customer satisfaction, but contradicts the finding of (Sackey et al. 2012), which revealed that there is no significant relationship between service empathy and customer satisfaction. We, therefore, stress that easy accessibility of information about services, convenient operating hours, staff understanding of customer needs, and providing prompt customer information have a higher probability of stimulating customer satisfaction.

Further, the hypothesis (H4) that service responsiveness does not significantly affect customer satisfaction is again rejected at a p-value of 0.017347964. This result is consistent with the findings of (Rahaman et al. 2011; Kheng et al. 2010; Saghier and Demyana 2013; Wei and Nair 2006) that argue that companies, in order to satisfy customers, must be responsive and proactive to needs and wants of customers. Arguably, the banks' ability to provide timely and efficient services, respond to customer request promptly and proactively, and offer fast and efficient counter services would significantly influence the satisfaction of customers. This finding, however, contradicts the findings of (Sackey et al. 2012) that responsiveness has no influence on customer satisfaction in the banking industry.

Finally, the hypothesis that service tangibility has no significant influence on customer satisfaction is supported at a p-value of 0.658689948. Thus, we fail to reject the hypothesis that there is no significant relationship between service tangibility and customer satisfaction. This finding confirms the result of (Saghier and Demyana 2013) that tangibility positively affects customer satisfaction but contradicts the findings of (Sriyam 2010; Quachie 2012), who found service tangibility as having a significant and even the most important influence on customer satisfaction in the banking industry. Supportively, this finding confirms not only previous studies but also supports the negative disconfirmation aspect of the disconfirmation theory that when a performance is worse than expected, it results in dissatisfaction and cause customers to disregard the product or service.

The next section of the study assesses among the significantly supported hypothesis, which one the bank should focus on using the IPMA. According to Hock, Ringle, and Sarstedt

(2010), evaluating IMPA would enable the firm to discover the impact of latent variables with a relatively high importance and relatively low performance.

**Table 4: Importance-Performance Matrix Analysis (IPMA)**

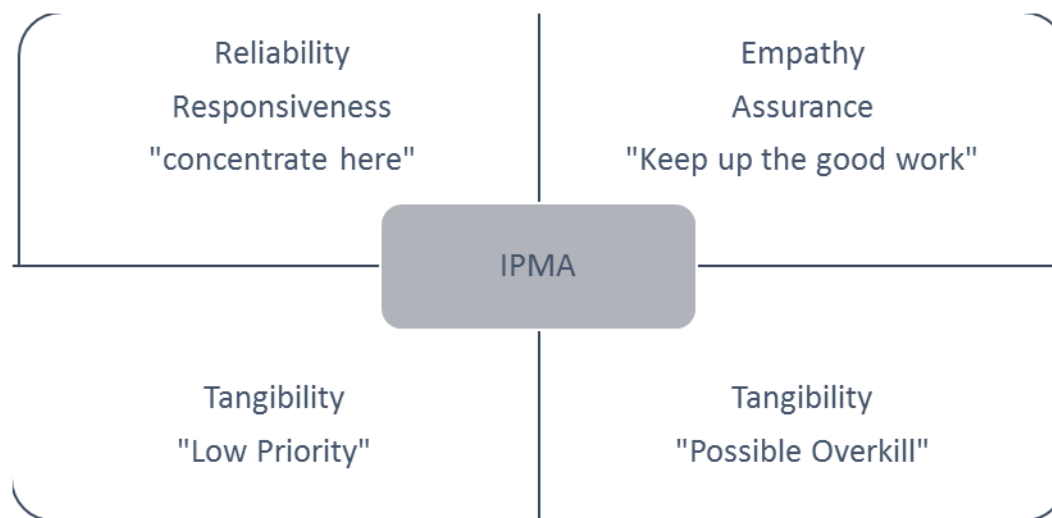
Service Dimension	Importance	Performance
SA	0.3589	0.6838
SE	0.0669	0.6711
SR	0.2473	0.6229
SRL	0.4754	0.6579
ST	-0.0128	0.6968

Source: Field Survey, (2016) \*SRL: Service Reliability; SA: Service Assurance; SE; Service Empathy; ST: Service Tangibility; CST: Consumer Satisfaction.

It is evident from the IMPA analysis in Table 4 that the three highest performances belong to service tangibility (ST), service assurance (SA), and service empathy (SE). Meanwhile, the variables with the highest importance are different, as the top three highest importance service quality dimensions are reliability, assurance, and responsiveness. However, the banks are displaying superb performance on assurance, empathy, and tangibility. Therefore, by further investigating into the path analysis using the IMPA, we have discovered practical insights into the dimensions of service quality that require improvement. It is revealed that the service dimension with relatively high importance is receiving a relatively low performance by the bank. Reliability is revealed to be within the quadrant I denoted as “concentrate here.”

Reliability is shown as the highest priority or importance and this is comprehensible as the extent to which the banks perform its service right at the first time, error-free transactions, and honours its promises, would obviously inspire confidence in the customers to trust the banks’ operations. This shows that, in the banking industry, service reliability is the key service dimension of interest to customers. This result is in line with the findings of Jumbo (2016) who found out that that service reliability is considered the most important service element influencing customers’ perception of quality and satisfaction. This ratifies the assertion made by Berry, Zeithaml, and Parasuraman (1990), that service reliability and management of customers’ expectation are the two main contributing factor of service quality and customer satisfaction. Service tangibility, which has no significance on customer satisfaction, is disclosed as the top performing dimension by the banks. This means the banks are matching their resources and capabilities to product or service attributes that are of less value to customers. Hence, tangibility is found to be in the quadrant IV of the IPMA grid, denoted as “possible overkill.” This finding corroborates with the findings of (Jumbo 2016) who discovered in his study that tangible service dimension is considered by customers as the least important service factor influencing the perception of service quality and satisfaction. This variable is perceived by customers as less important, but at the same time, the banks are exerting much resources and capacities here. The output from the Importance-Performance Matrix Analysis is shown Figure 3 As observed below, reliability and responsiveness require immediate managerial attention in the banking industry.





**Figure 3: Importance-Performance Matrix Analysis Output**

## 5. Conclusions and Managerial Implications

This study has examined the effect of service quality on customer satisfaction and proceeded to undertake IPMA to identify variables with a relatively high importance and relatively low performance. A quantitative approach using questionnaires was adapted to survey 476 bank customers for the study. Data were analysed using structural equation model (SEM) - Partial Least Square (PLS) version 2.0. We found that service reliability, assurance, empathy, and responsiveness have a significant influence on customer satisfaction. The IPMA also revealed service reliability as the most important service quality dimension, followed by the assurance, and then responsiveness. Hence, we conclude that service reliability, though the relevant element of service quality, is receiving a relatively low performance by the banks. We also conclude that the banks are performing well on service tangibility, followed by service assurance, and then empathy. Thus, there is a mismatch between what customers value most and banks' effort or concentration. These conclusions provide valuable practical and managerial implications for the commercial banks/universal banks as well as the financial institution in the sector. It highlights principal areas where managerial attention is required for improving customer satisfaction.

We recommend that the banks give the highest priority to service reliability by training and developing employees towards performing their duties diligently, accurately and customer-focused; respond to customer queries on time, and honour and exceed promises timely. Again, the banks should shift their resource allocation focus from service tangibility to the other service quality dimensions, which appear to be the most relevant from their customers' perspective. We further recommend that banks develop a program to measure service quality and customer satisfaction on regular basis to meet the changing trend of customer tastes and preferences.

The present study has some theoretical implications as well. This study serves as one of the recent investigations that have uniquely employed the Structural Equation Model – Partial

Least Square for its analysis, and most importantly, undertake IPMA analysis, which has been silent in previous studies, to identify service attributes of top most priority to the banking industry in an emerging economy. It also contributes to the development and relevance of service quality dimensions towards improving the service quality delivery practices in the Ghanaian banking industry. Again, this paper, being the first in Ghana, has not only contributed to filling the gap in the literature but has demonstrated IPMA analysis is essential and deserve more attention, especially within developing economies. Additionally, *findings on the service quality dimensions that are of highest priority to customers are still subjective, and the current study theoretically contributes to increasing the knowledge insight in the field of marketing.*

The major inherent limitation of this study is the generalization of the outcome of the study. Since the study was limited to only the commercial banks and not the entire banking industry, attempt to generalize the results should be made with caution since the study was not cross-sectional across the entire banking industry in Ghana. Future research should, therefore, reproduce the study in other financial institutions in order to confirm the results of our findings across the industry. Additional research could examine longitudinal or comparative studies on service quality and customer satisfaction employing IPMA in other industries.

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