# Assessing the Moderating Effects of Competitive Intensity, Endogenous Parameters and Indirect Effects on Customer Equity and Financial Performance Link

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## **Abstract**

The link between customer lifetime value and financial performance has accelerated much research concern in marketing domain. The main purpose of this paper is to assess the moderating effects of the moderator variables on the link between customer equity and financial performance relationships. The paper presents a holistic model of financial performance incorporating customer retention, customer acquisition and add-on offers. Data from twenty quoted money deposit banks in Nigeria showed that customer retention, customer acquisition efforts and add-on selling have a direct linear relationship with financial performance measure. Also, competitive intensity and endogenous parameter significantly moderate the relationship between customer equity and financial performance. However, the moderating effect of indirect effects on add-on offers and profitability was statistically insignificant. Reliance on indirect effects to accelerate profit in the organization could be a risky strategy.

**Keywords:** Customer Equity; Add-On Offers; Competitive Intensity; Endogenous Parameters; Customer Retention; Acquisition; Profitability

#### Introduction

The link between customer equity and financial performance galvanized research concerns in marketing literature. A number of researchers in marketing domain have argued the possibility that customer equity management contributes to financial performance in the organization (Gupta et al, 2002). Customer equity is emerging as a powerful tool in marketing domain to minimize return on marketing investments and to guide the allocation of marketing resources to profitable ventures (Zunklan, 2011; Rust et al, 2004 and Reinartz et al 2005). Much work on the link between customer equity management and financial performance are far from being explained. The relationship between the three drivers of (Villanueva and Hanssens, 2007) conceptualization of customer equity and financial performance, in particular meets very mixed findings and arguments in literature (Capon and Hulbert, 2007; Blettberg et al, 2001; Bolton and Lemon, 1999; and Gustafson et al 2005). Again, during early stages of customer equity research, it was common knowledge to agree that, the management of customer equity accelerate financial performance, however Bonnema and Christ (2010) argued that the focal issue of whether customer equity accelerates or retards performance in organization remains area of research. The variation in findings of researchers have led to more studies into investigating how other organizational variables could possibly influence the effects of customer equity management on financial performance. Thus, the purpose of this study is to explore how customer equity management in organization interacts with other variables to impact on financial performance. Our research works differ from previous studies (Cytnthia et al, 2012; Bolton and Lemon 1999; Bonnema and Christ 2010), on customer equity management and financial performance measures. This is because previous studies focused on the relationship between customer equity and performance but this study examine the moderating effect on the impact of customer equity and financial performance and above all, how the relationships is moderated by by organizational factors, thus contributing to existing literature.

Again, the customer equity management may be contingent upon other variables, and this is consistent with previous studies (Villanueva and Hanssens, 2007; Jonhson and Binter 2011; Reichheld, 1993). Thus, we consider the moderating effects of competitive intensity, endogenous parameters and indirect effects, on the relationship between customer equity management and financial performance.

Previous research work on competition and customer equity has looked at the influence of competition on customer lifetime value (CLV) (rust et al, 2004; Yoo and Hanssens, 2003; Jackson, 2011). However, previous works have not explicitly looked at how competitive intensity affects the retention and acquisition processes on financial performance. With regards to endogenous parameters. Thomas (2001) as it is in Villanueva and Hanssens (2007) argued that efforts in acquisition impact everything as well as retention efforts which endogenizing the acquisition and the retention rate. Finally, we expect that the moderating effects of competitive intensity, endogenous parameters and indirect effects will help explain some of the contradictions in the literature. This paper emplore the moderating effect of competitive intensity, endogenous parameter and indirect effects on the relationship between customer equity and financial performance link.

## Literature Review

In the early day of research in customer equity, there use to be a simple premise – threat managing customer lifetime value better than the competitors will have greater possibilities financial success (Tang and Zairi, 1989). However, it is now known that mere managing of customer equity does not ensure continued financial performance. Again, there is also evidence to show that in addition to managing equity, other exigencies such as competitive intensity, endogenous parameters and indirect effects impact on customer equity. Therefore, the focus in recent research has somewhat shifted from studying drivers of customer equity to examining drivers of financial performance such as profitability. In the present study, we want to see how some moderating effects on customer equity and financial performance link.

Few studies have established the links between customer equity and organizational factors (competition, endogenous parameters indirect effects), and between organizational factors and firm financial performance. For example, (Bennethdick et al, 2008) examined the link between customer equity management and moderating variables. Tesbar et al (2006) linked moderating variables and equity management to firm financial performance. Mitchez and Zeithaaml (2007) undertake a similar research work, where the main focus was the link between customer lifetime value management and firm financial performance. Whereas (Bassey and Odoms, 2010), Torbias et al, (2006), Lambert et al (2004), established the link between moderating variables and improved financial performance. More recently, Amue (2012) linked customer lifetime value and financial performance measure as profit but using organizational factors as moderating the effects of customer equity on performance. In Amue (2012), he conceptualized customer acquisition and add-on-selling, customer retention (CR) as a driver of customer equity.

Customer retention is a behavioral intention to accompany something. This link is conceptually the strongest in explaining how customers form their behavioral intentions; many studies have also found a direct positive link between customer retention and customer lifetime value (Lewis, 2004; Danny et al, 2008; Cynthia et al, 2012). Researchers have been interested in understanding how customer intention can be increased to enhance profit expectations (Amue, 2012). Because it is a behavioral intention, customers can be loyal to a firm because of several factors. We review some important factors that previous work has considered as customer retention determinants. Lewis (2004) developed a model to evaluate the long-term effect of a loyalty program. In a recent study, Macbeth et al (2010) conducted; it was continuous that there exist direct linear effect of customer retention and financial performance. A surprising result in their study was that customer retention had a much greater impact than acquisition in determining profit. These results were consistent with the earlier studies which we have reported. However, not minding the disagreement in results of some earlier studies, it does not mean that customer retention fails to effect profitability. Therefore, in the absence of switching barriers an association between customer retention, customer satisfaction and profitability could be a plausible proposition. However, being consistent with past studies, this study hypothesizes a linear association between performances. Therefore:

H1: The greater the customer retention, the higher is the level of profitability of the organization.

# Moderating Effect of Competitive Intensity on Customer Retention and Profit

IT has been established in previous studies that, there exist a link between customer retention and firms' financial performance (Amue, 2012; Varti and Colgate, 2001; Kellog and Nie, 1995 cited in Johnbull, 2006). In competitive settings, only a high satisfaction that can lead to customer loyalty, customer remains loyal to a firm because of several other factors. One of this important factors is competitive intensity. The level of competition in the market place can moderate the impact of customer retention on financial performance competitive intensity directly affects the expected customer equity of a firm. For example, when a competitor reduces its prices by 5%, this affect customer's retention rate and increases customer switching. Previous work has focused on the influence of competition on customer equity (Rust et al 2004; Yoo and Hanssen, 2003; Jackson, 2011). However, no much work has explicitly studied how competitive intensity effects that influence of customer retention processes on firm financial performance. Therefore, we propose that:

H2: Competitive intensity will moderate the relationship between customer retention processes and financial performance.

## **Customer Acquisition Efforts as a Driver of Customer Equity**

There has been little empirical support for acquisition efforts – firm financial performance link in the service industry. Organizations are expected to grow and remain in business by acquiring customers that are new to the firm. Customers can be acquired from rival company. Any firm that, do not acquired from new customer will witness a declining market share, sales growth and profit, therefore decision on customer acquisition will have a direct impact on the firm's customer equity. Keata and Bellyn (2008) argued that, it is one thing to acquire customer and it is another thing to select the type of customer acquired.

One may select a customer that is not profitable to the organization. This is a situation when acquisition spending is more than what the customer brings into the firm. In a survey done by Mikel and Anderson (2010), in the hospitality industry, they found evidence to support a direct positive association between customer acquisition and firm financial performance. However, if such hypothesis holds the same association would be similar, if not stronger in the banking sector, where acquisition strategy has been argued to be more relevant. Therefore, we hypothesize as follows:

H3: The higher the customer acquisition efforts, the greater is the influence on firm financial `performance.

# **Moderating Effect of Endogenous Parameters on Customer Acquisition Effort**

Indeed, the role of endogenous parameters can be more complex. Endogenous parameter affect the influence of customer equity on financial performance (Amue, 2012). Further, Nicolas et al (2008) argued that current efforts in acquisition impact future relation probability and hence the inter-relationship should be included in the work of Thomas (2001) as it is in Villanueva and Hanssens (2007).

There is an interaction between endogenous parameters and acquisition effort. Zippok et al (2008) argued that efforts in acquisitions, future prices, marketing costs and so on. We could as well argue that retention efforts impact other variables by endogenizing the acquisition rate. With the above development, endogenous parameters can have a significant moderating effect on the link between customer acquisition efforts and firm financial performances. Therefore:

H4:Endogenous parameters will moderate the relationship between customer acquisition efforts and firm financial performance.

## Add-on Selling as a Driver of Customer Equity

Based on in-depth study, Marbel and Jorski (2009) suggested a model that included add-on selling as an antecedent of customer equity. They defined add-on selling as consisting increase sales due to cross-selling, upselling and high quantity selling.

Few studies have reported the impact of add-on selling on firm financial performance. Tang and Sung (2006) conceptualized add-on selling as cross-selling, up-selling and high quantity selling. Johnson and Binter (2011) refer add-on selling to long-life customers. They distinguished them from short-life customers by the degree of their purchase period, they are expected to buy more from the company than new entrants.

Shriffs and Beckam (2010) had previously held similar views. They argued that firms adopt an aggressive strategy targeting long-life customers in order to induce cross-selling and up-selling. Lowe and Peterson (2012) demonstrated how, the higher the value of the add-on selling of the firm, the higher the profitability of retention. Yin et al (2009) claimed that the relationship between add-on selling and retention probability is important as it might account for a significant portion of the customer equity contribution of a customer. However, this discussion is inadequate to build a dependable hypothesis linking add-on selling to firm financial performance, it is expected that add-on selling will strengthen the level of firm financial performance. Hence:

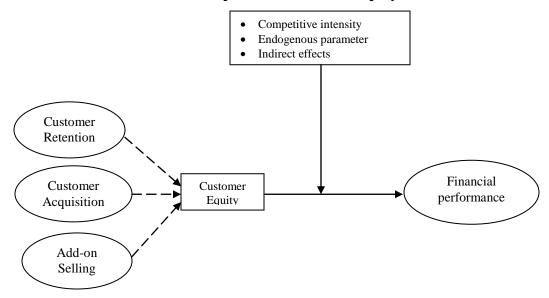
H5: the higher the level of add-on selling, the greater is the level of firm financial performance.

# Moderating Effect of Indirect Effects on Add-on Selling

From our conceptual model in figure 1, the link between add-on selling and firm financial performance has been confirmed in a number of different settings. This is because the model was conceptualized from review of literature. There is also a strong belief that in financial services the impact of add-on selling on financial performance may be low. In fact, some have argued that in services competitive strategy lies on indirect effects which is conceptualized as cross-effect, feedback effects and network externalities (see Villanueva and Hanssens, 2007). Although the study did not offer any empirical support for these claims.

Yoo and Zin (2006) argued that cross-effects is a measure of indirect effect and its measure the behavior of a specific consumer segment has on the lifetime value of another segment. For example, when customers buying the highest product line influence other existing customers in their willingness to upgrade their products. Crosseffect is a significant moderating factor on add-on selling. Another study by Wellman and Kelly (2009) illustrate the importance of indirect effect in terms of feedback effects, which measure the relationship between the firm's performance and future customer relationships. For example, when improvements in profitability derived from existing customers help in future customers acquisitions because of a higher acquisition budget that is closer to the optimal acquisition spending. Again, network externalities as a measure of indirect effect exist when the willingness to buy depends on the number of customers that are already using the product or service. However, form all that we have seen, what has not been tested in the extant literature and is plausible is a situation where firm financial performance requires positive support of both indirect scenario, absence of one is likely to significantly weaken the level of financial performance. For example, those customers who buy because many customers are already using the product, the absence of other long-life customers may affect purchase. Therefore: H6: indirect effects will moderate the relationship between add-on selling and firm financial performances. (see figure 1)

Figure 1: Conceptual Model of the Moderating Effects of Competitive Intensity, Endogenous Parameter and Indirect Effects on the Relationship between Customer Equity and Firm Financial Performance



Source: Conceptualized from review of related literature, 2013.

# Methodology

The study made use of both the qualitative method and the quantitative method. At the first instance, 50 interviews of customers were undertaken with the aim of offering qualitative support for the model. We constructed our sampling frame using multiple sources. We obtained a list of money deposit banks from the central bank of Nigeria (CBN), we validated the list further from Nigeria stock exchange, because the focus of our study was customer lifetime value and financial performance. To be included in the sample, the bank needed to be operating currently and not those that have been acquired or merged with other banks. This resulted in sampling frame of twenty (20) money deposit banks. However, our purpose is to look at customer equity and financial performance link, our units of analysis is both customers and organizations. We interview 50 customers and also selected 150 customers for the survey. We also selected 100 managers in all for the survey making a total of 350 respondents. We mailed out two hundred and fifty (350) copies of the questionnaire. The data collection yielded 220 responses of the possible 350; of the 220 responses 90 were usable for a response rate of 54%. A survey method to solving this type of research problem is consistent with previous studies with similar aims. For example, Mavin and Silveance (2007) conducted a survey to find out drivers of customer equity. Similarly, almost all the previous work done on the studies of customer equity drivers made use of the survey approach.

#### Measures

#### **Financial Performance**

In the past, measuring financial performance is a critical skill for all managers (Badokka and Melvic, 2008). They use a variety of financial tools which enables them to examine managerial effectiveness and identify the strengths and weakness of the company.

Recently, literature has conceptualized financial performance as a multi-dimensional construct consisting of profit and dimensions like liquidity, capitalization and other ratios (Bondmaan et al 2003). Woodruff and Anehow (2006) operationalized financial performance to consist of profit, liquidity, capitalization and other ratios. Some studies made use of liquidity, others uses capitalization. The current study uses profit as a measure of financial performance. It is argued that among all the measures of financial performance, profit measure tend to be superior because with little efforts will help to determine managerial effectiveness.

Therefore, the focus of this study is the profit dimension, as a measure of financial performance. This approach of looking at profit as a dimension has firm support in the literature (see Zeithami, 2000; Lambert 1998; Itiner and Larcker, 1996). The actual scale used to measure profit was adapted from the two-item scale used by Agrawal et al (2001), Walson et al (2000) to measure "profitability relative to expectations and profit relative to competitors".

#### **Customer Equity**

The customer equity (CE) construct has been defined as the value of potential future revenue generated by a company's customers in a lifetime (Capon and Hulbert, 2007). Current research has consistently agreed with this definition. Operationalization of the customer equity construct using both the proximate value based score as well as the now acceptable discounting future stream of profit score is consistent with this conceptual definition. In our study, customer equity was captured using the value based measures, consisting of three items. The statements were in line with those contained in the measure of customer equity in Gupta et al (2002), but with little modification to suit the needs of the study. Gupta et al (2002) developed the measure based on the three customer equity criteria identified by Blattberg et al (2000) and supports empirically by Sahur et al (2001). In the present study, one statement represents each of the criteria, customer retention, customer acquisition and add-on selling. The three (3) items gave an inter-item correlation of 0.88.

# **Competitive Intensity**

Mitecz and Schezt (2004) defined competition as a rivalry between two or more business striving for the same customer or market, and it has been conceptualized as a single dimensional construct consisting of factors which impact on intensity. Porter (2002) operationalized the construct as switching cost, "not ready to switch over price reduction". Feedback from the interviews conducted which was aimed at gaining insight on the wording of the constructs was consistent. The statement almost uniformly identified the respondents views on competitive intensity which was "not minding to go away" it is argued that this statement agreed with both the conceptual definition of striving for customer and the operationalization by porter of not ready to switch over price reduction.

## **Endogenous Parameters**

Endogenous is a biological term use in the study of medical sciences, its usage in marketing literature is very scanty. Simeon et al (2006) defined endogenous parameters as those caused by factors within the body or mind or existing from internal structural causes. Thomas (2001) argued that current efforts in acquisition impact future relation probability. This definition is consistent as it is in Villlanueva and Hanssens (2007) definition, that efforts in acquisition impact everything: the future acquisition, future prices, marketing cost and so on. Previous work has referred to three specific dimensions: future acquisition, future price and marketing costs as a determinant of endogenous parameters. Thus endogenous parameters was measured using a three-item scale as in Villanueva and Hanssens (2007) incorporating future acquisition, future price and marketing cost. In addition to the above scale measure, another measure of endogenous parameter was put in place in the survey instrument to test the measure reliability. The both scale was similar, signifying the degree of reliability of the endogenous measures.

# **Indirect Effects**

Mitchel et al (2003) defined indirect effects as caused by the actions and are later time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effect related to induced changes. Recent research has consistently agreed with this definition. Operationalization of the indirect effects construct result in three-item scale, cross-effect, feedback effect and network externalities – as determinants of indirect effects (see Berdford, 2003). Berdford suggested that indirect effect is caused by certain action which may influence growth effect. Thus, indirect effect in our present study was measured using a three-item scale suggested by Acquirus et al (2004). Cross-effects as a dimension of indirect effects, measure the behavior of specific consumer segment has on the lifetime value of another segment.

# **Data Analysis**

We present the construct reliability and convergent validity of the individual constructs in the research model. Using Fornell and Larker's (1981) procedure, the composite reliability of the constructs was obtained. A composite reliability value exceeding 0.70 would suggest a reliable measure (Hair et al, 1998). The variable extracted (VE) was also computed for each construct, again Fornel and Larker (1981) suggested that a VE value of at least 0.50 is sufficient to establish construct convergent validity. The reliabilities and variance extracted values obtained for all the individuals constructs are presented in table 1 below

**Table 1: Construct Reliability and Variance Extracted** 

Constructs	Composite Reliability	Variance Extracted	
Financial performance	0.91	0.82	
<b>Moderating Variables:</b>			
Competitive intensity	0.93	0.72	
Endogenous parameters	0.90	0.70	
Indirect effects	0.94	0.80	
<b>Customer Equity Dimensions</b>			
Customer retention	0.95	0.84	
Customer acquisition	0.92	0.76	
Add-on selling	0.91	0.71	

The table shows that all of the individual constructs had composite reliabilities exceeding the minimum value of 0.70, suggesting they were reliable. Again, the variance extracted of all of the constructs exceeded the minimum value of 0.50, suggesting they also had convergent validity (Fornell and Larker, 1981).

We also assess the discriminant validitry of our constructs using the procedure suggested by (Fornell and Larker, 1981). We examine the shared variance between the construct pairs and the VE of the measures. Fornell and Larker (1981), suggested that discriminant validity is established when the VEs of the construct pair is larger than the shared variance between them. See as presented on table 2.

Variance Financial Competitive Customer Constructs Endogenous Indirect Customer acquisition extracted performance intensity parameter effect retention Financial 0.82 performance Competitive 0.70 0.72 intensity Endogenous 0.70 0.49 0.61 parameter Indirect effect 0.80 0.25 0.71 0.30 Customer retention 0.59 0.35 0.84 0.43 0.52 0.76 0.34 0.21 Customer 0.48 0.15 0.20 acquisition Add-on selling 0.71 0.43 0.32 0.60 0.50 0.41 0.35

Table 2: VE and Shared Variance for the Model

As can be seen in the table 2 above, the shared variance between pair of constructs was less than the variance extracted for all of the corresponding constructs. This meant that discriminant validity was achieved among the constants.

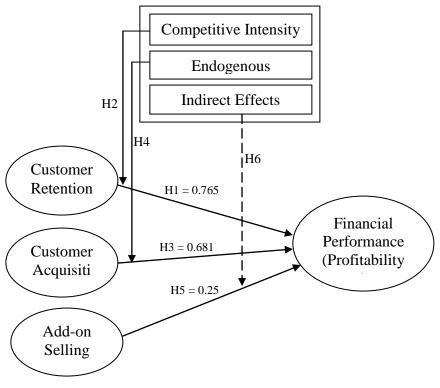
We also assess the overall measurement model fit using the normed chi-square index (Joreskoy, 1970) the comparative fit index (CFI) (Bentler, 1990), the tucker-lewis index (TLI) (Tucker and Lewis, 1973), the standardized root mean square residual (SRMSR) and the root mean square error of approximation (RMSEA). The normed chi-square for the model was 1.92, which was well below the threshold of 3.0 that was suggested to show a good model fit (Brooke et al 1988 and Hoelter, 1983). The CFI value for the model was 0.94, which is also well above the cut-off of 0.90 suggested by Bagozzi and Baumgartner (1994). The TLI value of 0.96 was also above the cut-off of 0.90 suggested by (Hoyle, 1995). The standardized root mean square residual (SRMR) of 0.05 was below the maximum value of 0.08 suggested by Hu and Bentler (1999) and the root mean square error of approximation (RMSEA) was 0.04, which was below the suggested value of 0.08 (Browne and Cudeck, 1993). From the above, we discovered that indices suggested a good model fit. It is without doubt the data fits the model well.

Since, we have established the fitness of model, the hypotheses relating to the impacts of the various independent constructs in the model can be tested. The hypotheses relating to the independent constructs are H1, H3 and H5.

## The Customer Retention-Financial Performance Relationship

Hypothesis 1 suggested customer retention has a positive impact on financial performance measure as profitability. The hypothesis was suggested in the study as the impact of customer retention on profitability was very significant (P=0.00), which is consistent with the view of previous researchers that customer retention influences future profit of the organization (Macbeth et al 2010; Amue and Igwe, 2012 Lewis, 2004 and Danny et al, 2008).

The result justifies management's quest to improve organizations' profit by focusing on customer retention (Amue and Igwe, 2012). The above relationship is contain in figure 2 below



**Figure 2: Showing Relationships** 

Hypothesis 3 suggested that customer acquisition efforts have a positive impact on firm financial performance measure as profit. Figure 2 shows that the results supported this hypothesis as customer acquisition efforts had a significant positive impact on profit (P=0.00). However, of the three dimensions examined in the study model, customer retention had the greatest impact on financial performance of the firm.

Hypothesis 5 suggested that the higher the level of add-on selling, the greater is the level of firm financial performance. As is also shown in figure 2, add-on selling did not significantly affect financial performance (P=0.73). Consequently, hypothesis 5 was not supported.

## **Assessing Moderator Effects**

Recall that the main purpose of this study was to assess the moderating effects of competitive intensity, endogenous parameter and indirect effects on customer equity and financial performances link. The remaining hypotheses (H2, H4, H6) will be used to assess the moderator effects. We used the multiple group analysis to analyze the relationship between the moderators and the link.

Degree of **Dimensions** Coefficients (subgroups) Chi-square difference freedom Low High Customer equity dimensions -9.05\* 4 Financial performance Customer retention - Profit 0.41 4.45\*\* 0.62

Table 3: Multiple Group Analysis-Competitive Intensity as a Moderating Variable

As we can see in table 3, the chi-square difference for the dimension-customer equity to financial performance was 9.05 which was significant at 0.1 level (the critical value was 6.20 with 4 degree of freedom) suggesting that competitive intensity had only a marginal moderating effect on the link. However, a closer observation of the moderating effect of competitive intensity on customer retention and profitability link found competitive intensity have a significant moderating effect as the chi-square difference value was significant at 0.05 level (critical value of 4.45 with 1 degree of freedom).

<sup>\*</sup> Significant at the 0.1 level

<sup>\*\*</sup> Significant at the 0.05 level

<sup>\*\*\*</sup>Significant at the 0.01 level

With this development, hypothesis 2 which suggested that competitive intensity will moderate the link between customer retention and firms' profit is accepted.

Table 4: Multiple Group Analysis – Endogenous Parameter as a Moderating Variable

Dimensions	Coefficients (subgroups)		Chi-square	Degree of
	Low	High	difference	freedom
Customer equity dimensions -			17.90***	4
Financial performance				
Customer acquisition – Profit	0.65	0.15	5.15*	1

<sup>\*</sup>Significant at the 0.1 level

As we can see in table 3, the chi-square difference for the dimension-customer equity to financial performance was 17.90 which was significant at 0.01 level (the critical value was 15.20 with 4 degree of freedom) suggesting that endogenous parameter had only a marginal moderating effect on the link. A closer examination of the moderating effect of endogenous parameters on customer acquisition construct found that a significant effect (chi-square difference of 5.15 at 0.1 level, critical 3.76 with 1 degree of freedom) on the link between customer acquisition effort and financial performance. Hence, hypothesis 4 which suggested that endogenous parameter will moderate the relationship between customer acquisition effort and financial performance is accepted.

Table 5: Multiple Group Analysis - Indirect Effects as a Moderating Variable

Dimensions	Coefficients (subgroups)		Chi-square	Degree of
	Low	High	difference	freedom
Customer equity dimensions -			1.65	4
Financial performance				
Add-on selling – Profit	0.62	0.36	1.120	1

<sup>\*</sup>Significant at the 0.1 level

In Table 5 above, the chi-square difference for the link from the customer equity dimensions to financial performance was 1.65 which was not significant even at the 0.1 level (critical value of 5.02 with 4 degree of freedom), suggesting that indirect effects did not moderate the link. A closer examination of the moderating effects of indirect effect on the dimension of add-on selling and financial performance reinforced the view that indirect effects did not moderate the links between add-on selling and financial performance (chi-square difference 1.20).

This development brings to fore, that the hypothesis to which suggested indirect effects will moderate the relationship between add-on selling and financial performance is rejected.

#### Discussion

The results showed that all three dimension of customer equity – customer retention, customer acquisition and add-on selling on financial performance were significant and positive. Also, the results showed that as hypothesizes, competitive intensity and endogenous parameters moderated the relationships except H6.

It is evident; firms that do not acquire new customers will have its market share reducing which will in turn affects profitability. Again if customers are not retained to make further purchases, profit will erode the firm. We argued that an increase in customer equity by 10 percent is going to increase profit rate by almost 5 percent. Again, when customers observe a low retention rate and acquisition rate, an increase in customer lifetime value by 10 percent will increase profit by 8 percent. Thus, it shows that increasing customer lifetime value can significantly strengthen profitability of the firm. The respondents cited customer retention as the main reason for profit performance expectation. It is possible that poor customer equity acts as a trigger for a high level of profitability. Therefore, it is clear that increasing customer lifetime value can significantly increase the level of profitability.

<sup>\*\*</sup> Significant at the 0.05 level

<sup>\*\*\*</sup>Significant at the 0.01 level

<sup>\*\*</sup> Significant at the 0.05 level

<sup>\*\*\*</sup>Significant at the 0.01 level

The results also showed that both moderator variables, competitive intensity and endogenous parameter would moderate the effect of customer equity on profit performance. The positive coefficient form the interaction term CEX competitive intensity (CI), shows that for a given level of customer equity, those customers who are retained are significantly more likely to purchased, thus competition directly affects the expected customer equity of a firm. For example, when a competitor reduces its price by 5 percent, this may affect customer's retention rate an increase customer switching. It was earlier argued that customer retention have the highest positive effect on profitability. However, a look at this, shows that high customer retention rate alone may be inadequate to generate all the needed profits. Basically, where customer retention rate could be improved and customer acquisition efforts are poor, increasing customer lifetime value will help to strengthen profitability of the firm. Jut where customer retention process are already high, the only way to increase profit performance will be a combined customer retention strategy.

Endogenous parameters had a similar moderating effect on customer equity and financial performance of the firm. The positive coefficient for the interaction term CEXEP (endogenous parameter). Indicates that for a given level of customer equity (CE), the higher the endogenous parameter, the stronger the level of profit performance. It was suggested in literature that endogenous parameters affects the influence of customer equity on financial performance of the firm. It was argued that current efforts in acquisition impact future relation probability, and that efforts in acquisition impact everything including future acquisition, future price and marketing cost. Thus, the higher the endogenous parameter, the higher the impact of acquisition effort on financial performance.

However, indirect efforts was found not to have a significant moderating effect on the relationship between addon selling and financial performance. While this result was contrary to what was hypothesized, it was not totally
unexpected since it was suggested that it measures the behavior of a specific consumer segment has on the
lifetime value of another segment. Indeed, an examination of the profit expectation when indirect effects interact
with add-on selling gave some interesting results. When the willingness to buy depends on the number of
customers that are already used the product or service. There was no significant difference even at the 0.1 level.
However, the absence of a moderating significant impact between indirect effects and add-on selling on profit
does not mean that indirect effects measured by cross effects, feedback effects and network externalities has no
impact on profit. Recent research has found instance where improvements in profitability derived from existing
customer help in future customer acquisitions because of a higher acquisition budget that is closer to the optimal
acquisition spending. However, in the present study, the association between cross-effects, feedback effects and
network externalities and add-on selling which depends on number of feasible add-on offers per period was
significant only for retained customers. As such, it is possible that the impact of indirect effects on add-on offers
will be determined by the competitive intensity of the industry in question.

#### **Conclusions**

As a matter of fact, research in customer equity is still very new in the marketing domain. However, few that has undertaking research in this area has attempted to link customer lifetime value to firm financial performance. This study attempted to build a more holistic model by introducing the moderating effects - competitive intensity, endogenous parameters and indirect effects on the link between customer equity and financial performance relationship. The study reported that customer retention is indeed an important driver of financial performance, given that customer retention explained the higher variation in the dependent variable (financial performance). However, customer retention does not seem to be the only source of profit expectation of the firm. Competitive intensity can result to customer switching, therefore customer retention without customer acquisition is inadequate. Where customer retention rate could be improved and customer acquisition efforts are low, increasing customer equity will help to boast profit. But where customer's retention is already high, the only way to generate continuous profit for the firm will be a combined customer retention and acquisition strategy. This is because purchase frequency was supposed to increase customer lifetime value but there exist a point of diminishing returns where further spending on retention would lower customer equity. When retention rate gets sufficiently high, further increase in retention becomes very expensive and there has to be a point from which the marginal cost of an increase in retention is higher than the marginal benefit. Therefore, in this context, a combined customer retention strategy and customer acquisition strategy may work best.

The interactions of endogenous parameters and indirect effects appeared to bring mixed expectations to bank service providers. Normally, organizations are likely to be in a position to take advantage of endogenous parameters in order to enhance profitability.

However, the moderating effect of indirect effects on add-on offers was statistically insignificant. This was a clear deviation from previous studies, which suggested that add-on selling is an important factor that maximizes customer equity by increasing the baseline customer lifetime value of an acquired customer. Now that our study is the opposite of the previous studies, reliance on indirect effect to accelerate profit in the organization could indeed be a risky strategy.

# Limitations and Directions for Further Study

This study was limited by the fact that it was purely based on cross sectional survey data. Again, some of the constructs used in this study such as endogenous parameters and indirect effects are relatively new and as such there was no much elaborate literature. Future studies could attempt to build more robust measures that will have much literature.

The study was also limited by looking at the moderating effect of competitive intensity on retention and profit and not competitive intensity and other measures of customer equity. Further research work should look at the moderating effects of the moderator variables on customer equity and financial performance not limited to only profit as a measure of financial performance.

The study don not look at the co-relationship between the variables of study to examine whether there exist any multiconearity among them. Our study looked at linear moderating relationships between the various construct. While the moderating relationship between indirect effects on add-on offers and profit was non-significant, plausible arguments could be generated to hypothesize non-linear moderating effects. Therefore future studies could pursue such development and test to explain what could be accountable. Finally, concerning the degree of generalization of the findings of this study to companies within and outside the banking industry. It is recommended that future research should expand on the current study along several key directions, the first being a cross-cultural replication of the model in the banking industry. Such studies could, for example, example for model invariance across individualistic and collectivist cultures.

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