

Internal Marketing, Organizational Citizenship Behavior and Service Delivery in Nigerian Public Hospitals

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ABSTRACT

Prior efforts to gauge the simultaneous effects of internal marketing and organizational citizenship behavior (OCB) on service delivery, the potential impacts of practices that show organization's value for their employees at OCB intervention, and the effects on value-creating offering, have not earned considerable focus among researchers. The study employed Multivariate Regression Analysis and Structural Equation Modeling, to validate the aggregate effects of internal marketing and organisational citizenship behaviour on quality service. There are also strong indications that works in this area, apart from being undertaken outside developing countries, were neither in the public health sector domains nor reflecting the intervening dimensions of OCB from a more holistic and integrative platforms. Leaning squarely on the theoretical constructions by Homans (1958)'s Social Exchange Theory; Morgan & Hunt (1994)'s Commitment – Trust Theory, the study found predictive abilities and extent of effects of individual as well as aggregate dimensions of internal marketing on value creation and quality service. Results have further shown that, all the dimensions of OCB disproportionately moderate the effect of internal marketing dimensions on service delivery quality; and that internal communication, organizational support, and employee motivation are the key internal marketing drivers that enable the Nigerian public hospitals better respond to the health-care needs of Nigerians. It is stressed that the Nigerian Hospitals and African's Health sectors in diaspora can maximize the payoff of sustained management-employee-customer value chain if they strategically and creatively invest in, and develop their internal employees for enhanced quality service.

Keywords: Organisation; Citizenship Behaviour; Internal Marketing; Performance; Service Delivery; Public Hospital employees.

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1. INTRODUCTION

Investment in the firm's creative and intellectual resource is a sine-qua-non to attaining market leadership and developing energetic, committed, trusted and self-motivated employees. This, in the thinking of many, is the secret of earning and consolidating on competitive advantage that spurs from optimum use of the firm's human capital. Authors such as Gooshki, Jazvanaghi, Kermani & Eskandari 2016; Barzoki & Ghujali 2013; Abzari and Ghujali 2011, have hinted on the need among firms to pay high premium on their productive capital for global competitiveness. Never in the age of nation's industrialization and emerging technology has been dire need for people with the right orientations, foresight, talent and creative thrust to impact on the pace of social-economic, infrastructural development, and accelerated technical, technological and industrial progress. Imperative to stress that motivated and committed employees are critical determinants of organizational fortune more so as today's organizations continue to galvanize through muddled waters of environmental uncertainties, and increasing concern to respond swiftly to fast pace of product obsolescence, workforce diversity, emerging technologies, hostile competition, and changed expectations and needs. Firms are not simply to channel all their resources to satisfy external customers' needs. Management must also show concerns for the plights of their employees through forging integration and developing strategic collaborations. Organization's output quality and ability to thrive and make success in its changing environment depends on the value of its employees it has helped to nurture and build overtime. The traditional system of marketing that links organization directly to its customers without recognizing the worth of the employees in adding value and facilitating exchange processes, has become increasingly fast eroding. Policies and practices for improving customer service through quality, timely and effective product delivery, customer' satisfaction, and customer's self-identity must be taken by enacting effective structures to train, develop, motivate, involve and empower employees. Ballantyne (2000) asserted that marketing is mainly a fusion of various disciplines intended for creating and delivering value for organization's external market or customers, as such it needs the support of collective and economic relations that are in-ward driven for these values to be effectively, efficiently and profitably provided and delivered. This kind of support reflects the notion of internal marketing which enables organizations to see its employees as valued, indefatigable, irreplaceable and rare assets (Sincic & Vokic, 2007). Coined by Berry, Hensel & Burke (1976), the concept was recommended as a recipe for poor service delivery, but the term did not enter popular management discourse until Leonard Berry's seminar article of 1981, where he linked internal marketing to "organisation considering employees as internal stakeholders and jobs as internal products that satisfy the needs of these core customers group while working at achieving organizational goals" (Berry, 1981). Drawing from the above, it has become exigent that, for organisation to succeed in reaping the proceeds of successful marketing outing, it must chart a new path to overcoming hitches to organizational effectiveness and improving performance with target customers group for the long-run mutual benefits of concerned parties.

Harnessing and consolidating on the resources of men for admirable performance, and achieving strategic integration, organization must note that "the 21st century employees do not simply have to be hired, trained and treated as internal customers, but be given enhanced reward that are valuable and quite beyond the perceptive imagination of the workforce". By their nature, employees are enthused to identify with employers that provide guarantee for job security, flexible work times, empowerment, autonomy and rewarding careers. Organisational

citizenship behaviour, in the insightful work of Organ (1988), is defined as performance of individual that is optional, not openly or overly agreed upon by the formal reward system, and that in the whole, support the age-long success of the organisation. Reflecting on the above perspective, Roshani, Zad, & Bijarchi (2015) have asserted that “Organizational Citizenship Behaviour is ideal for organizations, because it has bearing with important organizational concepts such as effectiveness and productivity, and it enhances obtainable benefits and reduces the need for bureaucratic and expensive control methods”.

As its clear demonstration and commitment to guarantee citizens’ right and access to quality health care, a social contract bill called the “Service Compact with all Nigerians” (SERVICOM), was signed into law by the government in March 2004. However, Health care sector in Nigeria is bedeviled with quite enormous challenges, including rise in competition from private health care organizations, increased in patients’ awareness and information about health needs and alternative health cares, decayed infrastructures, bureaucracy, inadequate funding, among others ((Iloh, Ofoedu, Njoku, Odu, Ifedigbo, & Iwuamanam, 2012). In the recent times, the ultimate test of future business success is by engaging in practices that align marketing goal of creating and delivering valued offering with building and strengthening strategic attachment with internal stakeholders. The internal marketing fills this lacuna by balancing organisation commitment to the needs of its target market with those of the workforce for mutual long-term advantage, and as Podsakoff, Mackenzie, Paine & Bachrach (2000); Sincic & Vokie (2007) lucidly posited, “internal marketing shapes employees’ organisational citizenship behavior, not limited to only frontline service employees, but supporting staff also”. It is often argued that, for organisations to thrive, they must trade highly for committed, self-motivated, goal-driven employees to sustain relationships and improve wholesome relationship with their customers. On the other side of the coin, a poorly motivated or an untrained employee will succeed in damaging long-established relationships and may even consistently expose the organisation to unavoidable liabilities and fruitless legal tussles. For citizens to feel its impact, it is natural for the Government of any country to establish hospitals, health centers, clinics, and maternity homes. However, a lot of the organizations have not given thought to strategic worth of their human capital in influencing and reinforcing organization’s effort to dispense valued service to clients to attain their full potentials.

The employees in any organizational platform are thought of, as the catalysts to lubricating and oiling perceived bottlenecks to smooth industrial progress and rapid growth. This study modified and adopted the SERVQUAL measures of service performance as quality indicators for health workers (World Bank, 2013). According to World Bank bulletin 2013, service delivery indicators for health workers included: “provider’s ability - diagnostic accuracy, adherence to clinical guidelines, management of materials/neonatal complications; provider’s effort - absence from facility, caseload per provider; and availability of key inputs – equipment availability, drug availability, and infrastructure availability. In this paper, the employees are the actual service providers in the value chain; the customers perceive and rate the organizations performances through the employees.

2. LITERATURE REVIEW

2. 1. Theoretical framework

Social exchange theory was coined by Homans (1958) to explain the group behaviour of members in economic activities. It suggested that the contract bond among members of the fixture is that, every act intended for a reward has mutual rewarding response.. According to Blau (1964), “two forms of exchange relations exist which is able to be observed among people or collective units; they are economic and social exchange”. Economic exchange is premised on the agreement among parties involved; their responsibilities are plainly stated and definite; and exchange take place precisely as agreed on. Social exchange, refers to associations that involve unspecified future responsibilities, and is based on trust and a belief of mutual intent (Blau, 1964). Holmes (1981) stated that social exchange, like economic exchange anticipates some future compensation for contributions to achievements; but, unlike economic exchange, the duties and reward are unspecified and exchange take place with no expectations for express and instant reward.

The commitment – trust theory was put forth by Morgan & Hunt (1994). The theory states that two fundamental factors – commitment and trust – must subsist so that a relationship might flourish. Relationship marketing entails making connections with clients by gratifying their requests and honoring promises. Instead of chasing short-term earnings, organizations that are guided by relationship marketing notion form long-lasting connection with their clients. Clients trust the organizations by reason of this bond, and the shared faithfulness assist both parties satisfy their needs. Organizations become trusted when they stand behind their promises. The outcome of association based on dedication and dependence are cooperative actions that enable parties involved gratify their needs. Customers not only get the product they are paying for, but they also feel valued. The organization earns customer loyalty in return.

3. RESEARCH METHODOLOGY

In this study, cross sectional research survey method involving questionnaire, was used to elicit responses from two hundred and eighty-eight core medical health workers taken from the population of one thousand, and twenty four, through the stratified random sampling. The study employed descriptive statistics including tables, mean and standard deviation, for data presentations and Correlation Matrix, Multivariate Test of Means, Multivariate Test of Correlation, Test for Multivariate Normality and Test for Covariance Matrix, were also used to examine the general level of acceptance of the data processed. The reliability of the instruments was obtained at $R = 0.96$ (see appendix A, table A. 1). Inferential statistic of Multivariate Regression was used to analyze the hypotheses at 0.05 significant levels and hypothesis six was validated by means of Structural Equation Model (SEM). The analysis was run using the Strata (v. 13.0). The scale for analysis contained statements modified to reflect internal marketing, employees’ service delivery quality, and OCB practices in hospital setting using a 5 point Likert scale with strongly disagree/poor (value 1), midpoint (undecided/uncertain - value 0), and strongly agree/excellent (value 4) to measure the practices; with 2.00 as mean cut-off point.

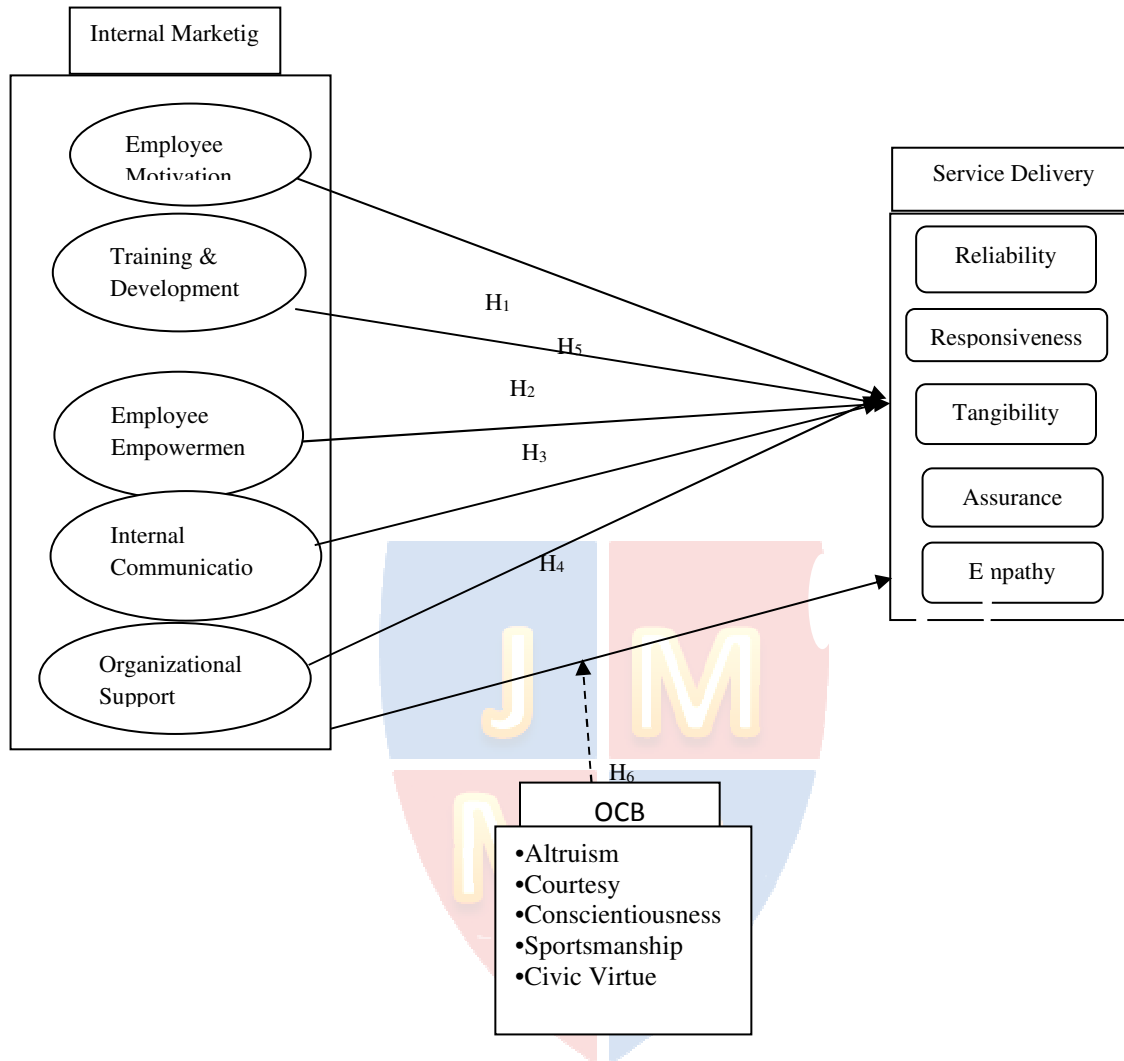


Fig. 3. 1 Dimensions of Internal Marketing, Service Delivery and Organisational Citizenship Behaviour.

3.1. Model Specifications

Model I

$$Y_i = f(X_1);$$

Rewritten as:

$$SDQ = \alpha_0 + \beta_1 E M + U_t$$

Model II

$$Y_i = f(X_2)$$

$$SDQ = \alpha_0 + \beta_2 T D + U_t$$

Model III

$$Y_i = f(X_3)$$

$$SDQ = \alpha_0 + \beta I C + U_t$$

Model IV

$$Y_i = f(X_4)$$

$$SDQ = \alpha_0 + \beta_4 E E + U_t$$

Model V

$$Y_i = f(X_5)$$

$$SDQ = \alpha_0 + \beta_5 O S + U_t$$

Model VI

$$Y_i = f(X_i)$$

$$SDQ = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_1 Z_1 + \beta_2 Z_2 + \beta_3 Z_3 + \beta_4 Z_4 + \beta_5 Z_5 + U_t$$

$$SDQ = \alpha_0 + \beta_1 E M + \beta_2 T D + \beta_3 I C + \beta_4 E E + \beta_5 O S + \beta_1 Altr + \beta_2 Cout + \beta_3 Consc + \beta_4 Spor + \beta_5 C Vir + U_t$$

Where:

$$Y_i = Y_1 + Y_2 + Y_3 + Y_4 + Y_5$$

Y_i = Service Delivery Quality (SDQ) (The dependent variable with Y_1, Y_2, Y_3, Y_4, Y_5 standing for unit measure of service delivery quality; Y_1 = Reliability (REL); Y_2 = Responsiveness (RES); Y_3 = Tangibility (TAN); Y_4 = Assurance (ASS); Y_5 = Empathy (EMP))

X_i = Internal Marketing (IM), with X_1, X_2, X_3, X_4, X_5 representing unit dimensions of internal marketing respectively and X_1 = Employee Motivation (E M); X_2 = Training & Development (T D); X_3 = Internal Communication (I C); X_4 = Employee Empowerment (E E); X_5 = Organizational Support (O S))

$$Z_i = Z_1 + Z_2 + Z_3 + Z_4 + Z_5$$

Z_i = Organizational Citizenship Behaviour (OCB) (The moderating variable with Z_1, Z_2, Z_3, Z_4, Z_5 standing for unit measures of OCB, where Z_1 = Altruism (Altr); Z_2 = Courtesy (Cout); Z_3 = Conscientiousness (Consc); Z_4 = Sportsmanship (Spor); Z_5 = Civic Virtue (C Vir)).

α = y-intercept (constant value) which explains the level of service delivery quality where internal marketing dimensions/practices is zero or not practiced.

β_i = Coefficient of the independent variable with $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ representing the percentage effect of each IM variables on employees' SD; and each of the moderating variables on SD.

U_t = stochastic term that explains other unexplained variables that account for employees' service delivery.

4. DATA PRESENTATION AND DESCRIPTIVE STATISTICS

(See Appendix B (Tables B. 1, B. 2, & B. 3).

4. 1. **Analysis of Data:** See Appendix C (table C. 1, C. 2, C. 3, C. 4, & C. 5)

4. 2. **Correlation Matrix** (see appendix D. 1)

All the internal marketing dynamics - employee motivation (em), training and development (td), employee empowerment (ee), internal communication (ic), and organizational support (os), and the mediating variables (organizational citizenship behavior) were seen to be positively correlated as none of the correlation coefficients exceeds 0.8 implying that, there is the absence of multicollinearity among the pairs of independent variables of the study and that the data is fit for conducting a regression analysis.

4.2.1. *Aggregate correlation matrix* (see Appendix D. 2).

The correlation matrix results for the internal marketing, organizational citizenship behavior, and service delivery quality variables show that none of the variables exceeds 0.8 and is positively correlated, suggesting no multicollinearity problem among them.

4.2.2.. *Multivariate test of means, correlation, normality and co-variance matrix* (see appendix D. 3).

The test result reveals Hotelling $F(14, 249) = 51.18$ with Prob. $F = 0.0000$ which is lesser than 0.05% and suggests that all the means of independent, dependent and moderating variables are similar. The multivariate test of means correlation computed reveals Lawley $\chi^2(104) = 900.03$ with Prob. $F = 0.0000$ which is lesser than 0.05% and indicates that the matrix is compound symmetric for the internal marketing dimensions; service delivery dimensions; and organizational citizenship behavior dimensions. For test of normality, the Doornik-Hansen statistics $\chi^2(30) = 223.178$ with Prob $\chi^2 = 0.0000$, is an indication that all the variables are normally distributed at 5% significance; hence the data for the study satisfy the normality condition. The covariance matrix that produces the adjusted LR $\chi^2(105) = 1907.13$ with Prob. $F = 0.0000$ which is lesser than 0.05%, suggests that the covariance matrix is diagonal (i.e. crosswise or transverse).

5. 1 RESULTS/DISCUSSION

Model I

H_0 : There is no significant effect of employees' motivation on service delivery in public hospitals in the geo-political zones of Nigeria.

The regression result (see appendix E. 1) for the relationship between employee motivation and service delivery quality shows Adjusted R-squared of 0.2384, signaling that employee motivation explains about 23.84% of the systematic variation in service delivery quality. Similarly, the F-ratio with value 83.00 is statistically significant at 0.05, given $(P) = 0.0000$ which is less than the level of significance, i.e. $(P(0.000) < 0.05)$ is an indication that employee motivation is statistically significant and a predictor of service delivery quality. The R-Squared for reliability (REL) = 0.0826, responsiveness (RES) = 0.1452, tangibility (TAN) = 0.2558, assurance (ASS) = 0.1633 and empathy (EMP) = 0.1434, suggests that (employee motivation) explains about 8.26%, 14.52%, 25.58%, 16.33% and 14.34% of the systematic variations in REL, RES, TAN, ASS and EMP for the sampled public hospitals in south-south geopolitical zone of Nigeria. The F-ratios indicate that service delivery (REL=23.51105; RES=44.35166; TAN=89.71756, ASS=50.93017 and EMP=3.68243) are significantly affected by employee motivation, and that the relationship between employee motivation and service delivery is well explained. The positive coefficient values (REL = 0.3358, RES = 0.4319, TAN = 0.4788, ASS = 0.4973, and EMP = 0.5574) shows that a unit change in employee motivation will result in 33.6%, 43.2%, 47.9%, 49.7%, and 55.7% changes respectively in REL, RES, TAN, ASS, and EMP, showing the extent of effects. The t-value of the regression result for employee service delivery pass the 5% level of significance or 95%

level of confidence test. Besides, the p-values of service delivery measures (REL, RES, TAN, ASS and EMP) show that there is strong significant positive relationship between employees' motivation and service delivery in the selected public hospitals in Nigeria; therefore, the null hypothesis is not accepted. This implies that there is significant positive effect of employees' motivation on service delivery in public hospitals. This is in consonant with the reports of (Zameer, Ali, Nisar & Amir, 2014; Asim, 2013; Tansey, McHugh & McGrath 2004).

Model II

H₀: Training and development do not significantly affect service delivery in public hospitals in the geo-political zones of Nigeria.

The test result (see appendix E. 2) gives the Adjusted R-squared of 0.1857, suggesting that training and development explains about 18.57% of the systematic variation in service delivery quality. The F-ratio with value 60.73 is statistically significant at 0.05 given ((P (0.000) < 0.05), an evidence that training and development is statistically significant and a predictor of service delivery quality. The R-Square values for REL (reliability) = 0.0378, RES (responsiveness) = 0.0574, TAN (tangibility) = 0.2260, ASS (assurance) = 0.1430 and EMP (empathy) = 0.1782, suggest that training and development explain about 3.78%, 5.74%, 22.6%, 14.3% and 17.82% of the systematic variations in REL, RES, TAN, ASS and EMP for the sampled public hospitals in Nigeria, thus indicating weak variation. The F-ratios show that service delivery (REL=10.25262; RES=15.88114; TAN=76.20842; ASS=43.55871 and EMP=56.60853) are significantly affected by training and development, and that the relationship between employee motivation and training and development is well explained. The positive coefficient values (REL = 0.2163, RES = 0.2585, TAN = 0.4286, ASS = 0.4433, and EMP = 0.5919) shows that a unit change in employee training and development will result in 21.6%, 25.9%, 42.9%, 44.3%, and 59.2% changes respectively in REL, RES, TAN, ASS, and EMP. The t-value of the regression result for employee service delivery pass the 5% level of significance or 95% level of confidence test. More so, the p-values of service delivery measures (REL, RES, TAN, ASS and EMP) show that there is strong significant positive relationship between training and development and tangibility, assurance, and empathy dimensions of service delivery and weak significant positive relationship between training and development and reliability and responsiveness dimensions of service delivery; hence, the null hypothesis is not accepted. This validation is in tandem with the findings of (Jones & George, 2003; Onyango & Wanyoike, 2014; Asfaw, Argaw & Bayissa, 2015).

Model III

H₀: There is no significant effect of internal communication on service delivery in public hospitals in the geo-political zones of Nigeria.

The regression result (see appendix E. 3) gives an Adjusted R-squared of 0.3125, meaning that internal communication explains about 31.25% of the systematic variation in service delivery quality. The F-ratio value of 120.11 is statistically significant at 0.05 given P = 0.0000 which is less than the level of significance (P-value 0.000 < 0.05), is an evidence that internal communication is statistically significant and a predictor of service delivery

quality. The R-Squared for REL (reliability)=0.1428, RES (responsiveness) = 0.2288, TAN (tangibility)=0.2650, ASS (assurance) = 0.2292 and EMP (empathy)=0.1499, suggests that internal communication, explains about 14.28%, 22.88%, 26.50%, 22.92% and 14.99% of the systematic variations in REL, RES, TAN, ASS and EMP for the sampled public hospitals in Nigeria. The f-ratios denote that service delivery (REL=43.48471; RES=77.44388; TAN=94.12345, ASS=77.60151 and EMP=46.02099) are significantly affected by internal communication, and that the relationship between internal communication and service delivery is well explained. The positive coefficient values (REL = 0.4534, RES = 0.5568, TAN = 0.5005, ASS = 0.6052, and EMP = 0.5854) shows that a unit change in employee motivation will result in 45.3%, 55.7%, 50.1%, 60.5%, and 58.5% changes respectively in REL, RES, TAN, ASS, and EMP. The t-value of the regression results for employee service delivery pass the 5% level of significance or 95% level of confidence test. Moreover, the p-values of service delivery measures (REL, RES, TAN, ASS and EMP) show that there is strong significant positive relationship between internal communication and service delivery in public hospitals in Nigeria. Result concurs with, Wanjau, Muiruri, & Ayodo (2012)'s findings but contradicts the report of El Samen & Alshurideh (2012).

Model IV

H₀: There is no significant effect of employee empowerment on service delivery in public hospitals in the geo-political zones of Nigeria.

The result of regression (see appendix E. 4) with an Adjusted R-squared of 0.0889, suggests that employee empowerment explains about 8.99% of the systematic variation in service delivery quality. Furthermore, the F-ratio with value 26.58 is statistically significant at 0.05 given ((P(0.0000) < 0.005), a confirmation that employee empowerment correlates significantly with, and a predictor of service delivery quality. The R-Squared for REL (reliability) = 0.0262, RES (responsiveness) = 0.0436, TAN (tangibility) = 0.0562, ASS (assurance) = 0.1289 and EMP (empathy) = 0.0510, suggest that the independent variable (employee empowerment) explain about 2.62%, 4.36%, 5.62%, 12.89% and 5.10% of the systematic variations in REL, RES, TAN, ASS and EMP for the sampled public hospitals in Nigeria, indicating a relatively low level of variation explanation for all the dimensions of service delivery except assurance by employee empowerment. The F-ratios show that service delivery (REL=7.027272; RES=11.88526; TAN=15.55113, ASS=38.60864 and EMP=14.01299) are significantly affected by employee empowerment, and that the relationship between employee empowerment and service delivery is well explained except for REL which shows weak explanation. The positive coefficient values (REL = 0.2110, RES = 0.2638, TAN = 0.2504, ASS = 0.4928, and EMP = 0.3706) shows that a unit change in employee motivation will result in 21.1%, 26.4%, 25.0%, 49.3%, and 37.1% changes respectively in REL, RES, TAN, ASS, and EMP. The t-value of the regression results for employee service delivery pass the 5% level of significance or 95% level of confidence test. The p-values of service delivery measures (REL, RES, TAN, ASS and EMP) also show that there is weak significant positive relationship between employee empowerment and all service delivery dimensions. This implies that there is significant effect of employee empowerment on service delivery in public hospitals. On the basis of these results, hypothesis 4 (H₄) proved valid and confirms that employee empowerment leads towards higher levels of

service quality. Employee empowerment was found to have a weak significant bearing on employee service. The result however differs from the work of Timothy & Abubakar, 2013; Bello & Bello, 2017, that confirmed existence of positive relationship

Model V

H₀: Organizational support does not significantly affect service delivery in public hospitals in Nigeria.

The Adjusted R-squared of 0.2125 (see appendix E. 5) as per the regression result is an indication that organizational support on the aggregate, explains about 21.25% of the systematic variation in service delivery quality. The F-ratio with value 71.68 is statistically significant at 0.05 given ($P(0.0000) < 0.005$), thus substantiating the evidence that organizational support is statistically significant and a predictor of service delivery quality. The R-Squared for REL (reliability) = 0.1363, RES (responsiveness) = 0.2009, TAN (tangibility) = 0.0534, ASS (assurance) = 0.1087 and EMP (empathy) = 0.1721, suggests that organizational support, explains about 13.63%, 20.09%, 5.34%, 10.87% and 17.21% of the systematic variations in REL, RES, TAN, ASS and EMP for the sampled public hospitals in Nigeria. It thus highlights a weak explanation for tangibility dimension of service delivery. The F-ratios shows that service delivery dimensions (REL=41.20541; RES=65.63356; TAN=14.72221, ASS=31.84568 and EMP=54.25042) are significantly affected by organizational support, and that the relationship between organizational support and service delivery is well explained. The positive coefficient values (REL = 0.4590, RES = 0.5406, TAN = 0.2328, ASS = 0.4319, and EMP = 0.6499) shows that a unit change in employee motivation will result in 45.9%, 54.1%, 23.3%, 43.2%, and 64.9% changes respectively in REL, RES, TAN, ASS, and EMP. The t-value of the regression results for employee service delivery pass the 5% level of significance or 95% level of confidence test. Also, the p-values of organizational support and service delivery show a strong positive relationship with all the dimensions of service delivery except tangibility with which it has weak but significant positive relationship and effect; hence, the null hypothesis is not accepted. This result aligns with the findings of Bell, Mengüç and Stefani (2004).

Model VI

H₀: Organizational citizenship behaviour does not significantly moderate the relationship between internal marketing and service delivery in public hospitals in the geo-political zones of Nigeria.

Given the multi-dimensional nature of variables employed in the study, hypothesis six (6) was validated on the basis of the structural equation model (SEM (appendix F, table F. 1). The path coefficient between IM (em, td, ee, ic & os) dimensions with OCB (altr, cout, consc, spor & cvir) and SDQ (rel, res, tan, ass, & emp) dimensions, respectively are 0.22 (em), 0.24(td), 0.17 (ee), 0.22 (ic) and 0.16(os). Besides, the path coefficient between IM, OCB and SDQ are 0.19 (rel), 0.18 (res), 0.15(tan), 0.22 (ass) and 0.26 (emp) respectively. Also, the path coefficient between IM, OCB and SDQ are 0.76 (altr), 0.40 (cout), 0.44 (consc), 0.40 (spor) and 0.34 (cvir) respectively. The z-values for IM, OCB and SDQ dimensions

respectively are statistically significant, given the p-values which is less than 0.005. More importantly, the likelihood ratio (LR) test of the model ($\chi^2 = 16072.40$) with Prob. $\chi^2 = 0.0000$ indicates that organizational citizenship behavior significantly moderate the relationship between internal marketing and service delivery quality, hence, the null hypothesis is not accepted, and alternate hypothesis that subsumed that organizational citizenship behavior significantly moderates the relationship between internal marketing and service delivery in public hospital is accepted.

To explain the individual dimensional relationships, contributions, and effects to the aggregate; the multivariate regression analysis was adopted as shown in appendix G, table G.1. The R-Squared for REL (reliability) = 0.3331, RES (responsiveness) = 0.5413, TAN (tangibility) = 0.3970, ASS (assurance) = 0.4457 and EMP (empathy) = 0.4384, suggests that organizational citizenship behavior moderates about 33.31%, 54.13%, 39.70%, 44.57% and 43.84% of the systematic variations in internal marketing and service delivery quality for the sampled public hospitals in the Nigeria. The F-ratios shows that service delivery measures (REL=12.58855; RES=29.74139; TAN=16.59197, ASS=20.26243 and EMP=19.6704) are significantly affected by internal marketing and internal marketing – service delivery quality relationship is significantly moderated by organizational citizenship behavior; and that the relationship between internal marketing and service delivery, and the moderating role of organizational citizenship behaviour is well explained. The negative coefficient values show that employee empowerment, organizational support dimensions of internal marketing and civic virtue dimension of organizational citizenship behaviour negatively affect reliability measure of service delivery; training and development and employee empowerment dimensions of internal marketing, and sportsmanship dimension of OCB negatively affect responsiveness as a measure of employee service delivery; employee empowerment and organizational support dimensions of internal marketing, and sportsmanship and civic virtue dimensions of OCB are negatively related to tangibility measure of service delivery; training and development dimension of internal marketing, and civic virtue dimension of OCB negatively affect assurance measure of service delivery; employee empowerment and internal communication dimensions of internal marketing, and conscientiousness and civic virtue dimensions of OCB negatively affect empathy measure of service delivery. The t-value of the regression results for employee service delivery pass the 5% level of significance or 95% level of confidence test. Besides, the p-values of organizational support and organizational citizenship behavior dimensions show an inverse relationship (positive and negative) with service delivery; hence, the null hypothesis is not accepted. This implies that organizational citizenship behaviour significantly moderate the relationship between internal marketing and service delivery in public hospitals in Nigeria. Related result was obtained by Yaghoubi, Salehi and Moloudi (2011).

5. 2. Predictive Level of Internal Marketing, Organizational Citizenship Behavior and Service Delivery Models

From the cumulative results, it is observed that internal marketing alongside organizational citizenship behaviour (IM/OCB: Model VI) has the most predictive ability on service delivery, followed by internal communication (IC: Model IV) and lastly, employee empowerment (EE: Model III). On the individual dimensions, internal communication most predicted reliability, followed by organizational support, the other three have low predictive

tendencies; internal communication most predicted responsiveness, followed by organizational support, then motivation, the other two have low predictive tendencies; internal communication, employee motivation, and training and development predicted tangibility in that order, the other two have low predictive tendencies; assurance is well predicted by all the dimension with internal communication first, the motivation, training and development, employee empowerment, and organizational support; while empathy is predicted most by training and development, then organizational support, internal communication and internal communication, while employee empowerment showed low predictive tendency. The predictive ability model result implies that when public hospitals engage in internal communication with the moderating role of organizational citizenship behaviour, service delivery is better enhanced.

6. CONCLUSION

Strategies and practices to leveraging the gains of the organization human capital through appropriate motivation are critical to enhancing employees' citizenship behavior and assuring quality service in the Nigerian public hospitals. Government's intervention should include measures to improve communication system and develop plans for periodic staff appraisal review which must be adjudged to be fair, accurate and reliable. Public hospitals' employees, though empowered, still need to develop on their leverage to solve problems whenever they occur, and work out means of obtaining prompt management approval to handle problems. Employees' service delivery quality will be enhanced when OCB is emphasized and improved in addition to internal marketing practices in the public hospitals.

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APPENDIX A

Table A. 1: Reliability test

```

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Notes:

1. (/v# option or -set maxvar-) 5000 maximum variables.
 *(15 variables, 20 observations pasted into data editor).
 alpha mtv trd eep ahb cro ccn stl cvi inc ogs rlb rsp tgb asr emt, detail item
 Test scale = mean(unstandardized items) average

Item	Obs	Sign	item-test correlation	item-test correlation	inter-item covariance	alpha
mtv	20	+	0.9332	0.9217	.6653268	0.9574
trd	20	+	0.7744	0.7429	.6948814	0.9608
eep	20	+	0.8737	0.8483	.6549161	0.9588
ahb	20	+	0.6372	0.5863	.7061596	0.9636
cro	20	+	0.9444	0.9349	.6649219	0.9572
ccn	20	+	0.9332	0.9217	.6653268	0.9574
stl	20	+	0.7744	0.7429	.6948814	0.9608
cvi	20	+	0.8737	0.8483	.6549161	0.9588
inc	20	+	0.9253	0.9111	.6562464	0.9574
ogs	20	+	0.9345	0.9238	.6702429	0.9576
rlb	20	+	0.9470	0.9374	.6598901	0.9570
rsp	20	+	0.9125	0.8985	.6731348	0.9580
tgb	20	+	0.9520	0.9441	.6679294	0.9572
asr	20	+	0.4638	0.3914	.726229	0.9678
emt	20	+	0.4217	0.3381	.7288317	0.9698
Test scale					.6789223	0.9627

Appendix B: Descriptive statistics/Predictive abilities of variables

Table B. 1: Hospital location and job designation

```

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```

```

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. *(6 variables, 263 observations pasted into data editor)
. tab1 hosplocn desgnatn gender age educlvl jobten

```

-> tabulation of hosplocn

Hosp Lcn	Freq.	Percent	Cum.
1	58	22.05	22.05
2	66	25.10	47.15
3	16	6.08	53.23
4	29	11.03	64.26
5	43	16.35	80.61
6	51	19.39	100.00
Total	263	100.00	

-> tabulation of desgnatn

Desgnatn	Freq.	Percent	Cum.
1	52	19.77	19.77
2	179	68.06	87.83
3	15	5.70	93.54
4	17	6.46	100.00
Total	263	100.00	

Table B. 2: Gender and age of respondents

```

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-> tabulation of gender

Gender	Freq.	Percent	Cum.
1	74	28.14	28.14
2	189	71.86	100.00
Total	263	100.00	

-> tabulation of age

Age	Freq.	Percent	Cum.
1	104	39.54	39.54
2	58	22.05	61.60
3	70	26.62	88.21
4	31	11.79	100.00
Total	263	100.00	

Table B. 3: Educational level and job tenure

```

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-> tabulation of educlvl

Educ Lvl	Freq.	Percent	Cum.
1	60	22.81	22.81
2	161	61.22	84.03
3	34	12.93	96.96
4	6	2.28	99.24
5	2	0.76	100.00
Total	263	100.00	

-> tabulation of jobten

Job Ten	Freq.	Percent	Cum.
1	107	40.68	40.68
2	38	14.45	55.13
3	46	17.49	72.62
4	20	7.60	80.23
5	52	19.77	100.00
Total	263	100.00	

Appendix C: Data analysis

Table C. 1:

```

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```

```

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. *(88 variables, 263 observations pasted into data editor)
. summarize q1 q2 q3 q4 q5

```

Variable	Obs	Mean	Std. Dev.	Min	Max
q1	263	2.608365	1.239708	0	4
q2	263	2.874525	1.294232	0	4
q3	263	1.794677	1.352002	0	4
q4	263	1.961977	1.355818	0	4
q5	263	2.079848	1.193691	0	4

```

. summarize q6 q7 q8 q9 q10

```

Variable	Obs	Mean	Std. Dev.	Min	Max
q6	263	2.39924	1.227981	0	4
q7	263	2.292776	1.217644	0	4
q8	263	2.114068	1.376712	0	4
q9	263	2.494297	1.187951	0	4
q10	263	2.13308	1.348369	0	4

```

. summarize q11 q12 q13 q14 q15

```

Variable	Obs	Mean	Std. Dev.	Min	Max
q11	263	2.821293	1.060392	0	4
q12	263	2.045627	1.361202	0	4
q13	263	2.095057	1.28203	0	4
q14	263	2.520913	1.256487	0	4
q15	263	3.04943	1.112657	0	4

Table C. 2

```

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```
. summarize q16 q17 q18 q19 q20
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q16	263	2.418251	1.342199	0	4
q17	263	2.1673	1.385088	0	4
q18	263	2.623574	1.298463	0	4
q19	263	2.65019	1.073301	0	4
q20	263	2.574144	1.328352	0	4

```
. summarize q21 q22 q23 q24 q25
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q21	263	2.228137	1.348326	0	4
q22	263	2.547529	1.161001	0	4
q23	263	2.863118	1.196484	0	4
q24	263	2.749049	1.193873	0	4
q25	263	2.448669	1.288613	0	4

```
. summarize q26 q27 q28 q29 q30
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q26	263	2.81749	1.303606	0	4
q27	263	2.585551	1.43541	0	4
q28	263	2.444867	1.45538	0	4
q29	263	2.596958	1.35815	0	4
q30	263	2.098859	1.474244	0	4

Table C. 3

```

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```
. summarize q31 q32 q33 q34 q35
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q31	263	2.467681	1.408094	0	4
q32	263	2.460076	1.262088	0	4
q33	263	2.608365	1.236626	0	4
q34	263	2.927757	1.145231	0	4
q35	263	2.490494	1.500288	0	4

```
. summarize q36 q37 q38 q39 q40
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q36	263	1.688213	1.230083	0	4
q37	263	2.007605	1.269106	0	4
q38	263	2.908745	1.10137	0	4
q39	263	2.43346	1.192511	0	4
q40	263	1.927757	1.315828	0	4

```
. summarize q41 q42 q43 q44
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q41	263	2.250951	1.52265	0	4
q42	263	2.897338	1.254348	0	4
q43	263	2.836502	1.247852	0	4
q44	263	2.680608	1.225011	0	4

Table C. 4

```

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. summarize q45 q46 q47 q48

Variable	Obs	Mean	Std. Dev.	Min	Max
q45	263	2.254753	1.474894	0	4
q46	263	2.30038	1.349682	0	4
q47	263	2.372624	1.391746	0	4
q48	263	2.460076	1.291976	0	4

. summarize q49 q50 q51 q52 q53

Variable	Obs	Mean	Std. Dev.	Min	Max
q49	263	2.931559	1.137105	0	4
q50	263	2.460076	1.487006	0	4
q51	263	2.403042	1.426678	0	4
q52	263	2.460076	1.366629	0	4
q53	263	2.638783	1.412437	0	4

. summarize q54 q55 q56 q57 q58

Variable	Obs	Mean	Std. Dev.	Min	Max
q54	263	2.456274	1.476595	0	4
q55	263	2.015209	1.364684	0	4
q56	263	1.711027	1.272189	0	4
q57	263	1.669202	1.217275	0	4
q58	263	2.342205	1.429249	0	4

Table C. 5

```

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```
. summarize q59 q60 q61 q62 q63
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q59	263	2.676806	1.292268	0	4
q60	263	2.528517	1.271436	0	4
q61	263	2.631179	1.321034	0	4
q62	263	2.787072	1.342318	0	4
q63	263	2.524715	1.301188	0	4

```
. summarize q64 q65 q66 q67 q68
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q64	263	2.186312	1.440778	0	4
q65	263	2.726236	1.172667	0	4
q66	263	2.855513	1.133308	0	4
q67	263	2.596958	1.366555	0	4
q68	263	2.692015	1.339439	0	4

```
. summarize q69 q70 q71 q72 q73
```

Variable	Obs	Mean	Std. Dev.	Min	Max
q69	263	2.585551	1.400416	0	4
q70	263	2.346008	1.369673	0	4
q71	263	2.65019	1.364514	0	4
q72	263	2.653992	1.231757	0	4
q73	263	2.756654	1.348488	0	4

Appendix D

Table D.1. Correlation Matrix

```

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	em	td	ee	ic	os	altr	cout	consc
em	1.0000							
td	0.6965	1.0000						
ee	0.4184	0.4707	1.0000					
ic	0.6316	0.6506	0.5176	1.0000				
os	0.3468	0.3682	0.3482	0.3899	1.0000			
altr	0.1560	0.1479	0.0790	0.2910	0.1766	1.0000		
cout	0.2220	0.2749	0.2136	0.2509	0.3771	0.2266	1.0000	
consc	0.2561	0.2725	0.3599	0.2962	0.1830	0.3067	0.3226	1.0000
spor	0.0519	0.0932	0.1360	0.2209	0.0577	0.3202	0.2270	0.4981
cvir	0.2839	0.2973	0.3667	0.3601	0.2593	0.3196	0.4363	0.5528
rel	0.2875	0.1944	0.1619	0.3779	0.3693	0.3403	0.3847	0.2910
res	0.3811	0.2395	0.2087	0.4784	0.4483	0.3950	0.4108	0.4579
tan	0.5058	0.4754	0.2371	0.5148	0.2311	0.1888	0.3583	0.2863
ass	0.4041	0.3782	0.3590	0.4787	0.3298	0.4642	0.4237	0.3569
emp	0.3786	0.4222	0.2257	0.3872	0.4148	0.4355	0.4589	0.2863
		spor	cvir	rel	res	tan	ass	emp
spor		1.0000						
cvir		0.6380	1.0000					
rel		0.2409	0.2919	1.0000				
res		0.3316	0.4925	0.5982	1.0000			
tan		0.1244	0.2270	0.4169	0.4005	1.0000		
ass		0.2729	0.3780	0.4825	0.5661	0.6072	1.0000	
emp		0.2505	0.3560	0.5182	0.4240	0.5846	0.5930	1.0000

Table D. 2. Aggregate correlation matrix

	im	ocb	sdq
im	1.0000		
ocb	0.4147	1.0000	
sdq	0.5892	0.6144	1.0000

Statistics

Employees' Ratings of Patients' Perception of Service Delivery

N	Valid	263
	Missing	0
Mean		1.9163
Std. Deviation		.73661

Employees' Ratings of patients' perception of service delivery

	Frequency	Percent	Valid Percent	Cumulative Percent
Val id 1.00	83	31.6	31.6	31.6
2.00	119	45.2	45.2	76.8
3.00	61	23.2	23.2	100.0
Total	263	100.0	100.0	

Table D. 3. Multivariate test of mean, correlation and normality

```

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. mvtest means em td ee ic os rel res tan ass emp altr cout consc spor cvir

Test that all means are the same

Hotelling T2 = 753.96
 Hotelling F(14,249) = 51.18
 Prob > F = 0.0000

. mvtest correlations em td ee ic os rel res tan ass emp altr cout consc spor cvir

Appendix E: Regression Output

Table E. 1. Regression result for model I

```

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. mvreg rel res tan ass emp = em

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	2	.9398802	0.0826	23.51105	0.0000
res	263	2	.8801373	0.1452	44.35166	0.0000
tan	263	2	.6860445	0.2558	89.71756	0.0000
ass	263	2	.9457455	0.1633	50.93017	0.0000
emp	263	2	1.14458	0.1434	43.68243	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rel						
em	.3357806	.06925	4.85	0.000	.1994208	.4721404
_cons	1.748579	.167143	10.46	0.000	1.419458	2.077699
res						
em	.4318694	.0648481	6.66	0.000	.3041773	.5595616
_cons	1.613175	.1565186	10.31	0.000	1.304975	1.921375
tan						
em	.4787823	.0505475	9.47	0.000	.3792496	.5783151
_cons	1.109251	.1220023	9.09	0.000	.8690169	1.349485
ass						
em	.4972892	.0696821	7.14	0.000	.3600785	.6344999
_cons	2.088837	.168186	12.42	0.000	1.757662	2.420011
emp						
em	.5573741	.0843322	6.61	0.000	.391316	.7234322
_cons	1.888791	.2035457	9.28	0.000	1.48799	2.289591

Service Delivery Quality and Employee Motivation

. regress sdq em

Source	SS	df	MS	
Model	975.382758	1	975.382758	Number of obs = 263
Residual	3067.27743	261	11.7520208	F(1, 261) = 83.00
Total	4042.66018	262	15.4300007	Prob > F = 0.0000
				R-squared = 0.2413
				Adj R-squared = 0.2384
				Root MSE = 3.4281

sdq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
em	2.301096	.2525826	9.11	0.000	1.803737 2.798455
_cons	8.448632	.6096378	13.86	0.000	7.248197 9.649066

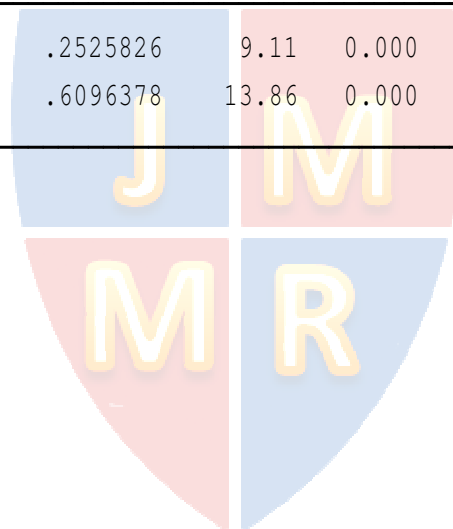


Table E. 2. Regression result for model II

```

_____ (R)
/___ / ___/ / ___/
___/ / /___/ / /___/ 13.0
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```
. mvreg rel res tan ass emp = td
```

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	2	.9625761	0.0378	10.25262	0.0015
res	263	2	.9242807	0.0574	15.88114	0.0001
tan	263	2	.6996516	0.2260	76.20842	0.0000
ass	263	2	.9571224	0.1430	43.55871	0.0000
emp	263	2	1.121047	0.1782	56.60853	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
rel					
td	.2162901	.067549	3.20	0.002	.0832796 .3493006
_cons	2.014156	.1654754	12.17	0.000	1.68832 2.339993
res					
td	.2584811	.0648617	3.99	0.000	.1307624 .3861998
_cons	1.999808	.158892	12.59	0.000	1.686934 2.312681
tan					
td	.4286151	.0490982	8.73	0.000	.331936 .5252942
_cons	1.213045	.1202763	10.09	0.000	.9762098 1.449881
ass					
td	.4432912	.0671663	6.60	0.000	.3110344 .5755481
_cons	2.200968	.1645378	13.38	0.000	1.876978 2.524959
emp					
td	.5919009	.0786698	7.52	0.000	.4369926 .7468092
_cons	1.797123	.192718	9.33	0.000	1.417643 2.176603

Service Delivery Quality and Training and Development

. regress sdq td

Source	SS	df	MS	Number of obs =	263
Model	763.12982	1	763.12982	F(1, 261) =	60.73
Residual	3279.53036	261	12.5652504	Prob > F =	0.0000
Total	4042.66018	262	15.4300007	R-squared =	0.1888
				Adj R-squared =	0.1857
				Root MSE =	3.5447

sdq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
td	1.938578	.2487538	7.79	0.000	1.448759 2.428398
_cons	9.225101	.6093739	15.14	0.000	8.025186 10.42502

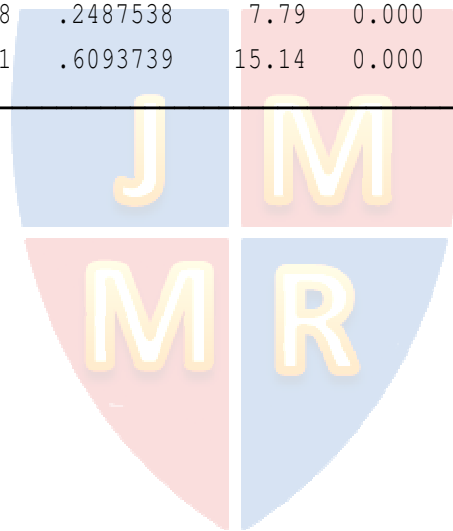


Table E. 3. Regression result for model III

```

_____ (R)
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___/ / /___/ / /___/ 13.0
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. mvreg rel res tan ass emp = ic
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Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	2	.9085301	0.1428	43.48471	0.0000
res	263	2	.8360018	0.2288	77.44388	0.0000
tan	263	2	.6817754	0.2650	94.12345	0.0000
ass	263	2	.9077339	0.2292	77.60151	0.0000
emp	263	2	1.140213	0.1499	46.02099	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
rel					
ic	.4534257	.0687603	6.59	0.000	.3180301 .5888212
_cons	1.381215	.1799295	7.68	0.000	1.026917 1.735513
res					
ic	.5568001	.0632711	8.80	0.000	.4322132 .6813869
_cons	1.206284	.1655656	7.29	0.000	.8802698 1.532299
tan					
ic	.5005976	.0515988	9.70	0.000	.3989946 .6022006
_cons	.9483238	.1350219	7.02	0.000	.6824528 1.214195
ass					
ic	.6051905	.0687	8.81	0.000	.4699136 .7404675
_cons	1.709716	.1797718	9.51	0.000	1.355729 2.063704
emp					
ic	.5854131	.0862948	6.78	0.000	.4154905 .7553356
_cons	1.694876	.225813	7.51	0.000	1.250229 2.139523

Service Delivery Quality and Internal Communication

. regress sdq ic

Source	SS	df	MS	Number of obs =	263
Model	1274.05864	1	1274.05864	F(1, 261) =	120.11
Residual	2768.60155	261	10.6076688	Prob > F =	0.0000
Total	4042.66018	262	15.4300007	R-squared =	0.3152
				Adj R-squared =	0.3125
				Root MSE =	3.2569

sdq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ic	2.701427	.2464952	10.96	0.000	2.216054	3.186799
_cons	6.940416	.6450197	10.76	0.000	5.670311	8.210521

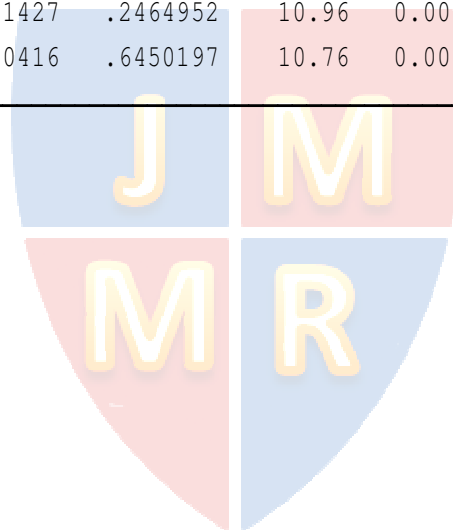


Table E. 4. Regression result for model IV

```

_____ (R)
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```
. mvreg rel res tan ass emp = ee
```

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	2	.9683505	0.0262	7.027272	0.0085
res	263	2	.9310232	0.0436	11.88526	0.0007
tan	263	2	.7725797	0.0562	15.55113	0.0001
ass	263	2	.9649967	0.1289	38.60864	0.0000
emp	263	2	1.20474	0.0510	14.01299	0.0002

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rel						
ee	.2109641	.0795821	2.65	0.009	.0542595	.3676687
_cons	1.979971	.2082151	9.51	0.000	1.569976	2.389967
res						
ee	.2637834	.0765144	3.45	0.001	.1131194	.4144475
_cons	1.929711	.2001889	9.64	0.000	1.53552	2.323902
tan						
ee	.2503842	.063493	3.94	0.000	.1253604	.3754079
_cons	1.565577	.1661204	9.42	0.000	1.23847	1.892684
ass						
ee	.4927773	.0793064	6.21	0.000	.3366154	.6489391
_cons	1.97951	.2074939	9.54	0.000	1.570935	2.388086
emp						
ee	.3706306	.0990093	3.74	0.000	.1756719	.5655893
_cons	2.221646	.2590436	8.58	0.000	1.711564	2.731727

Service Delivery Quality and Employee Empowerment

. regress sdq ee

Source	SS	df	MS	Number of obs =	263
Model	373.62068	1	373.62068	F(1, 261) =	26.58
Residual	3669.0395	261	14.0576226	Prob > F =	0.0000
Total	4042.66018	262	15.4300007	R-squared =	0.0924
				Adj R-squared =	0.0889
				Root MSE =	3.7493

sdq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ee	1.58854	.3081332	5.16	0.000	.9817961	2.195283
_cons	9.676415	.8061865	12.00	0.000	8.088958	11.26387

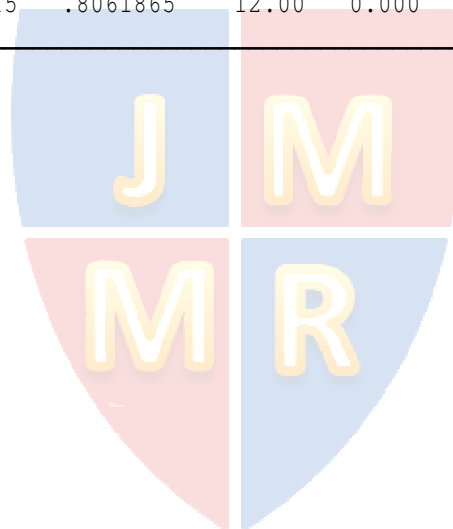


Table E. 5. Regression result for model V

```

_____ (R)
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```
. mvreg rel res tan ass emp = os
```

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	2	.9119498	0.1363	41.20541	0.0000
res	263	2	.8509816	0.2009	65.63356	0.0000
tan	263	2	.7737402	0.0534	14.72221	0.0002
ass	263	2	.9760759	0.1087	31.84568	0.0000
emp	263	2	1.125232	0.1721	54.25042	0.0000

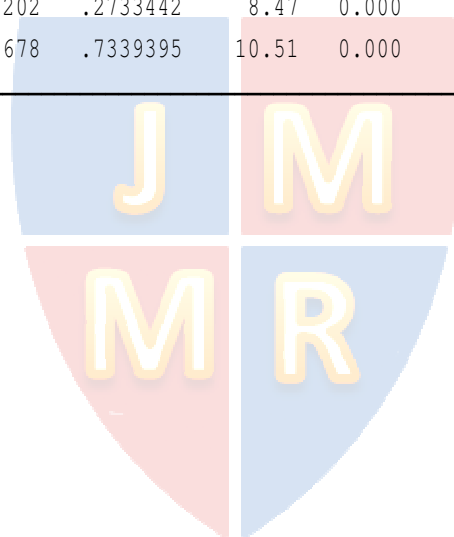
	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rel						
os	.4590246	.0715087	6.42	0.000	.3182172	.599832
_cons	1.330291	.1920036	6.93	0.000	.9522179	1.708364
res						
os	.5405938	.066728	8.10	0.000	.4092001	.6719876
_cons	1.203008	.1791672	6.71	0.000	.8502106	1.555805
tan						
os	.2327928	.0606713	3.84	0.000	.1133254	.3522603
_cons	1.595507	.1629047	9.79	0.000	1.274732	1.916282
ass						
os	.4319135	.076537	5.64	0.000	.2812049	.5826222
_cons	2.105787	.2055048	10.25	0.000	1.701129	2.510445
emp						
os	.6498777	.0882328	7.37	0.000	.4761389	.8236164
_cons	1.482187	.2369084	6.26	0.000	1.015691	1.948682

Service Delivery Quality and Organizational Support

. regress sdq os

Source	SS	df	MS		
Model	871.017323	1	871.017323	Number of obs =	263
Residual	3171.64286	261	12.1518884	F(1, 261) =	71.68
				Prob > F	= 0.0000
				R-squared	= 0.2155
				Adj R-squared	= 0.2125
Total	4042.66018	262	15.4300007	Root MSE	= 3.486

sdq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
os	2.314202	.2733442	8.47	0.000	1.775962	2.852443
_cons	7.71678	.7339395	10.51	0.000	6.271583	9.161976

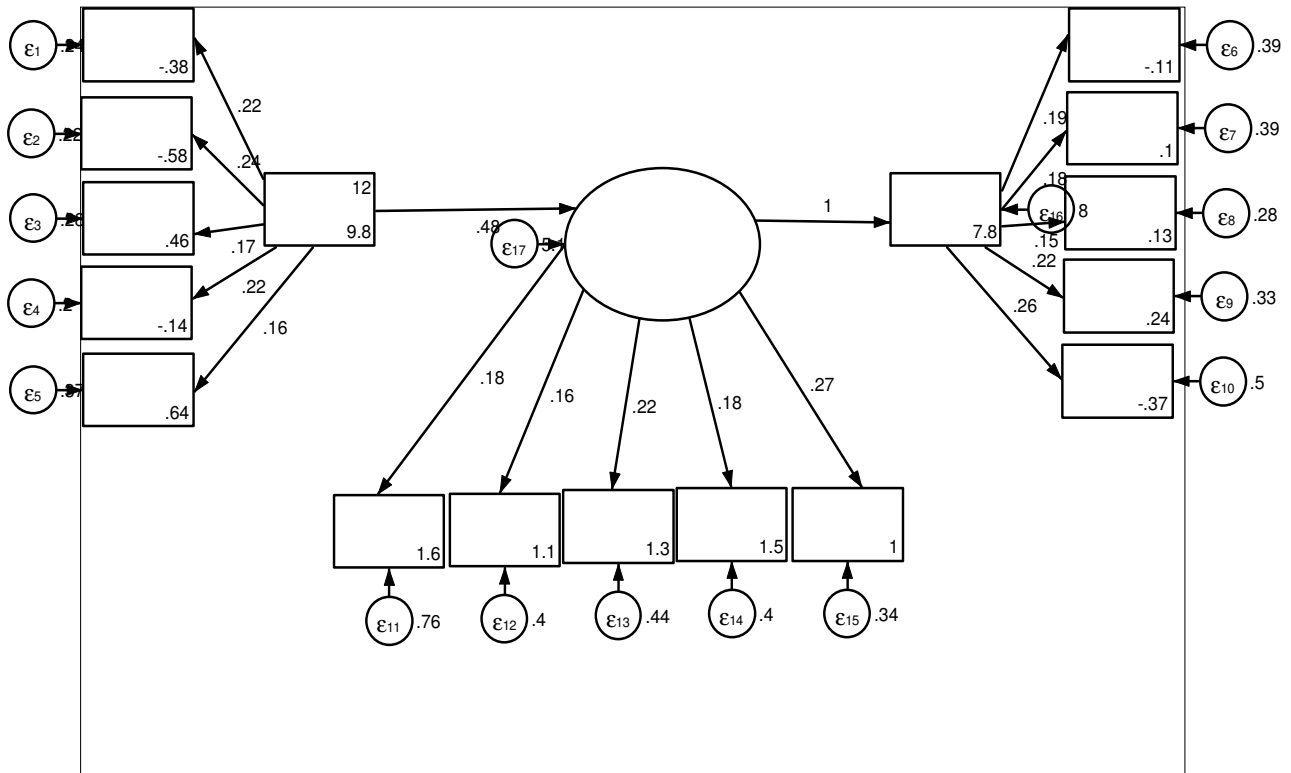
**Appendix F****Table F. 1. Structural equation result for model V1**

Structural equation model Number of obs = 263
Estimation method = ml
Log likelihood = -5035.7152

(1) [sdq]ocb = 1

	Coef.	OIM Std. Err.	z	P> z	[95% Conf. Interval]	
Structural						
em <-						
im	.2180058	.0095565	22.81	0.000	.1992754	.2367363
_cons	-.3763957	.1195394	-3.15	0.002	-.606588	-.1462029
td <-						
im	.2364523	.0093434	25.31	0.000	.2181396	.2547651
_cons	-.5769884	.1168736	-4.94	0.000	-.8060564	-.3479203

Table F. 2. Diagram showing the structural equation modelling



Appendix G

Table G. 1. Multivariate regression for internal marketing, OCB and service delivery

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	11	.8155338	0.3331	12.58855	0.0000
res	263	11	.6561464	0.5413	29.74139	0.0000
tan	263	11	.6284701	0.3970	16.59197	0.0000
ass	263	11	.7833875	0.4457	20.26243	0.0000
emp	263	11	.94317	0.4384	19.6704	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rel						
em	.17879	.0901313	1.98	0.048	.0012834	.3562966
td	-.2418543	.0882618	-2.74	0.007	-.4156791	-.0680294
ee	-.1231042	.085887	-1.43	0.153	-.2922519	.0460436
ic	.3146912	.094794	3.32	0.001	.1280017	.5013807
os	.2559131	.0751684	3.40	0.001	.1078748	.4039514
altr	.1508378	.0567765	2.66	0.008	.0390209	.2626547
cout	.2895452	.0781269	3.71	0.000	.1356804	.44341
consc	.1080266	.0724829	1.49	0.137	-.0347228	.250776
spor	.0981483	.0880418	1.11	0.266	-.0752432	.2715399
cvir	-.0562573	.082408	-0.68	0.495	-.2185536	.1060389
_cons	.1525617	.2696882	0.57	0.572	-.3785684	.6836917
res						
em	.2321542	.0725161	3.20	0.002	.0893394	.374969
td	-.3284481	.071012	-4.63	0.000	-.4683007	-.1885955
ee	-.2420935	.0691013	-3.50	0.001	-.3781831	-.1060039
ic	.3987879	.0762675	5.23	0.000	.2485849	.5489909
os	.3162531	.0604775	5.23	0.000	.1971473	.4353588
altr	.1172281	.0456801	2.57	0.011	.0272646	.2071916
cout	.1504806	.0628578	2.39	0.017	.0266871	.2742742
consc	.2463915	.0583169	4.23	0.000	.131541	.3612421
spor	-.0299458	.070835	-0.42	0.673	-.1694498	.1095583
cvir	.1999905	.0663023	3.02	0.003	.0694133	.3305676
_cons	-.0789057	.2169805	-0.36	0.716	-.506232	.3484206

Table G. 1. (contd):

Equation	Obs	Parms	RMSE	"R-sq"	F	P
rel	263	11	.8155338	0.3331	12.58855	0.0000
res	263	11	.6561464	0.5413	29.74139	0.0000
tan	263	11	.6284701	0.3970	16.59197	0.0000
ass	263	11	.7833875	0.4457	20.26243	0.0000
emp	263	11	.94317	0.4384	19.6704	0.0000

		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
tan	em	.2336317	.0694573	3.36	0.001	.0968408 .3704225
	td	.09573	.0680167	1.41	0.161	-.0382237 .2296836
	ee	-.1233173	.0661866	-1.86	0.064	-.2536667 .007032
	ic	.3039152	.0730506	4.16	0.000	.1600477 .4477826
	os	-.0660448	.0579266	-1.14	0.255	-.1801267 .0480371
	altr	.0016809	.0437533	0.04	0.969	-.084488 .0878497
	cout	.2600026	.0602065	4.32	0.000	.1414307 .3785746
	consc	.1205314	.0558571	2.16	0.032	.0105252 .2305375
	spor	-.0023694	.0678472	-0.03	0.972	-.1359891 .1312504
	cvir	-.0936067	.0635056	-1.47	0.142	-.2186761 .0314628
	_cons	.5662837	.2078283	2.72	0.007	.156982 .9755854
ass	em	.1812852	.0865785	2.09	0.037	.0107755 .3517949
	td	-.0159418	.0847828	-0.19	0.851	-.182915 .1510313
	ee	.1735762	.0825015	2.10	0.036	.0110958 .3360565
	ic	.1935561	.0910575	2.13	0.035	.0142254 .3728867
	os	.0458539	.0722054	0.64	0.526	-.0963491 .1880569
	altr	.318754	.0545385	5.84	0.000	.2113446 .4261634
	cout	.315096	.0750473	4.20	0.000	.1672962 .4628959
	consc	.0505858	.0696258	0.73	0.468	-.0865368 .1877084
	spor	.0791707	.0845715	0.94	0.350	-.0873862 .2457276
	cvir	-.0373961	.0791597	-0.47	0.637	-.1932951 .1185028
	_cons	.0996048	.2590578	0.38	0.701	-.4105895 .609799
emp	em	.1579399	.1042374	1.52	0.131	-.0473476 .3632273
	td	.281395	.1020754	2.76	0.006	.0803655 .4824245
	ee	-.0799624	.0993288	-0.81	0.422	-.2755828 .115658
	ic	-.023446	.1096299	-0.21	0.831	-.2393535 .1924616
	os	.2847635	.0869327	3.28	0.001	.1135563 .4559708
	altr	.3567178	.0656624	5.43	0.000	.2274008 .4860347
	cout	.4012781	.0903542	4.44	0.000	.2233325 .5792238
	consc	-.0225567	.0838269	-0.27	0.788	-.1876473 .1425339
	spor	.1364468	.101821	1.34	0.181	-.0640817 .3369753
	cvir	-.0075824	.0953054	-0.08	0.937	-.1952791 .1801142
	_cons	-.338039	.3118962	-1.08	0.279	-.9522943 .2762163