

INFLUENCE OF RELATIONSHIP FRAMEWORK AGREEMENT ON SUPPLY CHAIN PERFORMANCE OF LEVEL FOUR AND FIVE HOSPITALS IN KENYA

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Purpose: *The main objective of this study was to determine Influence of Relationship Framework Agreement on Supply Chain Performance of Level Four and Five Hospitals in Kenya.*

Materials and methods: *Primary research data was gathered using questionnaires; the questionnaires containing both open-ended and close-ended questions were administered. The research data was analyzed using qualitative techniques. Presentation of the quantitative analysis results was done in form of pie charts and bar graphs. Multiple regression analysis was used to establish the relations between the independent and dependent variables.*

Results: *The study established that the Relationship framework agreement helps the parties to understand to what extent they can build the foundation for their relationship. The more trust, transparency and cultural fit between a buyer and supplier, the more the parties are comfortable making investments in the relationship, innovations and continuous improvement opportunities that benefit both parties.*

Recommendations: *The study recommends that Relationship framework agreement Businesses and business people should tend to view a relationship in balance sheet terms: each side should be equal. This is especially true in buyer supplier relationship. As a defined and establish supplier relationship develops, communication improves. Suppliers gain a more complete understanding of the businesses they serve, and this allows them to meet their needs more effectively.*

Keywords: *Relationship framework Agreement, Contract Form, Term of Contracts, Collaborative processes*

INTRODUCTION

According to Prajogo and Olhager (2012) states that Framework agreements save the time and cost of a sourcing process as they avoid the need to renegotiate standard terms and conditions. For purchases over a long period of time, such engagements contribute to improved relationships between buyers and sellers, whereby they work together to deliver custom-made clarifications that better meet the needs of both parties (Sako, 2012). They support long-term associations with suppliers, thus generating a commercial environment that is more conducive to sustainable investment and employment, and cut waste in processes and physical resources. Westerberg, (2011) The underlying work expected to set up such a system is more than that for offering and granting a solitary significant contract, yet the down-stream advantages will far exceed this. Organizations with structure understandings have accomplished up to 10% year to year enhancements in the

time and cost of conveyance. This is especially the situation when the utilization of such plans is joined with e buying frameworks. (Watts and Hahn, 2013).

Relationship framework agreement

Johnston and Kerwood (2014) studies on Customer satisfaction in relationships the studies found that to increase upstream in the supply chains examined, extending the applicability of the industrial dynamics Forrester effect to softer, behavioral aspects of performance (Cua and Schroeder, 2011), A contractual model that instills collaboration as an objective throughout the whole agreement and all of its schedules. Chen (2014), studies provides that While there is still technically no direct contractual relationship between the suppliers, each of the various commercial, technical and operational structures within each contract supports the interdependent collaboration of the suppliers within the ecosystem, and contains binding obligations to enforce this collaboration agreement which all suppliers sign may also save costs, provided the suppliers agree to its terms, and more generally to the concept of entering into a binding contract with a direct competitor . The study concludes that the latter give the customer better room to negotiate and flexibility where sophisticated arrangements are involved and allow them to take on the risk themselves if appropriate. In experience this works well for complex multi-sourcing arrangements. However, there is no right or wrong way to structure the collaboration provisions, provided they contain sufficient protection for the customer.

According to Babbie, (2012) studies on multiple suppliers and collaboration mechanisms, suppliers we want the comfort of knowing that the customer's other suppliers have signed up to equivalent provisions the studies found that providing comfort to the suppliers is to select the key provisions, make them non-negotiable and apply them across the multi-sourced environment. This of course assumes that those non-negotiable clauses take a sufficiently balanced position so that it is reasonable to expect suppliers to agree them without material change.

According to Cardenas (2017), studies on multiple contracts mean each contract tends to be smaller, shorter and more manageable. Found that means that the customer should be able to avoid the various risk mitigation methods prime contractors often built into their contracts to protect their margins the studies found that These worked to the detriment of the customer and included things such as minimum revenue commitments, long terms, and margin stacking and additional costs to cover the risk profile of managing other suppliers.

Supply Chain Regulated Compliance

According to Wisner (2013) Supply chain regulated compliance conforming to a rule, such as a specification, strategy, standard or law. Governing compliance defines the goal that administrations aspire to attain in their efforts to safeguard that they are aware of and take steps to conform with appropriate regulations, guidelines, and recommendations. Westerberg (2011) add that this is due to the increasing number of regulations and need for functioning clearness; governments are progressively adopting the application of consolidated and coordinated sets of compliance measures (Massimo, 2012). This methodology is used to affirm that all essential governance necessities are met without the preventable duplication of effort and activity from assets.

Petroni, (2010) elaborates that for companies to successfully operate in these markets, it is essential that they understand and comply with the product and supply-chain laws and standards that exist at the local, national, and international levels Petersen and Ragatz (2013). Adding to these demands is the ever-increasing list of monitored substances that requires organizations, as well as their suppliers and importers, to keep track of the substances, chemicals, and minerals used in their products, and then evaluate them against the relevant regulations. Noncompliance with these requirements can prove costly.

According to Pine, (2013) he provides that Supply chain product amenability is increasingly complex, with companies compulsory to divulge detailed info about their goods, including conformation, origin, and regulatory position (Sako, 2012). Managing this data remains a critical supply chain challenge that is essential in order to fulfill with a wide array of guidelines. Other challenges that leave an organization open to risk comprise the variation in republic guidelines for global trade and seller performance in the areas of commercial status, transport performance, and compliance with trade developments. Successful supply chain strategy is dependent upon implementing automated systems for tracking supplier credentials, documentations, and financial and functioning performance that includes safety and risk mitigation (Saffu, 2010).

The government of Kenya (2011). Referral services level comprises facilities that provide highly specialized services and includes all tertiary referral facilities. With the current decentralization in health service sector, the national government and County Government have Level Four and Five Hospitals in Kenya provide complex curative tertiary care at different segregated levels with the highest level been referral Hospitals, level five, level four, health centers and dispensaries. They also provide preventive care and participate in public health programs for the local community and the total primary health care system.

Statement of the Problem

The procedures provided for procurement by the Level Four and Five Hospitals in Kenya lead extended and overpriced procurement method are too long and consequently are not appropriate for an emergency which are long and inflated process with Insufficient preparation and forecasting. Tendering yearly or numerous times a year contribute to high product costs, long lead times, stock disproportions, and, overall, product insecurity. Nyongesa and Munguti (2015) The current practice of floating tenders multiple times a year contributes to long lead times and stock-outs, and it hampers the producer's or vendors ability to strategy and respond to the administration's needs (MOH, 2016).

According to Nyongesa and Munguti (2015) the majority of the identified problems in the public health procurement sector that poor service delivery are found in the bid evaluation and contract stages due to lack of regulated framework agreement. Strong framework agreements are not put in place to negotiate amendments to the contract in line with trusts needs and to seek continuous improvement in performance and cost efficiency (Wieland *et al.*, 2013). Hence the study filled this gap by establishing the effects of framework agreement on supply chain performance of the public health facilities

Study Objectives

The general objective of the study was to establish the Influence of Relationship Framework Agreement on Supply Chain Performance of Level Four and Five Hospitals in Kenya. The specific objectives were to;

- i. Establish the effect of Contract Form on supply chain performance of Level Four and Five Hospitals in Kenya.
- ii. Determine the influence of Term of Contracts on supply chain performance of Level Four and Five Hospitals in Kenya.
- iii. Find out the effect of Collaborative processes on supply chain performance of Level Four and Five Hospitals in Kenya.

Research Hypotheses

H₀₁: Contract Form has influences on supply chain performance of Level Four and Five Hospitals in Kenya.

H₀₂: Term of Contracts improves on supply chain performance of Level Four and Five Hospitals in Kenya.

H₀₃: Collaborative processes improves on supply chain performance of Level Four and Five Hospitals in Kenya.

LITERATURE REVIEW

Relational Contract Theory

The study was based on Relational contract theory in establishing the influence of Relationship framework agreement on supply chain performance of Level Four and Five Hospitals in Kenya. Relational contract theory states over the last 25 years, a great deal has been written about relational contracts, especially in Sociology, Law, and Economics. As there are various definitions of what a relational contract is depending on the respective discipline, it is important to clarify that the present treatise refers to the following characterization of relational contracts (Wieland and Wallenburg, 2013).

Baker *et al.*, (2002) describe relational contracts as “informal agreements and unwritten codes of conduct that powerfully affect the behavior of supplier and Level Four and Five Hospitals in Kenya, clearly emphasizing the informal nature of the contracts. Relational contracts help firms to overcome difficulties informal. A formal contract must be specified ex-ante in a way that terms can be verified ex-post by a third party (Mohit Tyagi, 2015). By contrast, a relational contract can be based on aspects that are observed only by the contracting party’s ex-post or are too costly to be specified ex-ante. For the same reasons, relational contracts cannot be enforced by a third party, hence must be self-enforcing. Self-enforcement is essential to sustain a relational contract (Wisner and Tan, 2010).

When the relation between the contracting parties is finite, the only enforceable contracts are formal court-enforceable contracts (see, for example, Bolton and Dewatripont 2005). But when the contracting parties are engaged in a repeated, open-ended relationship, the situation changes. Now, any formal court-enforceable contract can be extended with informal self-enforced provisions and become a self-enforced relational contract. Relational Contracts to create a basic understanding of relational contracts; we follow (Martin Kotula, 2015).

The author gives a concise formalization of relational contracts, by developing a very simple repeated-game model. Gibbons first describes a one-time interaction between two parties, the so-called Trust Game (Kreps 1990), and then analyzes the associated relational contract, an ongoing relationship in which these interactions occur repeatedly (Gibbons, 2008). The author gives a concise formalization of relational contracts, by developing a very simple repeated-game model. Gibbons first describes a one-time interaction between two parties, the so-called Trust Game (Kreps 1990) and then analyzes the then need to use a scenario-based approach to represent demand uncertainty and develop a stochastic programming model that selects framework suppliers to minimize expected procurement and agreement costs while meeting service requirements associated relational contract, an ongoing relationship in which these interactions occurring (McKone and Cua, 2011).

Supply chain performance of Level Four and Five Hospitals in Kenya

A Performance Contract is a management tool for measuring performance against negotiated performance targets. It is a freely negotiated performance agreement between the Government agencies, acting as the owner of a public agency, and the management of the agency (Katsikeas and Katsikea, 2011). Performance management incorporates the introduction of exacting specifications for cleaning coupled with key performance measures (KPMs) for tasks, equipment, environmental performance, safety and training which,

in turn, are audited to provide measurement through key performance indicators (KPIs). This ensures that there is a framework in place that accurately describes the work to be performed and how outcomes was measured and quantified (Li, Huimin, 2013).

Performance Solutions provides the tools to monitor contracts and engineers contract specifications with comprehensive descriptions of the services to be delivered and key performance drivers. (Katsikeas and Katsikea, 2011) which enables clients to identify and correct inefficiencies, determine if adequate labour is being provided to perform the work and ensure maximum life of assets by accurately specifying the tasks and frequencies that are performed relative to the needs of the client, building use and floor-covering manufacturers’ recommendations. Performance is a time-tested tool used by local governments to increase energy efficiency, while guaranteeing energy savings are enough to cover the costs of the project (Martin, 2015)

Performance management schemes that include electrical compliance monitoring and external inspecting can also provide supplier performance benchmarking which can be associated to similar properties and contracts (Li, Huimin, 2013). Most businesses rely on timely delivery, expense reduction and service excellence offered by their vendors in order to gain more profit (Katsikeas and Katsikea, 2011) vendor performance directly affects the quality of the whole supply chain making it vital to inaugurate an competent mechanism to improve it, hasten its improvement and ensure the superiority of services and/or goods (Jiang and Bai, 2010). Through the appraisal and assessment of vendors performance, companies can confirm and maintain the greatest service and eradicate vendors who fail to fulfill with performance necessities (Martin, 2015).

Conceptual Framework

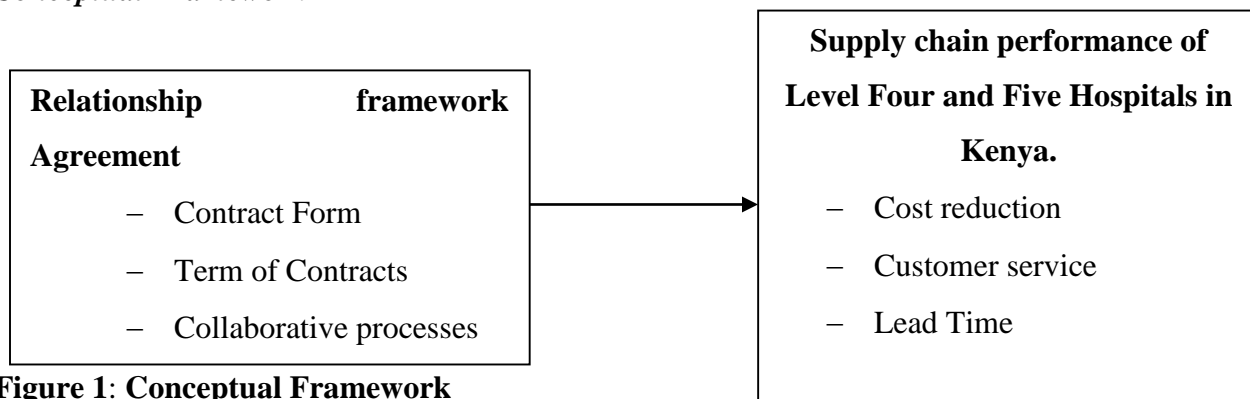


Figure 1: Conceptual Framework

Independent Variables

Dependent Variable

METHODOLOGY

This research used descriptive research design. In research, a descriptive research design refers to the collection and presentation of detailed information about a particular participant or small group, frequently including the accounts of subjects themselves. The descriptive research design is normally used because it places more emphasis on a full contextual analysis of a few elements and conditions and their interrelations, which relies on qualitative data. Primary research data was gathered using questionnaires. The questionnaires containing both open-ended and close-ended questions were administered. The research philosophy for this study was positivism. Research philosophy relates to the foundation of knowledge upon which important assumptions and predispositions of a study are based. There are two main research philosophies, namely; positivism scientific

and phenomenology interpretivist which may also be viewed in terms of two perspectives, namely quantitative and qualitative approaches. Positivist philosophy premises that knowledge is based on facts and that no abstractions or subjective status of individuals is considered. Positivism thus derives a quantitative perspective which holds that there is an objective reality that can be expressed numerically, with explanatory and predictive power. The research data was analysed using qualitative techniques. This was done using descriptive statistics with the help of the Statistical Package for Social Sciences (SPSS) version 23. The responses in the questionnaire were coded into common themes to facilitate analysis. The coded data was then entered into the SPSS program to generate measures of central tendency (mode and mean) and measures of dispersion such as percentages and ranks. Presentation of the quantitative analysis results was done in form of pie charts and bar graphs. Multiple regression analysis was used to establish the relations between the independent and dependent variables.

RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

Reliability and Validity Results

Table 1 illustrates the findings of the study concerning the reliability analysis. In this study, Reliability was ensured through pilot testing on a sample of 27 respondents. This represents 10% of the sample as recommended by (Mugenda and Mugenda, 2012). These were however not included in the study. The 27 respondents were selected from 270 Level Four and Five Hospitals in Kenya. From the findings, the overall coefficient was 0.78143 as shown in table 1; the coefficient was higher than 0.70 threshold, showing that the instruments were reliable, the coefficient for Relationship framework agreement was 0.78143. The language used on the questionnaire was kept simple to avoid any ambiguity and misunderstanding.

Table 1: Reliability and Validity Results

Variable	Cronbach's	No of Item
Relationship framework agreement	.72499	5

Descriptive Statistics

Descriptive statistics are a set of brief descriptive coefficients that summarizes a given data set, which can either be a representation of the entire population or a sample. The measures used to describe the data set are measures of central tendency and measures of variability or dispersion.

Relationship framework agreement

Various statements on Relationship framework agreement were identified and the respondents were asked to indicate the extent they agree with each of the identified statements using a scale of 1 to 5 where; 1= SD - Strongly Disagree 2=D - Disagree, 3=N - Neutral, 4=A - Agree and 5= SA - Strongly Agree. Mean and standard deviation were calculated for ease of comparison and generalization of findings. From table 4.3 respondents indicated that Maintaining contract records in SAP, ensuring governance requirements are met at all times which was supported by mean score of 4.26 and standard deviation of 1.15 providing that 61.43% of the respondents strongly agreed and 18.57% of the respondents agreeing .the study provided that Contracts have the potential to reduce transaction costs by eliminating the need for annual tender evaluation with mean score of 4.29 and standard deviation of 0.96 indicating that 57.62% of the respondents agreed strongly and 20.00% of the respondents agreeing.

The study revealed that Aligning to standard contract terms on the length of the agreement, renewal terms, and volume and price ranges determines organisation performance which was supported by a mean of 3.76 and standard deviation of 1.05 indicating that 24.29% of the respondents strongly agreed and 42.86% agreeing with the statement. The findings in the study provided that formation of Cross-functional teams during contract tendering, formation, administration and negotiation allowed contract performance which had a mean of score of 3.82 and standard deviation of 0.73 where 70.00% of the respondents were agreeing with the statement. Further the study provided that Contract acquisition strategies within area of responsibility and communicate strategies to project clients align contract to compliance where 42.86% of the respondents agreed and 40.95% of the respondents strongly agreed, with a mean score of 4.16 and standard deviation of 0.93. From the finding this implies that

It is important that partners choose to focus on relationship management by taking actions and measures required to keep the relationship highly collaborative through what might be tough times. The findings in this study are in line with those of Gichuru & Arani, (2015) that once the partners have agreed to the negotiation rules they will then and only then begin to negotiate actual deal specifics such as the scope, metrics, pricing approach and other key contractual terms and conditions.

Table 2: Relationship framework agreement

Statement	1	2	3	4	5	Mean	StD
Maintain contract records in SAP, ensuring governance requirements are met at all times	6.19%	2.86%	10.95%	18.57%	61.43%	4.26	1.15
Negotiate the many details of a contract for each instance a product is sold or a service is used.	3.33%	0.95%	8.57%	15.24%	71.90%	4.51	0.94
Contracts have the potential to reduce transaction costs by eliminating the need for annual tender evaluation	0.95%	4.29%	17.14%	20.00%	57.62%	4.29	0.96
Binding agreement as to the relevant parties or the relevant scope.	1.90%	3.81%	5.71%	22.38%	66.19%	4.47	0.91
Align to standard contract terms on the length of the agreement, renewal terms, and volume and price ranges	5.71%	4.29%	22.86%	42.86%	24.29%	3.76	1.05
Providing mechanisms so that suppliers and buyer share system's risks and costs	1.43%	2.86%	10.48%	34.76%	50.48%	4.30	0.87
Cross-functional teams during contract tendering, formation, administration and negotiation;	0.95%	6.19%	12.86%	70.00%	10.00%	3.82	0.73
Contract acquisition strategies within area of responsibility and communicate strategies to project clients	3.33%	1.90%	10.95%	42.86%	40.95%	4.16	0.93

Collaborative processes

The respondents were required to indicate to which Collaborative processes affect the supply chain performance of Level Four and Five Hospitals in Kenya. A scale of 1 to 5 where; 1= SD - Strongly Disagree 2=D - Disagree, 3=N-Neutral, 4=A-Agree and 5= SA- Strongly Agree. Mean and standard deviation were calculated for ease of comparison and generalization of findings. The finding is shown in Table 4.4, provided that working with the best in each field increase the quality of the product/service provided with a mean score

of 4.10 and standard deviation of 1.10 where, 47.62% of the respondents strongly agreed and 28.10% of the respondents agreeing. The study indicated that Collaboration for cost reduction focuses on cutting costs for both sides beyond traditional sourcing levers where 46.19% of the respondents strongly agreed with a mean score of 3.49 and standard deviation of 0.72.

The study provided that Collaboration for value to improve safety and quality of products and of supply for a new or capacity-constrained component with a mean score of 3.47 and standard deviation of 0.63 where 70.05% of the respondents strongly agreed .the study revealed that Successfully creating transparency and trust, however, can deliver remarkable value with 11.90% of the respondents strongly agreeing and 71.90% of the respondents agreeing the statement was supported by mean score of 3.87 and standard deviation of 0.76. From the study, it was observed that a value-sharing model must detail the targets of cooperation, defining the benefits and agreeing on how to share those benefits with mean score of 4.23 and standard deviation of 0.96 with 54.29% of the respondents strongly agreeing. From the finding implies that collaborative working involves parties to a project proactively coming together to resolve problems that arise during the works, with the primary focus on finding areas for compromise. The finding in the study concurred with those of Petersen & Ragatz, (2013). that Framed collaborative contract would be beneficial for the establishment of a clear framework on which collaboration can be organized in a project.

Table 3: Collaborative processes

Statement	1	2	3	4	5	Mean	StD
Working with the best in each field increase the quality of the product/service provided	4.29%	5.24%	14.76%	28.10%	47.62%	4.10	1.10
Suppliers that work well under the company's culture and values and ensure the standard that is required of them	4.29%	6.19%	20.00%	70.00%	5.71%	3.49	0.72
Collaboration for cost reduction focuses on cutting costs for both sides beyond traditional sourcing levers	3.33%	2.86%	17.62%	46.19%	30.00%	3.97	0.94
Collaboration for value to improve safety and quality of products and of supply for a new or capacity-constrained component,	3.81%	5.24%	21.43%	70.05%	9.52%	3.47	0.63
Collaboration for innovation is the practice of working with suppliers to improve the pace and process innovation	5.71%	4.76%	8.10%	51.90%	29.52%	3.95	1.04
Successfully creating transparency and trust, however, can deliver remarkable value.	1.90%	5.24%	9.05%	71.90%	11.90%	3.87	0.76
A value-sharing model must detail the targets of cooperation, defining the benefits and agreeing on how to share those benefits	1.43%	1.43%	23.81%	19.05%	54.29%	4.23	0.96

Supply chain performance of Level Four and Five Hospitals

The study sought the extent to which indicators of level of performance experienced by Public Health Institutions in County /Level Four and Five Hospitals in Kenya in the last five years in terms of Lead time (days), Operational costs (ksh) and Customer service (%). The implementation of contract framework agreements on supply chain performance of Level Four and Five Hospitals in Kenya was found to contribute

to Performance of Public Health Institutions in Kenya. As Lead time (days) significantly reduced as attributed by the contract framework agreements from (9- 11 days) in year 2014 to (7-9 days) in the year 2015. in Kenyatta National Hospital Mbagathi District Hospital County Referral Hospital – Nairobi Dagoretti Sub -District Hospital (Mutuini) County Referral Hospital – Nairobi, Siaya District Hospital, Yala Sub-District Hospital County Referral Hospital – Siaya, Narok District Hospital , Ololulung'a District Hospital County Referral Hospital – Narok Maralal District Hospital County Referral Hospital Samburu Machakos Level 5 Hospital, Kangundo District Hospital and Kathiani Sub-District Hospital County Referral Hospital - Machakos

The lead time days further reduced to in the year 2016 and 2017 to 7-5 days and 5-2 days respectively and down to the optimal levels in 2018 of (1-2 days) from the time of ordering. This implied that the warehouse systems strategies were responsive to the management of daily warehouse significantly reducing the order cycle time and lead time. The finding agreed with those of Ramaa & Rngawamy (2012) that the order lead time measurement creates an opportunity area to improve the customer relations by increasing the level of communication with them.

The performance in Operational costs level was on downward trends as the decreased steadily from 2M operating expense in the year of 2014 reducing to 0.8 M in the year 2015 and 0.4M, 0.3M and 0.1M in the year 2016 to 2018 respectively. The performance in Marani Sub-District Hospital County Referral Hospital - Kisii, Nyamache District Hospital, Nyacheki Sub-District Hospital County Referral Hospital – Kisii Nyamira District Hospital County Referral Hospital - Nyamira Hulugho Sub-District Hospital County Referral Hospital - Garissa Dadaab Sub-District Hospital County Referral Hospital – Garissa in Customer service level was on upward trends as the Customer service increased steadily from 17%, to 26% to 35% then to 47% to 60% from 2014 to 2018 respectively. This was an indication that contract framework agreements influence greatly on Operational costs (ksh) and Customer service (%) Direct central warehouse load control centers to maximize efficiency and effectiveness of contract framework agreements and supply chain performance of Level Four and Five Hospitals

Table 4: supply chain performance of Level Four and Five Hospitals

Performance levels Year	Period				
	2014	2015	2016	2017	2018
Lead time(days)	11-9	9-7	7-5	5-2	2-1
Costs reduction (ksh)	2M	0.8 M	0.4M	0.3M	0.1M
Customer service (%)	17	26	35	47	60

Hypothesis Testing

The following sets of hypothesis were tested in order to obtain the relationship between each of the independent variable and the dependent variable. One way ANOVA Test was used to test for existence of statically significant relationship between each of the independent variable and the dependent variable. The alpha (α) level was set at 0.05, at 95% confidence in testing all the hypotheses.

The Strength of the relationship was further evaluated using Crammer’s V values, which is a symmetric measure for strength of relationship between two or more variables. CRAMER’S V: Used to measure the strength of the association between one nominal variable with either another nominal variable, or with an ordinal variable. Both of the variables can have more than 2 categories. (It applies to either nominal X nominal crosstabs, or ordinal X nominal crosstabs, with no restriction on the number of categories.

Relationship framework agreement and Supply Chain Performance

H₀: Relationship framework agreement has negative or no effect on Supply Chain Performance Of Level Four and Five Hospitals

H₁: Relationship framework agreement has a positive effect on supply chain performance

From the table above, a significance value, $p = 0.018$ was obtained. This value is less than the set alpha value, $\alpha = 0.05$. Therefore, the null hypothesis is rejected and consequently, the alternate hypothesis is approved. It can be concluded that Relationship framework agreement has a positive effect on Supply Chain Performance of Level Four and Five Hospitals.

From the symmetric measures table regarding the strength of the relationship between the two variables, the Cramer's V value obtained is 0.323. This value shows that the relationship between the two variables is moderate. Further, the Cramer's V value is also positive, which indicates that the relationship is as well positive

Table 5: Relationship framework agreement and Supply Chain Performance of Level Four and Five Hospitals

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.928	20	1.496	.094	.018
Within Groups	355.995	189	1.884		
Total	385.924	209			

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.647	.256
	Cramer's V	.323	.256
N of Valid Cases		210	

Collinearity diagnostics

The collinearity diagnostics were tested through regression of individual predictor variables against the predicted variable. The collinearity was assessed using the VIF value. A VIF Value between 1 and 10 indicates lack of collinearity. Tolerance values range between 0 and 1; with high tolerance being associated with low collinearity and low tolerance being associated with high collinearity. However, a VIF Value greater than 10 indicates the presence of collinearity between the predictor variable(s) and the predicted variable.

Relationship framework agreement vs Supply Chain Performance

A VIF value of 1.000 and tolerance of 1.000 were obtained in the linear regression between Relationship framework Agreement (predictor variable) and Supply Chain Performance (dependent variable). This VIF value is less than 10 and tolerance value is 1; hence, there exists no collinearity between the two variables.

Table 6: Relationship framework agreement vs Supply Chain Performance

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	3.624	.000		
	Relationship framework Agreement	.170	.865	1.000	1.000

a. Dependent Variable: Supply

Autocorrelation

Autocorrelation was tested through regression of individual predictor variables against the predicted variable. The autocorrelation was assessed using the Durbin-Watson value. The Durbin-Watson statistic test is often used for this purpose; to detect the existence of any autocorrelation. A Durbin Watson value of 2 indicates the absence of autocorrelation, while greater than 2 indicates negative autocorrelation and less than 2 indicates positive autocorrelation. The presence of autocorrelation in the dataset usually indicates that the model may not be sufficiently accurate in predicting the independent variable and hence the results may be flawed.

Relationship framework agreement

In the table presented above, a Durbin-Watson value of 1.908 was obtained, which is approximately 2. Owing to the fact that the value obtained in the current study is approximately 2, the regression model produced is, therefore reliable and credible as the predictor and predictor variables are not subject to autocorrelation

Table 7: Relationship framework agreement

Model Summary^b

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.012 ^a	.000	.005	0.008	1.908

a. Predictors: (Constant), Relationship framework Agreement

b. Dependent Variable: Supply Chain Performance Of Level Four and Five Hospitals

Normality Test

Normality test was performed to outset whether the data collected depicted a normal distribution. Further, the test was also performed to outset the likelihood of a random variable in the dataset being normally distributed. Abnormalities in the distribution of data indicate possible collinearity and autocorrelation of the variables. This test was performed using Kolmogorov–Smirnov normality test (K–S test). The Kolmogorov-Smirnov test is used to decide if a sample comes from a population with a specific distribution. As such, it tests whether the independent samples are drawn from the same continuous distribution. The alpha level was set at 0.05, at 95% confidence.

K-S Test Relationship framework agreement

The significance value obtained (p=0.04) is less than the set alpha level ($\alpha = 0.05$). As such, there exists little or no substantial deviation from normality. Thus the data for both the Relationship framework agreement and supply chain performance comes from a normal distribution. This is well depicted in the Q-Q Plot below

Table 8: K-S Test Relationship framework agreement

Relationship framework agreement	Kolmogorov-Smirnov ^a		Sig.
	Statistic	df	
Supply_Chain_Performance	.287	7	.004

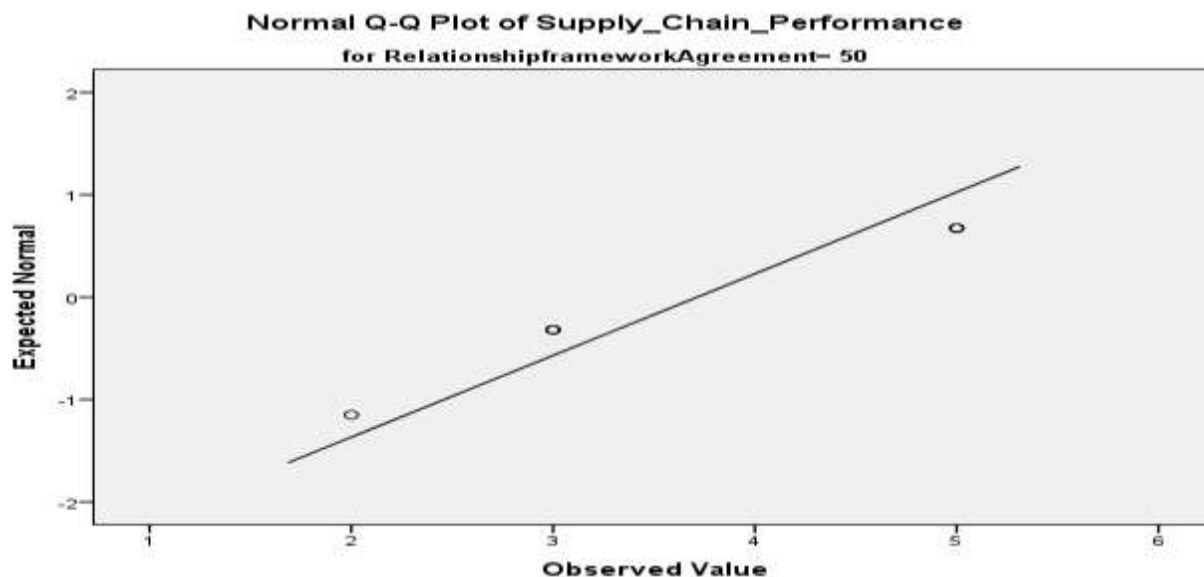


Figure 2: Normal Q-Q Plot of Relationship framework agreement

Model Summary

A multiple linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The R² is the coefficient of determination. This value explains how supply chain performance of Level Four and Five Hospitals in Kenya varied with Relationship framework agreement. The model summary table shows that the predictors can explain 71.8% of change supply chain performance of Level Four and Five Hospitals in Kenya namely Relationship framework agreement an implication that the remaining 28.2 % of the variation in supply chain performance could be accounted for by other factors not involved in this study. This shows that the variables are very significant therefore need to be considered in any effort to boost supply chain performance of Level Four and Five Hospitals in Kenya.

ANOVA^b

F Test was done through One Way Anova to test the effect of all the independent variables on the dependent variable in a simultaneous manner. From a statistical perspective, the F-Test is done to show whether there is a joint effect of independent variable on the dependent variable. The results of the test are presented in the tables below. The critical value for the analysis is 1.8924, and was computed through the use of k-1 numerator (4) and N-k denominator (209) degrees of freedom. The F value obtained (910.746) is greater than the F Critical Value (1.8924). Additionally, the significance value obtained is 0.000, which is less than the set value of 0.05. The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$. Based on the findings, in Table 4.32 the results indicate the $F_{Cal} = 910.746 > F_{Cri} = 1.8924$ at confidence level 95 % and sig is $0.000 < 0.05$. This implies that there was a goodness of fit of the model fitted for this study:

$Y = 649 + 0.682X_1 + 0.417X_2 + 0.130X_3 + 0.744X_4 + e$. Owing to the fact that the F value is greater than the critical value, and the significance level is lower than the set level, it can be concluded that Relationship framework agreement factor have a significant effect on supply chain performance of Level Four and Five Hospitals in Kenya.

Coefficients

The Multiple regression analysis ($y = B_0 + B_1X_1 + \epsilon$) was run with on supply chain performance of Level Four and Five Hospitals in Kenya as the dependent factor and Relationship framework agreement as the predictor variable. From regression results in Table 4.32, the 1.479 represented the constant which predicted value of productivity (supply chain performance of Level Four and Five Hospitals) when all Relationship framework agreement effects remain constant at zero (0). This implied that supply chain performance of Level Four and Five Hospitals in Kenya Would be at 1.479 holding Relationship framework agreement at zero (0).

Regression results revealed that Relationship framework agreement has significance influence on supply chain performance of Level Four and Five Hospitals in Kenya.as indicated by $\beta_1=0.664$, $p=0.001 < 0.05$, $t= .902$. The implication is that as increase in Relationship framework agreement lead to increase in on supply chain performance of Level Four and Five Hospitals in Kenya. By $\beta_1= 0.664$. This implied that an increase in Relationship framework agreement would lead increase in Level Four and Five Hospitals performance. The regression model based on the findings in Table 4.32 from the SPSS is given by: SC performance of lev. 4&5 hospitals =1.479+0.664RFA.

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.848 ^a	.718	.717	.484

a. **Predictors:** (Constant), Relationship Framework Agreement

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.153	1	113.153	910.746	.000 ^b
	Residual	25.842	208	.124		
	Total	138.995	209			

a. **Dependent Variable:** SupplyChainPerformance of Level Four and Five Hospitals

b. **Predictors:** (Constant), Relationship Framework Agreement

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	1.479	.098		15.119	.000
	Relationship Framework Agreement	.664	.022	.902	30.179	.000

a. **Dependent Variable:** Supply Chain Performance Of Level Four and Five Hospitals

b. **Predictors:** (Constant), Relationship Framework Agreement

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of the Finding

The study established that the Relationship framework Agreement helps the parties to understand to what extent they can build the foundation for their relationship. The more trust, transparency and cultural fit between a buyer and supplier, the more the parties are comfortable making investments in the relationship, innovations and continuous improvement opportunities that benefit both parties. The guiding principles for Level Four and Five Hospitals in Kenya establish a Behavioral foundation for a Relationship framework agreement if they also act in accordance with the parties' expressed intentions. They are norms or values that the parties use to guide behaviours while building a trusting relationship. The six guiding principles are the foundation and substance of a high-performing collaborative relationship. Create a shared vision for the partnership. Each party naturally enters the discussion with their own vision, where the parties transform those separate approaches into a shared vision, giving the Relationship framework agreement its purpose far beyond a series of transactions. Further, the guide the partners, not only throughout the negotiation process, but throughout the term of the relationship.

Conclusion of the study

The study concluded that Relationship framework agreement collaboration for Level Four and Five Hospitals in Kenya facilitate innovation, which is crucial for achieving growth and improving resilience. The involvement of suppliers for innovation in Level Four and Five Hospitals in Kenya has been a reality for many years. Most organisations consider their suppliers as being one of the most, if not even the most, important sources of innovation. Supplier relationship management increase the level of innovation-driven procurement, and provides the procurement function in the organisation with the tools and technology to make the early involvement of procurement a success Integrity is the reputational glue for high-performing, collaborative relationships. The relationship in Level Four and Five Hospitals in Kenya promotes trust between the parties. It also means that parties are trusting and trustworthy at the same time. To act with integrity is to show trustworthiness, which strengthens the foundation of the relationship. Integrity promotes predictability, since what has happened in the past says something about what can be expected to happen in the future. Thus, complexity is reduced.

Recommendation of the study

The study recommends that Relationship framework agreement Businesses and business people should tend to view a relationship in balance sheet terms: each side should be equal. This is especially true in buyer supplier relationship. As a defined and establish supplier relationship develops, communication improves. Suppliers gain a more complete understanding of the businesses they serve, and this allows them to meet their needs more effectively. Delays in the supply chain will decrease, and the flow of operations will greatly improve. And when issues in the ordering process do arise, the healthy working relationship between supplier and client will make such issues easier to resolve. Good working relationships with suppliers will not only deliver cost savings, they will reduce availability problems, delays and quality issues and that means a better service for the consumer.

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