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Customer Suppliers Relations, Customer Knowledge, Strategic Alliance, Licensing Agreement and Business Performance of Pharmaceutical Firms in Nairobi County

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Abstract

Customer supplier relations, customer knowledge and strategic licensing agreements are sub variables of Relational capital that helps the organization to interact positively with business community members to motivate the potential for wealth creation by enhancing human and structural capital. Relational capital comprises the knowledge embedded in all the relationships an organization develops whether it is with customers, competitors, suppliers, trade associations or government bodies. The purpose of the study was to test the relationship between, Strategic Alliances, Licensing and Agreements, Customer and Supplier Relations and influence performance of pharmaceutical firms in Nairobi County. The study was carried out in Nairobi since most of the pharmaceutical firms were located here apart from a few, which were based outside Nairobi. The research study adopted three research designs namely: Quantitative, explanatory and descriptive research design. The target population constituted 89 pharmaceutical firms and the sample frame was comprised of 31 local pharmaceutical firms. This represented 35% of the total population. Purposive sampling procedure was used to arrive at 31 pharmaceutical firms while judgmental sampling was used to target the human resource managers. Out of the 31 pharmaceutical firms the response rate was 18 companies. The instrument of data collection was a structured questionnaire with questions anchored on a five (5) point Likert type ranking scale which was administered to the respondents. The data processing and analysis was done mainly by the use of logarithmic multiple linear regression analysis. The results and findings of the study indicated that the sub variables of relational capital (customer supplier's relations, customer knowledge, strategic alliance licensing agreement) influenced business performance of pharmaceutical firms in Nairobi County. The overall model indicated that Customer Suppliers Relations with a P-Value of 0.031and Customer Knowledge with a P-value of 0.070 had positive and significant influence to business performance of pharmaceutical firms in Nairobi County, while Strategic Alliance Licensing Agreement 0.160 had a positive but insignificant influence on business performance.

Key words: Customer Suppliers Relations, Customer Knowledge, Strategic Alliance Licensing Agreement, Business Performance, Pharmaceutical Firms

1. Pharmaceutical Industry in Kenya

Kenya is losing up to Sh400 billion annually for not tapping into the region's vibrant pharmaceutical industry. Despite having the potential to supply pharmaceutical products to neighboring countries, Kenya as well as other East African nations are said to import up to 70 per cent of their medicines(Graham, 2016).

Across the region, Kenya has the largest number of manufacturers (34) with the rest 14 being shared among the remaining East African countries. The Africa Pharmaceutical Summit held in Nairobi noted that poor standards, lack of specifications, skill gaps and inadequate government support was dragging the industry. Intellectual rights by manufacturers and slow policy adoption were also cited as hindrances. Kenya has the largest number of manufacturing firms in the region with the potential to supply 80 per cent to region including the Common Market of East and Southern Africa (COMESA)," said Industry and Enterprise Development. According to Data,

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Sub-Saharan Africa-mostly made up of Comesa countries- spend up to Sh590 billion (USD 5.9 billion) in medical goods and services (Graham, 2016).
Kenya is currently the largest producer of pharmaceutical products in the common market for eastern and southern Africa region supplying about 50% of the regions market. Out of the regions estimated 50 recognized pharmaceutical manufacturers, approximately thirty are based in Kenya. It is also approximated that about 9,000 pharmaceutical products have been registered for sale in Kenya.

Currently, medical care is a prerequisite among employers and the government is trying to enhance the universal health care coverage for all the 47 counties; the law requires that every employer ensure the provision of proper medicines and attendance to employees unless otherwise provided for by the government (James, 2018). The pharmaceutical industry is important and crucial sector in the Kenyan economy. The pharmaceutical sector consists of about 31 licensed concerns which include local manufacturing companies and large multinational corporations. These firms collectively employ over 2000 people, about 65% of who work in direct production. The companies that were considered in this study were sought from the pharmaceutical society of Kenya which its roles and objectives are licensing the pharmacists, as well as ensuring the drug store managers are members of the pharmaceutical society and have sworn allegiance to the pharmacy practitioners professional oath (Pharmaceutical Society of Kenya, 2018).

Specific objectives of the study

1. Determine whether Strategic Alliances, licensing and agreements influences business performance among pharmaceutical firms in Nairobi County.
2. Determine whether Customer and Supplier Relations influences business performance among pharmaceutical firms in Nairobi County.
3. Determine whether Customer knowledge influences business performance among pharmaceutical firms in Nairobi County.

2. Literature Review

The literature review entails discussion of the independent variables in order to show their link with the dependent variables as guided by the objectives of the study.

2.1 Strategic Alliances, Licensing Agreement

Generally, strategic alliances are arrangements between two or more entities that are created to achieve mutual goals through collaboration. Strategic alliances take many forms, including contractual arrangements such as license agreements, marketing agreements, and development agreements, minority equity investments, and joint ventures that are operated as separate legal entities such as corporations, limited liability companies, or partnerships. Regardless of the form, strategic alliances share common features such as: defined scope and strategic objectives; interdependent contractual arrangements within the defined scope and to achieve the strategic goals; specifically defined responsibilities and commitments for each party; independence of the parties outside of the defined scope of the alliance; and a fixed time period in which to achieve the strategic goals (Nelson, 2009). Partners may provide the strategic alliance with resources

such as knowledge, expertise. The strategic alliance is a cooperation which aims for a synergy where each partner hopes that the benefits from the alliance will be greater than those from individual efforts. The alliance often involves technology transfer (access to knowledge and expertise) hence Improved Business Performance of firms (David, Mowery, Oxley, Brian, and Silverman, 1996)

2.2 Relation with Partners, Suppliers and Customers

This is part of the knowledge embedded in business networks where by the partners, suppliers and customers are part of the business networks created to influence the cordial relationship with the stakeholders in terms of business. It is necessary to capture individual knowledge through knowledge management process but it is equally important to take into account social considerations that is, the ways in which knowledge is developed through interactions between people. Bontis, Keow, and Richardson, (2000) points out that it is flows as well as stocks that matter. Intellectual capital develops and changes overtime and a significant part is played in these processes by people acting together. This can be assessed where customers shows loyalty to the company and would indicate that they are generally satisfied. When new products have been introduced the company's customers have increasingly selected company's products verses competitors.

2.3 Knowledge about Partners, Suppliers and Customer

This is part of social capital and consists of the knowledge derived from network of relationships within and outside the organization. The concept of social capital has been defined by David, Mowery, Oxley, Brian, and Silverman,(1996) as the feature of social life, networks, norms and trust that enables participants to act together more effectively to pursue shared objectives. Social capital refers to the institutions relationships and norms that shape the quality and quantity of society's social interactions. Social capital is not just the sum of the institutions that underpin a society; it's the glue that holds them together.

In this case the company gets feedback out of customers as it possibly can under different circumstances. The company has to maintain a data bank for the customers and it should be continuously updated. This knowledge about the customers is generally distributed in the whole company. The company also needs to meet with the customers so that they can know what they want from the company so that the company can create a niche for its customers unlike the competitors (OECD, 2012).

2.4 Business Performance

Many authors strongly belief that human capital could have positive effect on the company's financial performance (Tan, Plowman, and Hancock, 2007). Business performance is defined as measurable result of the level of attainment of organizational goals or measurable result of the organizations management of its aspects mechanism for improving the likelihood of the organization successfully implementing a strategy. Business performance evaluation is the process to help management's decisions regarding an organizations performance by selecting indicators, collecting and analyzing data, assessing information against performance criteria, reporting and communicating and periodically reviewing and improving this process.

The Business Performance metrics was sales growth, profits growth, while Human Productivity metrics were employee productivity, process productivity and Industry leadership. Market valuation was measured by Stock Value. According to Youndt, Subramaniam, and Snell, (2004) intellectual capital intensive companies are more competitive than other companies and are therefore more successful. It has been argued that the success of an organization depends on how best the scarce physical resources are utilized by human resources. The physical resources are being activated by the human resources as they cannot act on their own. According to the resource based view, firms may gain competitive and can achieve superior performance through the acquisition, holding and subsequent use of strategic assets (Barney, 1991). Both tangible and intangible assets are perceived as potential strategic assets. Among the invisible assets, human capital is generally considered to be a vital strategic asset (Riahi-Belkaoui, 2003). Many scholars argue that in comparison with the tangible resources, intangible resources are more likely to be the key resources for many enterprises which help them in acquiring the required competitive advantage or to ensure market dominance (Marr, Schiuma, & Neely, 2004).

3.0 Methodology

The study adopted descriptive research design to identify, analyzes, and describes the relationship between human capital and business performance of pharmaceutical firms in Kenya (Nicholas, 2011, & William, 2010). This design provides an accurate account of characteristics of a particular individual event or group in real-life situation, (Kothari, 2004, Mugenda, 2008). Descriptive design may be used for the purpose of developing theory, identifying problems with current practice, justifying current practice, making judgments' or determining what others in similar situations are doing (Sekaran & Bougie, 2013). The target population was pharmaceutical manufacturing firms listed by the pharmaceutical society of Kenya. The target population was 89 pharmaceutical firms as per the directory of manufacturers (Kimotho, 2018). The sample frame was 31 local manufacturing pharmaceutical companies' licensed by the pharmacy and poisons board.

3.1 Sample and Sampling Technique

Sampling is done to some elements of a population so that conclusions about the entire population can be drawn. The ultimate test of a sample design is how well it represents the characteristics of the population it purposes to (Kothari, 2004, Thorn hill, 2009, Nachmias & Nachmias, 2008). The entire target population constituted 89 local pharmaceutical manufacturers, but only 31 local manufacturers were chosen since they had been licensed by Pharmacy and Poisons Board. This constituted 35% of the population.

According to Mugenda 2008, William, 2010, Orodho and Kombo, (2002) they recommend that for small populations a sample of 30 is statistically significant. The respondents were human resource managers but their deputies were considered where the Human resource managers were not present to respond to the questionnaires. These managers of each pharmaceutical firm were chosen using simple random sampling to give them equal chances of being selected.

3.2 Measurement of Dependent Variable

Three dependent variable were taken into account namely; profitability, human productivity and market valuation. Correlation analysis was done to establish whether there was correlation between Profitability and Relational capital, Human Productivity and relational capital and

Market valuation and relational capital of the Pharmaceutical firms. These are denoted respectively as:

3.3 Profitability

Profitability was measured using sales growth which is the increase in sales over a specific period of time, often but not necessarily annually and profit growth which is a combination of profitability and growth, more precisely the combination of economic profitability (Tan, Plowman, & Hancock, 2007).

3.4 Human Resource Productivity

In human resources, productivity is more difficult to measure, understand and define. According to (Rob, 2010, Saari, 2006 & Lazear, 2000), what influences the productivity levels of staff is wide variety of skills, characteristics and attitudes. Productivity describes how efficiently inputs are converted into outputs. According to Watson (2002), the productivity of a firm lies more on its intellectual capital and system capabilities than on its hard assets. Bontis *et al* (2000) argues that leveraging knowledge assets is the key to a firm's prosperity. A firm with higher capital performance is expected to have higher rate of profitability and also it may experience higher productivity (Rob, 2010, Saari, 2006). This was measured by employee Productivity and Process transaction Productivity, success rate in new products launches.

3.5 Market Valuation

Intangible Assets are difficult to measure; it is common to find use of proxy metrics Kannan & Albur (2004). There is no adequate empirical evidence that supports the superiority of any proxy measure over the others. The sub construct in the dependent variable was measured by the company's stock value, response to competition, overall business performance and success as well as future outlook

3.6 Measurement of Independent Variables

The independent variables were first run through the statistical package for social sciences to test their reliability by establishing their Cronbach alpha. Then they were subjected to factor analysis so that the sub contrast that had an item to total correlation of less than 0.2 were eliminated and they were not to be used for further analysis. The Cronbach alpha of the three variables that is; Strategic Alliances, Licensing and Agreements, Customer and Supplier Relations and customer knowledge 0.70, which is considered good for exploratory research (Nunnally, 1978).

3.7 Instruments

The main primary tool of data collection was the structured questionnaire which was used to collect factual information with Likert scale from 1 to 5. The structured questionnaires are recommended because they help the respondents to respond more easily and help the researcher to accumulate and summarize responses more efficiently (William, 2006, Thorn hill, 2009). In this study Likert scale was used since the data obtained was ordinal.

3.8 Multiple Linear Logarithmic regression

For the analysis of the respective relationship between the business performance and dimensions of human capital were defined from the conceptual framework, multiple linear regression analysis was performed based on the model.

3.9 Data Collection Procedure

The questionnaire targeted the Human resource managers and their deputy managers drawn from the pharmaceutical manufacturer's population. Human resource managers and their deputy of the pharmaceutical firms were the most knowledgeable with respect to the overall situation of their firms. Donald & Pamela, (2006) recommends the use of questionnaire in descriptive studies because typically cost less than personal interviews, sample accessibility.

3.10 Data Processing and Analysis

Data analysis was guided by the research objectives. Data from the questionnaire were edited, coded and analyzed. In order to test for the normal distribution of response data, a Kolmogorov – Smirnov test for dependent and independent variables was conducted. Pearson Bivariate correlation coefficient was used to test the relationship between independent and dependent variables.

The correlation coefficient was calculated to determine the strength of the relationship between independent and dependent variable. Analysis of variance test was then used to analyze whether the relationships were statistically significant (Mugenda, 2008, Sekaran, and Bougie, 2013 & William, 2010). Multiple regression analysis was conducted to test whether the individual research question was statistically supported (Donald & Pamela, 2006).

4.0 Results and Discussions

Table 1: Reliability analysis

Variable	Number of items	Cronbachs Alpha
Strategic Alliances, Licensing and Agreements	10	.730
Customer Supplier Relations	10	.624
Customer Knowledge	10	.654

The results of the study as indicated on Table 1, shows that the three constructs used meet the reliability threshold as shown with strategic alliances, licensing and agreements having a coefficient of 0.730, customer suppliers' relations had 0.624 and customer knowledge with 0.654 respectively.

4.1 Validity analysis

Table 2: Component matrix of the three independent variables

	Component		
	1	2	3
SLA Company prides itself on being partnership - oriented	.779		
CSR Company capitalize on customer wants and needs by continually striving to make them satisfied	.763		
SLA Company able to learn and add value through its partners	.724		
CK Customer knowledge is widely distributed throughout company	.712		
CSR Company maintains long standing relationship with suppliers	.688		
SLA People from outside company are consulted when decision are made within company	.668		
SLA Company has many and diverse alliances	.639		
CSR A poll of company customers show them to be loyal to company would indicate that they are generally satisfied	.535		
CSR Company relationship with customer supplier affect market value		.732	
CSR Company relationship with customer supplier affect profitability		.708	
CSR Company feels confident that will continue to do business with it		.685	
CK Company has useful and updated information system in use		.627	
CK Company continually meets customers to find out what they want		.589	
SLA Company strategic alliances affect company market value			.934
SLA Company strategic alliances affect company productivity			.792
CK Is it Important for company share knowledge with partners			.616
SLA Company currently working on joint projects with many other organizations			.585

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The results on Table 2, indicates that out of the three variables that were considered, not all the questions qualified for validity. This is an indication that validity analysis was used to reduce the items into meaningful ones. The results showed that out of 10 questions that were considered for strategic alliances and agreements (SALA) only 7 meet the threshold, consumer service relations (CSR) had 6 that meet the threshold and consumer's knowledge had only 4 questions that meet the threshold. All the others were dropped not to be considered for subsequent further analysis.

Table 3: Descriptive statistics of Strategic Alliances, Licensing and Agreements

	N	Minimum	Maximum	Mean	Std. Deviation
Company_currently_working_on_joint_projects	18	1	5	3.11	1.530
Company_has_diverse_distribution_channels	18	2	5	3.78	1.003
High_ratio_of_company_business_done_with_strategic_alliance	18	1	5	3.33	1.138
Company_has_many_and_diverse_alliances	18	1	5	3.61	1.378
People_outside_company_consulted	18	1	4	2.78	.943
Company_able_to_learn_and_add_value_through_its_partners	18	1	5	3.11	1.079
Company_prides_itself_on_being_partnership_oriented	18	1	5	3.28	1.127
Company_strategic_alliances_affect_company_productivity	18	2	5	3.83	.924
Company_strategic_alliances_affect_company_profitability	18	2	5	3.72	1.018
Company_strategic_alliances_affect_company_market_value	18	2	5	4.00	.970

Table 3 shows the descriptive statistics of strategic alliances, licensing and agreements. The results indicated that people outside the company are not highly consulted as this had the lowest mean of 2.78 as compared to the others. The highest mean was 4.0 which showed that the company's strategic alliances affect the company's market value. The results showed that the companys considered in this study means are relatively placed ranging from 3.11 to 3.83.

Table 4: Descriptive Statistics of Customer and Supplier Relations.

	N	Minimum	Maximum	Mean	Std. Deviation
A_poll_of_company_customers_show_them_be_loyal_to_company	18	3	5	4.06	.802
New_business_Company_customers_select_company_products	18	3	5	3.67	.594
Company_capitalize_on_customer_wants_and_needs	18	2	5	4.06	.802
Company_takes_considerable_time_to_select_suppliers	18	2	5	3.83	.707
Company_mantains_long_standing_relationship_suppliers	18	3	5	4.00	.686
Company_greatly_reduced_time_resolve_customer_problem	18	2	5	3.72	.752
Company_feels_confident_that_will_continue_to_do_business	18	3	5	4.28	.752
Company_relationship_customer_supplier_affect_productivity	18	2	5	4.39	.778
Company_relationship_customer_supplier_affect_profitability	18	4	5	4.61	.502
Company_relationship_customer_supplier_affect_market_value	18	4	5	4.56	.511

Table 4 shows the descriptive statistics of customer and supplier relations. The results indicate that out of the questions that were considered in this study the highest mean score was 4.61 showing clearly that the companies relationship with the customer and the supplier affects the profitability of the firm. However, the companies need to take care of new business so that the customers can select the company products. This scored the least in this category with a mean of 3.67. The company needs to also resolve customer problems; this scored a mean of 3.72. On the other statements that were considered, the pharmaceutical companies were fairly rated with scores ranging from 3.83 to 4.56.

Table 5: Descriptive statistics of Customer Knowledge

	N	Minimum	Maximum	Mean	Std. Deviation
Important_share_knowledge_partners	18	3	5	4.06	.802
Company_gets_much_feedback_from_customers	18	3	5	3.83	.618
Customer_knowledge_widely_distributed	18	1	5	3.50	.924
Customer_data_continuously_updated	18	1	5	3.56	1.042
Company_has_relatively_complete_data_on_suppliers	18	1	5	3.67	.970
Company_meets_customers_to_find_what_they_want	18	1	5	3.50	1.200
Company_useful_updated_information_system_in_use	18	1	5	3.56	.984
Company_knowledge_customers_affect_company_productivity	18	2	5	3.94	.873
Company_knowledge_customers_affect_company_profitability	18	1	5	4.06	.998
Company_knowledge_customers_affect_company_market_value	18	3	5	4.44	.705

Table 5 shows the descriptive statistics of customer knowledge which is the third component of relational capital. The results indicate that the pharmaceutical firms need to sensitize the customers on the products they have (3.50). The firms also need to meet the customers to find out what they want due to change in customer preferences (3.50) moreover; the firms get much feedback from customers (3.83). The firms need to regularly update their information systems. There was also an indication that customer knowledge affects company's productivity with a mean of 3.94.

Table 6: Correlation Analysis between Independent and Dependent Variable

		SALA	CSR	CK	LogBusiness Performance
SALA	Pearson Correlation	1	.419	.439	.581*
	Sig. (2-tailed)		.083	.069	.011
	N	18	18	18	18
CSR	Pearson Correlation	.419	1	.401	.482*
	Sig. (2-tailed)	.083		.099	.043
	N	18	18	18	18
CK	Pearson Correlation	.439	.401	1	.696**
	Sig. (2-tailed)	.069	.099		.001
	N	18	18	18	18
LogBusinessPerformance	Pearson Correlation	.581*	.482*	.696**	1
	Sig. (2-tailed)	.011	.043	.001	
	N	18	18	18	18

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 shows the correlation between customer knowledge, Customer and Supplier Relations and Strategic Alliances, Licensing and Agreements. The results indicate that correlations were positive at SALA (0.581 at P=0.011), CSR (0.482 at P=0.043) and CK (0.696 at P=0.001). The variables meet the threshold since the three of them had a precision level of less than 0.05(P<0.05).

Table 7: Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982	.964	.956	.56096

a. Predictors: Ln_CK, Ln_SALA, Ln_CSR

Table 7 shows the goodness of fit. The results of the study show that the three variables that were considered explained 95.6 % variation of business performance of pharmaceutical firms in Kenya. The remaining 4.4% is a representation of other variables that have not been considered in this study.

Table 8: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.146	3	41.715	132.566	.000[a]
	Residual	4.720	15	.315		
	Total	129.866	18			

a. Predictors: Ln_CK, Ln_SALA, Ln_CSR

b. Dependent Variable: LogBusinessPerformance

c. Linear Regression through the Origin

Table 8, shows the analysis of variance. The results of the study indicates that the model of the study was significant at P=0.00 at 18 degrees of freedom at F=132.566. This was a good indication that the model of the study meet the threshold and it's was positively significant.

Table 9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Ln_SALA	1.287	.871	1.692	1.477	.160
	Ln_CSR	-2.801	1.173	-3.874	-2.388	.031
	Ln_CK	2.332	1.193	3.155	1.954	.070

a. Dependent Variable: LogBusinessPerformance

b. Linear Regression through the Origin

Table 9 shows regression coefficients of the three variables against business performance. The results indicate that SALA was positive but insignificant since it surpassed the threshold P≤0.05. CSR had a positive and significant influence on business performance and meet the threshold since P=0.031. Ck also had a positive and significant influence on business performance of Pharmaceutical firms with a P=0.070. It had surpassed the threshold with 0.02. Therefore among the three variables CSR was Ranked First, followed by CK and thirdly SALA.

The study therefore concluded that the final model of the study was as follows;

$$Y = 1.287SALA - 2.801CSR + 2.332CK$$

Conclusion

The study concludes that Customer Suppliers Relations, Customer Knowledge, Strategic Alliances, Licensing Agreement are critical constructs that influence the business performance of pharmaceutical firms in Nairobi County. Therefore, Pharmaceutical firms need to put emphasis

on the these constructs in order to succeed within the markets. In respect to customer knowledge, it is important for the pharmaceutical firms to share knowledge with partners and continually meet customers to find out what they want. If these considerations are put into practice by the pharmaceutical firms as supported by the results and findings, then the pharmaceutical firms will appreciate their competitive advantage over other international competitors in the market. Finally strategic alliances, licensing agreement as much as they had a positive but insignificant influence on business performance cannot be ignored and therefore it is prudent for the pharmaceutical companies to cultivate alliances among themselves and make sure that they are operating optimally within the licensed agreements with their promoters to bridge the gap of pharmaceutical products within the county.

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