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**THE EFFECT OF STRATEGIC RESPONSES ON THE FINANCIAL PERFORMANCE OF REGISTERED WATER PACKAGING FIRMS IN NAIROBI COUNTY**

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**ABSTRACT**

*The main objective of this study was to determine the effects of strategic responses on the financial performance of the registered water packaging firms in Nairobi County. The study adopted a descriptive survey design, target population being the 42 registered water packaging firms in Nairobi County. This study used primary data and secondary data collected through use of a questionnaire and from the Kenya National Bureau of Statistics (KNBS). The questionnaires were self-administered with the help of research assistants. After data was collected, it was prepared for analysis by editing, handling blank responses, coding, and keying into statistical package for social sciences (SPSS). The descriptive statistics were frequencies, mean scores and standard deviation. The inferential statistics were regression and correlation analysis. A multivariate regression model was used to link the independent to the dependent variable. The study found that innovation and financial performance of registered water packaging firms in Nairobi County, the relationship was positive and significant. The study also found that CSR and financial performance of registered water packaging firms in Nairobi County the relationship was positive and significant. The study further found that technology adoption had significant influence on the financial performance of registered water packaging firms in Nairobi County. Also the study revealed that corporate governance had positive and significant influence on the financial performance of registered water packaging firms in Nairobi County. The study's conclusions were that there was strong relationship between financial performance of registered water packaging firms and innovation, CSR, technology adoption and the corporate governance. The study recommended the management of registered water packaging firms, while making a choice of the kind of strategic responses to be adopted, should be guided by the following key attributes: innovation, corporate social responsibility, technology adoption and corporate governance.*

**Key words;** Innovation, Corporate Social Responsibility, Technology Adoption, Corporate Governance and Financial Performance

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## INTRODUCTION

The global market of bottled water faces a cut throat competition. Channel intensity is mainly used to attain place and time utility. Competition is presented by juice, tap water and other close substitutes products. The global market concentration is low (Gleick, 2004), the way distributors select channel intensities contributing to efficiency is important. While the last decade has seen large shifts in manufacturing and distribution practices, there has been very little empirical research investigating manufacturers' channel intensity in beverages distribution (Clemenz & Pamela 2002).

The world wildlife fund survey (2014), gave an estimate of 89 million litres of bottled water is consumed annually. This increase in consumption is attributed to health reasons, diet, lifestyle, and clever advertising against tap water and other soft drinks (Amato & Amato 2009). In Kenya, bottled water represents an alternative to beverages and sugared drinks. The small pack of 500ml comprise the fastest growing in supermarkets and retail shops. The industry performed well in 2011, with the growth of 10% in total volumes (Euromonitor 2010). It is estimated that the bottled water industry net is over 1.3 billion shillings annually.

Johnson, Scholes and Whittington (2008) define strategy as the direction and scope of an organization in the long run, which achieves competitive advantage in the turbulent environment through the configuration of resources for the purpose of fulfilling stakeholder expectations. Strategies are interventions that address the changes in the business environment. They are the framework through which an organization can assert its vital continuity while managing to adapt to the changing environment for the competitive advantage (Ansoff, 2009). Strategic responses therefore, are the approaches organizations come up with to deal with the risks challenges and changes that have been identified in their operating environment (Ansoff, 2009).

Pearce and Robinson (2014) defined strategic responses as the set of decisions and actions that result in formulation and implementation of the designed plans to achieve a firm's objective. It is a reaction to what is happening in the economic environment of organizations. According to Ross, Hitching and Worley (2012), organizations have to learn, adopt and reorient itself to the changing environment. He postulates that when a discontinuity begins to affect a firm in a turbulent operating environment brought about by globalization and trade liberalization its impact remain hidden within normal fluctuations in performance.

Kim and McIntoch (2012) assert that technological changes, ease of entry by foreign competitors, and the breakdown of traditional industry boundaries subject firms to unpredictable competitive forces. Firms operating in dynamic market contexts, often deal with such contingencies by implementing strategies that permit quick configuration and redeployment of assets to deal with the turbulent environmental

Schayek (2011) in his study, the effect of strategic planning on SMEs in Israel, examined three characteristics of strategic planning, that is, whether plans have been written, the detailed scope of strategic planning and, the period of time covered. Results indicated that only 23% to 30% of organizations implemented some form of strategic planning. There is significant positive correlation between strategic planning and financial performance.

Kraus (2012) analyzed the implications of essential elements of strategic responses in small businesses in Germany that is: time span, formalization, and frequency of control and use of planning instruments. Moreover, Phillips & Peterson (2009) assert that each of the three business strategy components, that is the strategic planning process, the strategic plan and implementation affect performance directly, while

unanticipated environmental and firm characteristics are key moderating variables. Given the role of strategic instruments in large companies and the notion that rational decision-making should prevail in enterprises regardless of size, practitioners and academics have called for increased use of strategic planning in small and medium enterprises (SMEs).

In a study to identify strategic planning systems' characteristics in Jordanian small firms, Aldehayyat (2011) noted that little attention has been given to the study of strategic planning in small businesses in the developing countries. Their study revealed that a strong positive relationship exists between strategic planning and corporate performance in the context of countries in the Middle East.

In the African context, Okpara (2011) carried out an exploratory study to examine the reasons for small-business failure in Nigeria. The study revealed major obstacles as: lack of financial support, lack of strategic measures, corruption, and lack of training and inadequate bookkeeping. The study recommended further research to be done on the effect of business environment in different Sub-Saharan economies and also on diverse businesses.

According to Wairigia (2010), the Kenyan business environment has been undergoing drastic changes which have affected most industries especially in the last decade. The Government policy on liberalization outlined the reform measures to be undertaken in all sectors of the economy in order to accelerate growth and development. These changes include increased competition, privatization of the public institutions, liberalization of the economy and formulation of strategic response. Organizations have had to adapt their activities and internal configurations to reflect the new external realities. Failure to this may jeopardize future performance of the organization (Wairigia, 2010).

According to Njagi and Kombo (2014), the modern business environment has become very competitive,

making it necessary for firms to practice strategic management, which consists of the analysis, decisions, actions an organization takes in order to develop and sustain competitive advantage. Davenport (2012) argues that executing a strategy, no matter how brilliant, requires a planned approach. Njagi and Kombo (2014) agree, saying that in order to achieve intended results strategies have to be properly implemented.

### **Statement of the Problem**

In turbulent environmental it is important to keep well-versed about company goals and their accomplishment on a consistent basis and consequently view strategy development as a forthcoming investment (Wang, 2014). The primary use and application of strategic response deceits in the certainty of likely future set-ups and disparities, whereas most of well-known strategy thoughts have been developed for corporations that usually display advanced level of consciousness for prevailing challenges and henceforth assign more resources to this topic, some of these thoughts and tools also seem to be appropriate for implementation in water packaging firms. A particular strategy thought for firms, though, needs to account for their distinctive circumstances and challenges. Water packaging firms are faced with numerous challenges, and the development of a comprehensive strategy for the firms could outline how these challenges could be managed. A well formulated strategy is a key contributing factor to the success of the company (Wang, 2014).

Lack of strategic responses, unsatisfactory and deteriorating service delivery have the undesired effect of not only weakening the company's ability to effectively deliver services but also encourages collusion, fraud, embezzlements, loss of cash (revenue), assets conversion genuine and deliberate mistakes, corruption, lack of transparency and accountability for revenue collection and other assets. The management of a company should

implement strategic response measures such as innovation to ensure effective service delivery and the desired financial performance (Efozie, 2010).

Mutisya (2017) conducted a study on strategic responses and performance of international hotels in Nairobi, states that international hotels should regularly scan their external environment in order to ensure the appropriate strategic responses are adopted in the organization. The study reveals conceptual gap since the focus was not on strategic responses in water packaging firms. Wambua (2011) studied strategic responses adopted by mobile phone companies to changes in the telecommunication industry. Wanjohi (2012) investigated competitive strategies and positioning within a changing business environment adopted by water companies in Kenya. These studies have focused on strategic responses in other sectors, competitive strategies and regulatory strategies in water companies. However, there is a missing link on how strategic responses affect financial performance of water packaging firms which is vital in sustainability of an organization. This study sought to fill the gap by determining the effect of strategic responses on the financial performance of the registered water packaging firms in Nairobi County. The study looked into strategic response measures such as innovation, CSR, technology adoption and corporate governance which may have effect on financial performance of water packaging firms in Nairobi County.

### **Objectives of the study**

The general objective of the study was to establish the effect of strategic responses on the financial performance of the registered water packaging firms in Nairobi County. Specific objectives were to,

- Establish the effect of innovation on the financial performance of the registered water packaging firms in Nairobi County.
- Determine the effect of corporate social responsibility on the financial performance of the

registered water packaging firms in Nairobi County.

- Examine the effect of technology adoption on the financial performance of the registered water packaging firms in Nairobi County.
- Establish the effect of corporate governance on the financial performance of the registered water packaging firms in Nairobi County.

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Innovation Diffusion Theory**

Innovation diffusion is based on the notion that adoption of an innovation involves the spontaneous or planned spread of new ideas and Rogers defines an innovation as: an idea, practice, or object that is perceived as new. (Rogers 1995). He stresses that it is the perception of change that is important; if the idea seems new to the potential adopter then it should be considered to be an innovation. Rogers approaches the topic of innovation diffusion by considering a variety of case studies on topics including: controlling scurvy in the British Navy, diffusion of hybrid corn in Iowa, diffusion of the news, bottle feeding of babies in the third world, how the refrigerator got its hum, Xerox PARC and Apple computer, black music in white America, Minitel in France, the non-diffusion of the Dvorak keyboard, and causes of the Irish potato famine (Frankelius, 2009).

In diffusion theory the existence of an innovation is seen to cause uncertainty in the minds of potential adopters (Berlyne, 1962), and uncertainty implies a lack of predictability and of information. Diffusion is considered to be an information exchange process amongst members of a communicating social network driven by the need to reduce uncertainty (Rogers, 1995). Uncertainty can be considered as the degree to which a number of alternatives are perceived in relation to the occurrence of some event, along with the relative probabilities of each of these alternatives occurring. Those involved in

considering adoption of the innovation are motivated to seek information to reduce this uncertainty (Rogers, 1995). Diffusion theory contends that a technological innovation embodies information, and so its adoption acts to reduce uncertainty. In illustration of this Rogers cites the innovation of solar panels as reducing uncertainty over future energy costs and reliability of energy supply (Khan, 1989). This theory stresses that for an organization to remain competitive it should device ways on how to adapt to technology.

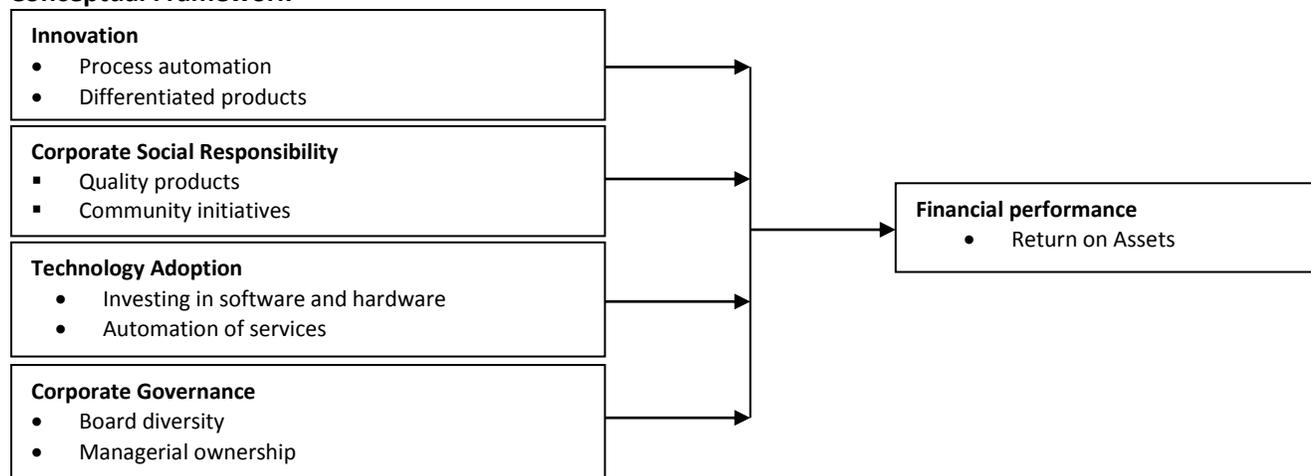
### Agency Theory

It is a fact that the principal-agent theory is generally considered the starting point for any issue of corporate governance emanating from the classical thesis on The Modern Corporation and Private Property by Berle and Means (1932). According to this theory, the fundamental agency problem in modern firms is due to the separation between finance and management. Modern firms are seen to

suffer from separation of ownership and control, and therefore are run by managers (agents) who cannot be held accountable by dispersed shareholders.

Agency theory suggests that there are several mechanisms to reduce the agency problem in the firm. For examples, managerial incentive mechanism compensates managerial efforts to serve the owners' interests; dividend mechanism reduces managerial intention to make an overinvestment decision which will be financed by internal free cash flow; bonding mechanism reduces managerial moral hazard which potentially occurs when they are not restricted by bond contract and bankruptcy risk. Other owners' efforts to reduce agency cost of equity, potentially created by moral hazard managers, include the intention of owners to choose reputable board of directors; direct intervention by shareholders, the threat of firing, and the threat of takeover (Sanda et al., 2005).

### Conceptual Framework



### Independent Variables

### Dependent Variable

**Figure 1: Conceptual Framework**

Source: Author (2019)

### Empirical Review

Kojo and Yazidu (2015) carried out a study on financial characteristics and innovations in microfinance institutions in Ghana. The study was to establish the relationship between financial structure

of MFIs and their innovativeness. It was established that product innovation or new savings product in the institutions were largely influenced by interest rate and loan repayment rates. More so, it was noted that the sources of funding, that is equity from owners and bank funding enhanced product innovation. It

was recommended that MFIs in the country should diversify their funding sources in order to enhance product innovation and innovation in general. However, the study failed to link product innovation to performance. The study concentrated on Ghana economies thus presenting a contextual/geographical gap. This study focused on the Kenyan economy.

Simpson and Kohers (2012) investigated the link between CSR and organization performance using the banking industry as their sample companies. They used the community reinvestment act rating as a social performance measure, and concluded that there was a significant positive relationship between CSR and organization performance. A recent study undertaken by Mahoney and Roberts (2012) used panel data for Canadian publicly held companies over a 4-year period. Their results showed significant relationships between organization performance and individual measures of CSR, in particular, company environmental and international activities. Subroto (2012) used a descriptive survey and multivariable correlations of cross-sectional data and critical part analyses, to analyze the correlation between CSR and organization performance and ethical business practices in Indonesia. According to Subroto (2012), the interests of stakeholders showed a significant correlation with CSR, organization performance and ethical business practices. Secondly, the research relationship is still positive.

Gerstenfield and Wonzel (2012) analyzed the relationship between the usage of internet - based innovation technologies, different types of innovation and financial performance at the firm level. Data from the empirical results showed that internet based innovation technologies were an important enabler of innovation in the year 2010. It was found that all studied types of innovation, are positively associated with turnover and employment growth. Finally it was found that innovative activity is most of the time associated with higher profitability.

Inyaga (2012) carried out a study on the Utilization of Information and Communication Technology in the management of University of Nairobi. He used a correlation research design to compare the relationship between the Management and the Utilization of ICT, it was noted that the utilization of ICTs correlated significantly with the library, research and students' academic records management and hence improved the financial performance of the organization. The study reveals conceptual gap as it focused on University of Nairobi while the current study focused on water packaging firms.

Vincent (2011) investigated the effects of ownership structure on performance of listed companies in Kenya using agency theory as an analytical framework. Ownership structure was operationalized in terms of ownership concentration (percentage of shares owned by the top five shareholders) and ownership identity (actual identity of shareholders). Measures of performance were return on assets, return on equity and dividend yield. Forty two (out of fifty four) listed companies were studied using both primary and secondary data. Using Pearson's product moment correlation and logistic regression, the study found that ownership concentration and government ownership have significant negative relationships with firm performance. On the other hand, foreign ownership, diffuse ownership, corporation ownership, and manager ownership were found to have significant positive relationships with firm performance.

Kimie and Pascal (2011) tested two agency-based hypotheses regarding the effect of ownership concentration on dividend policy using a large sample of Japanese firms. Level regressions associating payout rates to ownership concentration were run. Different measures of payout were used to ensure the robustness of findings. Endogeneity of ownership was taken into account. The choice of instruments was carefully motivated and their statistical power and endogeneity were checked. How ownership

concentration affected the propensity to increase dividends following changes in variables correlated with free cash flows was also examined.

## METHODOLOGY

The study adopted a descriptive survey design. According to Upagade and Shende (2013) a descriptive survey is mainly concerned with description of facts only. It is a self-report that requires the collection of equitable information from sample (Orodho, 2005). Descriptive survey was appropriate for this study whose intention was to present a situation, what people currently believe in, what they doing at the moment and so forth with no control of the variables under investigation which is a limitation. There are approximately 42 registered water packaging firms in Nairobi County (Kenya Association of Manufactures, 2017). The study population was all the 42 registered water packaging firms in Nairobi County.

SPSS was used to produce frequencies, descriptive and inferential statistics used to draw conclusions regarding the population. The descriptive statistics used were frequencies, mean scores and standard deviation. Regression and correlation analysis were the particular inferential statistics used. The analysis of variance (ANOVA) was checked to reveal the model significance. A multiple regression model was

used to link the independent to the dependent variable.

## RESULTS

### Innovation

The results that majority of the respondents who were 83.6% (47.90%+35.70%) agreed that the company provides high quality water. The statement response had a mean score of 4.05 and a standard deviation of 1.03. Further, the results indicated that majority of the respondents (84.3%) agreed to the statement that they process water using latest technology. The statement response had a mean score of 4.04 and a standard deviation of 0.97. Furthermore, the results revealed that majority of the respondents who were 70% agreed that their product had essential minerals and nutrients. The responses on this statement had a mean of 3.80 and a standard deviation of 1.24. In addition, the results established that majority of the respondents (70%) agreed that their products had improved components. The responses on this statement attracted a mean score of 3.76 and a standard deviation of 1.20. Moreover, the results revealed that majority of the respondents (72.1%) agreed that innovation had increased the profitability of the company. The mean of the responses on this statement was 3.71 and the standard deviation was 1.23.

**Table 1: Innovation**

Statements	strongly disagree	disagree	uncertain	agree	Strongly agree	Mean	Std. Deviation
We provide high quality water	5.0%	4.3%	7.1%	47.9%	35.7%	4.05	1.03
We process water using latest technology	3.6%	5.7%	6.4%	51.4%	32.9%	4.04	0.97
Our product has essential minerals and nutrients	7.1%	11.4%	11.4%	34.3%	35.7%	3.80	1.24
Our products have improved components	7.9%	8.6%	13.6%	39.30%	30.7%	3.76	1.20
Innovation has increased the profitability of the company	10.7%	6.4%	10.7%	45.7%	26.4%	3.71	1.23
<b>Average</b>						<b>3.93</b>	<b>1.10</b>

### Corporate Social Responsibility

The results revealed that majority of the respondents who were 60.8% (27.90%+32.90%) agreed that their company designs employees' salary while taking consideration of the employees' level of job satisfaction and commitment. The statement response had a mean score of 3.55 and a standard deviation of 1.40. Further, the results indicated that majority of the respondents (70.7%) agreed to the statement that the company provides for employees benefits such as insurance, medical and education so as to influence the employees' level of job satisfaction. The statement response had a mean score of 3.83 and a standard deviation of 1.24. Furthermore, the results revealed that majority of the respondents who were 70.7% agreed that the company participates in promoting income

generating activities for the community. The responses on this statement had a mean of 3.54 and a standard deviation of 1.33. In addition, the results established that majority of the respondents (63.5%) agreed that their company organize for seminars and workshops that are beneficial to our employees and the community. The responses on this statement attracted a mean score of 3.59 and a standard deviation of 1.16. Moreover, the results revealed that majority of the respondents (65.7%) agreed that their company participates in the maintenance of parks, roundabouts and other essentials in towns. The mean of the responses on this statement was 3.66 and the standard deviation was 1.25. This indicated that although majority of the respondents were agreeing to the statement, the responses were varied but with a low variation.

**Table 2: Corporate Social Responsibility**

Statements	strongly disagree	disagree	uncertain	agree	Strongly agree	Mean	Std. Deviation
Our company designs employees' salary while taking consideration of the employees' level of job satisfaction and commitment	13.6%	11.4%	14.3%	27.9%	32.9%	3.55	1.40
The company provides for employees benefits such as insurance, medical and education so as to influence the employees' level of job satisfaction	8.6%	7.1%	13.6%	34.3%	36.4%	3.83	1.24
The company participates in promoting income generating activities for the community	10.0%	15.7%	13.6%	31.4%	29.3%	3.54	1.33
The company participates in promoting income generating activities for the community	7.9%	10.0%	18.6%	42.1%	21.4%	3.59	1.16
Our company organize for seminars and workshops that are beneficial to our employees and the community	8.6%	11.4%	14.3%	37.1%	28.6%	3.66	1.25

The company participates in the maintenance of parks, roundabouts and other essentials in towns

12.9%	14.3%	14.3%	26.4%	32.1%	3.51	1.40
<b>Average</b>					<b>3.60</b>	<b>1.31</b>

### Technology Adoption

The results revealed that majority of the respondents who were 80.7% (45.00%+35.70%) agreed that employees are encouraged to undertake short courses to acquire knowledge about modern technology. The statement response had a mean score of 4.04 and a standard deviation of 1.00. Further, the results indicated that majority of the respondents (73.6%) agreed to the statement that they organize in-house training seminars to acquire knowledge to continuously improve on our performance. The statement response had a mean score of 3.86 and a standard deviation of 1.17.

Furthermore, the results revealed that majority of the respondents who were 72.8% agreed that they manufacture our products using modern technology. The responses on this statement had a mean of 3.79 and a standard deviation of 1.20. In addition, the results established that majority of the respondents (80%) agreed that the communication system in the organization is well integrated. The responses on this statement attracted a mean score of 3.99 and a standard deviation of 0.96. Moreover, the results revealed that majority of the respondents (73.5%) agreed that they make use of technology and other techniques to disseminate tasks in our organization. The mean of the responses on this statement was 3.88 and the standard deviation was 1.08.

**Table 3: Technology Adoption**

Statements	strongly disagree	disagree	uncertain	agree	Strongly agree	Mean	Std. Dev.
Employees are encouraged to undertake short courses to acquire knowledge about modern technology	2.9%	7.1%	9.3%	45.0%	35.7%	4.04	1.00
We organize in-house training seminars to acquire knowledge to continuously improve on our performance	5.7%	10.7%	10.0%	39.3%	34.3%	3.86	1.17
We manufacture our products using modern technology	7.9%	8.6%	10.7%	42.1%	30.7%	3.79	1.20
Communication system in the organization is well integrated	2.1%	7.9%	10.0%	49.3%	30.7%	3.99	0.96
We use technology and other techniques to disseminate tasks in our organization	3.6%	10.0%	12.9%	42.1%	31.4%	3.88	1.08
<b>Average</b>						<b>3.83</b>	<b>1.13</b>

### Corporate Governance

The results revealed that majority of the respondents who were 80.8% (47.90%+32.90%) agreed that the budget and commitment on corporate social responsibility of the company is impressive. The statement response had a mean score of 3.94 and a

standard deviation of 1.11. Further, the results indicated that majority of the respondents (78.6%) agreed to the statement that the issue of agency problem has been completely resolved by corporate governance. The statement response had a mean score of 3.94 and a standard deviation of 1.13.

Furthermore, the results revealed that majority of the respondents who were 77.8% agreed that organization evaluate employees based on performance. The responses on this statement had a mean of 3.85 and a standard deviation of 1.18. In addition, the results established that majority of the respondents (75%) agreed that corporate governance is practiced in their company. The responses on this

statement attracted a mean score of 3.75 and a standard deviation of 1.15. Moreover, the results revealed that majority of the respondents (80%) agreed that the company had a full functional and experienced board. The mean of the responses on this statement was 3.99 and the standard deviation was 1.03.

**Table 4: Corporate Governance**

Statements	strongly disagree	disagree	uncertain	agree	Strongly agree	Mean	Std. Deviation
The budget commitment is impressive	5.7%	8.6%	5.0%	47.9%	32.9%	3.94	1.11
The agency problem has been resolved through corporate governance	5.0%	10.0%	6.4%	43.6%	35.0%	3.94	1.13
Your company has a full functional and experienced board	7.9%	7.9%	6.4%	47.1%	30.7%	3.85	1.18
Corporate governance is practiced in your company	7.1%	10.0%	7.9%	50.7%	24.3%	3.75	1.15
Organization evaluate employees based on performance	4.3%	5.7%	10.0%	47.1%	32.9%	3.99	1.03
<b>Average</b>						<b>3.90</b>	<b>1.14</b>

**Correlation Analysis**

Correlation coefficient brings out the magnitude of the relationship between two variables (Mugenda and Mugenda, 2003). Correlation analysis show that there is a positive and significant correlation between innovation and ROA ( $r = 0.614$ ,  $p\text{-value} = 0.000$ ). Thus, the findings indicate that innovation increased the performance of the firm. Findings also revealed that there is a positive and significant relationship between CSR and ROA ( $r = 0.529$ ,  $p\text{-value} = 0.004$ ). Thus an increase in CSR results to increase in the financial performance of the firm. The correlation between

technology adoption and ROA is positive and significant ( $r = 0.691$ ,  $p\text{-value} = 0.000$ ). Thus an increase in technology adoption in the firm resulted in an increase in the financial performance of the firm. Results in table 5 indicated that there was a positive correlation between ROA and corporate governance ( $r = 0.562$ ,  $p\text{-value} = 0.005$ ). Thus, indicating that an increase in corporate governance resulted to an increase in the financial performance of the firms. The correlation analysis essentially exhibited positive results; hence, the variables were selected for further regression analysis to test their individual contributions.

**Table 5: Correlation Matrix for the Study Variables**

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

	ROA	Innovation	CSR	Technology Adoption	Corporate Governance
ROA	1.000				
Innovation	.614** .000	1.000			
CSR	.529** .004	0.791 0.072	1.000		
Technology Adoption	.691** .000	0.832 0.31	0.729 0.064	1.000	
Corporate Governance	.562** .005	0.816 0	0.757 0.937	0.897* 0.004	1.000

### Regression Analysis

The results presented present the fitness of model used in the regression model to explain the study phenomena. Innovation, corporate social responsibility, technology adoption and corporate governance provide a moderately good fit in predicting changes in financial performance measured by the return on asset. This is supported by

coefficient of determination also known as the R square of 68.8%. This means that innovation, corporate social responsibility, technology adoption and corporate governance explain 68.8% of the variations in the dependent variable which is financial performance of registered packaging water firms. This results further means that the model applied to link the relationship of the variables was satisfactory.

**Table 6: Regression Model Summary**

Indicator	Coefficient
R	0.829
R Square	0.688
Adjusted R Squared	0.671
Std. Error of the Estimate	0.29546

a. Predictors : (Constant), Innovation, CSR, Technology Adoption, Corporate Governance

The results of the ANOVA indicated that the overall model was statistically significant. The level of significance was 0.000 which was less than 0.05, thus the model was statistically significant in predicting how strategic responses affect the financial performance of the registered water packaging firms.

Further, the results implied that the independent variables are good predictors of financial performance. This was supported by an F statistic of 11.902 and the reported p value (0.000) which was less than the conventional probability of 0.05significance level.

**Table 7: ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	23.49	4	5.873	11.902	.000
Residual	49.997	34	1.4705		
Total	73.488	38			

Regression of coefficients results showed that innovation and financial performance were positively and significantly related ( $\beta = 0.345$ ,  $p = 0.003$ ). Corporate social responsibility and financial

performance are positively and significantly related ( $\beta = 0.294$ ,  $p = 0.008$ ). It was further established that technology adoption and financial performance were positively and significantly related ( $\beta = 0.387$ ,

p=0.002), corporate governance and financial performance were also positively and significantly

related ( $\beta = 0.332, p = 0.006$ ).

**Table 8: Regression Coefficients**

Model	B	Std. Error	t	Sig.
(Constant)	0.156	0.585	0.267	0.79
Innovation	0.345	0.127	2.711	0.003
CSR	0.294	0.096	3.08	0.008
Technology Adoption	0.387	0.118	3.269	0.002
Corporate governance	0.332	0.129	2.573	0.006

Thus, the optimal model for the study was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

$$Y = 0.156 + 0.345X_1 + 0.294X_2 + 0.387X_3 + 0.332 X_4 + \epsilon_i$$

Y= Financial Performance of Registered Water Packaging Firms

X<sub>1</sub> = Innovation

X<sub>2</sub> =Corporate Social Responsibility

X<sub>3</sub> =Technology Adoption

X<sub>4</sub> = Corporate Governance

e=Error term of the model.

From the regression model obtained from table 8, holding all the other factors constant, financial performance of registered water packaging firms would be 0.156. A unit change in innovation would cause financial performance to increase by 0.345, a unit change in corporate social responsibility would cause the financial performance to increase by 0.294, a unit change in technology adoption would make the performance to increase by 0.387 and a unit change in corporate governance would make the performance to increase by 0.332. There exists positive relationship between innovation ( $\beta = 0.345, p = 0.003$ ), corporate social responsibility ( $\beta = 0.294, p = 0.008$ ) and the financial performance of registered water packaging firms, also there exist positive relationship between technology adoption ( $\beta = 0.387, p = 0.002$ ), corporate governance ( $\beta = 0.332, p = 0.006$ ) and the financial performance of registered water packaging firms. In conclusion, the regression findings found that technology adoption had the highest significance to the financial performance of the

registered water packaging firms, followed by innovation, corporate governance and last was corporate social responsibility. These findings agree with that of Nwokah, Ugoji, and Ofoegbu (2012) that product development facets of product quality and product lines/ product mix were positively and significantly correlated with the corporate performance facets of profitability, sales volume and customer loyalty.

#### CONCLUSION

From the findings, the study found that innovation, corporate social responsibility, technology adoption and corporate governance had positive effect on financial performance of registered water packaging firms in Nairobi County. The study revealed that a unit increase in innovation would lead to increase in financial performance; this was an indication that there was positive association between innovation and financial performance of registered water packaging firms in Nairobi County, an increase in corporate social responsibility would lead to increase in financial performance of registered water packaging firms in Nairobi County, which showed that there was positive relationship between financial performance of registered water packaging firms and corporate social responsibility and a unit increase in technology adoption would lead to increase in financial performance; this was an indication that there was a positive relationship between financial performance of registered water packaging firms and technology adoption. Innovation, CSR, technology adoption and corporate governance significantly

influence financial performance of registered water packaging firms in Nairobi County.

### RECOMMENDATIONS

The management of registered water packaging firms, while making a choice of the kind of strategic responses to be adopted, should be guided by the following key attributes: innovation, corporate social responsibility, technology adoption and corporate governance. The study further recommended the management should come up with strategic response measures that is related to technology adoption and innovation, the success of such a strategies in the target market determines the success of the

organization and definitely its overall financial performance.

### Area of Further Study

The study was only limited to registered water packaging firms in Nairobi County. Further researches should be conducted in other counties. The study was limited to only four strategic response variables that affect financial performance of registered water packaging firms in Nairobi County. A comparative study can be done on other strategic response measures that may affect the financial performance of the registered water packaging firms.

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