

Product And Process Innovations As Strategies For Performance

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Abstract: *Performance of oil marketing companies in Kenya has been affected by declining market share, low profitability, shift in customer loyalty, declining employee satisfaction and high delivery turnaround time. Product and process innovations enable an organization to come up with new products, services, and better method to create, grow, sustain and fix problems of performance. The specific objectives were to analyze the effects of product innovation and process innovation on performance of oil marketing companies in Uasin Gishu County, Kenya. The study was anchored on balanced scorecard model. Descriptive research design was used, and the target population was 81 depot managers, 37 sales managers and 70 supervisors of 82 oil marketing companies. Census was used and validity of research instrument determined. Coefficient of reliability of research instrument was computed and results showed that the instrument was reliable. Data was collected using a questionnaire and analyzed using descriptive and inferential statistics with the aid of statistical package for social sciences (SPSS) version 29. The results showed that product innovation, and process innovation had positive significant effect on performance. The study concluded that to improve performance, oil marketing companies should embrace product and process innovation strategies. It was recommended that Oil marketing companies should find creative ways of adopting and implementing product innovation to improve on performance. In addition, oil marketing companies should guard their novel products through patenting. Product and process innovation strategies would be enhanced through total quality management practices especially new ISO standards certification.*

Keywords: *Product, Process, Innovations, Strategies, performance*

I. INTRODUCTION

The Sink and turtle model of 1989 proposes seven superior achievement criteria “effectiveness, efficiency, quality, productivity, work life, innovation, and profitability”. Fitzgerald, Johnson & Brignall (1991) came up with result-determinant framework that classifies performance into two: the first are those that are associated with the outcomes (competitive advantage and financial wellbeing) and the second are those that are related to outcomes determinants examples: optimization of resources, quality, flexibility and innovation. Kaplan & Norton (1996) invented balance scorecard model that has four dimensions of evaluating firm performance: Fiscal measures, customer satisfaction, learning and growth and firm internal processes. According to Muchemi (2013) performance is how effective and efficient a firm is in reaching its goals and objectives. According to Elena-Illuana & Maria (2016) concepts used to describe firm

performance are “productivity, effectiveness, economy, earning capacity, profitability, and competitiveness” and therefore firm performance is a subjective rather than an objective concept that differs from organization to organization.

Burnett (2011) argues that product innovation is gauged by number of novel ideas commercialized, revenue gained from new products, profit garnered from new products, market share growth from new products and number of patents created per year. According to Maier (2018) product innovation is a cycle that aims to meet customer needs by planning, developing and commercializing new products that are customer desirable while process innovation is introducing new elements of production in a firm. Innovation strategies are superior thus enabling a firm to perform better than rivals (Kasevu, 2017). In the current study process innovation was measured in terms of novel products, product portfolio, patenting and additivated products. Product innovation and

process innovation were the focus of the current study. In the current study process innovation was measured in terms of workflow, queue management, customer self service, benchmarking and additivition.

II. STATEMENT OF THE PROBLEM

According to Stevens (2016) the growth of global petroleum players, Chevron, ExxonMobil, Shell and Total are declining because the companies are reluctant to change traditional business model that sustained them in 20th century. The author avers that the profit emphasis model is no longer fit for business. In Malaysia poorly performing public entities lose public image and reputation due to citizen outcry (Majid, Samad, Tazilah & Hanaysha, 2017). Globally the fuel sector has an oligopolistic market structure with few major players dominating the trade (Kimathi, 2017). According to Petroleum Institute of East Africa industry report of 2015 and Petroleum institute of East Africa industry report of 2019 the top ten oil marketers lost an aggregate of 10% market share between 2015 and 2019. In the first quarter of 2016 only Kenya top three multinational oil marketers lost a combined 20.6% to mushrooming small new marketers and independent dealers (Juma, 2016). East Africa oil market has been dominated by multinationals but there is an increasing number of domestic players.

Due to low business profits some petroleum marketing companies have relocated out of Kenya (Omai, Njeru & Momba, 2018). Energy and Petroleum Regulatory Authority of Kenya statistics report of 2020 shows that the Herfindal-Hirschman index (HHI) for Kenya petroleum industry increased from 0.09 in 2019 to an average of 0.11 in 2020. The HHI rose above Energy and petroleum regulatory authority of Kenya expected threshold of 0.1, The HHI index rose because the big five: Vivo energy, Total energies, Rubis and Oilbya controls up to 53% of the market due to mergers and acquisitions strategy employed by big oil marketing companies disadvantaging the small companies. Tight price control by Kenya Energy and Petroleum Regulatory Authority results to low profit margins that do not cater for inflation and hidden costs fully. It has made Oil marketing companies to leave the local market.

Globally performance is a synergy of employee output, satisfied employees perform better and bring success to their employer since they make buyers to be satisfied and loyal (Amoopour, Hemmatpour & Mirtaslimi, 2014). According to Musa & Nasiru (2021) satisfied buyers talk well of a firm product, they stay longer, buy more and pay less attention to competing brands and less sensitive to prices. The authors argue that loyal customers contribute ideas to the company and in routinely serving loyal customers a company enjoys lower transaction costs. Due to changing dynamics in Kenya's businesses environment customer loyalty is at stake and petroleum businesses are not exceptional. Oil marketing companies ought to retain customers and get referral from them to sustain their business.

Currently depot turnaround time is a big challenge for oil marketing companies at Kenya Pipeline Company facility in Uasin Gishu terminal in Kenya. Turnaround time for trucks

varies between one hour to several days depending on efficiency of oil marketing company and clearing stakeholders like Kenya Revenue authority, Uganda Revenue authority, clearing agents and cargo tracking vendors. Low churn-time causes high backlog of orders, congestion and an average of 70 overnight trucks posing safety and security concerns, it also affects daily overall throughput for all oil marketing companies at the depot and accumulate to demurrage charges at Mombasa Port.

III. OBJECTIVES

- ✓ To investigate the effect of product innovation on performance of oil marketing companies in Uasin Gishu County, Kenya.
- ✓ To establish the effect of process innovation on performance of oil marketing company in Uasin Gishu County, Kenya

IV. LITERATURE REVIEW

A. PRODUCT INNOVATION AND PERFORMANCE

Gunday, Ulosoy and Alpkın (2011) carried out research in Turkey manufacturing firms focusing on innovation types, drivers of innovation and how innovation impacts on performance. The study was a survey conducted in the year 2006-2007 on 184 manufacturing companies. Random structured sampling was used to obtain data from managers and middle managers. Validity of research instrument was ensured using face validity while reliability was ensured via test and retest method at Cronbach alpha > 0.7 the study revealed that product innovation has substantial impact on performance. However, in the current study indicators of innovation were product innovation, organization innovation, market innovation and process innovation.

Kamakia (2014) conducted a researched in Commercial banks in Kenya focusing on product innovation and performance. The researcher studied 43 banks in a survey design that was time crosscutting as of July 2014. Primary data was obtained using questionnaires that were semi-structured, issued to one sampled general manager per bank, response rate obtained was 67%. Secondary data was sourced from published reports. Data was analyzed through descriptive statistics, regression analysis and correlation. Tables and figures were used in data presentation. The study concluded that product innovation determines market share, choice of bank by customers, customer value, and competitive advantage which all indicates that to a large extent product innovation influences and sustains banks performance. The study used disruptive innovation theory and theory of innovation diffusion as the main anchors while the current study utilized Schumpeter theory of innovation, theory of innovative enterprises and balance scorecard. The study targeted 43 banks while the current study's target population was 82 oil marketing companies and respondents were depot managers, sales managers and supervisors.

Löfsten (2014) studied product innovation processes and how product innovation affects the performance of firms in Sweden. A survey was used to carry out the cross-sectional research. In the study 223 firms were sampled. Questionnaires were used. Upon feedback 99 firms complied with the response at a rate of 51.6 %. Performance for the firms was gauged via profitability, assets and capital recouping. While the product innovation was tested using product portfolio changes in terms of number of copyrights, patents and licensing. Intermediary steps were also subjected to the study. Data analysis was carried out using descriptive, regression analysis and analysis of variance. The conclusion was that product innovation has positive effect on performance of sales. However, product innovation does not have a link to profitability, return on assets and return on capital because other factors come into play like intermediary costs of coming up with product innovation. The current study findings showed that product innovation affect performance. Shejero (2016) studied innovations strategies and competitiveness among savings and credit cooperative societies in Mombasa County, Kenya. A census survey method was applied. Data gathering was conducted using questionnaires. Data was analyzed using descriptive statistics. The deduction was that product novelties had a major impact on, competitive edge. Savings and credit cooperative societies innovating on products greatly focus on product innovation than marketing to improve turnover. The subject of the study was on competitiveness. Performance was the focus of the current research. The current study found that product innovation affects performance of Oil Company's s in Uasin Gishu County, Kenya.

Adegboyega (2017) researched on how organization performance is influenced by product innovation. The study was done in Nestle PLC Nigeria, a survey was used targeting a total population of 2294 employees and employed a sample frame of 340 staff. Questionnaires having Likert scale 5-points were designed and issued obtaining 100% response rate. Trials, test and retest procedures were used to assess reliability and validity of the research tool. Three measures of organization performance: profitability, share of the market and competitive advantage were applied. Data was analyzed using regression, correlation and hypothesis testing. The scholar found that product innovation has substantial impact on performance. The researcher observed high level of customer retention obtained after high satisfaction and customer pull effect values created by product innovation that spur customer loyalty. In the scholarly work the dependent variable was organizational performance while in the current study will be on performance. The study is also less conclusive in that there are other innovation variables that can influence firm performance. To address these issues the current study focused on product innovation and three extra innovation strategies: organization innovation, market innovation, and process innovation. The current study concluded that innovation strategies affect performance.

Herman & Hady (2018) did a study on small and medium enterprises in India on how performance is affected by competitive advantage that stems from market orientation and product innovation. The research was a census on 153 small and medium enterprises in Bantam district Indonesia.

Empirical cross-sectional design was utilized. Data was obtained using questionnaires. All top managers of each small and medium enterprises provided feedback. One objective was to analyze the effect of product innovation on performance. Indicators of product novelties included design of product, product quality and product technology. Performance was measured using financial, operational and market variables. Data obtained was analyzed using regression, correlation and hypothesis testing. Validity was determined using standard loading factor >0.5 and reliability gauged at variance extract >0.5 . The revelation was that a product novelty had a positive and substantial effect on performance. The researchers concluded that product innovation is a tool which can be used to achieve performance. The study was carried out on small and medium enterprises in Indonesia. The current study focused on product innovation as a predictor of performance of Oil marketing companies in Uasin Gishu county Kenya. Findings showed that product innovation had positive and significant effect on performance.

B. PROCESS INNOVATION AND PERFORMANCE

Hassan, Shaukat, Nawaz & Naz (2013) conducted empirical research in manufacturing firms in Pakistan centering on effect of innovation types and firm performance: Data was gathered using questionnaires. Analysis of data was done using factor analysis, correlation analysis and regression analysis. It was found that process innovation is the second important innovation in rank after organization innovation. Results indicated that there was variance in effect of innovation effect on performance from sector to sector. In the current study, process innovation was measured in form of benchmarking. Research findings indicated that benchmarking improves performance. Atalay, Anafarta & Sarvan (2015) carried out experimental research to establish association of innovation on firm performance in Turkish automobile supply chain. The researcher was motivated to carry out the study because in the year 2011 automobile industry was an innovation leader in Turkey. A survey was conducted on 113 firms and the unit of observation was senior managers. Data obtained from the questionnaires was analyzed descriptive statistics with the aid of statistical package for social sciences (SPSS). The outcome illustrated that technological innovativeness (product and process innovation) has a significant and positive effect on firm performance. It was also revealed that nontechnological innovativeness (organizational and market innovation) do not have significant effect on performance. Firms in Turkey are family businesses that do not have organizational structures and corporate teams to handle marketing. The current study focused on oil companies in Uasin Gishu County, Kenya. The study revealed that process innovation affects performance.

Tuan, Nhan, Giang & Ngoc (2016) studied on the effect of innovation strategies in manufacturing firms in Hanoi Vietnam. The target population was 150 firms and data was collected using questionnaire. Coefficient of reliability of research instrument was computed using Cronbach alpha method. Convergence validity was assessed by using exploratory factor. Data was evaluated using regression analysis. The study findings indicated that process innovation

affects improvement of a firm performance. The findings also showed that firms mostly focus on process, organizational, marketing and product innovation activities which in turn affect overall performance. It was also revealed that market innovation had the least effect on performance trailing product innovation. Measurement of performance was in terms of market performance, financial performance and production performance. In the current study performance was measured in terms of profits, market share, customer loyalty and employee satisfaction. In the current study the company updates process innovation for performance. Njeri (2017) conducted a study in Safaricom limited Kenya focusing on innovation strategy and firm performance. The aim was to evaluate the effect of process innovation on achievement of corporate objectives in the company. In the study descriptive research design was used. Data was gathered using a questionnaire. Descriptive statistics, correlational analysis and regression analysis was used to analyze the data. The study revealed that process innovation had the lowest effect on performance of Safaricom Limited Kenya. Indicators of process innovation were value addition, costs, process automation, quality and equipment conditions. Indicators of process innovation in the current study were order, workflow, queue management, customer self-service and fuel additivation. The results in the current study indicated that the companies have procedures on workflow. Most companies utilize queue management systems.

Akpoviroro, Amos & Oladipo (2019) carried out research on process innovation and organization performance in telecommunication sector in Lagos city Nigeria. In the study the purpose was to determine if process innovation had significant effect on organizational performance among telecommunication operators and to examine if a significant relationship existed between process service modification and sales volumes. The questionnaires issued to telecommunication operators were 114. Cronbach Alpha indicator of reliability was used to determine how reliable the research instrument was. Statistical package for social sciences (SPSS) was used to aid in data analysis. The study established that process innovation had significant effect on firm performance. Competitiveness is an intervening variable between process innovation and performance. The current study used a census of 193 employees from Oil marketing companies. Results showed that the companies have efficient services.

V. METHODOLOGY

Descriptive research design was used 81 depot managers, 37 sales managers and 70 supervisors from 82 active oil marketing companies in Uasin Gishu county, Kenya. Structured questionnaire was used in collecting data following data collection procedure and research ethics. Validity of research instrument was determined. Coefficient of reliability was 0.90 hence the instrument was reliable. Quantitative data was analyzed using descriptive and inferential statistics. Qualitative data was analyzed using content analysis.

VI. RESULTS AND DISCUSSION

Descriptive statistics were used to describe and interpret the results. The statistics comprised of measures of central tendency and dispersion. Central tendency is given by mean, median and mode while variability is given by range, variance, and standard deviation. The current study used mean and standard deviation. Smirnov test is used to test normality, when it is greater than 5% significance the test indicates that the data set is normal. Product innovation strategies had significance of 7%, and process innovation had more than 20% significance and performance had 6% significance. Therefore, as per Kolmogorov test the data set was treated as normal. The test for linearity was carried out and the results showed that product and process innovations were linear and nonlinear. Field (2009) recommends that variance inflation factor (VIF) above 10 and tolerance below 0.1 manifests multicollinearity among predictor variables. Multi collinearity test was performed to confirm the applicability of multiple regressions as recommended by Walker & Maddan (2019) on variance inflation factor (VIF) and tolerance checks for collinearity. Product innovation had variance inflation factor (VIF) of 1.394 and tolerance of 0.717, and process innovation had variance inflation factor (VIF) of 1.420 and tolerance of 0.704. The test result shows no multicollinearity since all independent variables had variance inflation factor (VIF) less than 10 and tolerance greater than 0.1 this shows there was no problem with predictor variables. The results of Homoscedastic test was a P- value of 0.28 implying there was homoscedasticity because the P value was greater than 0.05

Statements	N	Mean	Standard Deviation
The company has introduced new products in the market	155	3.720	.943
The company has new products at development stage	155	3.520	.943
The company improves product performance by additivation of product	155	3.640	.843
The company has introduced new products that are environmentally friendly	155	3.680	.968
The company has several products compared with competitors	155	3.600	.800
The company is working to increase its product portfolio	155	3.800	.748
The company has attained patents on new products	155	3.320	1.048
The company has different types of patents for its products	155	3.640	.794
Product innovation affects performance	155	3.60	0.720

Source: Research Data (2022).

Table 1: Product Innovation and Performance

The result in the table 1 reveals that the company has introduced new products in the market (mean 3.720) there was low variation due to introduction of new products (standard

deviation of 0.750). The company has new products in development stage (mean of 3.520), variation in having new products at development stage was low (standard deviation of 0.943). It was agreed that the company improves product performance by additivation of products (mean of 3.640) variation in improving product performance by additivation was low (standard deviation 0.843). It was agreed that firms have introduced new environmentally friendly products (mean of 3.68), variation in introducing new products that are environmentally friendly was low (standard deviation 0.968). It was agreed that the company has many products compared with competitors (mean 3.600), but at a low variation (standard deviation of 0.800). Feedback was neutral that the company has attained patents on new product patent (mean of 3.320) though there was little variation (Standard deviation of 1.048). It was agreed that the company had different types of patents (mean of 3.640) the variance was low at a standard deviation of 0.794. It was found out that the company is working to increase its product portfolio (mean of 3.800) and had low variation (at standard deviation of 0.743). It was agreed that product innovation affects performance of oil marketing companies (mean of 3.60), but variation was low (Standard deviation 0.720).

Kuratko, Morris & Jeffery (2011) used product portfolio and patenting as indicators of product innovation. Technical committee of petroleum additives makers in Europe report of 2013 showed that additive differentiation is an indicator of innovation in oil industry. In the current study therefore, findings indicated that product innovation increases attainment of corporate objectives of oil marketers in Uasin-Gishu County, Kenya. The finding concurs with a study by Majimbo (2021) on innovation and attaining of corporate objectives of oil marketers in Nairobi County establishing that product novelties increases performance of the oil marketing firms. Gichane, Mukula & Odhiambo (2014) operationalized product innovation in form of novel products. Product innovation creates new products and improves existing products with a differentiation focus (Reguia, 2014). Pulgarín-Molina & Guerrero (2017) classified innovation strategies into two broad categories: the first one is technical innovation comprising of product, process and service innovation, the second category is non-technical innovation that is administrative and organizational in nature. Kiptoo & Koech (2019) approached innovation strategies under process, product, market and technological innovation.

Statements	N	Mean	Std. Deviation
The company has procedures on workflow of orders	155	4.320	.614
The company has efficient services	155	4.120	.652
The company utilizes queue management	155	4.280	.665
The company customers can view the queue online	155	4.240	.709
The company has introduced customer self-service	155	4.040	.662
the company does frequent benchmarking for improvement	155	4.080	.688

Benchmarking by the company is related to brainstorming for improving processes	155	3.960	.662
The company has additivation process for products	155	3.760	.763
The company embraces marking of products as an additivation activity to avoid adulteration of products	155	4.040	.774
The company updates its processes innovation for performance	155	3.920	.560

Source: Research Data (2022).

Table 2: Process Innovation and Performance

It was revealed that procedures on workflow of orders have been adopted (mean of 4.320) and the variation was minimal (standard deviation of 0.614). It's deduced that the company has efficient workflow (mean of 4.120) and variation on workflow was low (at a standard deviation of 0.652). It was found that most companies utilize queue management (mean of 4.280) but there was low variation (standard deviation of 0.662). Results showed that the company customers can view the queue online (mean of 4.240) nevertheless, variation was low (standard deviation of 0.709). It was found that the company has introduced customer self-service (mean of 4.040) the variation was low (standard deviation of 0.662). The company does frequent benchmarking for improvement (mean was 4.080) but low variance (standard deviation of 0.668). Benchmarking is related to brainstorming for improving processes (mean of 3.960) variation was low (standard deviation was 0.662). The company has additivation process for products to improve engine performance (mean was 3.760) variation was low (standard deviation of 0.763). The company embraces marking of products as an additivation activity to avoid adulteration of products (mean of 4.040) but variation was low (standard deviation of 0.774). The company updates its processes innovation for performance (mean of 3.920,) and variation was low (standard deviation of 0.560).

According to Muthiani (2008) oil marketing companies differentiate their product using fuel additives as a method. The author argues that fuel additivation is a process where petroleum products are doped with fuel chemicals that act as catalyst and enhance the quality of the product. Fuel markers are also added to distinguish different fuel grades, export and local product, and assist control of fuel dumping and adulteration. Queue management improve business as it minimizes wait time, customer waiting effort and maximizes the efficiency of employees and ensure customers have satisfactory experience. Variability between service demanded and available capacity to deliver the services causes delays and congestion in queues and it's not possible to achieve desired performance without a suitable queuing model (Green, undated). The main secret of achieving customer satisfaction and loyalty to a brand is through provision of quality services, most service firms have introduced self-service technologies (SSTs) to enhance the best qualities of the kind of services they provide to their consumers (Collier & Barnes, 2015).

According to Rammer (2016) process innovation strategies are measured in terms of numbers of improvements that increases market share due to cost reduction and number of improvements that increases sales due to process quality improvements. Process innovation comprises updated improvements in technology, structural and operation aspect on the offering (Dogan, 2017). According to Sarite, Iravo & Ismail (2018) order workflow time affects the financial position of a company. Process innovation improves workflow, and the outcome is high performance through faster delivery and customer satisfaction. According to Bahati (2021) companies should intensify the rolling out of customer Self-service technologies as this is found to enhance customer satisfaction. However, they must incorporate several measures for effective operation; they should ensure their self-service channels possess innovative features of service quality. These features are reliability, responsiveness and security for assurance.

Statements	N	Mean	Std. Deviation
The company has achieved its performance due profit	155	3.600	.938
The company has attained its performance through market share	155	3.400	.980
The company has attained its performance through customer loyalty index continuously	155	3.920	.796
The company truck turnaround time is a measure of performance	155	3.520	1.063
The company performance is described in form of employee satisfaction index	155	3.480	1.100

Source: Research Data (2022)

Table 3: Performance

It was agreed that achieved performance is due to profit (mean of 3.600) this was at a low variation (standard deviation of 0.938). Findings revealed that the company has attained its performance through market share (mean was 3.400) variation was minimal (standard deviation of 0.980). The company has attained its performance through customer loyalty (mean of 3,920) nevertheless, the variation in performance was low (standard deviation of 0.796). Truck turnaround time was a measure of performance (mean was 3.520) but variation was low (standard deviation of 1.063). Results revealed that company performance is described in form of employee satisfaction index (mean of 3.480) at low variation (standard deviation of 1.100).

Employee satisfaction is the extent to which employees are happy and contented with their jobs and work environment and is key to a firm because it increases productivity, responsiveness, quality, and customer service (Ali, Edwin, & Tirimba, 2015). Sharma (2017) used profit as an indicator of performance in a study on financial performance. Ndegwa (2017) measured performance in Kenya Pipeline Company in Uasin Gishu using turnaround time. According to Mukami (2018) a variety of ratios are applied in measuring levels of profits example: return on equity, return on assets, and net

earnings margins. Profit is the surplus revenue over expenses in a certain period. It measures efficiency of a company in generating earnings, the business must be able to generate adequate profit in relation to the Risk and Capital invested in it. Okwemba (2018) argues that performance in Kenyan firms is achieved when there is an increase in market share, productivity, profitability and efficiency. According to Marija (2018) customer loyalty is a reliable way to sustain growth and guarantee income, Service quality and customer satisfaction are crucial determinants of customer loyalty. Employee satisfaction is an expression of a staff mindset toward their position in the firm and this influences the level of overall output (Otera, 2018). The more the employee is happy with the aspects of work, the higher the level of job satisfaction (Razak, Sarpan & Ramplan, 2018). According to Bahri-Ammari & Bilgihan (2019) in a rapidly changing environment, firms strive to retain existing customers. According to Siddaramaiah, Karnoji & Gurudeva (2021) turnaround time exhibits the capability to provide efficient services and is the most significant indicator in performance in a loading and unloading terminal, streamlining processes lower the turnaround time saving resources for the firm.

	SS	df	MS	F	Sig.
Between Groups	47.385	16	2.962	11.803	0.001
Within Groups	34.626	138	.251		
Total	82.012	154			

SS: Sum of squares
df: Degree of freedom
MS: mean of squares
F: F statistic
Sig: Significance

Source: Research Data (2022)

Table 4: Analysis of Variance on Product Innovation Using SPSS Version 29

Between groups sum of mean square was 47.385 having 16 parameters while sum of mean squares within groups was 34.626 having 138 degrees of freedom. With p values <.05; Product innovation was statistically significant in affecting performance with an F (16,138) of 11.803.

	SS	df	MS	F	Sig.
Between Groups	49.302	16	3.081	13.000	0.001
Within Groups	32.710	138	.237		
Total	82.012	154			

SS: Sum of squares
df: Degree of freedom
MS: mean of squares
F: F statistic
Sig: Significance

Source: Research Data (2022)

Table 5: Analysis of Variance on Process Innovation Using SPSS Version 29

Between groups sum of mean square was 49.302 having 16 parameters while sum of mean squares within groups was 32.710 having 138 degrees of freedom. With p values <.05, process innovation was statistically significant in affecting performance with an F (16,138) of 13.00.

	Coefficients ^a						
	Standardized coefficients		Unstandardized coefficient	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	1.248	.712		1.752	.035	2.733	.238
Product innovation strategy	.133	.139	.043	.960	.047	.156	.423
Process innovation strategy	1.699	.075	1.014	22.669	<.001	1.543	1.855

a: Independent variable (Performance)

Source: Research Data (2022).

Table 6: Analysis of Empirical Model Coefficients Using SPSS Version 29

Multiple linear regression equation model adopted is $y=1.248+.133x_1+.142x_2+.341x_3+1.699x_4 + \epsilon$

With lack of any innovation strategy performance would be constant at 1.248. A unit change in product innovation all other factors ceteris paribus would increase performance by 0.133 units. Unit change in process would increase performance by 1.699 units.

VII. CONTRIBUTIONS

A major finding of the research is that product innovation, organization innovation, market innovation and process innovation accounts for 75.5 % of performance on Oil marketing companies in Eldoret. This finding will help Oil marketing companies to position themselves innovation wise in the competitive environment. The finding will benefit Custom agencies since they can utilize the information to improve on tax collection. Government bodies, Energy Regulatory authority of Kenya and Ministry of Energy Kenya would use the information on the finding in regulatory roles and policy making. Kenya pipeline company would use the information in serving the Oil marketing companies effectively, interested future researchers and scholars can establish the remaining 24.5% determinants of performance that have not been established.

VIII. CONCLUSION

The research finding established that there is a positive significant effect of product innovation on performance of Oil marketing companies in Uasin Gishu county, Kenya. Introduction of new products, developing new product, additivation of product, environmental friendliness of products, product portfolio and patenting of new products portfolio are product innovation strategies that affects performance of oil marketing companies under the study. Other ways in which the organizations have embraced product innovation includes training of staff on product innovation, establishment of research and development programmes for products and constant improvement of product quality. This study therefore found out that increasing product innovation

increases performance of oil marketing in Uasin-Gishu County, Kenya. The findings indicated that there was a significant effect process innovation on performance of Oil marketing companies in Uasin Gishu County, Kenya. The study findings indicated that the oil marketing firms have smooth processes and procedures, hence a smooth workflow of orders which in turn creates efficiency in the processes. Self-service and online queue management help customers get better services. Most companies carry out improvements through benchmarking. To avoid adulteration of product the oil marketing companies uses markers for the product to deter adulteration of product. Other ways in which the companies have embraced process innovation includes use of digitization of processes, systems upgrade, and training of staff on processes. Process innovation strategies are updated to improve performance.

IX. SUGGESTION FOR FURTHER RESEARCH

A study of similar nature can be done in other sectors other than the petroleum sector. The researcher also proposes further study on effects of stockouts, delays due to common user facility congestion, Energy and petroleum regulatory authority of Kenya pricing effect on oil marketing companies in Uasin Gishu County, Kenya.

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