PREDICTIVE ROLE OF SUPPLIER INNOVATION MANAGEMENT in the PERFORMANCE of MICRO, SMALL and MEDIUM HOTELS in NAIROBI

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Abstract

Businesses continue being highly complex due to various reasons such as competition, growth in size, an educated workforce, change in technology amidst other factors, the predictive role of supplier innovation management cannot be denied. This study looks at the various factors that entrepreneurs should concentrate on to achieve success in supplier innovation management. These include supplier relations, supplier involvement and capability, automated systems, and supplier data analysis. Literature was reviewed from various sources of secondary data with the aim of finding out what various scholars have to say about the contribution of supplier innovation management to firm performance. Data was collected by use of exploratory design, through personal interviews on 100 sampled hotels. The data was processed using correlation and multiple regression analysis. The results showed that supplier innovation management had no significant predictive role in the performance of micro, small and medium hotels. The negative results may have need as a result of poor implementation by the Nairobi hotels and travel advisories by various tourist destinations. To be successful in supplier innovation management it was important for hotels to generate proper supplier relationships, be highly professional and ethical and transparent among other factors.

"Supplier" "Technology" "Innovation", "Performance", "Hotels"

I. INTRODUCTION

This study seeks to explore the predictive role of supplier Innovation management to firm performance. [1]; [2], are of the opinion that Supplier innovation management is key to organizational performance. Entrepreneurs in seeking this should, however, keep in mind the extra costs involved, which if properly evaluated can eat away into the company's profits. Of concern therefore are the company's collaborative partners in particular the suppliers who can help the company manage its costs of production through relevant information accessible to them. If managed innovatively for the mutual benefit of both parties, suppliers can help bring about profitable growth [3].

Today collaborations with suppliers has become an essential element of a company's external resources. It is capable of bringing about a competitive advantage for a company that seeks to embrace it. Early involvement, proper linkages with qualified, knowledgeable and successful suppliers has been found to reduce time to market, improve product quality and decrease development costs. Companies should stimulate suppliers by encouraging them to be innovative, guiding them, and accepting to share innovations with them. Other than that they should evaluate the suppliers professionalism, research and development, specialization, collaborative attitudes, high development capability and customer orientation in order to avoid negative results. Success in supplier involvement can only be achieved in a climate of trust, commitment, flexibility, transparency, reputation, attractiveness and mutual support by the parties involved. A company can manage collaborative development by setting guidelines, contracts, governance, target setting, having copyrights amidst other factors [4].

[5]; [6]; [7]; [8] are of the opinion that as doing business is becoming increasingly complex, organizations are more than ever before seeing the need of being specialized and partnering with various stakeholders. Such stakeholders include suppliers, researchers, competitor's customers and experts in various other fields, with the aim to acquire accurate and relevant knowledge on strategic decisions. The role played by suppliers cannot in particular be ignored as it has proven to be more superior to that of universities, competitors and other stakeholders [9].

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Conceptual Framework

Supplier innovation management and its sub variable categories such as supplier relations, involvement and capability, automated systems, supplier data analysis [10], have been adopted for this study. These influence the performance of hotels in Nairobi (see figure 2.1).

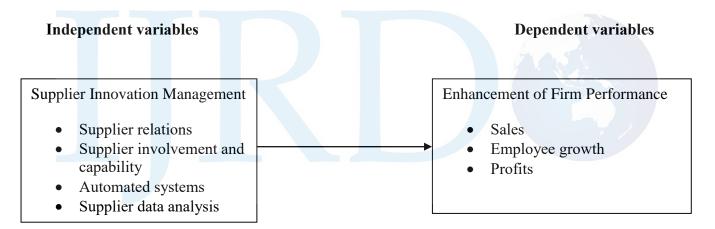


Figure 2.1: Conceptual framework adapted from Rizza [10].

- B. Theoretical Framework
 - 1. Theory of Innovation Management: Schumpeter [11] was of the opinion that the concept of new combination leading to innovation covers five Cases: one of which looked at supplier innovation management. To be successful in this, entrepreneurs must implement certain innovative strategies when dealing with their suppliers. They should engage qualified professional suppliers who are ready to work with them in an environment of transparency, commitment and flexibility while at the same time setting up protective mechanisms such as copy rights, patents and contracts.
 - 2. Theory of Need to Achieve: David McClelland's psychological theory on need to achieve

is important to economic development and entrepreneurship. This is because in order to become great achievers, entrepreneurs must keep up with the various changes in the economy by becoming continuously innovative. Entrepreneurs are forced to manage innovations well so as to maintain their economic position in the market. If the need for achievement level is high, there will presumably be more people who behave like entrepreneurs [12]. Some of the ways of achieving this would be to set up alliances or partnerships with various stakeholders such as suppliers.

3. Theory of Performance: Performance theory helps develop hypothesis and support directions of decisions. [13]. These look in general at a combination of non-financial and financial measures. Financial measures are the best to use, however, they are usually very sensitive and most companies treat them as highly confidential. Further they may sometimes be subject to manipulations and may not be accurate. A possible way forward is to apply the non-financial measures [14]. The most commonly applied non-financial measure adapted by SMEs is number of employees [15]. One may also avoid metrics by checking on whether the sales, profits, employees or capital have either increased decreased or remained constant over time.

C. Supplier Innovation Management

Supplier innovation management refers to a process in business by which an organization seeks to improve or develop new sources of raw material and services [16]. One of the primary tasks of supply management is to manage suppliers. Firms that innovatively manage their supply sources have higher levels of cooperation with their suppliers, satisfaction on supplier performance, trust and mutual goals. Supplier activities that are collaborative help in building good relations which prompt the supplier to share innovative ideas with its customers. A situation of mistrust on the other hand would mean poor dealings with suppliers, who might tend to favor competitors. For its own benefit, therefore a firm should be driven to developing good supplier relations so as to maintain a competitive edge [17].

In supplier innovation management the focus of the firm is to minimize costs. Good relations with suppliers means lower pricing and quality raw materials, leading to increased performance. More capabilities are required to handle different types of supply relationships. It is important for

a firm to recognize and identify the capabilities which will generate value for the firm's suppliers [18]. To achieve these goals, a firm should engage a competent work force with the necessary expertise on supplier innovations, and also consult with experts where necessary. Hotel entrepreneurs should have relationships that are based on trust with qualified suppliers. They should involve suppliers in their projects, have access to their data analysis and be connected to them on a full time basis through automated or manual systems wherever possible for the mutual benefit of both firms [10]. Supplier innovation management is critical to firm performance. Hotels can borrow cues from studies as proposed in this section. This section covers the null hypothesis that there no significant predictive role by supplier innovation management in the performance of MSMEs.

D. Conclusions

With the high level of expertise required to implement supplier innovation management, Micro, small and medium enterprises with their vast limitations, are under increasing pressure to implement it successfully. Despite its recognized positive contribution to firm performance as cited by various scholars, supplier innovation is a highly under studied area [6]. This study, sought to at fill this gap in literature, it looked at the predictive role of supplier innovation management in the performance of MSME hotels in Nairobi, Kenya.

III. METHODOLOGY

The study employed an exploratory research method. The population in this study constituted of approximately 334 Nairobi hotels. These were arrived at from a list of hotels obtained from the ministry of tourism. A sample size with finite population correction of 100 hotel managers ($30/100 \times 334=100$), was targeted. This number represents about 30% of the total number of hotels in Nairobi, which is adequate to constitute a sample in a study of this nature [19]. It was expected that approximately 80% of the proportion of the hotels were committed to innovation management. To achieve 100% response rate 125 questionnaires, ($100/80 \times 100=125$) were distributed to give every person within the target population a known zero chance of selection [20]. The higher the number responses by the sample the more representative it is of the entire population [21].

Questionnaires were used as the research tools. A pilot study of 25 hotels was undertaken to test reliability of the research instruments. Cronbach Alpha helped in testing the research instruments for reliability [22]. On the basis of the pilot findings, the questionnaires were revised to ensure accuracy of the data. Qualitative analysis e.g. percentages, means standard deviations and quantitative analysis techniques e.g. Pearson correlation and multiple regression analysis were adapted to synthesis the data into a more manageable and meaningful form.

IV. RESULTS AND DISCUSSION

A. Introduction

This chapter presents results and discussion of the data collected in the course of the current study. The main study objective aimed at determining the predictive role of supplier innovation management in the performance of micro, small and medium (MSME) hotels in Nairobi. The chapter is organized into various categories which include response rate, analysis and interpretation and discussion of results.

B. Supplier Innovation Management and Performance of Hotels in Nairobi

Market innovation was measured using ten items; these were presented to respondents on a five point likert scale. Out of these items a composite variable was created by taking the mean of the items to form the first main study variable, in this case the X1 variable. The coefficient of cronbach alpha for the ten items was 0.979, which is considered an acceptable coefficient because it is well above the required threshold of 0.7. Table IV.I presents the percentages of the responses, for all the ten items, majority of the hotels (over 70%), showed a sense of commitment to market innovation management.

Table IV.I: Statements on Supplier Innovation Management and Hotel Performance

	Percentages/100						
	SD	D	N	Α	SA		
1. Our company makes use of sub-standard suppliers	65	6	11	7	11		

2. Suppliers are selected according to their capabilities.	9	7	11	10	63
3. We constantly measure our level of commitment to our suppliers.	10	9	10	11	60
4. Our firm does not base its relationship to suppliers on trust and commitment.	60	14	6	12	8
5. We do check different views of various suppliers in the market before improving programs.	7	10	20	10	53
6. Decisions made in our organization aim at satisfying internal politics and not on satisfying our	60	11	9	12	8
customers.7. Our firm prefers suppliers who are engaged in different ventures at the same time.	6	19	22	20	23
8. Our firm does not base its logistics on the integration of suppliers according to customer	48	10	14	12	10
needs.9. Our firm prefers to deal with suppliers who have information about customer innovations.	54	12	14	13	7
10. Our firm does not deal with suppliers who have highly advanced technology	58	9	8	11	14
Key: SA= Strongly Agree N=Neutral D=Disagree A	-Agree	e SD	=Stron	gly Disa	agree

SD=Strongly Disagree

A significant relationship was found to exist between SIM and hotel performance (r=0.515, P<0.001). A negative null hypothesis that there was no relationship between SIM and performance of MSME hotels in Nairobi was thus rejected. This can be observed in Table IV.II. This is supported by previous studies which point out that suppliers provide knowledge and technology transfer, these together with long term relationships between them and the firms that they serve are seen as key reasons to success [23]. Firms that innovatively manage their supply



sources have higher levels of cooperation from them [17]. Supplier activities that are collaborative help in building good relations which prompt the supplier to share innovative ideas with its customers. A situation of mistrust on the other hand would translate to poor relations with suppliers. In supplier innovation management the focus of the firm is to minimize costs, lower pricing and improve quality [18]. Suppliers provide an essential external source of knowledge and technology transfer [23]

Table IV.II

Correlation Analysis between the Supplier Innovation Management Variable and Hotel Performance

	Pearson Correlation	Significance
Innovations management variables and performance(Ye)	
Supplier Innovation Management (X3)	005555**	000000

Ho: There is no significant relationship between supplier innovation management and the performance of MSME hotels in Nairobi.

From multi regression analysis carried out in this study, it was observed in Table IV.III that there was a negative relationship (t=0.590, P>0.001) between supplier innovation management and hotel performance. Therefore the hypothesis that there is no significant predictive role by SIM and the performance of MSME hotels in Nairobi holds good. These results are collaborated by previous studies. In supplier innovation management the focus of the firm is to minimize costs and improve on innovations. Good relations with suppliers would mean lower pricing and quality raw materials, leading to increased performance [18]. Suppliers provide an essential external source of knowledge and technology transfer. Importance of these ties depends on the expertise and long term relationships between firms and their suppliers [23].

Table IV.III

Manageme	Ent Variables and Hotel PerformanceUnstandardizedStandardizedCoefficientsCoefficients						Collinearity Statistics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	11.388	.998		11.415	.000		
Supplier	.591	1.003	.049	0.590	.557	1.000	1.000

Regression Analysis Coefficient Results on the Relationship between Innovation Supplier Management Variables and Hotel Performance

Performance of Nairobi hotels

C. Discussion

The major variable of concern in this study was: supplier innovation management, and its relationship with hotel performance. As noted from the study, the hotels, that implemented market innovation management (SIM), experienced a change in performance. Pearson correlation model results showed that SIM showed a significant linear relationship (r=0.515, P<0.001), with hotel performance. This meant that a change in performance whether positive or negative, was noted whenever SIM implemented by the Nairobi hotels. Multiple regression analysis results, however, further revealed that, no important relationship was found to exist between supplier innovation management and hotel performance (t=0.590, P>0.05).

It was rvident from the results that a big number of the hotels (over 70%) showed commitment to supplier innovation management. Variables that were used to measure supplier innovation management were: use of skilled and innovative suppliers, commitment and trust towards suppliers, listening to the suppliers point of view, supplier data analysis, preference for suppliers who have diverse abilities such as information about customer needs and automated systems. Many resource endowed hotels said that they were keen on whom their suppliers were, and had formal methods through which they selected them. One such hotel that said this, was located on Forest Road, another hotel of this calibre was located in the Westlands area and yet another was located on the Sheikh Karume Street. A hotel located on the Tenth Street, in

particular pointed out that it felt that it was successful in innovatively managing its supplier base. According to them, suppliers had gone a long way in contributing to the exellent performance of their hotel, by giving them products on credit for short term periods. They also had networked systems, which helped them communicate certain important information, such as stock replenishing to their suppliers and that they had all the data that needed about their suppliers. This helped the hotel to be proactive and make use of lean methods of production and avoid inconviniences caused by shortages, wastage of space, and lack of proper or poor quality inventory. It also helped it to take advantage of opportunities and carb itself against risks .

A substantial number of hotels, however, one of which was located on Tom Mboya Street, another on Bujumpura Road and yet another that was located on Park Road, pointed out that the management were not keen on selecting suppliers according to their capabilities, their choice was based more on internal politics. This often led to sub standard and expensive supplies. There were also some star rated hotels that did not perform well despite implementing supplier innovation management, some of these included a three star on Taveta Road, and a one star on the CBD. There were however two cases of star rated hotels who pointed out that their performance remained constant despite implementing supplier innovation management these were both three star rated hotels there located on the CBD and on Munyu avenue. The hotels that invested in supplier innovation management generally did not experience an important contribution to their performances. These results were not in line with what was expected from the study, neither are they in line with what was arrived at in previous study results [10]. The reasons for this may have been; poor implementation, travel advisories that were meted on Kenya in the course of the study period, yet another reason may have been that suppliers are an external factor and the hoteliers may not have much control over their behaviour [24]. The entrepreneur's innovative abilities and their ability to enjoy a personal touch may have enabled them to discover new ideas and maintain long term relations with suppliers. Supplier innovation management if well executed helps reduce costs. Such Nairobi hotels are likely to focus on local customers who benefit from low pricing and quality products resulting from supplier innovation management efficiency.

The current study had hypothesized that supplier innovation management had played no major predictive role in hotel performance. To test this hypothesis the multiple regression model

of the form $Y_e = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$ was fitted to the data. From the study results, this was translated as Ye=11.388+6.299X_1+3.540X_2+0.591X_3 where: X_1=market, X_2=process, X_3=supplier innovation management. The figures when interpreted meant that market innovation management contributed the most to hotel performance 6.299, followed by process innovation management 3.540. However, supplier innovation management did not contribute positively to the growth of the Nairobi hotels.

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. Summary

The general objective of the study was the predictive role of supplier innovation management on the performance of Micro small and medium hotels in Nairobi. The study respondents included hotel owners and customers of MSME hotels in Nairobi. Out of a population of 334 respondents, a sample of 100 hoteliers was interviewed. Data was collected from the supplier innovation management variable of the study.

B. 5.2 H_o: The Predictive Role of Supplier innovation management in the Performance of MSME Hotels in Nairobi Kenya.

The study's findings indicated that supplier innovation management was related to hotel performance albeit negatively. Supplier innovation management was seen as the effort that was made by the Nairobi hotels to get suppliers who met their expectations through their capability and mutual relationships. They were also ready to let hoteliers access their data and to make use of automated or other systems to allow proper communication between the two companies. This created an enabling environment for the successful implementation of lean methods of production such as just in time, continuous improvement and cell. Results from the entrepreneur's statements on this variable revealed that (over 70%) of the hotels in Nairobi were committed to supplier innovation management. Despite this commitment, no good relationship was found to exist between supplier innovation management and performance of hotels in Nairobi in Nairobi hotel performance, followed by process innovation management; however in contrast, no positive contributions were found to have been made by supplier innovation management (t=0.590, P>0.05).

This meant that the Nairobi hotel participants who used supplier innovation management generally showed a lower performance in comparison to those hotels that did not. The results are not in line with what was expected from the study, neither are they supported by previous study results. Firms that innovatively manage their supply sources have higher prospects of cooperation with their suppliers; satisfaction on supplier performance leading to transfer of ideas and reduced pricing of raw materials. In supplier innovation management the focus of the firm is to minimize costs and hence efficiency this benefit is then passed on to customers in the form of reduced pricing.

The poor performance results by Nairobi hotels which focused on supplier innovation management may have been as a result of poor selection, maintenance and implementation of supplier innovation management. Also successful implementation of supplier innovation management depends on long term relationships between firms and their suppliers. Hence, for Nairobi hotels to be successful in supplier innovation management, they must have the necessary skills, tools and measurements which, must also be in line with the needs of their target consumers. Also the study took place during a period of travel advisories in Kenya, this may have impacted the hotels negatively.

C. Conclusions

It was found from the results that there was no significant predictive role by supplier innovation management and hotel performance. This may have been due to poor implementation of SIM by hoteliers as most of the hotels that who implemented it yielded negative results. This is supported by other studies as there is a generally founded fact based on findings that supplier innovation management has been found to contribute positively to firm performance unless in cases where it is not properly implemented.

D. Recommendations

The researcher recommends that, MSME Nairobi hotels should select suppliers who have the innovation capability, make use of automated systems and give them liberty to access their data with an aim of passing on the benefits to hoteliers. Entrepreneurs should on the other hand involve suppliers in their projects in order to bring about transparency, honesty and trust and hence create a strong bond for mutual benefits. Speedy and right inventory made possible

through automated replenishing will serve to improve efficiency through lean methods of production in particular just in time, cell and continuous improvement. It will also help them mitigate risks and take advantage of opportunities that arise in the event of their collaboration.

E. Suggestions for Further Research

This study concentrated mostly on supplier innovation management. Further research should be undertaken on the other types of innovation management variables such as; product, new organization, new sources of finance, lobbying with the government to mention but a few. Another issue of concern, was that of the respondents from whom the researcher obtained or generated the study information. These were made up mainly of the decision makers or the owners/management of the Nairobi hotels. Future research should be organized in such a way as to seek the opinions of employees of the Nairobi hotels. Employees who are referred to as internal customers, are likely to provide less biased, and hence more accurate information as they hold a neutral stand and may not withhold sensitive information.

REFERENCES

[1] Kearney, A.T. (2014). Collaborative Supplier Innovation Working with Suppliers to Generate Profitable

value-Building Growth. . Retrieved from https//: <u>www.at keany. com/ documents</u> /10192/4062427/collaborative+innovation capability pdf/. October 10th 2017

[2] Capozziet, M.M, Gregg, B., Howe, A. (2010). Mckinsey Global Survey Results: Innovation and

commercialization 20 (2) 1-8.

[3] Rosell, D.T. (2015) Buyer-Supplier Innovation Managing Supplier Knowledge in Collaborative

Innovations. Liu Tryck, Linkip[ing, Sweden

[4] Aminoff, A., & Kaipia, R. (2017). Suppliers Innovation Management Retrieved from https//: www.vtt.fit/inf/pdf/technology/2017/T307.pdf. October 12th 2017.

[5] Pulles, N., Veldman, J., Schiele, H. (2014). Identifying innovation suppliers in business networks: An

empirical study, industrial marketing management, 43 (3) 409-418.

[6] Shiele, H. (2010). Early Supplier intergration: The dual role of purchasing in new product development,

Research and Development Management. 40 (2) 138-153.

[7] Un, A.C., Cuervo-Cazurra, A., Asakaka, K. (2010). Research and development collaborations and product

innovation, Journal of Product Innovation Management. 27 (5) 673-689.

[8] Bercovitz, T.P., & Feldman, M.P. (2007). Fishing upstream: firm innovation strategy and university

research alliances, research policy, 36 (7) 930-948.

[9] Aminof, A., Kaipia, R., Philajamaa, M., Tanskanen, K., Vuorim, M., & Makkonnen, M. (2015). Managing

Supplier Innovation-Systematic Literature Review. Retrieved from https//: www.vtt.fi/infi/ julkaisut/muut/2015/)A-managing supplier innovations. October 12th 2017

[10] Rizza, M.N. (2015). Five Secrets of supplier Retail Management. Retrieved from <u>https://www.cips.org/ supplymanagement/opinion/ May 8th 2017.</u>

[11] Schumpeter, J. A. (1994). The Theory of Economic Development Cambridge, M.A: Harvard University Press.

[12] Islam, M. M. (1989). *Theories of Entrepreneurship*. Dhukar, University of Grand Commission of

Bangladesh.

[13] Neely, A., & Bourne, M. (2003). Implementing Performance Measurement systems: a literature review.

International Journal Business Performance Management, 5 (1) 1-24.

[14] Serrat, O. (2010). The Perils of Performance Management, Knowledge Solutions Asian Development

Bank, Manila. Retrieved from <u>http://www.digitalcommons:ilr.crnell.edu/intl</u>/ August 10th 2014.

[15] Marchand, M., & Raymond, L. (2008). Researching performance measurement systems: An information

systems perspective. International Journal of Operations Production Management. 28 (7): 66 686.

[16] Rouse, M. (2005). What is computer-aided software engineering? Retrieved from

http://www.searchmanufacturingerp.techtarget.com/feature/August 25th 2014.

[17] Eistenhardt, K.M., & Martin, J.A. (2000). Dynamic capabilities what are they? *Strategic Management*.

21 (10/11): 1105-1112.

[18] Cox, A. (2007). Managing with power: Strategies for improving value appropriation from supply

relationships. Journal of Supply Chain Management. 37 (2): 42-47.

[19] Survey Monkey. (1999-2017) Calculating number of respondents you need. Https//:www/

help survey monkey.com/articles/en-us. How-many-respondents-do -I-need. / May 10th

2015

[20] Mugenda, O.M., & Mugenda, A.G (2003). *Research Methods Quantitative and Qualitative Approaches*.

Nairobi. Kenya: ACTS Press.

[21] Kothari, C.R. (2007) *Research Methodology-methods and Techniques*. New Delhi: New Age International

Publishers.

[22] Cronbach, L.J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16, (3): 230-

250.

[23] Lampert, D.M. & Cooper, M.C. (2000). Issues in Supply Chain Management, 29(1): 65-83.

[24] Johnson, K., Li,Y., Singer,J.,& Trinh,H. (2012). *The Innovative Success that is Apple*. Thesis Marshal

University.