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Joint Effect of Knowledge and Process Embodied Technology Transfer on the Growth of Catering Micro and Small Catering Enterprises in Nairobi, Kenya

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Abstract:
Globally, the small business sector has both the potential and the historic task of bringing millions of people from the survivalist level including the informal economy to the mainstream economy. To enhance this fact, Micro and small enterprises (MSEs) have invested in new technology resulting to experienced marked growth on terms of customers and profits. Among the prominent Technology transfer initiatives are knowledge and process embodied technology. However, no study has investigated the joint effect of knowledge and process embodied technology transfer on Micro and small enterprises growth. The specific objective of the study was to determine the joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in Nairobi, Kenya. This study adopted descriptive research with mixed approaches. This method facilitated information among the Catering MSEs in Kenya. The target population of the study involved 11,162 respondents from the catering MSEs in Kenya. The study target population included Medium Restaurant, Small Restaurant with bar/Membership club, Mega eating houses, Snack Bar, Tea House 'Hotel', Medium eating House, Snack Bar Tea House 'Hotel', Small eating House, Snack bar, Tea House and 'Other Catering and Accommodation' in Kenya. The study involved both Stratified and simple random sampling method in the selection of the samples. A sample size of 384 was selected. The study utilized questionnaires as the main instrument of data collection. Pilot testing was carried out to establish both reliability and validity of research instruments. Both descriptive and inferential statistics were used for data analysis. The Inferential statistical analysis of the results was done to determine whether or not there is a statistical relationship established between growth (the dependent variable) and the independent variables on the basis of the research questions. The study used the Logistic (or Logit) regression to establish the effects of the independent variables to enterprise growth. A summary of findings shows that individually and collectively, knowledge and processes transfer production are a significant predictor of firm growth. However, a combination of the two produced even greater results of growth. The study concluded that the joint effect of knowledge and processes of technology transfer leads to a higher growth than individual variables in micro and small catering enterprises in Kenya.

Keywords: *Join effect, knowledge, process, technology, transfer, growth*

1. Introduction

Globally, the small business sector has both the potential and the historic task of bringing millions of people from the survivalist level including the informal economy to the mainstream economy. Recognizing the critical role small businesses play in the world economy. The international policy on sustainable development goals envisages the strengthening of MSMEs to become the key industries of tomorrow by improving their productivity and innovation. To enhance this fact, Micro and small enterprises (MSEs) have invested in new technology resulting to experienced marked growth on terms of customers and profits. Among the prominent Technology transfer initiatives are knowledge and process embodied technology (Philips, 2002).

As such, the impact of MSEs is felt in the greater utilization of local raw materials, employment generation, encouragement of rural development, development of entrepreneurship, mobilization of local savings, linkages with bigger industries, provision of regional balance by spreading investments more evenly, provision of avenue for self-employment and provision of opportunity for training managers and semi-skilled workers. Over the years, the majority of MSEs have grown gradually due to technology transfer of knowledge and processes. Evenson and Westphal (1995) define enterprise growth as a development process of enterprise from small to big and from weak to strong. Enterprise growth is the development process where enterprises keep the tendencies of balanced and stable growth of total performance level (including output, sales volume, profit and asset gross) or keeps realizing the large enhancement of total performance and the stage spanning of development quality and level. The increase of quantity is embodied in the extension of enterprise scale such as the increases of sales volume, market share, production value, profit and employee. The growth of quality is embodied in the enhancement of enterprise quality, which includes the technological innovation ability from immature to mature production technology, the optimal efficiency of investment and output, the organizational innovation and reform

(Massey *et al.,* 2006). Among the MSEs is the Catering sector which is found within the hospitality industry and provide food, drink and accommodation to the customers. This is an industry that has its own products and markets, technology and production methods where the entrepreneur combines production and sales under one roof. The level of customer demand particularly from high student population who spend much of their disposable income on eating out is an important factor influencing growth of the hospitability industry (Pissarides, et al 2001). The growth of the catering industry has been associated with on-the-job training (anonymous, 2001). Carter et al (2000) identified access to funding, training and frequent alterations of the premises as some of the major factors set to shape the hospitality industry. It is evident that MSE entrepreneurs have moved from the traditional methods of production and service to modern and better methods of production through technology transfer. This study was carried out on MSEs in Kenya so as to avail the much-needed information to the entrepreneurs and the policy makers on the joint effect of technology transfer of knowledge and processes on growth.

1.1. Statement of the Problem

According to the MSE Baseline Survey conducted in 1999, the sector employed 2.4 million persons. This increased to 5.1 million persons in 2002 as per the *2003 Economic Survey* and translates to 675,000 jobs per year. The level of employment within Micro and small enterprises (MSEs) in 2002 accounted for over 74.2% of the total number of persons engaged in the country.

However, the contribution of MSEs to National growth is lacking or falls far below the government expectation. Kenya's economic growth partly depends on increased productivity that is heavily dependent on the rate of mix between knowledge and process embodied technology transfer. Micro and small enterprises (MSEs) in developing countries are however confronted with several drawbacks and challenges that they have to overcome in order to operate successfully (UNIDO, 2002). Most MSEs thus lack the joint combination of technology transfers of knowledge and process embodied technology which is highly needed to spur growth. Among the challenges faced by MSEs is lack of information on existing technology of knowledge and process. Although few catering MSEs have invested in enhancing knowledge and process of technology transfer in institutions, hard data on the joint effect of knowledge and process on grwoth of MSEs is available. The current study provided data on the joint effect of knowledge and process of technology transfer on the growth of Micro and Small catering enterprises in Kenya.

1.2. The Specific Objective of the Study

The specific objective was to determine the joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in Nairobi, Kenya.

1.3. Research Hypotheses

The following hypothesis was tested:

- **H_o**: There is no significant joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in Nairobi, Kenya.

1.4. Conceptual Framework

The conceptual framework shows the study variables. The dependent variable is the mix of knowledge and processes of technology transfer. The dependent variables are growth changes (firm size, age, turnover, profit margins, intangible assets, employment, revenues and financing sources).

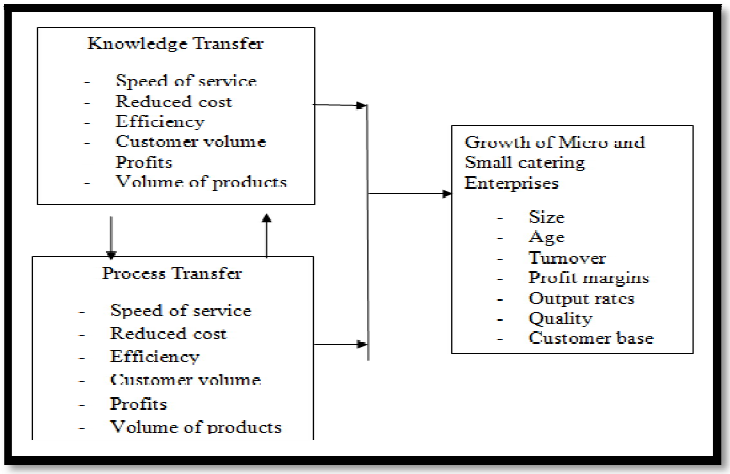

Figure 1: The Joint Variation Between of Knowledge and Processes of Technology Transfer

2. Methodology

This study adopted descriptive research with mixed approaches. Descriptive research is a process of collecting data in order to test hypothesis or to answer questions concerning the current status of the subjects in the study. This

method facilitated information among the Catering MSEs in Kenya. In mixed research, both qualitative and quantitative information was collected so that each supplemented the other to minimize subjectivity and enhance objectivity. Qualitative information includes, design, techniques and measures that do not produce discrete numerical data while quantitative information includes designs, techniques and measures that produce discrete numerical data (Mugenda & Mugenda 2003). A Quantitative research approach is a systematic investigation of scientific mathematical properties and their relationships. (Cooper & Schindler, 2011). This research approach involved the testing of the hypothesis that technology transfer influences the growth of MSEs within the catering sector. According to Mugenda and Mugenda (2003) quantitative approach focuses on designs, techniques and measures and produce numerical discreet data or quantifiable data. The research employed a mixed model approach whereby it combined both qualitative and quantitative data collection approaches. It was necessary to use this approach as it increased the statistical reliability of the results (Kothari, 2004). Qualitative approach on the other hand involved the interpretation of phenomena without depending on numerical measurements or statistical methods. In this study, qualitative data was quantified by converting it into numerical codes and then analyzed statistically.

2.1. Target Population

The target population of the study involved 11,162 respondents from the catering MSEs in Kenya. The population for this investigation was small scale entrepreneurs in the catering sector within the hospitality industry. The study target population included Medium Restaurant, Small Restaurant with bar/Membership club, Mega eating houses, Snack Bar, Tea House 'Hotel', Medium eating House, Snack Bar Tea House 'Hotel', Small eating House, Snack bar, Tea House and 'Other Catering and Accommodation' in Kenya.

2.2. Sampling Technique and Sample Size

The first step involved Stratified random sampling method in the selection of the samples. Stratified simple random sampling was considered a special case in which each population element has a proportional and equal chance of selection; it ensures that every population representative has an equal chance of being represented. (Mugenda & Mugenda, 2003). The researcher also used simple random sampling. In this design, researcher simply obtain a list of the whole population and then use a sequence of numbers from random numbers table. The researcher obtained stratum sample sizes by first obtaining a full list of all the members of the population for each of the six strata. Purposive Sampling was also used for this study to identified Catering MSEs that had embraced knowledge and processes technology transfer in their operations. One enterprise was picked from each of the six stratums through purposeful sampling. Managers were then given questionnaires to complete. A sample size of 384 was selected.

2.3. Data Collection Tools and Procedure

The study utilized questionnaires as the main instrument of data collection. Questionnaires were prepared for use in the sampled catering enterprises. The questions for the interview were both structured and unstructured. An interview guide was used in this study as it was flexible and enabled the researcher to collect large amounts of information that would otherwise not have been available.

2.4. Pilot Test: Reliability and Validity of Research Instruments

Pilot testing was carried out to establish both reliability and validity of research instruments. Reliability measures the degree to which a research instrument yields consistent results after repeated measurements are taken of the same subjects under similar conditions (Gay, 1992). In this study, reliability of the research instrument was tested using the internal consistency design that yields Cronbach Coefficient Alpha. Validity refers to the extent to which the research design and the data that it yields allows the researcher to draw accurate conclusions (Leedy, 1997). In this study triangulation method of data collection methods (questionnaires and interview schedules) were used. Principal component factor analysis was used prior to undertaking multiple regression analysis in order to establish the few independent variables with the strongest effect on enterprise growth from among the variables.

2.5. Data Analysis and Presentation

Both descriptive and inferential statistics were used for data analysis. Descriptive statistics was used to describe the population characteristics numerically and hence more precisely in accordance with Saunders *et al.* (2007). The Inferential statistical analysis of the results was done to determine whether or not there is a statistical relationship established between growth (the dependent variable) and the independent variables on the basis of the research questions. Quantitative data obtained from the questionnaire was analyzed using statistical package for social scientists (SPSS) software package version 22. Qualitatively, thematic analysis, categories and patterns were used in interpretation of data. Graphs, charts and tables were used to present descriptive data analysis results. Correlation analysis was done to establish the relationship between the variables. Analysis of Variance (ANOVA) was used in this study as it allows for test of significant difference in two or more groups. The test was also used in the study to measure variations within the groups. The study used the Logistic (or Logit) regression to establish the effects of the independent variables to enterprise growth.

3. Findings

This section presents and discusses the findings of the current study. First data on sample characteristics were collected. Data concerning gender, age, level of education and length of service were collected. Gender information

indicates that there were more male owners (n=157, 56.1%) than there were females (n=123, 43.9) of micro and small catering enterprises. Descriptive results as presented indicate that the current age of firm owners ranged from18 years to 50 years with a mean of 35.1(STD=1.716). The findings suggest that age is a factor in the ownership of micro and small catering enterprises with medium aged firm owners showing keen interests. In addition, comparison in the means of ages of both female and male owners using one-way ANOVA did not show significant results at .05 levels (F=2.038, d=1, p=.155). Results presented in the study showed that majority of businesses (n=113, 40.45%) had operated between 1-4 years. Regarding the level of education, majority of firm owners (n=84, 30.0%) had attained a diploma level of education and few with university education having a bachelor's degree (n=78, 27.9%). In addition, descriptive statistics regarding the variables under consideration was presented and discussed. The objective of this study was to find out the combined influence of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in Kenya. The study analyzed descriptive statistics involving knowledge embodied Technology transfer and Process embodied Technology transfer as the study variables. *There is no significant joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in, Kenya.* In order to describe the relationship between knowledge embodied Technology transfer and growth of micro and small catering enterprises 13 items were used. This is information is shown in Table 1.

Statements	Frequencies (%) N=280	
	Yes	No
Academic level is a major factor for employment in the enterprise	71.4	28.6
Academic level ensures food production and service methods are standard	82.5	17.5
Academic level ensures food production and service is fast	80.4	19.6
Academic level enhances efficiency in production and service methods	82.1	17.9
Academic level increased customer satisfaction	81.1	18.9
Knowledge enhanced service quality	82.1	17.9
Academic level enhanced quality products	83.1	16.9
Academic level improved overall performance of organization	81.8	18.2
Academic level enabled workers increase output	80.7	19.3
Academic level has led to growth of output	81.1	18.9
Academic level has led better production methods	82.9	17.1
Academic level enabled organization grow in terms of customers	82.1	17.9
Academic level played role in growth of organization	78.6	11.4
Average	81.5	18.5

Table 1: The Role of Knowledge Embodied Technology Transfer

Majority of respondents (82.5%) felt that high academic level ensures food production and service methods are standard, ensures food production and service is fast (80.4%), enhances efficiency in production and service methods (82.1%), increases customer satisfaction (81.1%), service quality (82.1%) and quality of products (83.1%). In addition, academic level improves overall performance of organization (81.8%), increases output of workers (80.7%), enhances growth (81.1%), improves production methods and it increases the number of customers (82.1%) On average, of the total number of respondents selected for the current study (n=280), 82.5% agreed that academic level of employees had some positive effects on growth variables. Further, 11 items were used to measure the role of Process Embodied Technology Transfer on growth of micro and small catering enterprises. This information is presented in Table 2.

Responses	Frequencies (%) N=280	
	Yes	No
Standardized production processes ensure food is produced and served on time	84.6	15.4
Standardized production processes ensure food production and service methods are standard	83.1	16.9
Standardized production ensures processes food production and service is fast	83.9	16.1
Standardized production processes enhance efficiency in production and service methods	84.3	15.7
Standardized production processes increased customer satisfaction	85.0	15.0
Standardized production processes enhanced quality of services	84.6	15.4
Standardized production enhanced quality of products	83.6	16.4
Standardized production processes enhanced overall performance	83.2	16.8
Standardized production processes increased workers output	83.9	16.1
Standardized production processes enabled organization grow in terms of output	81.9	16.1
Standardized production processes enabled organization grow size	83.5	16.1
Average	83.2	16.8

Table 2: The Role of Process Embodied Technology Transfer

Applications of standard production processes are essential in enhancing food production and services (n=234, 83.1%). In addition, a majority of firm owners (83.9%) felt that adoption of new production processes is needed to speed up food production and services. The observed that benefits of adopting the new production processes such as enhancing efficiency in production and service methods (84.3%), enhancement of customer satisfaction (85.0%), enhanced quality services (84.6%), enhanced quality products (83.6%), enhanced overall performance (83.2%), increased workers output (83.9%) and organizations grow in terms of size (83.5%). An informal discussion with one of the key informants revealed that well trained employees in micro and small catering enterprises changes have taken place from the old methods of production to faster, new and modern methods with higher production outputs that can serve a wider market. On average, majority of firm owners (84.2%) believed that trained employees enhance production processes inmicro and small catering enterprises. Further, the study showed that experienced and well-trained employees have had positive effects in enhancing production processes inmicro and small catering enterprises. Some of the positive effects are that use of experienced and well trained employees have improved methods of production (84.6%),enhances better and faster processes (83.9%),assumes processes that are fast and simple (82,5%), new processes increases the number of customers per day (84.6%), the speed of production is enhanced (84.3%), enhancement of firms efficiency (83.8%), enhances satisfaction of the employees (84.6%) ,rate of output per hour increases and overall performance is enhanced (83.9%).

3.1. Variation of Knowledge and Process Embodied Technology Transfer and Growth of Micro and Small Catering Enterprises

Firms must be able to create and commercialize a stream of new processes that extend the technology frontier, while at the same time keeping a step or two ahead of their rivals. Business Process Reengineering (BPR) concerns the fundamental rethinking and radical redesign of a business process to obtain dramatic and sustained improvements in quality, cost, service, lead time and productivity. However, the most effective way to accomplish technology transfer of processes is to transfer the people with the requisite knowledge to the arenas where that technology is needed. Capacity transfer includes provision of the know-how and software not simply to manufacture existing products but, more importantly, to innovate and adapt existing technologies and products, and ultimately design new products. Low educational achievement leads to a general failure of most MSEs. Proprietors must appreciate the role of technology in production processes, product quality and market competitiveness. Majority of firm owners (83.6%) indicated that micro and small catering enterprises have experienced growth due to the employment of well skilled and experienced staff.

Growth of Micro and Small Enterprises Depends on the combined Variables	**Frequencies (%) N=280**	
	Yes	**No**
Employment of well skilled and experienced staff	83.6	16.4
Standardized production processes	87.9	12.1
Professionally trained employees	67.9	33.1
Introduction of standard processes	68.6	32.4
Speed at which products are processed	87.9	12.1
High Academic level	92.5	7.5
Average	81.4	18.6

Table 3: Variation of Knowledge and Process Embodied Technology Transfer and Growth of Micro and Small Catering Enterprises

A summary of the responses in Table 3 reveals that growth is dependent on a mix between knowledge and processes variables. Single variable produces a weaker effect on growth in micro and small catering enterprises. A Positive correlations between technology transfer of knowledge and growth variables(*r*=.641, *p=.000; r*=.635, *p=.000; r*=.535, *p=.000; r*=.634, *p=.000; r*=.585, *p=.000; r*=.485, *p=.000)* are also found at .05 significant levels. This implies that an increase in technology transfer of knowledge leads to some proportionate increase in growth levels (increase in profits, firm size, increased employee and customer base, increased output and enhanced quality. Results of correlation analyses between technology transfer of processes and growth variables are largely positive (*r*=.597, *p=.000; r*=.555, *p=.000; r*=.474, *p=.000; r*=.683, *p=.000; r*=.621, *p=.000; r*=.521, *p=.000).* These findings indicate that enhanced processes due to technology transfer leads to increased growth of micro and small catering enterprises.

In order to test the factor effect of knowledge and process Technology Transfer under consideration, factor analysis was undertaken. Knowledge embodied technology transfer contained twenty-four items which were reduced to form two components. Rotation converged in three iterations as can be observed in the Rotated Component Matrix table.

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.614	77.558	77.558	18.614	77.558	77.558	10.338	43.074	43.074
2	1.203	5.011	82.569	1.203	5.011	82.569	9.479	39.496	82.569
3	0.704	2.931	85.501						
4	0.606	2.526	88.026						

Table 4: Knowledge Embodied Technology Transfer Total Variance Explained

Two components were extracted using factor analysis with Eigen values exceeding unity and accounting for 82.569% of the total variance. The two components were then re-named as Academic Status (component 1) and Effects of Academics (component 2). The first component corresponding to Academic Status with thirteen items included constructs that assessed whether Academic level is a major factor for employment in the enterprise, ensures food is produced and served on time, ensures food production and service methods are standard, ensures food production and service is fast, enhances efficiency in production and service methods, increased customer satisfaction, enhances service quality, enhanced quality products, improves overall performance of organization, enables workers increase output, has led to growth of output , led better production methods and enable organization grow in terms of customers. The second component factor loadings were denoted as 'Effects of Academics' variable. Eleven items that loaded on 'Effects of Academics' variable had statements that explored the extent to which academic achievement played role in growth of organization, production techniques have changed over time, quality of products and services to customers have improved, profits have been realized, increase of the numbers of customers per day and Speed of production, enhancement of efficiency ,satisfaction of employees ,increase of rate of output per hour and improvement of overall performance. In addition, twenty-three items were used to measure the processes of technology transfer in micro and small catering enterprises. Rotation converged in three iterations.

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.592	76.486	76.486	17.592	76.486	76.486	11.268	48.991	48.991
2	3.185	13.849	90.336	3.185	13.849	90.336	9.509	41.345	90.336
3	0.72	3.131	93.467						
4	0.369	1.606	95.073						

Table 5: Process Embodied Technology Transfer Total Variance Explained

Items with strongest association to the underlying latent variable and with loading above .5 for each component were combined to form the two renamed variables namely; Standard Production Process and Production Process Effect. The first component factor renamed 'Standard Production Process' was loaded with twelve statements that measured the degree to which production processes are standardized in Micro and Small Enterprises. Reliability score on the twelve items was above the set limit of .6(á=.987). The overall acceptance score of this variable indicates a mean of 10.11 (STD=4.260) with a majority of enterprise owners (n=239, 85.6%) believing that technology transfer in Micro and Small Enterprises is dependent on standardized production process. These results show that technology transfer is greatly influenced by use of standard processes especially where trained firm owners are involved. The second component factor loadings were named as 'Production Process Effect'. Eleven items that were loaded onto Production Process Effect involved statements that measured the degree to which the production processes are effective in the overall performance of Micro and Small Enterprises.

3.2. Joint Variation of Knowledge and Process Embodied Technology Transfer and Growth of Micro and Small Catering Enterprises

This section discusses the joint effect the combined between knowledge and process embodied Technology Transfer on Growth of micro and small catering enterprises. To accomplish this desire, the study tested one hypothesis using linear logistic regression. The null hypothesis that was tested stated: ***H_0****: There is no significant joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in, Kenya.*

The logistic regression model contained four component factors, namely; Academic Status, Effects of Academics, Standard Production Process and Production Process Effect. The logistic regression model was summarized as:

Logit (growth) =--.826+ 173 (Academic Status) + .190 (Effects of Academics) +.194 (Standard Production Process) +.140 (Production Process Effect)

Components	B	S.E.	Wald	Df	Sig.	Exp(B)
Effects of Academics	.190	.086	4.879	1	.027	1.209
Standard Production Process	.194	.049	15.582	1	.000	1.214
Production Process Effect	.140	.057	5.988	1	.014	1.151
Constant	.826	.342	5.851	1	.016	.438

Table 6: A summary of Variables in the Equation

The explained variation in the dependent (levels in growth) variable based on the above model ranges from 27.0% to 49.9 % (Cox and Snell R square =.270; Nagelkerke R square =.499) and correctly classified 86.8% of cases.

4. Discussion

Positive correlations between technology transfer of knowledge and growth variables (*r*=.641, *p=.000; r*=.635, *p=.000; r*=.535, *p=.000; r*=.634, *p=.000; r*=.585, *p=.000; r*=.485, *p=.000)* are significant levels at .05. This implies that an increase in technology transfer of knowledge leads to some proportionate increase in growth levels (increase in profits, firm size, increased employee and customer base, increased output and enhanced quality. Results of correlation analyses between technology transfer of processes and growth variables are largely positive (*r*=.597, *p=.000; r*=.555, *p=.000; r*=.474, *p=.000; r*=.683, *p=.000; r*=.621, *p=.000; r*=.521, *p=.000).* These findings indicate that enhanced processes due to technology transfer leads to increased growth of micro and small catering enterprises. However, results show that combining knowledge and processes brings even higher firm growth. A combination of knowledge and processes variables resulted to four components namely, Academic Status, Effects of Academics, Standard Production Process and Production Process Effect. The results show that micro and small catering enterprises whose owners had enhanced processes by investing in knowledge reported positive growths. These findings concur with authors mentioned in the review of literature. According to Gibson (1994), the most effective way to accomplish technology transfer is to transfer the people with the requisite knowledge to the arenas where that technology is needed. Knowledge transfer includes provision of the know-how and software not simply to manufacture existing products but, more importantly, to innovate and adapt existing technologies and products, and ultimately design new products (Phillips *et al.,* 2002). In addition, firms must be able to create and commercialize a stream of new processes that extend the technology frontier, while at the same time keeping a step or two ahead of their rivals (Sheu, 2007). In Catering enterprises Business Process is seen in the use of mechanical equipment with timers. This means the worker does not have to spend time checking on time.

The Wald test was also used to determine statistical significance for each of the predictor variables. From these results, it is noted that the four test variables Academic Status (*p* = .016), Effects of Academics (.027), Standard Production Process (.000) and Production Process Effect (.014) added significantly to the model/prediction. The results show that the odds of achieving positive growth ('yes' category) are 1.189 times greater for firms with high academic status than those without. The results also show that the odds of achieving high growth are 1.209 times for firms with positive Effects of Academics than those without. In addition, the results show that the odds of achieving positive growth ('yes' category) are 1.214 times greater for firms with enhanced standard production process than those without. Further results show that the odds of achieving high growth are 1.151 times for firms with positive Effects of production process than those without. These results show that Micro and Small Enterprises, whose owners had enhanced technology transfer of production knowledge and process reported positive growths levels.

The null hypothesis ***H_o*** *that there is no significant joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in, Kenya was rejected*. The above findings are consistent with findings of case studies on the influence of technology transfer of knowledge and processes and the growth of micro and small catering enterprises. For instance, Phillips et al. (2002) attributes general failure of most MSEs to low educational achievement. In addition, even where firm owners develop interest in new technology, their limited education adversely affects the absorption capacity of acquired technology (ILO, 2005). A challenge for developing countries is to facilitate temporary movement abroad and to encourage returnees to undertake local research and business development. This school of thought is supported by many writers who cited several ways to increase the knowledge and competence, e.g. education, recruitment, through consultants and e-learning. Sheu (2007) argues that firms must be able to create and commercialize a stream of new processes that extend the technology frontier, while at the same time keeping a step or two ahead of their rivals. This view also advocates the use of standard business process re-engineering (BPR. According to him, Reengineering (BPR) concerns the fundamental rethinking and radical redesign of a business process to obtain dramatic and sustained improvements in quality, cost, service, lead time and productivity.

5. Summary

Evidence exists from the results of findings that individually and collectively, knowledge and processes transfer production are a significant predictor of firm growth. However, a combination of the two produced even greater results of growth. A combination of knowledge and processes variables resulted to four components namely, Academic Status, Effects of Academics, Standard Production Process and Production Process Effect. From these results, it is noted that the four test variables Academic Status (*p* = .016), Effects of Academics (.027), Standard Production Process (.000) and Production Process Effect (.014) added significantly to the model/prediction. The null hypothesis ***H_o*** *that there is no significant joint effect of knowledge and processes of technology transfer on the growth of micro and small catering*

enterprises in Kenya was rejected. *In favor of the alternative.* The results of logit analysis indicated that the combined effect of *knowledge and processes* is much greater than the effects of the individual predictors.

6. Conclusion

The study examined the joint effect of knowledge and processes of technology transfer on the growth of micro and small catering enterprises in Nairobi, Kenya.

According to the summary of findings in the current study, both knowledge and processes of technology transfer were positively and significantly associated with the growth of micro and small catering enterprises. The study concluded that the joint effect of knowledge and processes of technology transfer leads to a higher growth than individual variables in micro and small catering enterprises in Kenya.

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