

Effect of Integrating Production Skills and Equipment Technology Transfer on the Growth of Micro and Small Catering Enterprises in Kenya

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Abstract: - In the last few decades, both developed and developing countries, micro and small enterprises (MSEs) have been used to trigger economic development. However, there has been lack of accelerated investment in new technology in this subsector. This study thus examined to what extent the technology transfers of production skills and equipment technology transfers are integrated and what is the influence of such integration on the growth of micro and small catering enterprises in, Kenya. This study employed the descriptive research method with a mixed model approach combining both qualitative and quantitative data collection approaches. The subject for the study was all catering MSEs in Nairobi County, Kenya with a population of 11,162 respondents. Stratified and simple random sampling methods were used in the selection of the samples. The total sample size from the total population was 384 catering respondents. Secondary and primary data were collected for this research. Primary data was obtained from owners of MSEs through self-administered questionnaires. Both the validity and reliability of research instruments were tested. Descriptive statistics was used to describe the population characteristics numerically. Descriptive statistics such as measures of central tendency was used to describe levels of dispersion. The relationship between independent variables and the Dependent was determined based on hypothesis testing and regression analysis. The study used the Logistic (or Logit) regression to establish the effects of the independent variables to enterprise growth. Qualitative analytic reasoning process was used to interpret and structure the meanings that could be derived from the data. The results of findings indicated that the combined effect of production skills and technology transfer of equipment/object is much greater than the effects of the individual predictors, production skills or technology transfer of equipment/object.

Key words: - *Integration, Production Skills, Equipment, Technology Transfer*

I. INTRODUCTION

In the last few decades, both developed and developing countries have relied heavily on dynamism, resourcefulness and risk taking of micro and small enterprises (MSEs) to trigger and sustain the process of economic growth (Ramanathan *et al.*, 2004). To achieve this goal, micro and small enterprises (MSEs) have invested in new technology that have resulted in noticeable growth as measured through increased number of customers and profits margins.

Technology transfer involves movements of production skills and equipment technology from the laboratory to industry, developed to developing countries, or from one application to another domain (Philips, 2002). Thus the movement involves physical assets, know-how, and technical knowledge (Bozeman *et al.*, 2000). In Micro and Small Catering enterprise, which is found within the hospitality industry that provides food, drink and accommodation to the customers, the entrepreneur combines or integrates both production skills and equipment technology to spur growth in this subsector. Furthermore, the performance of hospitality industry is influenced by quality, freshness, taste, price, convenience, design of packaging, nutritional value of the product and the quantity of the product. Cohen (2004) identified four forms of technology transfer as follows: technology transfers of production skills as general theoretical and practical understanding of how to do things (know-how or information); technology as objects (goods or tools); technology as the systematic knowledge of technique and technology as installed techniques of productions (processes). However, according to Cohen (2004), the integration of technology transfers of production skills and equipment technology transfer takes precedence against the others. Cohen (2004) defines that interaction as a combination of people, cognitive skills, plant, equipment and tools.

1.1 Statement of the problem

The growth of every country, both developed and developing depends largely on the contributions of the MSEs. In particular Kenya, The sessional paper of 2005 on MSEs clearly indicates that the Kenyan government expects 500,000 jobs creation every year. Unfortunately, this is a challenge to the government as the planned contribution of MSEs to National growth is lacking and falls far below the government expectation. Part of the reason is that sustained economic growth and substantial poverty reduction in the least developed countries lack the enhanced development of productive capacities – physical, human and institutional – in a manner which enables the working population to become more fully and productively employed. National productive capacities develop through the closely related processes of capital accumulation and technological progress (Republic of

Kenya, 2007). In addition, MSEs lack information on existing technology. Weak environment that hinder focus on technology has seen the MSE sector experience low productivity, poor quality goods. As such, economic growth depends on increased productivity (output per unit of input) that is heavily dependent on the rate of technological transfer. However, most MSEs lack the integration of technology transfers of production skills and equipment technology transfer. Although catering MSEs have adopted technology transfer in their operations, little information is available on the intergration of technology transfers of production skills and equipment technology transfer and how such integration would affect the growth of MSEs. This study provided empirical evidence on the interaction between transfers of production skills and equipment technology transfer and how it influenced the growth of Micro and Small catering enterprises in Kenya.

1.2 The specific objective of the study

The objective of this study was to determine to what extent the transfers of production skills and equipment technology

transfers are integrated. In addition, the study examined the influence of such integration on the growth of micro and small catering enterprises in, Kenya.

1.3 Research Hypotheses

The following hypotheses were tested:

- a) H_0 : There is no significant relationship between the integration of technology transfer of production skills and technology transfer of equipment and the growth of Micro and small catering enterprises in Kenya.

1.4 Conceptual Framework

The conceptual framework shows the intergration between production embodied technology transfer and equipment/tools embodied Technology Transfer and their effect on MSEs' growth changes (in terms of size, age, turnover, profit margins, intangible assets, employment, revenues and financing sources).

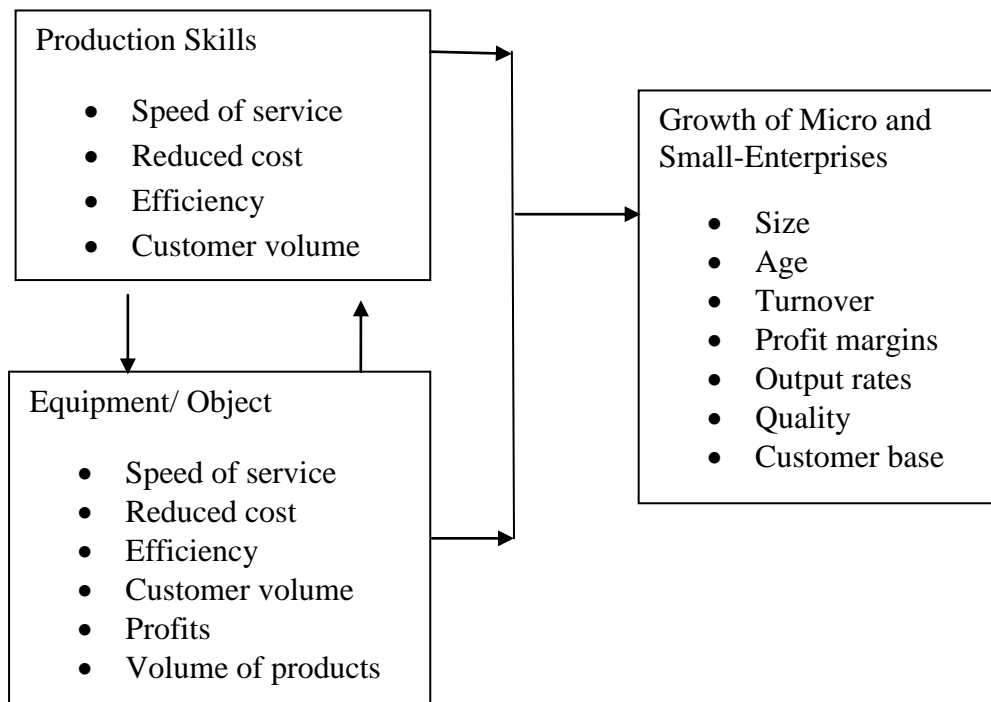


Figure 1: The interaction between production skills and equipment technology transfer

II. METHODOLOGY

This study employed the descriptive research method. In addition, 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). A Quantitative research approach is a systematic investigation of scientific mathematical properties and their relationships. Qualitative approach on the other hand involved

the interpretation of phenomena without depending on numerical measurements or statistical methods. It was mainly concerned with observing, listening and interpretation of phenomena. This design was thus the most suitable for this study because the determinants were studied in the field without manipulation.

2.1 Target Population

The subject for the study was all catering MSEs in Nairobi

County, Kenya with a population of 11,162 respondents. The population sample comprised 384 enterprise owners who were selected by stratified random sampling. 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 Nairobi Central Business District.

2.2 Sampling Frame

The total population embraced six categories of different sizes therefore the frame was organized by the six categories into separate strata. The researcher chose this method so as to have existing sub-groups fairly and randomly represented within the sample. The method also ensured that every group in each category was proportionally represented.

2.3 Sampling technique and sample size

Stratified and simple random sampling methods were used in the selection of the samples. The stratified random sampling was considered for dividing the data into homogenous subgroups. The researcher used simple random sampling technique to select subjects from each stratum. Purposive Sampling was also used for this study with the aim of obtaining information with respect to the objectives of the study. One enterprise was picked from each of the six strata through purposeful sampling. The total sample size from the total population was three hundred and eighty four catering respondents.

2.4 Data collection tools and procedure

Secondary and primary data were collected for this research. Secondary data was obtained from online, print-outs, journals, websites, books, articles and through communication with experts through the mobile phone technology. Primary data was obtained from owners of MSEs through self-administered questionnaires. Questionnaires were the main instrument of data collection. In addition, interviews helped the researcher probe the respondents so as to get more details on the subject under study. 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. An interview schedule ensured that standard data was obtained from all the Catering MSEs within the sample. All the Catering MSEs owners/managers who were the respondents of this study were booked by telephone for interview appointments in advance. Interviews were conducted in person at an agreed time where an appropriate venue within the micro and small catering enterprise was identified and used for the interview.

2.5 Pilot Test

Pilot testing was done on the research tools in order to take note of any ambiguity so as to refine the research instruments. In addition, both the validity and reliability of research

instruments were tested. In this study, reliability of the research instrument was tested using the split half design. The split half model splits the scale into two parts into which the responses are assigned randomly and the correlation between the two parts is examined. To ensure internal validity, especially when qualitative approaches are used, triangulation of the methods of data collection was recommended. In this study, triangulation method of data collection methods (questionnaires and interview schedules) were used.

2.6 Data Collection Procedure

Primary data was gathered from respondents of various MSEs in the field after obtaining the Research Permit from National Commission for Science, Technology and Innovation. The researcher visited the sampled 384 micro and small catering enterprises in Nairobi County and administered the questionnaires to the enterprise owners.

2.7 Data Processing and analysis

Descriptive statistics was used to describe the population characteristics numerically. The Inferential statistical analysis of the results were done to determine whether or not there is a statistical relationship established between the dependent variable and the independent variables on the basis of the research objectives. Descriptive statistics such as measures of central tendency was used to describe levels of dispersion. The relationship between independent variables and the Dependent was determined based on hypothesis testing and regression analysis. Correlation analysis was done to establish the relationship between the variables. Analysis of Variance (ANOVA) was used to test significant difference in two or more groups. The study used the Logistic (or Logit) regression to establish the effects of the independent variables to enterprise growth. The chi-square test was used to determine whether an independent variable is a factor influencing the dependent variable or not. This test was used for each of the independent variable over the dependent variable. Qualitative analytic reasoning process was used to interpret and structure the meanings that could be derived from the data.

III. FINDINGS

Out of the selected 384 firm owners, 280 managed to respond to the questionnaires thus yielding a response rate of 73.49%. The study was conducted from six strata: Small Eating House, Snack bar, Tea House (n=51, 51.1%) ;Mega eating house, Snack Bar, Tea House “Hotel” (7.9%) ;Medium Eating Houses, Snack Bar Tea House “Hotel” (11.4%). 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. Data also indicate that the current age of firm owners ranged from 18 years to 50 years with a mean of 35.1(STD=1.716). In addition, comparison in the means of ages of both females and males owners using one way ANOVA did not show significant results at .05 levels (F=2.038,d=1,p=.155). Results show that

majority of businesses (n=113, 40.45%) had operated between 1-4 years. Those that operated in duration of between 5 and 10 years were 91 respondents (32.5 %). Only 76(27.1%) had operated for over ten years. This implies that most of the micro and small business owners were not new entrants and had been in business for between one and ten years. Further, majority of firm owners (n=84, 30.0%) had attained a diploma level of education. owners with university education having a bachelor’s degree were (27.9%). The owners with masters degree were (n=9, 3.2%) and owners with primary level of education were also few (n=37, n=13.2). Chi-square test of independence between business type and forms of business shows a significant association at p=0.05 level of significance between the variables ($\chi^2 = 182.339$, DF=5, p=.000). This shows that there were disproportionately more firms in micro enterprises than in small enterprises. Further, Chi-square test of independence between capital base and the types of business indicated significant results at p=0.05 level ($\chi^2 = 233.953$, p=.000). The results show that the types of enterprises were unevenly distributed depending on the capital base of businesses.

The objective of this study was to determine to what extent the transfers of production skills and equipment technology transfers are integrated. In addition, the study examined the influence of such integration on the growth of micro and small catering enterprises in, Kenya. In addition, this objective related to the two hypothesis that stated: *There is no significant integration between technology transfer of production skills and technology transfer of equipment among the Micro and small catering enterprises in Kenya and There is no significant relationship between the integration of technology transfer of production skills and technology transfer of equipment and the growth of Micro and small catering enterprises in Kenya.* In order to describe the relationship between production skills technology transfer and growth of micro and small catering enterprises 14 items were used. This is information is shown in Table 1.

Table 1: Technology Transfer on Production Skills

Statements	Frequencies (%) N=280	
	Yes	No
Organization uses trained personnel	86.8	13.2
Food is produced and served on time	85.7	14.3
Food and production costs are reduced	85.7	14.3
Food production and service is fast	87.1	12.9
Enhances efficiency in operations	86.4	13.6
Increased customer satisfaction	86.8	13.2
Enhanced service quality	86.1	13.9
Improved overall performance of organization	86.8	13.2
Enabled workers increase output	86.4	13.6
Enabled organization grow in terms of profit	81.4	18.6
Enabled organization grow in terms of size	81.1	18.9
Enabled organization grow in terms of customers	86.8	13.2
Played role in production volume of organization	71.1	28.9
Average	84.5	15.5

As indicated in Table 1 ,majority of responses show that technology transfer influences production skills and that organizations in micro and small catering enterprises uses trained personnel, food is produced and served on time, food and production costs are reduced, food production and service is fast, efficiency in operation is enhanced, increase in customer satisfaction, quality service is enhanced, there is improved overall performance of enterprises, workers increase output, the enterprises grow in terms of profit, size ,customers and also production volume accounted for 84.5% of all responses. The results imply that technology transfer enhances production skills among the owners and employees inmicro and small catering enterprises. Further, 13 items were used to measure the role of the role of equipment /object technology transfer on growth of micro and small catering enterprises. This information is presented in Table 2

Table 2: Technology Transfer of Equipment /Object

Statements	Frequencies (%) N=280	
	Yes	No
Acquired new modern equipment for operations	91.4	8.6
Equipment ensured food is produced and served on time	92.4	7.6
Equipment ensured production and service methods are fast	91.8	8.2
Equipment ensured food production and services is fast	92.5	7.5
Equipment enhanced efficiency in production/service methods	91.4	8.6
Equipment increased customer satisfaction	91.8	8.2
Equipment enhanced service quality	92.1	7.9
Equipment enhanced quality of food and drinks	92.5	7.5
Equipment improved overall performance	92.1	7.9
Equipment increased workers output	91.1	8.9
Equipment caused growth of output	89.6	8.4
Equipment enabled better production methods	89.3	10.7
Equipment has enabled growth in terms of customers/day	86.8	13.2
Average	91	9.0

One of the reasons firm owners adopted technology transfer through equipment was to ensure that food was produced and served on time in catering businesses (n=259,92.4%). Other roles of technology transfer in equipment and objects were as follows: equipment ensured production and service methods are fast (n=257, 91.8%), equipment ensured food production and services are fast (n=259, 92.5%), equipment enhanced efficiency in production/service methods (n=255, 91.4%), equipment increased customer satisfaction (n=257, 91.8%), equipment enhanced service quality (n=257,92.1%), equipment enhanced quality of food and drinks(n=259,92.5%), equipment improved overall performance (n=259, 92.1%), equipment increased workers output (n=256, 91.1%), equipment caused growth of output (n=251, 89.6%), equipment enabled better production methods(n=250,89.3%) and equipment had enabled growth in terms of customers/day(n=243,86.8%). Chi-square test of independence did not reveal any statistical association at .05

level ($\chi^2=33.395$, $DF=45$, $p=.899$). The results imply that the role of new equipment was not significantly influenced by the forms of businesses in micro and small catering enterprises.

3.1 Integration of production skills and Equipment /Object Technology Transfer and Growth of micro and small catering enterprises

The purchase of modern equipment was identified by 87.9% of respondents as being important in the growth of micro and small catering enterprises. However, this importance was enhanced by technology transfer of production skills through engaging in professionally trained employees enhances growth in micro and small catering enterprises. This view was supported by 67.9% of respondents.

Table 3: Integration of Production Skills and Equipment /Object Technology Transfer on Growth of micro and small catering enterprises

Growth of Micro and Small Enterprises Depends on the combination of the following Variables	Frequencies (%) N=280	
	Yes	No
Purchase of modern equipment	83.6	16.4
Employment of well skilled and experienced staff	87.9	12.1
Professionally trained employees	67.9	33.1
Quality of food in the enterprise	92.5	7.5
Low employee turnover	82.4	17.6
Average	81.4	18.6

A summary of the responses in Table 3 reveals that growth is dependent on variables related to production skills and equipment /object technology transfer. Results of correlation analysis between technology transfer Production Skills and Equipment /Object Technology Transfer and growth variables show positive and significant results. This implies that an enhancement in technology transfer of production skills leads to an enlargement in firm size, improved quality of products and services, increased profit margin, increased number of employees and customer base in catering micro and small catering enterprise. Further correlation between technology transfer of equipment/objects and growth variables show positive and highly significant at .05 levels. The results show evidence of the positive influence of technology transfer of equipment and objects on the growth of firms in terms of increased profit margin, increased number of employees and customers and enhanced quality of goods and services. In order to test the factor effect of Technology Transfer of Production Skills and Equipment /Object Technology Transfer under investigation, factor analysis was undertaken. Three components were extracted for production skills. The three new components are described in Table 5.

Table 4: Production Skills Total Variance Explained

Component	Initial Eigenvalues			Extraction sums of squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	15.69	68.25	68.25	15.69	68.25	68.25	10.453	45.44	45.44
2	2.438	10.6	78.85	2.438	10.61	78.85	7.66	33.3	78.75
3	1.061	4.614	83.47	1.061	4.614	83.47	1.086	4.722	83.47
4	0.922	4.008	87.48						

The resultant three components were renamed as Efficiency Enhancement (component 1), Organization Techniques (component 2) and Quality Service (component 3).

Four components were extracted for Equipment /Object Technology Transfer. The four new components are described in Table 6.

Table 5: Equipment and Objects Technology Transfer Total Variance Explained

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	14.738	61.407	61.407	14.738	61.407	61.407	9.344	38.933	38.933
2	2.776	11.565	72.972	2.776	11.565	72.972	4.378	18.243	57.175
3	2.306	9.61	82.582	2.306	9.61	82.582	3.774	15.725	72.9
4	1.023	4.262	86.845	1.023	4.262	86.845	3.347	13.944	86.845
5	0.504	2.132	88.944						
6	0.484	2.018	90.962						

The four components are 'Effective Equipment', 'Employees, 'Customer Care' and 'Role of Equipment'. A binomial

logistic regression was performed and this predicts the probability that an observation falls into one of two categories

of a dichotomous dependent variable based on one or more independent variables that is categorical or continuous. In this study, logistic regression was used to assess the influence of a number of factors on the probability that firm owners would report that micro and small catering enterprises had experienced level of growth. The null hypothesis that was tested was stated:

H₀₁: There is no significant relationship between the integration of technology transfer of production skills and technology transfer of equipment and the growth of Micro and small catering enterprises in Kenya.

In the current study, the dependent variable (level of growth) was categorical and measured on a dichotomous scale (growth

and no growth). The logistic regression model contained seven component factors, namely; Efficiency Enhancement, Organization Techniques, Quality Service, Effective Equipment, Employees Satisfaction, Customer Care and Role of Equipment. The logistic regression model was summarized as:

$$\text{Logit (level of growth)} = -3.774 + .259(\text{Efficiency Enhancement}) + .680(\text{Organization Techniques}) + .111(\text{Quality Service}) + .270 \text{ Effective Equipment} + .032\text{Employees Satisfaction} + .547 \text{ Customer Care} + .386\text{Role of Equipment}$$

Table 6: A summary of Variables in the Equation

Components	B	S.E.	Wald	Df	Sig.	Exp(B)
Efficiency Enhancement	.259	.060	18.649	1	.000	1.295
Organization Techniques	.680	.248	7.537	1	.006	1.973
Quality Service	.111	.075	2.196	1	.138	1.117
Effective of Equipment	.270	.136	3.946	1	.047	1.310
Employees Satisfaction	.032	.278	.014	1	.907	1.033
Customers Care	.547	.105	27.055	1	.000	1.729
Role of Equipment	.386	.168	5.280	1	.022	1.471
Constant	-3.774	.675	5.305	1	.000	.211

The general model having all predictors variables was significant at .05 levels ($\chi^2 = 87.665$; $df = 4$; $Sig. = .000$, $n=280$) indicating that the logistic regression model was able to select business owners who realized firm growth and those who did not report any growth in Nairobi County, Kenya. The explained variation in the dependent (levels in growth) variable based on the above model ranges from 26.9% to 49.6 % (Cox and Snell R square =.269; Nagelkerke R square =.496) and correctly classified 90.4.9% of cases.

IV. DISCUSSION

Production skills and equipment /objects have been found to be a significant predictor of firm growth. A Correlation between technology transfer of production skills and growth variables ($r=.619, p=.000$; $r=.450, p=.000$; $r=.489, p=.000$; $r=.576, p=.000$; $r=.473, p=.000$; $r=.443, p=.000$) is positive and highly significant at .05 levels. This implies that an enhancement in technology transfer of production skills leads to an enlargement in firm size, improved quality of products and services, increased profit margin, increased number of employees and customer base in catering micro and small catering enterprise. Similarly, correlation between technology transfer of equipment/objects and growth variables ($r=.518, p=.000$; $r=.682, p=.000$; $r=.427, p=.000$; $r=.491, p=.000$; $r=.611, p=.000$; $r=.311, p=.000$) show positive and highly significant at .05 levels. The results show evidence of the

positive influence of technology transfer of equipment/objects on the growth of firms in terms of increased profit margin, increased number of employees and customers and enhanced quality of goods and services. However, results show that integration of the two further enhances firm growth. The integration of the two variables consisted of seven components. These were: Efficiency Enhancement (component 1), Organization Techniques (component 2) and Quality Service (component 3) Effective Equipment (component 4), Employees Satisfaction (component 5), Customer Care (component 6), Role of Equipment (component 7). The results show that micro and small catering enterprises whose owners had ensured high degree of efficiency enhanced organization techniques and maintained high quality services and products through technology transfer of production skills reported positive growths. Schumpeter Theory (1969) cites the need for new goods and new methods of production of existing goods to produce better consumers' goods that are more eagerly desired by consumers, than the previous goods and the previous methods of production. In addition, This information suggest a large proportion of firm owners believe that the role of equipment was to enhance better production methods and thus increase customers served per day. This view was consistent with Grimes (2009) who claims that some advanced features have been integrated on the kitchen appliances such as timers and digital temperature

gauges, timers or inaccurate temperature dials to enhance production.

The general model having all predictors variables was significant at .05 levels ($\chi^2 = 87.665$; $df = 4$; $Sig. = .000$, $n=280$) indicating that the logistic regression model was able to select business owners who realized firm growth and those who did not report any growth in Nairobi County, Kenya. The explained variation in the dependent (levels in growth) variable based on the above model ranges from 26.9% to 49.6 % (Cox and Snell R square =.269; Nagelkerke R square =.496) and correctly classified 90.4.9% of cases. The Wald test was used to determine statistical significance for each of the predictor variables. From these results, it is noted that Efficiency Enhancement ($p = .000$) and Organization Techniques ($p = .006$) added significantly to the model/prediction, but Quality Service ($p = .138$) did not add significantly to the model. The information in the 'Variables in the Equation' Table was used to predict the probability of an event occurring based on a one unit change in the independent variable when all other independent variables are kept constant. The table shows that the odds of achieving positive growth ('yes' category) are 1.295 times greater for firms with high Efficiency Enhancement levels than those without. The Table also shows that the strongest predictor of positive growth was the firms' Organization Techniques reporting an odds ratio of 1.973. However, the predictor variable with least odd ratio is firms' Quality Service. From these results, it is noted that Effective Equipment ($p = .047$), Customers Care ($p = .000$) and Role of Equipment ($p = .022$) added significantly to the model/prediction, but Employees Satisfaction ($p = .907$) did not add significantly to the model. The table shows that the odds of achieving positive growth ('yes' category) are 1.729 times greater for firms with enhanced customer care than those without. The results also show that the odds of achieving high growth are 1.310 times for firms with Effective Equipment than those without. The null hypothesis H_{o1} that there is no significant relationship between the integration of technology transfer of production skills and technology transfer of equipment and the growth of Micro and small catering enterprises in Kenya was rejected.

The results of the current study have been supported with findings from case studies on the growth of micro and small catering enterprises in many countries both developed and developing. According to Richard Cantillon (1680-1734), Production capabilities and skills are necessary to efficiently operate a plant with a given technology and the improvement of the technology over time. This view is also supported by Dedrick et al., (2003) who argued that Productivity skills are important economic factors which have key roles in evaluating the economic growth. Without access to technology MSEs lack the capability to produce efficiently, meet deadlines, upgrade product quality and evolve new product designs (UNIDO, 2004). Kathuria (1999) noted that new products often embody new ideas and innovations and when these products are traded internationally, they transmit

knowledge across borders. The local firms have to do reverse engineering if they have to benefit from this channel, which depends on the skill content of the labor and local absorptive capacity (Kathuria, 2000). In Nairobi County, catering enterprises have had to develop their resources through technology transfer of skills to meet the rising demand for services for food and drink. Workers have had to shift from the old traditional methods of production of food and drink to faster and more efficient methods to meet the customer demands (Key informant). In addition, the above findings concur with Liddle (2009) who noted that some of catering commissary establishments thought that the tools and technology in the restaurant industry is limited to basic appliances and tools without realizing some complex equipment used. Moreover, the means of technology transfer include acquisition of capital equipment and machinery through trade, licensing (and/or franchising or distribution) agreements through which skills, ideas and technical information are transferred and through the movement of experts and skilled labor (Ikiara et al., 2011).

V. SUMMARY

Production skills and equipment /objects have been found to be a significant predictor of firm growth. The integration of the two variables consisted of seven components. These are: Efficiency Enhancement (component 1), Organization Techniques (component 2) and Quality Service (component 3) Effective Equipment (component 4), Employees Satisfaction (component 5), Customer Care (component 6), Role of Equipment (component 7). The general model having all predictors variables was significant at .05 levels ($\chi^2 = 87.665$; $df = 4$; $Sig. = .000$, $n=280$) indicating that the logistic regression model was able to select business owners who realized firm growth and those who did not report any growth in Nairobi County, Kenya. The null hypothesis H_{o1} that there is no significant relationship between the integration of technology transfer of production skills and technology transfer of equipment/object and 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 production skills and technology transfer of equipment/object is much greater than the effects of the individual predictors, production skills or technology transfer of equipment/object. This implies that a unit change in any of the integrated variables will yield a corresponding greater change in firm growth compared to any of the individual variables.

VI. CONCLUSION

The study examined the influence of integrated effect of technology transfer of production skills and equipment/ object on the growth of micro and small catering enterprises in Nairobi County. According to the summary of findings in the current study, all the predictor variables making up integrated technology transfers of production skills and equipment /object were all found to be positively and significantly

associated with the growth of micro and small catering enterprises. The study concluded that integrated technology transfer of production skills and equipment, leads to a higher growth of micro and small catering enterprises in Nairobi County, Kenya than individual variables. The growth is measured in form of profit margin, increase in employees, increase in customers, enlargement in firm size and enhancement in quality of products and services.

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