

# Factors that Influence the Adoption of Insourcing in Public Technical and Vocational Education and Training Institutes in Kiambu County

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# ABSTRACT

The wide range of products and services that are being sourced today have made the company's procurement organization increasingly important function. Sourcing involves high level, often strategic decisions regarding which products or services will be provided internally and which will be provided by external supply-chain partners. The use of resources within the firm to provide products or services is referred to as insourcing while the use of supply chain partners to provide products or services is called outsourcing. The overall problem in this study was that despite the aim of Kenya as a country of achieving development through Vision 2030, technical institutions are still not responsive enough and simply lack a culture in which training is driven by realistic projections of future skill requirements. They therefore do not produce commodities for their own use and in case they do only in insignificant quantities. The purpose of this study was to determine the factors that influence the adoption of insourcing in public Technical and Vocational Education and Training (TVET) institutions in Kenya with special reference to Kiambu County. The main objectives were to examine the economic viability of producing desired items, availability of production capacity of technical institutions, governance structures used and lead time.

The study design was descriptive in nature with a target population composed of all technical departments, heads of institutions and officers in the procurement function. The target population was heterogeneous and therefore purposeful sampling technique was used to select the departments and simple random sampling was used to determine a sample size of fifty to represent the population. The study used open and closed questionnaires to collect data for the research. The data was analyzed using a computer program SPSS version 17. The study established that there was a lot of equipment in the workshops that lie idle and this could be used in making goods internally instead of buying together with cheap labour from trainees. The study recommended that public technical institutions should adopt insourcing which would help them save in the long run by utilizing their idle capacities as well as creating confidence to outside consumers that goods made are quality.



#### INTRODUCTION

#### 1.1 Background Information

Make-or-buy is the act of making a strategic choice between producing an item internally (insourcing) or buying it externally (from an outside supplier). The buy side is referred to as outsourcing. Make-or-buy decisions usually arise when a firm that has developed a product or part of the product, significantly modified a product or part of the product; is having trouble with current suppliers, or has diminishing capacity or changing demand. (Lysons & Farrington 2006). According to Hassan (2010), the insourcing or outsourcing decision is a sourcing policy decision which addresses the question faced by the Purchasing Manager, whether to produce to consume or to buy from outside suppliers (i.e. insourcing or outsourcing), and while most organizations make what they consume, not all can. And the decision to outsource or in source is generally a sort of sourcing policy decision. Therefore, a trade off must be made between what the organization can make internally and what it had to obtain from external sources, since they (business) are not complete in all areas; and even when the business is good in all respects, it may not be of advantage in terms of costs.

Make-or-buy analysis is conducted at the strategic and operational level. Obviously, the strategic level is the more long-range of the two. Variables considered at the strategic level include analysis of the future, as well as the current environment. Issues like government regulation, competing firms, and market trends all have a strategic impact on the make-or-buy decision. (Fill & Visser 2000). Of course, firms should make items that reinforce or are in-line with their core competencies. These are areas in which the firm is strongest and which give the firm a competitive advantage. As such, make-buy decision-making takes on a critical importance (Stock and Tatikonda, 2000; McIvor, 2005; Leenders et al., 2006). David Burt, et al (2000) presents a rule of thumb for out-sourcing that a firm outsources all items that do not fit one of the following three categories. First, the item is critical to the success of the product, including customer perception of important product attributes; secondly the item requires specialized design and manufacturing skills or equipment, and the number of capable and reliable suppliers is extremely limited and thirdly the item fits well within the firm's core competencies, or within those the firm must develop to fulfill future plans. Items that fit in any one of these three categories are considered strategic in nature and should be produced internally if possible.

Technical institutions are the firms under study in this research. Technical institutions are meant to prepare learners for careers based on manual and practical activities (Amkombe, 2000). According to Mclean and David (2009), Technical institutions are concerned with the acquisition of knowledge and skills for the world of work to increase opportunities for productive empowerment and socio-economic development in knowledge and rapidly changing work environment. Technical institutions are major consumers of products that they are capable of making in-house. They must however make a choice between making the goods internally or buying from outside sources. The question that begs an answer is if these firms make the items that are within their areas of training or buy the same from outside sources.



# **1.2 Statement of the Problem**

When one is involved in the production process, one has to decide upon producing the commodities internally (in sourcing) or buying from outside sources (outsourcing). Outsourcing has been adopted by many organizations that have reaped many benefits however outsourcing may also pose major challenges to an organization like loss of control of the activities outsourced and dependency on suppliers. (Baily et al 2008). Most public technical institutions in Kenya tend to outsource thus suffer from dependency on suppliers. This is mainly caused by their heavy debt burden as a result of low budgetary allocation. According to Basheka and Bisangabasaija, (2010) expenditure on education and training sector has been on the increase however; only 3.2% of the total allocation goes to technical institutions and close to 95% of the allocation goes to recurrent expenditure. All in all in developing countries, public procurement is increasingly recognized as essential in service delivery and it accounts for a high proportion of total expenditure. (Wittig, 1999; Government of Uganda, 2006.)

This low budgetary allocation has continued to be a major constraint in the TVET (technical vocational education training) sector and yet the sector is expected to be a vehicle for rapid industrialization as outlined in Vision 2030. The challenge remains in empowering institutions to engage in lawful income generating activities without losing focus on their core mandate. The Germany system of vocational training (commonly referred to as directed and dual system) has frequently been referred to as an example of excellent practice of technical & vocational education and training (Beardwell and Holden, 2001). Employers fund two-third of the training and together with trade unions and the local government, they have a considerable influence on the control of the system. Employers' unions and the state administer the institutions and procedures that operate the system jointly. Firms pay for on-the-job training, youths accept relatively low wages, and the vocational colleges are paid for by public funds (Beardwell and Holden, 2001).

In Kenya technical institutions do not produce commodities for their own use, including those they could make in- house. They tend to buy goods from outside sources (outsourcing). It has not been established why public technical institutions outsource products which they could make within their capacities yet making them could greatly reduce cost as cheap labour could be sourced internally from trainers and trainees. This research is intended to fill the gap.

# **2.0 LITERATURE REVIEW**

# 2.1 Theoretical Review

The main theory used in this study is to show how governance structures influence insourcing in technical institutions and unless these sourcing decisions are corrected the institutions continue to spend lots of money in outsourcing products which they can easily produce.

# 2.2 Theory of Bureaucracy

Jones *et al* (2000) says that the theory of bureaucracy was developed by Max Weber to help Germany gain global competitiveness by becoming efficient and effective through government



control of its operations after World War II. In bureaucratic systems of administration, obedience is owed to a manager because the manager occupies a position that is associated with a certain level of authority and responsibility. Authority is the power to hold people accountable for their actions and to make decisions concerning the use of organizational resources which gives the manager the right to direct and control their subordinates' behavior to achieve organizational goals.

If bureaucracies are not managed well, many problems can result. When managers rely too much on rules to solve problems and not on their skills and judgment, their behavior becomes inflexible which may harm the organization and stifle creativity, innovation and implementation of constructive change. Rigidity in the public sector comes as a result of bureaucratic structures in use. The public technical institution managers need to be flexible so as to enhance creativity and innovation among trainers and trainees. This can be achieved through production of goods in-house as evidence of proficiency and proof of ability to perform. This would ultimately create pride in the final products made.

#### 2.3 Governance Structures

The technical institutional management is vital in the decision making and transformation process of the sector. The performance and responsiveness of TECHNICAL in Kenya is hampered by ineffective coordination and synchronization in the sector since Technical Training Institutes are spread across various ministries. As the management of Technical Training Institutes aim at effectiveness and efficiency, there would be need to strengthen and align the governance structures. According to Froystad (2010) a good organizational structure does not by itself produce good performance, but a poor organization structure makes good performance impossible, no matter how good the individual manager may be.

According to the sessional paper No 1 of 2005, having the management of Technical Training Institutes under different ministries makes coordination of activities and maintenance of training standards difficult, it leads to duplication of efforts, conflict of jurisdiction, underutilization of available training facilities, wasteful and unnecessary competition and costly irrelevant training programs (Kenya, 2005). There is need to harmonize management structures and appointments of management of institutions across the TVET sector. Technical institutions are headed by a Board of Governors (BOG). The BOG sets out internal policies and development priorities for the institutes and approves the budget for both recurrent and development expenditure.

Technical institutions are composed of organizational structures. This can be viewed as the way responsibility and power are allocated inside the organization and work procedures are carried out by organizational members. (Walker, & Roering, 1985; Walton, 1985). If the BOG would involve trainers in making sourcing decisions, they would fell feel part of the organization and would be motivated to do more than just training. This is likely to lower logistics and administration costs for the firms as well as get pride in the final goods made.



# **3.0 RESEARCH METHODOLOGY**

### 3.1 Research Design

This study adopted a descriptive survey research design to find out factors affecting insourcing in public technical institutions. The descriptive survey design was relevant to this study because it enabled the study to describe the state of affairs in the public technical institutions without manipulating the variables.

#### 3.2 Target Population

Target population is defined as a universal set of all members of real or hypothetical set of people, events or subjects to which an investigator wishes to generate a result. (Mugenda and Mugenda, 2003). The target population included two hundred individuals in the procurement function and those teaching technical subjects in the institutions; these included the deputy principals, procurement officers, heads departments in technical subjects, lecturers teaching technical subjects and lecturers in the tendering committees.

#### **3.3 Sample Size Determination and Procedures**

A sample of fifty respondents was used for this study because according to Mugenda and Mugenda 2 (2003), 30% of the target population would be a good representative sample. Purposive sampling was used to select the required departments which would be involved in making goods in-house. Simple random sampling was used to select a few members in the said departments to represent the target population.

#### **3.4 Data Collection Instruments**

Both primary and secondary methods of collecting data were used. Primary methods included observation, discussion, personal interviews and use of questionnaires. The questionnaires had structured and unstructured questions which were administered to the fifty employees. Secondary data was obtained from the institutions' annual reports.

# 3.7 Data Analysis and Presentation

Quantitative and qualitative methods were used to analyze the data Once the questionnaires are received they were coded and edited for completeness and consistency. The results were computed into percentages and subsequently presented in the form of frequency tables. Computer data analysis software SPSS version 17 was used to analyze the data in order to help interpret results.



# 4.0 RESEARCH FINDINGS AND DISCUSSION

#### 4.1 Governance Structures

# 4.1 Shows How Governance Structures Influence Insourcing

	Strongly		Agree(4)		Disagree(3)		Strongly		Neutral(1)	
	Agr E	ee(5) %	E	0/	c	0/	DISA	gree(Z)	C	%
	ſ	70	Г	70	Г	76	F	70	Г	70
There seems to be no proper guidelines between the Ministry of Higher Education Science and Technology (MOHEST) and management committees on use of facilities in the institutes for production of items internally.	9	18.0	13	26.0	18	36.0	0	0.0	10	20.0
MOHEST has failed to provide market able industrial relevant skills for the trainees so facilities are under utilized	8	16.0	18	36.0	14	28	10	20.0	0	0.0
There is lack of collaboration between industry and technical institutes/vocational centers so practical work for trainees is not emphasized	14	28.0	19	38.0	13	26.0	2	4.0	2	4.0
The management committees do not support making items internally and end up buying major items from outside sources	16	32.0	21	42.0	7	14.0	1	2.0	4	8.0



Items made within the institute take so long before completion	16	32.0	22	44.0	7	14.0	3	6.0	2	4.0
HODS are capable of supervising projects done within the institute	14	28.0	20	40.0	11	22.0	4	8.0	1	2.0
Producing items internally could create a conflict of interest where those concerned would be seen to be gaining out of it?	15	30.0	21	42.0	13	26.0	1	2.0	0	0.0

Table 4.8 above, on a Lickert scale of 5-1 where; strongly agree (5), Agree (4), Disagree (3), Strongly disagree (2), Neutral (1) examines governance structures. On the statement that there seems to be no proper guidelines between the Ministry of Higher Education Science and Technology (MOHEST) and management committees on use of facilities in the institutes for production of items internally, a mean of 3.22 means that MOHEST does not have to give guidelines on use of facilities after all items produced by vocational students can be used by the institutions. On provision of marketable industrial relevant skills for the trainees so facilities are underutilized, a mean of 3.5 means that with the skills available, facilities could still be used. This maybe as a result of lack of collaboration between industry and technical institutes/vocational centers so practical work for trainees is not emphasized, a mean of 3.82 means that practical work is not emphasized so mainly curriculum is examination oriented. This means making goods in-house is not emphasized.

On matters managing committees do not support making items internally and end up buying major items from outside sources. A mean of 3.78 means that it is clear that there are vested interest in the management who source items externally to benefit in the process. In order to improve production in the workshop HODs should supervise projects done within the institute, a mean of 3.82 means that supervision of projects was possible to avoid sourcing decisions being left to top management only. On the statement that producing items internally could create a conflict of interest where those concerned would be seen to be gaining out of it, a mean of 4.0 means that respondents strongly believe that producing goods in-house makes them to be seen to be getting personal thus conflicts may arise. The institutions opted to buy items from outside sources instead of making them internally because they enjoy credit from suppliers; some items from retail stores like furniture is appealing to the eye and also there could be some vested interest in the supply of goods to these institutions.



#### 5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Governance Structures

Having the management of Technical Training Institutes under different ministries makes coordination of activities and maintenance of training standards difficult, it leads to duplication of efforts, conflict of jurisdiction, underutilization of available training facilities, wasteful and unnecessary competition and costly irrelevant training programs (Kenya, 2005). Trainers are not involved in sourcing decisions at all, for it is done by the management committees alone. If they were involved, the firms would save greatly on labor cost.

#### 5.2 Conclusions

Insourcing is a good decision especially in firms which have idle capacities that need to be utilized but without proper management policies outsourcing may continue to be adopted. From the results it clearly shows that cost could be reduced by a big margin if proper policies were put into place. Technical institutions do not engage in production of goods in line with their overall goal to provide adequate practical skills in learners for industrial and economic development in line with vision 2030. Management committees in public technical institutions do not consider insourcing as a way of reducing cost as they make their sourcing decisions.

#### **5.3 Recommendations**

There is need to harmonize management structures and appointments of management of public TECHNICAL institutions. This could greatly help in making proper sourcing decisions that are likely to save on cost because insourcing would greatly reduce the debt burden on the firms. MOHEST (Ministry of Higher Education Science and Technology) should empower technical institutions by providing marketable industrial relevant skills that emphasize more on practical skills for the trainees so that facilities are for production. Time taken in procurement process should be reduced further by implementing the procurement plan to avoid delay in purchasing materials.

#### 5.5 Areas for Further Research

There is need for further research to establish whether there could be other factors that influence sourcing decisions in public technical institutions other than those discussed in this study. Further research should be done to find out if there could be other prevailing management policies of technical institutions that hinder producing goods in house for sale.

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#### REFERENCES

Afyenyandu, D., King, K., McGrath, S., Oketch, H., Rogerson, C. & Visser, K.(2001) *Learning to Compete: Education, Training and Enterprise in Ghana, Kenya and South Africa;* Education Research Paper 42. Center for African Studies; University of Edinburgh

Amayi F.K. (2013) *determinants of public procurement performance in Kenya:* Masters Students, Jomo Kenyatta University of Agriculture and Technology.

Amkombe (2000) *Technical vocational education and training as a tool for sustainable development* http://www.wikieducator.org.images/b/b3/pid

Baily, P., Jassop, D. and Farmer, D. (2008) Procurement Principles, 10th edition. Prentice hall

Beardwell, I. and Holden (2001) *Human Resource Management: A Contemporary Approach* Great Britain: Pearson Education Limited

Blumberg, D. (1998) Strategic Assessment of Outsourcing and downsizing in the service market; Managing Service Quality, Vol. 8 No. 1 pp5-18

Budd, J. (2011) "What foreign companies insource the most American workers?" The Organization for International Investment

Burt, D. (2003) *World Class Supply Management: The Key to Supply Chain Management. 7th ed.* Boston: McGraw-Hill/Irwin, 2003.



Chepkemoi, A., Watindi, R., Cherono, K.L., & Rono, A. (2012). Towards achievement of sustainable development through TVET: A case of midlle level colleges in kenya. Moi University

Daft, R. L. (2000) *Organization* Theory *and Design*. 7th Edition Scult Western College Publishing, Thomson Learning U.S.A.

Fill, C. & Visser, E. (2000) *The outsourcing Dilemma: a composite approach to the make or buy decision, Management Decision,* Vol. 38 No. 1 pp. 42-52 *Government of Kenya (2007).* Vision 2030. Government Printer, Nairobi.

<u>Humphries</u>, L. (November 06, 2012) Why Insourcing Is Appealing To Businesses In 2012 *The Atlantic* <u>www.investopedia.com/contributors/625</u>

Jennings, D. (2002) *Strategic Sourcing: benefits, problems and a contextual mode, Management Decision*, Vol. 40 No. pp. 26-34

Kerre, B.W. (2010) TVET : A Strategy for National Sustainable Development. Moi University

Kisuli, D. (2006). *Proposal and Thesis Writing*. Kenya. Nairobi. Paulines Publication.Kenya.

Lysons, K. and Farrington B. (2006) *Purchasing and supply chain management, seventh edition;* Pearson education limited.

Malonis J.A. (2000) Encyclopedia of Business, 2nd edition. Ed. 2 vols. Detroit, Mich: Gale Group.

Man, G.P. (2005). Building Human Resource highways through vocational training. Retrieved from <u>http://www.google.com</u>

Matanga, F.K. (2002): The role of youth polytechnics in rural development. The case of Bungoma District: Moi University

Ministry of Education, Science and Technology (2005) a paper on '*The role of education and training in transforming Kenya into a newly industrialized country by the year 2020*. Nairobi.

Ministry of Education (2008) *The Development of Education, National Report of Kenya. Nairobi:* MoE

Mugenda & Mugenda (1999). *Research Methods Quantitative and Qualitative Approaches*. Kenya. Nairobi. Act Press.

Ngerechi J.B. (2003) a paper "Technical and Vocational Education and training in Kenya" Conference on the Reform of Technical and Vocational Education and Training (TVET) Gaborone, Botswana



Nyerere, J. (2009).*Technical and Vocational Education and Training (TVET) Sector Mapping in Kenya*. Amersfoort: Edukans Foundation

Poon, S. (2011) China's TVET: Vision and Priorities Technological and Higher Education Institute (THEi) Hong Kong

Papadakis, V., and P. Barwise, eds. 1998. Strategic decisions. Boston: Kluwer.

Paul C. Nutt (2005) Comparing Public and Private Sector Decision-Making Practices Oxford University Press

Rao, T. (1996) *Human Resource Development, Experiences, Interventions and Strategies.* New Delhi: Sage Publications

Republic of Kenya (2005) Public procurement and Disposable Act (2005) G.O.K Schwarting D. and Weissbarth R.(2011) Make or buy: Three pillars of sound decision making. Booz & Company

Simiyu, J.W. (2010). Factors influencing the attractiveness of a Technical and Vocational Education and Training Institution: a case study of a Technical Institute in Kenya. Eldoret: Moi University

Thika Technical Training Institute (2011) Strategic plan 2012-2017 UNESCO (2000): *Revised Recommendation Concerning Technical and VocationalEducation* Paris Weele, V. and Arjan J. (2000).*Purchasing and Supply Chain Management,* Thomson Press.

Winkleman, M. Dole D, Pinkard, L, Molly, J (1993) "The Outsourcing Source Book", Journal of Business Strategy, Vol.14 No. 3, pp 52-56

Ziderman, A. (2002) *Financing vocational training to meet policy objectives: Sub-Sahara Africa.* The World Bank