

African Journal of Education and Practice (AJEP)

INSTITUTIONAL FINANCIAL RESOURCE DYNAMICS AND TOTAL QUALITY MANAGEMENT ACHIEVEMENT IN TECHNICAL INSTITUTIONS IN KENYA

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INSTITUTIONAL FINANCIAL RESOURCE DYNAMICS AND TOTAL QUALITY MANAGEMENT ACHIEVEMENT IN TECHNICAL INSTITUTIONS IN KENYA

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Abstract

Purpose: Total quality management in has been focal towards industrialization in Kenya. However, financial dynamics has not fully met the management level expected in technical training. The study aimed at evaluating the influence of financial resource dynamics on the achievement of total quality management in public Technical Training Institutions. Objectives were to assess the influence of the financial resource dynamics; influence of performance on the achievement of total quality management. Resource Dynamic and total quality management theories guided the study.

Methodology: Mixed methodology research and concurrent triangulation design were used. Target population was 1664 participants: 52 principals, 260 Heads of departments, 1300 lecturers and 52 student leaders. Purposive sampling was conducted on principals and student leaders; random sampling on Heads of Departments and lecturers yielding 499 (30%) participants. Principals, students and lecturers were given questionnaires and interview guide to Heads of Departments. Piloting of instruments was carried out in two institutions at interval of two weeks and a reliability index of 8.0 using Cronbach alpha scale obtained. 350 out of 499 respondents participated in the at a response rate of 70.14%. Qualitative data was analyzed thematically. Statistical Package for Social Sciences version 23.0 was used quantitative data analysis at 95% level of confidence.

Findings: The results of the study indicate that, financial resources dynamics positively influences total quality management at 70%. However, negative participation at 48% and allocation at 22%. The study recommends on improvement on allocation and participation of the local community in all Technical Training Institutions in Kenya.

Unique Contributions Theory, Practice and Policy: recommends that Ministry of Education should ensure timely allocation of finances to all technical training institutions. TTs should adhere to procurement guidelines of instructional materials

Key words: *Financial resources dynamics, Total Quality Management*

1.0 INTRODUCTION

Hoang, Igel and Laosirihongthong (2010) posit that TQM is a management system in continuous change, which consists of values, techniques and tools with the overall goal of the system is increased customer satisfaction with reduced amount of resources. In education context, Al-Tarawneh (2011) asserts that the system of technical training provides the foundation for the academic future of every nation and this could only be possible when the principles of quality management of technical training institutions are ensured. Total Quality Management (TQM) as an instrument of change can be traced from studies in Japan, United States of America and other developed countries. The success of high improvement in trainee performance, satisfaction of customers and improved service delivery has been realized in these developed Countries. Kanji, Malek and Tambi (2010) explain that, these countries have a history of success in the management of large public and private businesses and have influenced the education sub sector towards the implementation of TQM.

According to Kanji et al (2010), America, Japan, China Britain and other developed Countries spend a lot of financial resources on middle level colleges in order to tap the potential in the youth and other cadres towards career training. This has enabled these nations to succeed in achieving high standards of TQM. High standards of financial resource dynamics include: financial planning, allocation, distribution and control among others. The influence of these dynamic activities towards quality outcomes largely depend on the sum of all the management principles practiced in an institution. Bowen (2013) points that; the price of good quality is attained from all the processes in an institution or industry. Technical Training Institutions in Kenya and other developing countries have been implementing TQM in order produce trained personnel to meet the demands of industrialization. These skilled personnel are targeted to develop the economy and industries in order to meet sustainable development goals and agenda four initiative in Kenya. The job market currently is full of new technology creating challenges to managers of TTIs in updating the current financial resource base and mobilizing the old training resources.

A report by Chiuri (2015) indicates that many students in technical training institutions register low academic grades in national examinations. For example, in 2015, TTIs registered a mean grade of 68.7%, in 2016, 57.9%, in 2017, 50.2%, in 2018, 43.7% whereas in 2019, the mean grade stood at 41.8% (Kenya National Examination Council, 2019). This paints a picture of decreasing academic achievement.

Despite these statistics, few empirical studies have interrogated the extent to which financial resource dynamics influence achievement of Total Quality Management in technical training institutions, hence the need of the study. Chiuri (2015) observes that, youth in Kenya need new skills to fit in the job market pointing clearly on strategic programs that sustain and harness the potential in them. The government has been funding tutors and leaving other types of funding solely to parents and well-wishers. This has made achievement of TQM costly and eventually slow.

Statement of the problem

Financial resource dynamics play an important role in achievement of total quality management in training institutions. However, in many technical training institutions in Kenya, the situation is quite different with achievement of TQM being low. As noted earlier in the background, levels of customer satisfaction are low. A report by Chiuri (2015) also

shows that many students in technical training institutions register low academic grades in national examinations. For example, in 2015, TTIs registered a mean grade of 68.7%, in 2016, 57.9%, in 2017, 50.2%, in 2018, 43.7% whereas in 2019, the mean grade stood at 41.8% (Kenya National Examination Council, 2019). This paints a picture of decreasing academic achievement. Despite these statistics, few empirical studies have interrogated the extent to which financial resource dynamics influence achievement of Total Quality Management in technical training institutions, hence the need of the study.

2.0 LITERATURE REVIEW

This section is based on the concept of financial dynamics and total quality management. It also provides a summary of the reviewed literature highlighting the research and knowledge gaps identified during the review.

The Concept of Financial Resource and Total Quality Management

Technical training institutions require substantial finances for tools, equipment and other essential requirements. These funding come from different sources to enable the managers of these institutions to meet the budget for training. Financial dynamics of an Institution determine the achievement of the functional requirements of training and development. Sources of Funding education and training comes from parents in form of fees, personal contributions, donations from well-wishers and politicians, religious organizations and the government through taxes and levies. TTIs require more financing to meet skill development applicable to the real world of work and development of a Country.

Financial resources require sound management practices to assure a steady continual growth of skill development. Mokwena (2015) explains that, financial resource for Technical education has been one of the most expensive components of an education system in many institutions in the world. This has challenged many countries leading to the establishment of the sustainable development goals, vision 2030 strategy and the four goals agenda in Kenya. Learning from the challenges of the Second World War in 1945, Japan and other developed countries realized the need for technological education. This was prioritized as an essential investment for youth at their formative years. This forced Japan to prepare qualified young and old people in their industries as well as in the manufacturing sectors of her economy. Japan Institute for Policy and Labor Training (2015) observe an increase of trainees from 277,479 to 312,746 with total number of public vocational training colleges adding up to 265 by 2013.

Vocational training in Japan is considered as part of the labor costs which has been natured to make the Nation a world class example in Technical training. This commitment by the government towards Technical training shows high levels of financial resource dynamics. Pal (2005) observes in India that, simple reluctance on Panchayat institutions on the mobilization of revenue and lack of role clarity among the workforce impacted negatively on the achievement of TQM slowly eroding the autonomy of Panchayat Institutions. Financial planning and coordination can contribute to the overall growth of Technical Training. Pal explains that delay, inadequacy and unpredictability of financial resource were perpetual problems influencing TQM in Panchayat institution in India. Decline in school intake largely affects provision of funds from fees paid by parents and other financial sources to support training in these institutions. Studies by the AFD (2013) observes weaknesses in school management in Cote d'Ivoire after adverse experiences from the war which highly affected

student population in schools. 70% enrolled in primary schools but only 46% completed primary, 34% secondary and 15% high school.

Since 2013, African Development Bank (ADB) has taken up support of Cote d'Ivoire government in education and training through grants to develop youth education, training and integration. Incorporation of the ADB has since then witnessed growth through implementation of public-private partnership. The industry became more involved in curricular and the management of training centers in Cote d'Ivoire. By 2015, 18,000 young people were already integrated into the labor market.

This had been a worrying situation of young people who had failed to secure school leaving certificates (AFD, 2013). Mobilization of funds collected from the institution has a role to play in the continual improvement and elimination of errors in financial management. Reluctance to mobilize revenue renders finances to become static (Helfat, 2012) and accumulate in the banks as savings contrary to the aims of education institutions. This adversely affects the achievement of TQM in Technical Training Institutions. Funds collected through taxes by the government have been used to fund education and training of TVET in selected countries in Africa. This has made financial resources reliable and specifiable for skill development program. Mokwena (2015) explains that, financial support for TVET in South Africa have been complemented partly through skills development tax collected by the government. In Tunisia, there has been a circular styled taxation.

In Burkina Faso, Mali and Nigeria this levy is under a legal entity free from the government. Managers of these institutions are assured of funds during planning for implementation of programs in Technical Institutions. This shows the different alternatives of ensuring financial support of skill development in different parts of Africa. By 2013, Kenya had around 52 public TTIs with skill development lowly funded as compared to other developing countries. The government of Kenya has not been very keen on managing the Technical training with more emphasis on partnership and collaboration with the industrial sector which could address the needs of each other. The industry in Kenya has been training employees on the job running a parallel with technical trainers in TTIs eventually widening the training gap with the industry. Mokwena (2015) observes that, African governments can therefore start negotiating a tax regime in support of her preferred skill development which can improve TTIs under the TVET umbrella. Rwanda has been in a partnership program with Belgium under a TVET provisioning reform program from 2008 to 2013 specifically under a specific building capacity for vocational training providers and TVET instructors. This has enabled Rwanda to achieve many TQM targets in education and training.

In Tanzania, financial resources have been a major constraint in meeting TVET goals thus harming the quality of teaching (Republic of Tanzania, 2013). The constitution of Kenya has given administrative and financial powers to the Minister of Education to fulfill the aspirations and expectations of education and training to all the communities (Republic of Kenya 2010) in Kenya. Financial resources have been channeled to the TTIs by the government and other development partners (Republic of Kenya, 2013).

Njogu (2013) posits that, in order for the government of Kenya to establish and provide a comprehensive picture of the full cost of education, the financing and the cost at the various levels of the education system, and the unit cost has been compounded to be part of information management system for the education sector. These assertions attest to the fact that funding of technical institutions is the most critical issue and the government has made

significant investment in provision of UBE through provision of capitation grants. However, challenges were identified as to how best to ensure equitable and sustainable mobilization, allocation, distribution and utilization of resources in order to achieve national and international goals such as EFA and technical education related MDGs. Much still needs to be done since Njogu (2013) as did other empirical studies have not interrogated how different financial resource dynamics interplay to influence realization of TQM.

Theories of TQM and Resource Dynamics

The study was guided by Crosby theory of TQM (Bowen, 2013) which advances at correcting errors which may affect the success in the management process. Errors require corrections through continual improvement which encourages the performance of tasks by the workers. Identification of errors in the management by the leader and correction can be achieved through motivation of the human resource. The resource dynamics theory by Zimmerman (Agarwal, 2015) guided the study in accomplishing training needs to students and their trainers through satisfying their demands and those of the society. The guiding principle in the resource theory is the functionality of a resource to the users' satisfaction.

3.0 RESEARCH METHODOLOGY

The study was conducted through mixed methodology approach. The method combines quantitative and qualitative research techniques during collection and analysis of data (Creswell, 2014). After data analysis findings are merged during discussions in order to arrive at the final conclusions and recommendations. The study was conducted using a concurrent triangulation design during data collection, analysis and interpretations. The design entailed collecting data using both qualitative and quantitative research instruments at the same time in order to arrive at conclusions by merging the results at the end of the study.

The study target four categories of participants from the population under study which included 52 principals, 260 Heads of departments, 1300 lecturers and 52 trainees in TTIs by 2015. The population comprising principals, HODs, Lecturers and students are the key resource persons suitable for interrogation in the study. Borg and Gall (1989) point that, a study population included members of a real or hypothetical location out of which the researcher chose to generalize the results of the study. The study sampled 30% of the participants from each category to come up with a population for the study in reference to the assertions of Kothari (2005). Principals were representing the top management, heads of departments representing the middle level managers of academic departments, student leaders and 22.3% for lecturers representing the lowest level of managers in the individual classrooms. Qualitative data were analyzed thematically along the study objectives and presented in narrative forms. Quantitative data were analyzed using descriptive statistics and inferentially using linear regression analysis and presented using tables.

4.0 RESULTS AND DISCUSSIONS

4.1 Financial Availability and Achievement of TQM

The study objective was to assess the influence of the financial resource management on the achievement of TQM in TTIs in Kenya. Four aspects of financial resources management and their influence on TQM were interrogated in the study which included financial availability;

budgetary allocation; financial distribution, adequacy of finances against customer satisfaction in TTs. These study findings are presented on Table 1.

Table 1: Financial Availability and Achievement of TQM

Statement	Response	Frequency (f)	Percentage (%)
Indicate the level by which financial availability influences the achievement of TQM in your institution.	Below average (1)	4	1.1
	Average (2)	19	5.4
	Neutral (3)	36	10.3
	Above average (4)	173	49.4
	Excellent (5)	118	33.7
	Total	350	100.0

Source. Field Data (2018)

Table 1 show that, 291 (84.1%) participants were positive with the view that, TTIs have been receiving sufficient funds from different sources, 36 (10.3%) and 23 (6.5%) participants were negative implying that, TTIs receive good amounts of money. These results differ with Waruru (2015) that, the physical state of technical education and training which was in bad shape. Since 2015, financing of technical education and training in Kenya have taken shape. These study results however concur with Mokwena, (2015) that, by availing funds and activating the processes geared towards successful production helps in meeting the price of quality of a firm. This makes financial availability regular and reliable. Likoko, Mutsotso and Nasongo (2013) also applaud the cost sharing plan of the Presidential working party on education this decade and beyond of 1988. The study also interrogated on financial distribution and the results are o Table 2.

4.2 Financial Distribution and TQM

Table 2: Financial Distribution and TQM

Statement	Response	F	%
Indicate the level of influence of financial distribution towards the achievement of TQM in your institution	Below average (1)	11	3.1
	Average (2)	27	7.7
	Neutral (3)	53	15.1
	Above average (4)	152	43.4
	Excellent (5)	107	30.6
	Total	350	100.0

Source. Field Data (2018)

Table 2 shows that, on financial distribution, 259 (74.0%) were positive, 11 (3.1%) negative and 53 (15.1%) neutra. These findings are in tandem with studies conducted in Tanzania (Republic of Tanzania, 2013) and Likoko, Mutsotso and Nasongo (2013) of providing ample supply of finances to training institutons. Neative results agree with Pal (2005) citing iadequacies in Panchayat institutions in India which led to poor performace in management. This positive view of the participants differ with Pal (2005) that, in Pancayat institutions in India fiancial distribution was lacking. This good distribution has led to an increase of trainees in TTIs in Kenya. Budgetary allocation in TTIs was also interrogated and the results are shown on Table 3.

4.3 Budgetary Allocation and Achievement of TQM

Table 3: Budgetary Allocation and Achievement of TQM

Statement	Type of Response	f	%
Indicate the level to which budgetary allocation influence TQM in your institutions	Below average	12	3.4
	Average	18	5.1
	Neutral	45	12.9
	Above average	173	49.4
	Excellent	102	29.1
	Total	350	100.0

Source: Field Data (2018)

Table 3 shows that, on budgetary allocation, 275 (78.5%) are positive, 30 (8.5%) negative and 45 (12.9 %) neutral. The negative results are in line with to systemic weaknesses (World Bank, 2011) in budgeting. The positive results agree with Lunenburg (2010) that, leadership eliminates fear of the top management the staff supports the management process. Institutions mobilize finances in order to make the management successful, time saving and customer satisfaction. Targets are aligned in line with funds to meet the procurement requirements and eventually accomplish as stipulated tasks to meets and exceed customer satisfaction. The results on customer are presented on Table 4.

4.4 Financial Resource and Customer Satisfaction

Table 4: Financial Resource and Customer Satisfaction

Required Data	Response	f	%
Indicate the level of influence of financial resources on customer satisfaction in your institution	Below average	31	8.9
	Average	31	8.9
	Neutral	105	30.0
	Above average	130	37.1
	Excellent	53	15.1
	Total	350	100

Source. Field Data (2018)

Table 4 shows that, on customer satisfaction, 183 (52.2%) were positive, 31 (8.9%) negative and 105 (30%) neutral. The positive results agree Wanderi (2015) that, quality should be projected at satisfying customers and building supplier relationship. However, there are institutions with negative ratings indicating that mobilization of finances has not influenced the achievement of TQM. Achievement of total quality management in most of the sampled institutions has been used to achieve good customer satisfaction where most of the trainees would be influenced positively by the management of their institutions.

4.5 Inferential Findings on the Influence of Financial Resource Dynamics on Achievement of Total Quality Management in Technical Training Institutions

To further ascertain the relationship between financial resource dynamics and achievement of total quality management in technical training institutions, data were further collected on annual student fees and average institutional academic performance in national examinations from 2014-2018. Results are shown in Table 5:

Table 5: Results of Student Annual Fees and Average Institutional Performance in National Examinations from 2014-2018

Student Annual Fees in Kshs.	Average Institutional Performance in National Examinations from 2014-2018
56123	43
56342	45
55678	51
57892	53
56785	54
57864	56
55897	57
56710	61
57860	63
58765	63
59870	65
57231	65
57876	68
57890	69

Source: Field Data (2018)

Table 5 indicates that achievement of Total Quality Management witnessed through improved academic performance of technical institutions in national examinations largely depends on financial resource dynamics. These results were subjected to linear regression analysis and results are shown in Table 6:

Table 6: Linear Regression Analysis Showing Relationship Between Financial Resource Dynamics and Average Institutional Performance in National Examinations from 2014-2018

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-194.575	89.149		-2.183	.050
	Financial Resource Dynamics	.004	.002	.633	2.835	.015

a. Dependent Variable: Average Institutional Performance in National Examinations from 2014-2018

Source: SPSS Generated (2018)

Table 6 shows a positive linear regression (r^2) of 0.624 for the variable academic performance as the dependent variable on the achievement of TQM. This is greater than 0.6 implying that there was a positive relationship. These findings indicate that, the institutional resources have a 63.2% rated positively towards the achievement of TQM. These findings were expressed through use of a scatter diagram shown on Figure 3. Linear regression shows a relationship $y = 0.004x - 194.575$, where y (performance in academics) and x (financial resource dynamics)

The results are in line with Mokwena (2015) that, institutions offering skill-based courses require good supply of revenue and this makes the cost of technical education to be very expensive.

4.6 Thematic Analysis of Qualitative Findings on the Influence of Financial Resource Dynamics on Achievement of Total Quality Management in Technical Training Institutions

The Heads of departments were also interviewed and responded in favour of the view that financial allocation have direct influence on the extent to which total quality management is achieved in technical training institutions. On further probing, head of department, H1, noted:

“There has been a positive influence of finances on TQM although it is expensive also TQM has enabled proper and smooth running of the institution. Objectives and targets are met in time, more customer satisfaction and achievement of institutional goals on education (Male HOD).

Study findings from themes collected indicate that, TTIs have been receiving finances although the implementations of TQM have been expensive. The results are in agreement with Mokwena (2015) that, implementation of TQM is expensive. The negative ratings imply that, there is need for more financial support by the management towards achievement of total quality management among the workers. The HODs pointed on budgetary allocation and financial utilization negatively towards achievement of TQM. The results are in tandem with Pal (2005) that, there has been reluctance in the financial management. These weaknesses were also observed in studies conducted by the AFD (2013) which noted financial constraints in Cote d’Ivoire leading to decline on the quality of training and management of the Education institutions. The second group of participants comprising lecturers was given open ended questions in their questionnaires probing them to explain how the adequacy of finances influences the achievement of TQM. This question was intended to collect views of adequacy of finances which was required to implement the requirements of total quality management. Lecturer, L1, explained:

“Once finances were available, it leads to timely acquisition; improve job satisfaction on delivery and better services. Availability of finances enables good conduct of management of the institution, teaching and learning becomes easier and set objectives/targets are easily achieved” (Female Lecturer).

These views further corroborate the assertions of Kamunge Report (1998) that availability of finances enhance achievement of TQM in learning institutions. Thus, these views further point to the fact that financial resources in a technical institution are at the epicenter of realization of total quality management.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study established that 85.4% of the participants were positive and less than 50% negative on distribution of finance towards the achievement of TQM. More than 60% negative on the

allocation of finances towards the implementation of TQM in Technical Training Institutions. However, the prediction that financial resources do not influences the achievement of total quality management with regression (r^2) of 0.624 rating indicating significant relationship thereby rejects the null hypothesis.

Conclusions

In conclusion, financial availability, distribution, utilization and mobilization have been fair however, allocation and participation of the local community should be addressed. This will high influence achievements of TQM in the institution.

Recommendations

Hence the study recommends that Ministry of Education should ensure timely allocation of finances to all technical training institutions. TTs should adhere to procurement guidelines of instructional materials

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