

**INFLUENCE OF FINANCING ON PERFORMANCE OF TECHNICAL,
VOCATIONAL EDUCATION, AND TRAINING PROGRAMS IN KENYA:
A CASE OF NAIROBI COUNTY**

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DECLARATION

This research project is my original work and has never been submitted for an award of a degree in any other university.

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DEDICATION

I dedicate this work to my parents Mr. and Mrs. Maina Runo who have been a constant source of encouragement and guidance for me in the pursuit of my dreams. My beloved wife Lucy Githae in recognition of her unwavering support and love, my children Jason and Tony and my dear sibling's Faith and Joy.

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ABBREVIATIONS AND ACRONYMS

AU:	African Union
CDF:	Constituency Development Fund
DRC:	Danish Refugee Council
GDP:	Gross Domestic Product
GoK:	Government of Kenya
HELB:	Higher Education Loans Board
KNBS:	Kenya National Bureau of Statistics
KUCCP:	Kenya Universities and Colleges Central Placement
MoE:	Ministry of Education
NGO's:	Non-Governmental Organizations
NRC:	Norwegian Refugee Council
SPSS:	Statistical Package for Social Science
TVET:	Technical and Vocational Education and Training
TVETA:	Technical and Vocational Education and Training Authority
UNESCO:	United Nations Educational, Scientific and Cultural Organization
PASET:	Partnership for skills in Applied Sciences, Engineering and Technology

ABSTRACT

The history of TVET can be traced to the early 1990. Kenya through the ministry of education has championed the adoption of TVETs with proper financing so that it can produce highly trained and skilled workforce to power its ambitious industrialization sector to achieve vision 2030. The government of Kenya envisions to enrol 20% of the youth population to TVET institutions by the year 2030. The study investigated the influence of financing sources on performance of TVET programs in Nairobi Kenya. To do this, the study sought; to establish the influence of HELB financing on performance of TVET programs; to assess how self-financing influences performance of TVET programs; to examine the extent to which donor funding influences performance of TVET programs. The theory of Human Capital and the Theory of Socialist Economies guided the study. This was a descriptive survey where quantitative and qualitative data was collected using self-administered open and closed-ended questionnaires from a homogeneous proportionate random sample of 377 representing a population of 17,940 learners from 6 TVETs within Nairobi. A pilot test of 37 students from Kiambu Institute of Science and Technology was drawn from 10% of the sample size and used for pilot testing where the Cronbach coefficients alpha of 0.825(82.5%) was established. The questionnaire return rate was 90%. Findings indicated that HELB financing had a significant influence on performance of TVETs with a correlation of 0.426, self-financing had a correlation of 0.289 while donor financing had a correlation of 0.358. The findings, revealed that any unit increase in HELB financing would lead to 0.334 increase in performance of TVETs. The variable yielded a p-value 0.000 implying significance since it was less than 0.05. The researcher concluded that HELB financing has an influence on performance of TVETs. Self-financing has an influence on enrolment to TVETs though it comes with negative copying mechanisms where some parents will sell their assets to finance education. In addition, the study concluded that self-financing has insignificant influence on performance of TVET programs. Donor financing has an influence on enrolments to TVETs as well as class retention with limited influence on completion. The study recommends that policy makers should review avenues of scaling up higher education financing to reach more potential beneficiaries in order to improve on the timeliness and disbursement of the funds. In addition, they should seek to assure beneficiaries of full funding for their desired programs.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Technical and Vocational Training and Education (TVET) stretches back to early 1990. Governments over the world have acknowledged TVET as a system that helps in tackling extensive unemployment and underemployment (Kirimi, 2011). This goes a long way in helping these governments meet their objectives. These institutions instil technical skills relevant to the job market to the trainees while building their entrepreneurship skills to boost the country's economy.

In China and Finland for example, adoption of TVET is a necessity and is attributed to the expansive economic growth of these countries. Bloomberg ranked Finland as the most innovative economy in 2017 (Jamrisko & Lu., 2017) which is anchored in its huge investment in TVETs and legal reforms around TVET. Ongoing expansion of vocational education scale has enlarged the distance between enrolment and teaching condition in China.

Africa has over 100 Million unskilled youth that are either unemployed or underemployed (UNESCO, 2012). Governments in Africa have adopted public TVET institutions, private institutions and traditional apprenticeship to build technical and professional skills for these youth in line with 2006-2015 African Union strategic plan for implementation of Education for Africa (Kinuthia, 2018). However, Africa's TVET is an expensive affair with some few countries factoring in funding of these institutions in their budgets (Muthaa, 2004).

Performance of the TVET program has increased significantly from 2000 to date in Africa (World Bank, 2010). The World Bank projects that African countries will continue to experience increased interest by youth to join tertiary institutions in the coming years. UNESCO (2012) on the other hand projected that the gross enrolment rates to tertiary institutions would be more than doubled between 2000 and 2020. These expanded demand for tertiary education is largely attributed to the population growth rate which stands at 2.4% for African countries (Nomura & Wolff, 2010). It is therefore imperative for governments to put in place strategies for financing these programs to cater for the increased enrolments.

The proponents and implementers of the Vision 2030 and the Constitution of Kenya 2010 envisioned that with the proper legislation and financing, there would be 20% youth enrolled to TVET institutions

by 2030 (TVETA, 2018). These youth are to be equipped with sufficient technical skills. This led to the enactment of TVET act in 2013 and the subsequent regulations in 2015 that restructured and strengthened TVET (Wakiaga, 2017). The TVET model adopted by Kenya is a parallel system with the mainstream education system. One can join a TVET institution immediately after primary school or after secondary school.

The Government has put in place strategies for TVET financing based on tripartite mechanisms. These mechanisms include the government, which in this study we will look at the higher education loans board (HELB), private sponsorship by the parents or students themselves and donors. This strategies are meant to increase enrolments into these institutions which stood at 202,556 enrolments in 1,300 TVET institutions in 2016 (GoK, 2018). In this vain, the government in 2018 allocated Ksh 444.1 billion to the Ministry of Education of which Ksh 16 Billion was allocated for the hiring of TVET instructors, capitation grants and construction of an additional 15 institutions. Youths intending to join TVETs can access loans and bursaries through HELB. However, some youths have relied on self-financing of their TVETs education while others have been supported by INGOs, and NGOs. The study sought to explore the influence of financing on performance of TVET programs.

1.2 Statement of the problem

There has been a concerted effort by the stakeholders to finance the TVET program in Kenya. For example, the government allocates about 30% of its budget annually towards funding the education sector (MoE, 2018). Only 3.6% of the budget allocated to the MoE goes to TVET. The government of Kenya puts a ceiling on tuition fee to allow self-sponsored students meet the education fee. Some of the allocations also go to the higher education loans board where only learners admitted to accredited TVETs can access and repay later at an interest. This leaves a bigger number of youth who enrol in private institutions and apprenticeship.

There is an increasing demand for TVET education in Kenya as many youths who fail to join universities and secondary schools seek to pursue technical training. With the increasing demand, enrolment to these institutions is expected to increase in the coming years. Kipsang (2003) undertook a study on problems facing financing of higher education in Kenya by looking at HELB. The study concluded that the problems of financing higher education is to maintain equity, efficiency and equal opportunities for all leaners and went ahead to recommend further studies on financing higher education. In addition, Kitui (2015) undertook a study to find out factors influencing access to TVET with specific reference to youth polytechnics in Bungoma East sub-county. The study concluded that

60.3% of the youths came from families practicing subsistence agriculture and another 25.2% came from families that were neither employed nor self-employed and this affected the ability of these learners to pay their fees. He therefore recommended that the government, NGOs and other well-wishing stakeholders should increase bursaries and grants provided to students so as to enable more vulnerable youth to enrol and retain these institutions. Kirimi (2008) carried out a study to find out alternative financing mechanisms in provision of quality education and training in youth polytechnics in Imenti South District where he concluded that although the polytechnics sourced their finances from student fees and government subsidies, these were not efficient to ensure quality training. He went ahead to recommend further studies on the relationship between sources of funding technical institutions and their ability to provide quality education.

An analysis of the recommendations from the above three studies indicate an existing problem in the success of programs in those institutions and the main cause is around financing. However, the three studies above did not provide any literature on funding sources for higher education and their relationship to performance of higher education programs. The study sought to fill this gap by looking at the relationship between financing and performance to this program.

1.3 Purpose of the study

The study investigated the influence of financing sources on performance of Technical, Vocational Education, and Training programs in Nairobi County, Kenya.

1.4 Objectives of the study

The study was guided by the following objectives;

- i. To establish the influence of HELB financing on performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya.
- ii. To assess the influence of self-financing on performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya.
- iii. To examine the extent to which donor funding influences performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya.

1.5 Research Questions

The study sought to answer the following questions;

- i. How does HELB financing influence performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya?
- ii. How does self-financing influence performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya?
- iii. To what extent does donor funding influence performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya?

1.6 Significance of the study

The research is significant in that it is hoped that the findings from the study might help the Government to get evidence on the relationship between financing and enrolments to TVETs that may inform the government's decisions around policy formulation and budgeting for TVETs. Findings from the first objective of this study is hoped to help Higher Education loans Board understand how their funding influence performance of the TVET program. In particular, it is hoped that the study may recommend potential avenues for advocating either an increase or standardization of the funding; change in strategies to do with disbursements or recoveries. By understanding the relationship between self-financing and performance, the government may have sufficient evidence to draft policies on fee ceiling in technical institutions. As part of the project cycle management, donors would want to evaluate the outcome of their funding. It is hoped that this might be achieved through establishing the relationship between donor funding and performance. Finally, it is envisioned that the findings from the study may provide enough literature in contributing to theory and practice which is hoped to be referenced by future scholars and researchers.

1.7 Limitation of the study

In undertaking the study, the researcher anticipated to encounter challenges with the respondents especially the trainees who could have some expectations from the study to influence either an increase or decrease in loan and bursary allocated to them. This was thought could influence them to be biased in providing responses to the questionnaires. However, the researcher sought consent from the respondents before collecting any information and the questionnaires were smartly developed to avoid leading questions. This helped the researcher in not facing this challenge.

In addition, the researcher did not have adequate time resources to carry out the study. The time allocated for field work was not enough. The researcher reworked on the schedule and adopted the use of online data collection self-administered tools using KoboCollect and pick and drop method. In this system, the researcher just shared the link to the questionnaire to the respondents using students e-mail and as well physically administering the questionnaires. The responses were real-time and this enabled the researcher conduct the data collection in the shortest time possible with limited resources.

The other limitation the study thought could face was the inability of the respondents to understand some of the questions in the questionnaire. This however was not experienced as the online instrument was simple and easy to understand with provision of a help button.

1.8 Delimitation of the study

The proposed study was carried out in Nairobi County over a period of two months. Conducting the study in Nairobi was convenient for the researcher in saving time and finances as well as availability of diverse TVET institutions from which the gathered findings can be generalized for the entire TVETs in Kenya. In addition, it is cognisable that TVET is provided by several stakeholders but for the purpose of this study, only managers from the six TVETs in Nairobi and HELB were interviewed. Finally, the study analysed the influence of financing on enrolment, not social and cultural factors, and their effects on enrolments.

1.9 Basic Assumptions of the Study

This study hoped that the respondents provided correct and reliable information by answering the questionnaires honestly and factually.

1.10 Definition of Significant Terms Used in the Study

Donor funding: Any funding received from well-wishers to furthering the education of a TVET learner

Financing: The act of meeting costs for the training in TVETs

Self-financing: refers to self-sponsorship where the learner meets the full costs for TVET training.

HELB financing: refers to government funding in terms of loans, subsidy or scholarship financing in education either partially or fully covering the cost of a TVET learner

Performance of Technical Vocational Education and Training: For the purpose of this study, TVET will mean institutions accredited to provide training on technical skills.

1.11 Organization of the study

This study was structured in five chapters. Chapter one presented the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, limitations, delimitations, assumptions, significance to the study and definition of significant terms as used in the study. Chapter two reviewed empirical literature and the theories that guide the proposed study as well as the conceptual framework that guided the study. In chapter three, the research methodology entailed research design, target population of the study, sample size and sampling procedure, research instruments, pilot testing, validity and reliability, data analysis techniques, data collection procedures and ethical considerations of the study. Chapter four focused on data analysis, presentation and interpretation while chapter five entailed summary of the findings, discussions and conclusions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature along the study objectives. It also presents the theoretical framework of the study theoretical review, empirical review of the study variables, conceptual framework and summary of knowledge gaps.

2.2 Performance of Technical, Vocational and Education Training

Countries the world over acknowledge the challenges of financing experienced by TVETs (Atchoarena, 1996). TVET is expensive, as it requires expensive machinery and equipment as well as skilled and experienced instructors compared to the other sectors in education (Nyerere, 2009). Therefore, the quality of trainings offered is compromised. The deteriorating economic situation and competing interests for the limited resources is not making it easier for financing TVETs. Even so, countries like Italy, Brazil, China, Sweden and Japan have strategized on sufficient funding for TVETs leading to high performance ratings as reported by an enrolment of over one third of the youth into the TVET program. The situation in Africa is however not pleasant where approximately 20% of the youth enrol to TVETs.

India has put in place a national policy that sees financing of TVETs as crucial to the growth of the country's economy. China in a bid to establish strategies to boost enrolments to TVETs in the early 2000s piloted a programme to establish model TVETs in 1,000 major towns (World Bank, 2018). This approach saw establishment of TVETs with autonomy to develop policies and strategies for getting finances through establishment of linkages with industries while providing avenues for apprenticeship on learners through these industries who will eventually employ the graduates. Upon enrolment to apprenticeship in these industries, the industries were obliged to support the seconding TVETs financially (World Bank, 2018).

To widen performance of TVETs, strategists and policy makers across sub-Saharan Africa, acknowledge the importance of donors in financing TVETs (Atchoarena *et al.*, 2002). The World Bank is supporting Africa in revitalizing TVETs through PASET. In Egypt for example, though the government has made efforts to raise funds for TVETS, these efforts have not been sufficient (Diaa, 2006). Further, Van Myk (2003) acknowledged that the beneficiaries of an education pursuit bear the

cost of its provision. Veriava (2002), notes that student financing is a major barrier to enrolments to TVETS in South Africa. Thus, the South Africa government is moving in to cushion parents whose income is less than 30 times, but not more than 10 times the amount of fees.

2.3 HELB Financing and Performance of Technical, Vocational and Education Training

TVET is a program entailing any formal or informal acquisition of knowledge and skills to earn a livelihood (TVETA, 2018). This program is key to the growth of the industrial sector in line with Vision 2030 and the “Big Four” Agenda. For example, engineering profession comprises an engineer, technologist, technician, crafts-people and artisan that must work together to achieve the desired results. The ideal ratios of these cadres are 1:2:4:16.1 for developed economies and 1:3:12:60 for developing economies. For Kenya to achieve the Vision 2030 objective of being a middle-income economy, it must achieve 7,500: 22,500: 90,000: 450,000 ratio.

Kenya has a 1:6300 engineer to population ratio, which is way below the recommended 1:2000 for effective industrialization (Gichira, 2002). The proponents of the Vision 2030 estimated that there would be 60,000 people living in Kenya by 2030. This in essence would mean Kenya would require 30,000 engineers to achieve her industrialization dreams (Nomura, *et al*, 2010). The Ministry of Education established the first TVET (Kenya Polytechnic) in 1967 as a post-secondary education institution to offer training in the technical fields (Eshiwani, 1993). This was followed later by an influx of TVETs being financed by the government and donors due to increased demand for technical and social skills. This steady growth is expected in the coming years for Kenya to achieve a middle-income economy through industrialization as envisioned in the Vision 2030. To do this the Kenya Constitution 2010 places a cardinal responsibility to the Ministry of Education to develop policies and strategies to facilitate the growth of TVETs. Increasing unit or per student cost and enrolments are the greatest challenges faced by TVETs (Kirimi, 2011). This increased demand is expected to be experienced in Kenya in the coming years following the introduction and implementation of the Competence-Based Education and Training curriculum. The Kenya National Bureau of Statistics (KNBS), reports a 100% increase in enrolments to TVETS from 127,691 (68,386 Male and 45,452) Female in 2012 to 275,139 (125,291 Male and 101,356 Female) in 2017.

The Ministry of education has put in place strategies to fund the TVETs to accommodate the increasing demand by allocating 4.2% of their budget (MoE, 2018). Nonetheless, more funding is required to support the training equipment’s and other activities in these institutions. In addition, the government plans to increase the number of TVETs from 1,410 by establishing a TVET institution in each ward.

HELB was formed in 1995 through enactment of HELB Act Cap 213A. HELB advances loans to learners enrolling into TVET institutions through KUCCPS at between 4% and 12% interest. Currently, there are 101 TVET institutions accredited by HELB whose students can access HELB financing. Allocation per student is at around Ksh 40,000 where Ksh 26,400 is paid directly to the institution and Ksh 13,600 is paid to students accounts for their upkeep (Mwangi, 2018). HELB gives priority to the most vulnerable learners based on their household socio economic and demographic backgrounds. Data from the Higher Education Loans Board (Helb) shows that 338,592 first-time TVET applicants and continuing students. These applications were way above the budgeted Sh13.7 billion in the 2018-2019 financial year. Repayment of these loans is pegged on the graduate getting good employment. Over the years, there have been a large number of defaulters and HELB has not established a sustained revolving fund to support needy students' access these loans.

HELB financing is important for financial viability of TVET institutions and enrolment to these institutions with total disregard financial and economic background of the students. Greenaway *et al* (2003) in their study reported that increased enrolments to tertiary institutions in Britain have highly affected the sufficiency of loans advanced to students. Equally so, Bradley *et al* (2004) found out that student loans impacted highly on access to tertiary education in Australia.

Nasongo *et al* (2009) acknowledges the importance payment of tuition fees by HELB in access to tertiary institutions by youth in Bungoma County. Kirimi (2011) who confirm that HELB has equalized access to tertiary education in Kenya though they criticize the sufficiency of the loan facilities support this. The insufficiency in funding is highly attributed to the slow economic growth of the country coupled with high demand and dependency on HELB financing by the increasing number of tertiary education students. In addition, loan recoveries have highly affected the ability to advance facilities to new applicants. This makes it even harder with the decline in financial support by the government to HELB. Mwangi (2018) cites the decline in the country's Gross Domestic Product (GDP), rapid population growth, and increased inter-sectorial and competition for diminishing national resources as the key impetus that informed the current policy reform that brought to the fore among other things cost sharing.

In 2003, the government enacted the CDF Act of 2003 that established the constituency development fund. The ACT was amended in 2015 through the NG-CDF Act of 2015. It was a strategic decision to ensure services and resources reached the rural areas to fight poverty. The NG-CDF act established an NG-CDF board to manage the fund. Membership to the board is on a two-year renewable basis or

upon selection of a new board (GoK, 2015). The Act also stipulates Social security programs with an enhanced allocation of education bursaries from 25% to 35% of the total constituency allocation. These bursaries are interest free grants allocated to needy students identified by the constituency CDF committees in consultations with local administration.

2.4 Self Financing and Performance of Technical, Vocational and Education Training

TVET is an expensive affair compared to general education. In the early years, there was huge financing of TVETs by the government with support from donors. However, participation of the learners who are beneficiaries of the TVET training takes a centre stage (Moningka, 2000). Beneficiary contribution to projects including dates back to mid-20th century where in Nigeria for example, the government officials wrote journals and reports about the benefit of community led projects in strengthening the capacities of the local community (Mosse, 2001). Literature by Chambers (1994) concurred with these journals by indicating that contribution by beneficiaries to projects is the core approach to enable those projects achieve their intended objective while enhancing sustainability. Student self-financing as beneficiaries of TVETs contributes to over 35% of TVET revenue in Australia, 32% in China and 70% for private TVETs in the Philippines (Yang, 2014). This contributes towards these countries' strategies of reforming TVETs. However, Mansuri *et al.*, (2004) reported that there has not been any sufficient study to relate beneficiary participation and the project outputs.

The government of Kenya finances a majority of the public TVETs while private TVETs are heavily funded by the learners (Mwangi, 2018). A cost sharing approach was established in 1988. Under this policy, all stakeholders including communities, parents and trainees came together to finance the expansion of TVET institutions and thereby increasing access (Serem, *et al.*, 2013). Through this approach, parents would sell some of their assets like farms and animals to finance training for their children. Additionally, communities would conduct fundraising drives known as harambees to support trainees in their schooling (Mulwa, 2008). These strategies will influence directly or indirectly the schooling of the learner in TVET. However most learners have failed to complete TVET training due to financial constraints attributed to the families socio-economic background despite the fund raising strategies.

2.5 Donor Funding and Performance of Technical, Vocational and Education Training

TVET falls under service delivery projects that instil life skills to the beneficiaries termed as learners so they can build resilience and earn sustainable livelihoods. It is therefore imperative that project managers design planning and control tools to ensure successful implementation of these projects (Chandra, 2008). Although the government is the primary duty bearer in ensuring effective delivery of TVET programs, donor agencies have over the years to support sustainability of these institutions. Most beneficiaries have developed a dependency syndrome by over relying on donors to support these institutions.

The main objective of donor funding is to support beneficiaries earn sustainable livelihoods either through direct funding in form of cash grants or through in kind support. It is worth noting that the funding is solely project centred and thus are time bound. This implies that in most instances, education projects sometimes may not be fully implemented to achieve the desired outcomes (Heeks and Baark, 1998). Project managers therefore try strategies on how to complement the donor funding to achieve full implementation of the projects.

Donor funding contributes to over 33% of TVET revenue in Asian countries (Palmer, 2015). This assistance by bilateral donors to TVETs is often temporary yet the TVETs typically have finite timeframes and their impacts are expected to last. Over the years, many development projects TVETs included have not been successful (Bishop, 2001). This is largely attributed to the inconsistency in funding hampering the project's sustainability and their resilience in withstanding funding shocks.

International and National none governmental organization have heavily invested in financing TVETs in Kenya. For example, over the years, the World Bank and IMF have been the major donors to Kenya. They have made structural adjustments that influenced the financing of these institutions. For example, under East Africa Skills for Transformation and Regional Integration (EASTRIP) program by World Bank, six TVETs in Kenya will be supported to improve the quality and enrolment (World Bank, 2018). Other donors include INGOs' like the Norwegian refugee Council, Danish Refugee Council and the Don Bosco that jointly have initiated fund raising mechanisms to support youth in the rural arid areas of Northern Kenya to access TVETs. However, these initiatives without support from the stakeholders including the MoE and beneficiaries are normally not sustainable (Serem, *et al*, 2013).

2.6 Theoretical Framework

Theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists.

2.6.1 Theory of Human Capital

The theory of human capital postulated by Smith (1994) acknowledges education as a means of developing the labour force. It justifies the relationship between education financing and skilled workforce (Kirimi, 2011). This implies that proper financing of training and schooling will lead to general economic development and empowerment for TVET graduates. It is against this backdrop that human capital theory was found appropriate to the study by justifying the profitability of TVETs.

The theory of human capital underscores the quasi-public good of education where family, local community and general society benefit. Therefore, in principle, these beneficiaries should finance its acquisition (Carnoy 1995). However, households living under abject poverty cannot afford even the relatively low fees charged in TVETs, let alone feeding themselves. To worsen the matter the plight of the poor has been exacerbated by the cost sharing policy of 1988, high inflation rates and low economic performance and lack of creativity and innovation by managers in financing education and training in TVETs (Otieno 2009).

2.6.2 Theory of Socialist Economies

The theory of socialist economies postulated by Louis Blanc (1948) by developing the Lorenz Curve to explain the need for equitable sharing of resources to achieve economic growth. In advancing Loans and bursaries to the needy students through HELB, the government is virtually adopting the postulations of Blanc. This in effect is expected to increase admissions to TVETs. Equity and fairness in allocation of the loans and bursaries to the students is a classic example of adoption of Blanc's theory. For the purpose of this study, the loan advanced to the learners will be assessed so as to measure the sufficiency in allocation of the loans to learners.

2.6.3 The Social Dominance Theory

In looking at enrolment, the researcher looked at the students as being organized in hierarchies such as age, gender, diversity and socio economic status as guided by Jim Sidanius and Felicia Pratto (1999) in the Social Dominance Theory. Over the years, Kenya has seen unequitable distribution of resources leaving education to be a preserve of the rich, which forms a dominant group. This group has left a generation that has discriminated the poor by legitimizing myths (Veriava, 2002). In establishing HELB as well as coming up of bilateral donors and NGOs to support the poor in accessing TVETs, there would be stable hierarchies (Pratto *et al.* 1999). The researcher therefore looked at course and gender as hierarchies in enrolment to TVETs.

2.6.4 Returns on Investment in Education

In analysing performance of TVET programs, the researcher hoped to be guided by returns on investment in education theory by Psacharopoulos, (2018) and supported by production function theory of education (Coleman, 1966). The researcher assumes that TVETs receive inputs in form of in kind support assistance from donors, government and other stakeholders as well as financial support from the school fees paid by the learners, HELB and other grants. These inputs are used for acquisition of infrastructure, training materials and salaries and capacity building for the instructors. In effect, these inputs are processed to impact knowledge and skills to the learners. The output of investment in TVETs is a group of persons equipped with the requisite knowledge and skills to source for livelihoods. They will be employed or get self-employment to earn a form of livelihood and end up repaying the years, inputs invested in their education, and thus will support the subsequent group (World Bank, 2018).

2.7 Conceptual Framework

The conceptual framework is the way the researcher perceives the relationship between particular variables in his study and how they interlink with each other (Mugenda & Mugenda, 2003). As such, it points out the required variables to the study.

Independent variables

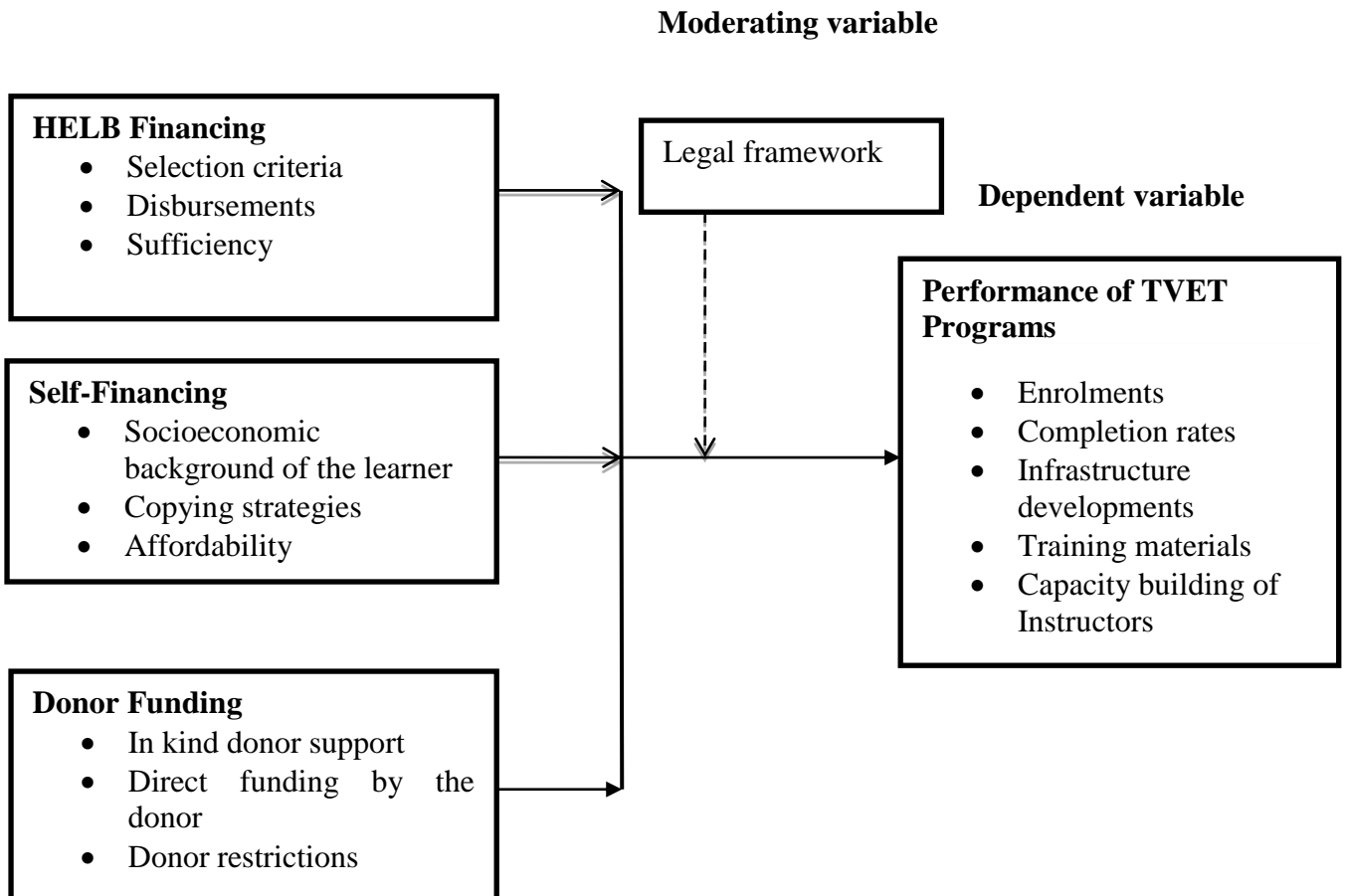


Figure 1: Conceptual framework showing the Relationship between Dependent and Independent Variables

From the figure above, the study had three independent variables. The first variable is student financing by HELB where the researcher looked at timely disbursements of the funds and sufficiency of the loans awarded. Secondly, private student financing looked at the socio economic background of the learner and the copying strategies employed by the learner to manage payment of fees as well as affordability. Lastly, donor funding explored the different forms of assistance by the donors (In kind and Cash assistance) as well as the requirements/restrictions put in place by the donors. In

looking at the independent variables, the researcher analysed their relationship with the dependent variable, which is performance of TVET programs. Most specifically, the study related these independent variables with enrolments by gender and per course.

2.8 Summary of Literature Reviewed

Scholars have studied challenges in higher education in Kenya with good recommendations. Some of the studies have looked at access, demand, implementation and course selection. This study seeks to explore the effects of student financing on enrolments to TVETs. From the study, the researcher hoped to fill the existing gap in available literature and at the same time recommend for solutions in the challenges faced in enrolments to TVETs. Most specifically, the researcher looked at the student financing by HELB, private financing and by Donors to establish their relationship on student's enrolments to TVETs.

2.9 Knowledge Gap

Table 2.1: Knowledge Gap

Variable	Author and Year	Findings	Knowledge Gap
Legislation	(Dzidza, 2018)	The author established that implementation of education legislations has been successful in majority of the jurisdictions.	The legislation on financing higher education and equitable distribution of resources.
Institutional management	(Cruickshank, V. 2017)	The author found out that there was not significant relationship between institutional leadership and performance of learners.	The influence of leadership on access to financing by TVET students.
Access to HELB and CDF	(Kipkorir, 2014)	The author found out that HELB blanket financing without considering the cost per course taken by the applicant influenced the success of HELB in ensuring access to Higher Education	The author concentrated much on Universities and did not look at the overall impact of HELB financing on performance of these programs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research methodology that is proposed to be used in this study. It will discuss the research design, the target population of the study, the sample size and sampling techniques, research instruments, data collection methods and data analysis methods

3.2 Research Design

The study employed descriptive survey research design. This design was ideal for the study since the research entailed collecting and comparing data from the phenomenon at the same time of the study. Descriptive survey research designs are appropriate where the overall objective is to establish whether significant associations among variables exist at some point in time. The researcher observed the current performance in form of enrolments in TVETs and investigate the cause and possible relationship between financing and enrolment (Kothari, 2008). The design was appropriate for the study since it sought to describe the characteristics of certain groups, estimate the proportion with certain characteristics and make predictions (Mugenda and Mugenda, 2003). This design involved the collection of quantitative data for carrying out descriptive statistics and qualitative data for explaining themes of behaviour discerned about influence of financing sources on performance of technical and vocational education training.

3.3 Target Population

Population for the proposed study entailed students in public and private TVETs within Nairobi County, TVET managers, HELB managers and managers from Norwegian Refugee Council and Danish Refugee Council.

Table 3.1: Target Population

Technical Vocational Education and Training	Population
Kabete National Polytechnic	7220
Karen Technical Training Institute for the deaf	1900
Kasarani Technical Training Institute	1600
Kenya Technical Trainers	2400
Nairobi Technical Training Institute	2780
PC Kinyanjui Technical Training Institute	2040
Total	17,940

3.4 Sample Size and Sampling Procedures

The sampling design and procedures that were adopted in the proposed study to get the desired sample size are described in this section.

3.4.1 Sample Size

The researcher objectively selected a unit from the population also known as a sample size (Kombo, & Tromps, 2006). To calculate the sample size for the students, the researcher referred to Krejcie, Rober V., Morgan, Daryle W (1970). From this unit, the researcher gathered information that was analysed to establish findings which are generalized for the entire population.

Table 3.2: Sample Size

TVET Institution	Population	Sample Size
Kabete National Polytechnic	7220	152
Karen Technical Training Institute for the deaf	1900	40
Kasarani Technical Training Institute	1600	34
Kenya Technical Trainers	2400	50
Nairobi Technical Training Institute	2780	58
PC Kinyanjui Technical Training Institute	2040	43
TVET Managers	1	1
NRC Project Manager	1	1
DRC Project Manager	1	1
HELB Loans Manager	1	1
Total	17,940	381

3.4.2 Sampling to Procedure

The study adopted three sampling procedures. Sampling is defined as the process of selecting the right individuals, objects or events for study. Sekaran (2012) further defines sampling as the process of selecting sufficient number of elements from the population so that the study of the sample and an understanding of its properties and characteristics would make it possible for one to generalize such properties or characteristics in the population element. First, the Krejcie and Morgan Table (1970) was used to determine the exact sample size of the entire population. Secondly, since the population was stratified, the research employed proportionate stratified sampling technique where each strata population was divided against the total number of respondents and multiplied by the extrapolated sample size from the Krejcie and Morgan Table (1970). Thirdly, simple random sampling was employed. Wambugu, Nyonje, Kyalo and Mbii (2015) assert that stratified random sampling generally have more statistical precision than simple random sampling.

3.5 Research Instruments

The researcher collected primary data from the TVET students using structured and semi-structured self-administered questionnaires that were administered online and also pick and drop method. Primary data was also sought from the managers using interview guides. Secondary information was sought from existing reports at TVETs, NGOs and HELB using checklists.

3.5.1 Pilot testing of the instruments

A pilot study was carried out over 37 students that did participate in the main study. These students were drawn from Kiambu Institute of Science and Technology. Cronbach's alpha was calculated from the pilot findings to establish reliability of the instruments.

3.5.2 Validity of the Research instruments

Validity is concerned with the integrity of the conclusions that are generated from a piece of research. Validity is the degree to which an instrument measures what it purports to measure. It estimates how accurately the data in the study represents a given variable or construct in the study (Creswell, 2013). The researcher used test and retest through piloting to ensure content and construct validity of the research instruments. Content validity refers to how much an instrument fully assesses the relationships between globalization and project management. Construct validity on the other hand is the amount the instrument actually tapped into the theoretical concept it is supposed to assess.

3.5.5 Reliability of the instruments

The researcher sought to establish reliability of the research instruments through a test-re-test method from which reliability index will be calculated with the aid of SPSS. The researcher envisions to get a reliability index of 0.753 and above (Kothari, 2004).

3.6 Data Collection Procedure

The researcher obtained a letter of introduction from the University of Nairobi. A permit from the National Commission for Science, Technology and Innovation was also obtained before proceeding with the data collection. The researcher then administered the questionnaires within a period of two weeks. The researcher hired two research assistants to assist with the online administration and monitoring of the questionnaires. Completed questionnaires were collected and the collected data processed using SPSS software.

3.7 Data Analysis Techniques

Data was tabulated and statistically analysed with the help of SPSS (Statistical Package for the Social Sciences) program using descriptive statistics such as Composite means, standard deviation, regression coefficient, correlation of the variables and regression analysis. The purpose of descriptive statistics was to enable the researcher to meaningfully describe the findings. Data is presented in tables, charts and narratives. The content from qualitative data has been analysed and mainstreamed with the quantitative findings.

3.8 Ethical Considerations

Ethical consideration is paramount for every study. Ethical issues apply to all research approaches and to every stage of research that is, in the identification of the research problem, data collection, data analysis and interpretation, and lastly in the writing and dissemination of the research (Creswell, 2009). Ethical issues involve matters of access, confidentiality and anonymity of the participants, the participants' consent as well as legal issues like intellectual ownership, confidentiality, privacy, access and acceptance and deception (Johnson & Christensen, 2008). All these ethical considerations were adhered to in this study. The researcher sought clearance from the Ministry of education through the National Commission for Science, Technology and Innovation (NACOSTI). The researcher also sought consent from University of Nairobi, HELB, NRC, DRC and the sampled TVET institutions. The researcher further sought informed consent from the respondents before collecting any information from them and assured the respondents that the information collected is intended for academic use and is treated as such.

3.9 Operationalization of Variables

Table 3.3: Operationalization Table of Variables

Objective	Variable	Measurement	Measurement scale	Type of analysis	Tool of Analysis
To establish the influence of HELB financing on performance of Technical and Vocational Education and Training program.	Selection criteria	Equitability in allocation of loans	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Disbursements	Speed in disbursement of loans to schools	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Sufficiency	Sufficiency of funds	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
To assess the influence of self-financing on performance of Technical and Vocational Education and Training program.	Socioeconomic background of the learner	The economic situation	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Copying strategies	Copying strategy index	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Affordability	Ability to raise the funds	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression, ANOVA
To examine the influence of donor funding on performance of Technical and	In kind donor support	Availability and sufficiency of the support	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Direct funding by the donor	Availability and sufficiency of funds	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression

Vocational Education and Training program.	Donor restrictions	Level and type of restrictions	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
Performance of TVET institutions	Enrolment	% change in enrolments	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Completion rate	The ratio of completers vs enrolments	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Infrastructure developments	Financial allocation and its sufficiency to develop infrastructure	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Instructional materials	Financial allocation and its sufficiency to procurement of instructional materials	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression
	Capacity building of instructors	Financial allocation and its sufficiency to capacity building of tutors	Interval	Descriptive Statistics Inferential statistics	Mean, SD, Correlation, Regression

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents data analysis, presentation and interpretation on the influence of financing sources on performance of Technical, Vocational Education, and Training (TVET) programs in Kenya. The main objective of the study was to assess the influence of financing on performance of Technical, Vocational Education, and Training programs in Nairobi County, Kenya.

4.2 Questionnaire Return Rate

The researcher administered 377 research instruments out of which 341 were fully filled and returned by the respondents. This gave a questionnaire return rate of 90.45%. This questionnaire return rate was considered satisfactory for analysis to make conclusions for the study in accordance to Mugenda and Mugenda, (2003) who indicate that, a response rate of 50% is adequate, 60% is good and 70% very good for analysis and reporting from manual surveys. Table 4.1 shows the questionnaire return rate.

Table 4.1 Questionnaire Return Rate

Research Instruments	Frequency	Response Rate
Responses	341	90.45%
Not returned	36	9.55%
Total	377	100.00%

4.3 Demographic Characteristics of Respondents

This section discusses the demographic characteristics of the respondents in the study. These include; distribution of respondents by their gender, age and level of education.

4.3.1 Distribution of Respondents by Gender

In this section the researcher sought to establish the gender of the respondents. Their responses are shown in Table 4.2

Table 4.2: Distribution of Respondents by Gender

Gender	Frequency	Percent
Male	176	51.61
Female	165	48.39
Total	341	100.00

The respondents were required to indicate their gender; the results show that 176 (51.61%) of the respondents were males while 165 (48.39%) of the respondents were females. This infers that the researcher collected data from all the respondents regardless of their gender. This implies that there were more male respondents than females and that performance of Technical, Vocational Education, and Training programs is male dominated.

4.3.2 Distribution of Respondents by Age

The respondents' age bracket was also explored in this study where the respondents were asked to indicate their ages. The study findings are as indicated in Table 4.3

Table 4.3: Distribution of Respondents by Age bracket

Age of respondents	Frequency	Percentage (%)
20 – 29	239	70.10
30 – 39	85	24.92
40 – 49	10	2.93
Above 50	7	2.05
Total	341	100.00

On the distribution of age, majority of the respondents indicated to be between the age brackets of 20 to 29 as shown by 239 (70.10%) and those between the ages of 30 to 39 as shown by 85

(24.92%). In addition, those between the ages of 40 to 49 were 10 representing 2.93% of the population. This infers that majority of the respondents who participated in the surveys and interviews were of the ages between 20 to 40 years old. Those above 50 years of age are older students attracted to courses such as plumbing who are paying for themselves. This implies that the age between 20 to 40 years are greatly involved in influencing financing sources on performance of Technical, Vocational Education, and Training (TVET) programs.

4.3.3 Distribution of Respondents by Level of Education

The respondents' age bracket was also explored in this study where the respondents were asked to indicate their level of education. The study findings are as indicated in Table 4.4

Table 4.4 Distribution of Respondents by Level of education

Level of Education	Frequency	Percent
Diploma	139	40.76
Certificate	202	59.24
Total	341	100.00

Level of education was operationally defined using two levels of education that are majorly offered by technical training institutions which are certificate and diploma. There was no problem in the statement of one's level of study therefore all respondents disclosed this vital information. One's level of study provides a good picture of how one understands the topic of the study. Furthermore study level provided a clue on how individuals are willing to contribute to the development of the research knowledge. Most of the respondents were pursuing certificate courses. This was ascertained by 202(59.24%) of the respondents. The remaining 139(40.76%) were pursuing diploma courses.

4.3.4 Distribution of Respondents by enrolment in TVET Institution

The study sought to determine the distribution of respondents by enrolment in TVET institutions. The Table 4.5 shows the distribution in enrolment.

Table 4.5: Distribution of Respondents by enrolment in TVET Institution

Enrollment in TVET institution	Frequency	Percentage (%)
PC Kinyanjui Technical Training Institute	52	15
Nairobi Technical Training Institute	52	15
Kenya Technical Trainers	52	15
Kasarani Technical Training Institute	52	15
5Karen Technical Training Institute	53	16
Kabete Technical Training Institute	80	24
Total	341	100

The findings on Table 4.5 indicate that majority of the respondents enrol nearly a similar number of learners through HELB financing which stands at 52 respondents (15%) for PC Kinyanjui Technical Training Institute, Nairobi Technical Training Institute, Kenya Technical Trainers and Kasarani Technical Training Institute. Majority of the respondents, 80(24%) were from Kabete National polytechnic and 53(16%) came from Karen technical training institute for the deaf. This implies that technical education is taking shape in advancing the need for higher learning in the country.

4.4 HELB Financing on Performance of Technical and Vocational Education and Training Institutions

The first objective of the study sought to establish the influence of HELB financing on performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya. To achieve this the respondents were asked to give their opinion on the level of agreement or disagreement with the statement using a 5 point Likert scale where 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The results are presented in Table 4.6.

Table 4.6: HELB financing on performance of Technical and Vocational Education and Training Institutions

Statements	1	2	3	4	5	Mean	SD
HELB funding has an influence on enrolment to an institution.	24(6.8)	32(9)	66(18.6)	90(25.4)	129(36.4)	3.67	1.16
HELB financing has an influence on completion rates of the learners	40(11.3)	42(11.9)	71(20.1)	83(23.4)	105(29.7)	3.44	1.29
HELB financing has an influence on completion rates of the trainees	45(12.7)	38(10.7)	52(15.3)	88(25.8)	118(34.6)	3.22	1.22
HELB disbursement timelines influence enrolments	32(9)	31(8.8)	28(7.9)	100(29.3)	150(44)	3.83	1.28
Sufficiency of HELB funds influences enrolments to technical institutions	18(5.1)	31(8.8)	50(14.1)	96(27.1)	146(41.2)	3.79	1.11
Composite Mean						3.59	1.21

As per the findings, the respondents indicated that HELB funding had an influence on enrolment to an institution as 129(36.4) strongly agreed, 90(25.4) agreed, 66(18.6) were neutral about the statement, 32(9) disagreed and 24(6.8) strongly disagreed with a mean and standard deviation of 3.67 and 1.16 respectively. The findings implied that HELB funding influences performance of Technical and Vocational Education and Training Institutions with the composite mean at 3.59. This informs that the statement influences the variable positively since it is greater than the composite mean.

On whether HELB financing has an influence on completion rates of the learners, the study found out that majority of those who agreed had a representation of 188(53.1%), those neutral 71(20.1%), disagreed 42(11.9%) and strongly disagreed 40(11.3%) respectively. This produced a mean and a standard deviation of 3.44 and 1.29 which is slightly lower than the composite mean at 3.59 on Table 4.6. This implies that HELB financing has a limited influence on completion rates of the learners as provided by the statement and as compared to the composite mean.

The study found out on whether HELB disbursement timelines influence enrolments and performance of technical, voluntary and educational training. The results from the Table 4.6 indicate that 150(44.3%) strongly agreed, 100(29.3%) agreed, 28(7.9) were neutral, 31(8.8) disagreed and 32(9) strongly disagreed with a mean and a standard deviation of 3.83 and 1.28 respectively. This implies that the statement positively influences the variable since it is greater than the composite mean which stands at 3.59.

The study found out on whether Sufficiency of HELB funds influences enrolments to technical institutions has an influence on performance of technical, voluntary and education training. The results from the Table 4.6 indicate that 146(41.2) strongly agreed, 96(27.1) agreed, 50(14.1) were neutral, 31(8.8) disagreed and 18(5.1) strongly disagreed with a mean and a standard deviation of 3.79 and 1.11 respectively. As compared to the composite mean (3.59), this indicates that the line statement has a positive influence on the variable and further influences the dependent variable.

4.5 Self-financing on performance of Technical and Vocational Education and Training Institutions

The second objective of the study sought to assess the influence of self-financing on performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya. To achieve this the respondents were asked to give their opinion on the level of agreement or disagreement with the statement using a 5 point Likert scale where 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The results are presented in Table 4.7.

Table 4.7: Self-financing on performance of Technical and Vocational Education and Training Institutions

Statements	1	2	3	4	5	Mean	SD
The financial background of parents or guardians influences training attendance	34(9.6)	42(11.9)	48(13.6)	93(26.3)	124(35)	3.23	1.14
There are learners that are not enrolled in TVET because of their inability to pay fee	102(28.8)	54(15.3)	28(7.9)	72(20.3)	85(24)	2.95	1.60
Some families have to sell their assets to pay fees	24(6.8)	32(9)	72(20.3)	83(23.4)	130(36.7)	3.63	1.15
Self-sponsored learners prefer certain courses	40(11.7)	42(12.3)	71(20.8)	83(24.3)	105(30.8)	3.44	1.29
Self-sponsored learners rarely complete their studies because its expensive	35(10)	41(12)	66(19.4)	98(28.7)	101(29.6)	3.55	1.29
The family source of income determines which gender is enrolled to TVET	18(5.3)	31(9.1)	50(14.7)	96(28.2)	146(42.8)	3.79	1.11
Composite Mean						3.43	1.26

On whether the financial background of my parents has an influence on training attendance which responds to performance of technical, vocational and education training, the results are indicated on the Table 4.7.

As per the findings, 124(35) strongly agreed, 93(26.3) agreed, 48(13.6) were neutral about the statement, 42(11.9) disagreed and 34(9.6) strongly disagreed with a mean and standard deviation of 3.23 and 1.14 respectively. The findings implied the financial background of parents or guardian has an influence on training attendance negatively influences the variable since the mean is lower than the composite mean.

The study found out on whether there are learners that are not enrolled in TVET because of their inability to pay fee as indicated on Table 4.7 where 85(24%) strongly agreed, 72(20.3%)

agreed, 28(7.9%) of the respondents indicated neutral, 54(15.3%) disagreed and 102(28.8%) strongly disagree. The statement drew a mean and standard deviation of 2.95 and 1.60 respectively which as compared to the composite mean (3.43) implies that the statement influences the variable negatively since the mean is less than the composite mean which is at 3.43.

The study found out on whether some families have to sell their assets to pay fees enhances performance of technical, vocational and education training as indicated on Table 4.7. Respondents who strongly agreed were 130(36.7%), 83(23.4%) agreed, 72(20.3%) of the respondents indicated neutral, 32(9%) disagreed and 24(6.8%) strongly disagree. The statement drew a mean and standard deviation of 3.63 and 1.15 respectively which as compared to the composite mean (3.43) implies the line item positively influences the variable since the line mean is greater than the composite mean.

The study found out on whether self-sponsored learners complete their studies because its expensive as indicated on Table 4.7 where 101(29.6%) strongly agreed, 98(28.7%) agreed, 66(19.4%) of the respondents indicated neutral, 41(12%) disagreed and 35(10%) strongly disagree. The statement drew a mean and standard deviation of 3.55 and 1.29 respectively which as compared to the composite mean (3.43) implies that the statement positively influences the variable since the mean is greater than the composite mean which is at 3.43.

The study sought to find out on whether family source of income determines which gender is enrolled to TVET on Table 4.7 where 146(42.8%) strongly agreed, 96(28.2%) agreed, 50(14.7%) of the respondents indicated neutral, 31(9.1%) disagreed and 18(5.3%) strongly disagree. The statement drew a mean and standard deviation of 3.79 and 1.11 respectively which as compared to the composite mean (3.43) implies that the statement positively influences the variable since the line item mean greater than the composite mean which is at 3.43.

4.6 Donor funding on performance of Technical and Vocational Education and Training Institutions

The third objective of the study sought to examine the extent to which donor funding influences performance of Technical and Vocational Education and Training Institutions in Nairobi County, Kenya. To achieve this the respondents were asked to give their opinion on the level of agreement or disagreement with the statement using a 5 point Likert scale where 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The results are presented in Table 4.8.

Table 4.8: Donor funding on Performance of TVET Programs

Statements	1	2	3	4	5	Mean	SD
The in-kind support by donors influences the enrolment to TVET	87(25.5)	54(15.3)	36(10.3)	77(22.6)	87(25.5)	3.04	1.53
There are learners that are not enrolled in TVET because of donor restrictions	31(9.1)	45(13.2)	43(12.6)	88(25.8)	134(39.3)	3.60	1.25
Cash assistance by donors contribute to the upkeep of learners in TVETs	18(5.3)	31(9.1)	50(14.7)	96(28.2)	146(42.8)	3.79	1.11
Donors recommend certain courses for their beneficiaries	77(22.6)	58(17)	54(15.8)	73(21.4)	79(23.2)	3.06	1.49
Donors prefer financing certain genders.	35(10.3)	41(12)	66(19.4)	98(28.7)	101(29.6)	3.55	1.30
Composite Mean						3.09	1.39

On whether the in-kind support by donors influences the enrolment to TVET which responds to performance of technical, vocational and education training, the results are indicated on the Table 4.8. As per the findings, 87(25.5%) strongly agreed, 77(22.6%) agreed, 36(10.3%) were neutral about the statement, 54(15.3%) disagreed and 87(25.5%) strongly disagreed with a mean and standard deviation of 3.09 and 1.39 respectively. The findings implied the in-kind support by donors influences the enrolment to TVET negatively influences the variable since the mean falls lower than the composite mean of 3.09.

The study found out on whether learners that are not enrolled in TVET because of donor restrictions indicated on Table 4.8 where 134(39.3%) strongly agreed, 88(25.8%) agreed,

43(12.6%) of the respondents indicated neutral, 45(13.2%) disagreed and 31(9.1%). The statement drew a mean and standard deviation of 3.60 and 1.25 respectively which as compared to the composite mean (3.09) implies that the statement positively influences the variable since the mean is greater than the composite mean which is at 3.09.

The study sought to find out on whether cash assistance by donors contribute to the upkeep of learners in TVETs on Table 4.8 where 146(42.8%) strongly agreed, 96(28.2%) agreed, 50(14.7%) of the respondents indicated neutral, 31(9.1%) disagreed and 18(5.3%) strongly disagree. The statement drew a mean and standard deviation of 3.79 and 1.11 respectively which as compared to the composite mean (3.09) implies that the statement positively influences the variable since the line item mean greater than the composite mean which is at 3.09.

The study sought to find out on whether donors recommend certain courses for their beneficiaries on Table 4.8 where 79(23.2%) strongly agreed, 73(21.4%) agreed, 54(15.8%) of the respondents indicated neutral, 58(17%) disagreed and 77(22.6%) strongly disagree. The statement drew a mean and standard deviation of 3.06 and 1.49 respectively which as compared to the composite mean (3.09) implies that the statement negatively influences the variable since the line item mean is less than the composite mean which is at 3.09.

On whether donors prefer financing certain gender, the study found out as per the findings, 101(29.6) strongly agreed, 98(28.7%) agreed, 66(19.4%) were neutral about the statement, 41(12%) disagreed and 35(10.3%) strongly disagreed with a mean and standard deviation of 3.55 and 1.30 respectively. The findings implied donors prefer financing certain gender has a positive influence on the line item which influences the variable since the mean is greater than the composite mean (3.09).

4.7 Performance of Technical, Vocational Education, and Training (TVET) Programs

The study sought data on Performance of Technical, Vocational Education, and Training (TVET) Programs. The responses are as indicated on the Table 4.9

Table 4.9: Performance of TVET Programs

Statements	1	2	3	4	5	Mean	SD
A learner is able to concentrate in school without any fear of being sent home due to delayed payment of fee	82(24)	97(28.4)	76(22.3)	64(18.8)	20(5.6)	2.54	1.23
A learner enrolled to this course because the finances could support their learning duration.	18(5.3)	31(9.1)	50(14.7)	96(28.2)	146(42.8)	3.79	1.11
The finances available will take a learner through to completion of the course	71(20.8)	83(24.3)	17(5)	76(22.3)	93(27.3)	2.67	1.19
Learners contribute to construction of infrastructure as a result of finances we contribute as fees	18(5.3)	31(9.1)	50(14.7)	96(28.3)	146(42.8)	3.79	1.11
Our laboratories and library is sufficiently stocked	45(13.2)	29(8.5)	56(16.4)	81(23.8)	128(37.5)	3.48	1.33
The instructors are well motivated and are taken through progressive training	24(7)	32(9.4)	72(21.1)	83(24.3)	130(38.1)	3.63	1.16
Composite Mean						3.32	1.18

The study found out on whether a learner is able to concentrate in school without any fear of being sent home due to delayed payment of fee influence performance of technical, education and training as indicated on Table 4.9. The findings indicate that 20(5.6%) strongly agreed, 64(18.8%) agreed, 76(22.3%) of the respondents indicated neutral, 97(28.4%) disagreed and 82(24%) strongly disagree. The statement drew a mean and standard deviation of 2.54 and 1.23 respectively which as compared to the composite mean (3.32) implies a learner's concentration in school is interfered with due to delayed payment of fee which negatively influences the line item mean which is less than the composite mean (2.54<3.32).

On whether a learner enrolled to a course due to the financial support their learning duration, the study found out as per the findings, 146(42.8) strongly agreed, 96(28.2%) agreed, 50(14.7%) were neutral about the statement, 31(9.1%) disagreed and 18(5.3%) strongly disagreed with a mean and standard deviation of 3.55 and 1.30 respectively. The findings implied that learners enrolled to a course due to the financial support their learning duration has a positive influence on the line item which influences the variable since the mean is greater than the composite mean which is at 3.32.

The study found out on whether finances available will take a learner through to completion of the course as indicated on Table 4.9. The findings indicate that 93(27.3%) strongly agreed, 76(22.3%) agreed, 17(5%) of the respondents indicated neutral, 83(24.3%) disagreed and 71(20.8%) strongly disagree. The statement drew a mean and standard deviation of 2.67 and 1.19 respectively which as compared to the composite mean (3.32) implies that availability of finances will take a learner through to completion of a course negatively learner's concentration in school is interfered with due to delayed payment of fee which negatively influences the line item mean which is less than the composite mean ($2.67 < 3.32$).

The study sought to find out on whether learners contribute to construction of infrastructure as a result of finances as fees as shown on Table 4.9 where 146(42.8%) strongly agreed, 96(28.3%) agreed, 50(14.7%) of the respondents indicated neutral, 31(9.1%) disagreed and 18(5.3%) strongly disagree. The statement drew a mean and standard deviation of 3.79 and 1.11 respectively which as compared to the composite mean (3.32) implies that the statement positively influences the variable since the line item mean is less than the composite mean which is at 3.32.

On whether a instructors are well motivated and are taken through progressive training and learning duration, the study found out as per the findings, 130(38.1%) strongly agreed, 83(24.3%) agreed, 72(21.1%) were neutral about the statement, 32(9.4%) disagreed and 24(7%) strongly disagreed with a mean and standard deviation of 3.63 and 1.16 respectively. The findings implied that instructors are well motivated and are taken through progressive training and learning duration influence on the line item which influences the variable since the line statement mean (3.63) is greater than the composite mean which is at 3.32.

4.8 Correlation of the Variables

Correlation was done to determine the relationship between HELB financing, self-financing and donor financing against the dependent variable performance of technical, vocational education and training in Nairobi County, Kenya. The results are presented in the Table 4.10

Table 4.10: Correlation between the Explanatory variables and Performance of TVET programs

		HELB Financing	Self-Financing	Donor Financing	Performance of TVET
HELB Financing	Pearson Correlation	1	.418*	.406*	.426*
	Sig. (2-tailed)		.000	.000	.000
	N	341	341	341	341
Self-Financing	Pearson Correlation	.418*	1	.454*	.289*
	Sig. (2-tailed)	.000		.000	.000
	N	341	341	341	341
Donor Financing	Pearson Correlation	.406*	.454*	1	.358*
	Sig. (2-tailed)	.000	.000		.000
	N	341	341	341	341
Performance of TVET	Pearson Correlation	.426*	.289*	.358*	1
	Sig. (2-tailed)	.000	.000	.000	
	N	341	341	341	341

*. Correlation is significant at the 0.05 level (2-tailed).

The results indicate that there is a positive weak correlation of 0.426 between HELB financing and performance of technical, vocational and education training which indicates a significant relationship with p-value of 0.000 which is less than the test level of significance 0.05. Similarly, self-financing and donor financing have a positive weak correlation against the response variable of 0.289 and 0.358 respectively with the p-values less than the test level of significance of 0.05.

Regression analysis was done to determine the predictive value between HELB financing, self-financing and donor financing against the dependent variable performance of technical, vocational education and training in Nairobi County, Kenya. The results are presented in the Table 4.11.

Table 4.11 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475 ^a	.226	.219	2.83228

a. Predictors: (Constant), Donor Financing, HELB Financing, Self-Financing

Table 4.10 illustrates the strength of the relationship between the predictor variables against the response variable, performance of technical, vocational and education training. From the coefficient, there is a positive moderate relationship between dependent and independent variables given an R value of 0.475. The coefficient of determination R² values of 0.226 and adjusted R² value of 0.219. This shows that the independent variables; HELB financing, self-financing and donor financing; account for 22.6% of the variations in performance of technical, vocational and education training. This means that there are other factors than might be influencing performance of technical, vocational and education training that accounts for 77.4%.

4.9.1 ANOVA Results

Analysis of variance (ANOVA) is a collection of statistical models used to analyse the differences among group means.

The analysis of variance text is shown on the Table 4.12

Table 4.12: Analysis of Variance Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	788.346	3	262.782	32.758	.000 ^b
	Residual	2703.355	337	8.022		
	Total	3491.701	340			

a. Dependent Variable: Performance of TVET

b. Predictors: (Constant), Donor Financing, HELB Financing, Self-Financing

Analysis of Variance (ANOVA) was used to test possible significant relationships between variables (dependent and independent variables). The p-value .000 does indicate that the regression relationship was highly significant in predicting donor financing, HELB financing, self-financing influence Performance of technical, vocational and education training programs. F calculated at 5% level of significance is 32.758 which is greater than the F-critical value (2.4540) and p-value was less than 0.05, thus the overall model was significant.

4.9.2 Regression Coefficient

The regression coefficient is shown on the Table 4.13

Table 4.13 Regression coefficient

Variables	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.052	1.149		7.878	.000
HELB Financing	0.334	0.058	.318	5.805	.000
Self-Financing	0.061	0.052	.066	1.184	.237
Donor Financing	0.212	0.060	.199	3.557	.000

a. Dependent Variable: Performance of Technical, Vocational and Education Training

The regression equation obtained from the outcome was:

$$Y = 9.052 + 0.318X_1$$

$$Y = 9.052 + 0.066X_1$$

$$Y = 9.052 + 0.199X_1$$

As per the study, it was revealed that if all independent variables were held constant at zero, then performance of technical, vocational and education training will be 9.052. The findings, revealed that any unit increase in HELB financing would lead to 0.334 increase in performance of technical, vocational and education training. The variable was significant since p-value 0.000 is less than 0.05.

The study further revealed that a unit change in self-financing would lead to 0.066 units change in performance of technical, vocational and education training. The variable was not significant since p-value 0.237 is greater than 0.05. Similarly, a unit change in donor financing would lead to 0.199 units change in performance of technical, vocational and education training. The variable was significant since the probability value 0.000 was less than 0.05.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of the findings, discussions, conclusions and recommendations as per the research objectives of the study.

5.2 Summary of findings

The study focused on the key variables in chapter four and gave a summary of the findings.

5.2.1 HELB financing on performance of Technical and Vocational Education and Training Institutions

The study sought to show the influence of HELB financing on performance of Technical and Vocational Education and Training Institutions. The study revealed that any unit increase in HELB financing would lead to 0.318 change in performance of Technical and Vocational Education and Training Institutions. The study also revealed that HELB financing has an influence on enrolment to an institution as shown by a mean of 3.67, HELB disbursement timelines influence enrolments with a mean of 3.83 and Sufficiency of HELB funds influences enrolments to technical institutions as shown by a mean of 3.79 enhances performance of Technical and Vocational Education and Training Institutions.

5.2.2 Self-financing on performance of Technical and Vocational Education and Training Institutions

The study revealed that any unit increase in self-financing would lead to 0.066 change in performance of Technical and Vocational Education and Training Institutions. The study also revealed that self-financing through family source of income with a mean of 3.79, selling of family property with a mean of 3.63 and that self-sponsored learners rarely complete their studies because of the expensive nature of education influence performance of Technical and Vocational Education and Training Institutions.

5.2.3 Donor funding on performance of Technical and Vocational Education and Training Institutions

The study sought to show the influence of donor financing on performance of Technical and Vocational Education and Training Institutions. The study revealed that any unit increase in donor financing would lead to 0.199 change in performance of Technical and Vocational Education and Training Institutions. The study also revealed that enrolled in TVET because of donor restrictions with a mean 3.60, cash assistance by donors contribute to the upkeep of learners in TVETs with a mean of 3.79 and Donors prefer financing certain genders with a mean of 3.55 enhances performance of Technical and Vocational Education and Training Institutions.

5.3 Discussions of the Findings

The study discussed the findings against the empirical review of literature from chapter two.

5.3.1 Influence of financing on performance of Technical, Vocational Education, and Training (TVET) Programs

The findings concur with conclusion by Serem, *et al*, (2013) parents would sell some of their assets like farms and animals to finance training for their children. In some instances, communities would conduct fundraising drives known as harambees to support trainees in their schooling (Mulwa, 2008). This is motivated by the perceived return on their investments after schooling as opined by returns on investment in education theory by Psacharopoulos, (2018) and supported by production function theory of education (Coleman, 1966).

The study found out that class learners were confident to attend class without any fear of being sent home for fees. The study also acknowledged that the learners enrolled to their courses because the finance assistance could support them. However, the study found out that they were not certain of completing their studies due to fear of future funding. In addition, they noted that the different funding sources had contributed to improvement of infrastructure in their institutions. On instructional materials, the study acknowledged that the finances had contributed to sufficiency of the materials. This was not the case with training of instructors

where the respondents acknowledged that the funding had contributed to building the capacity of instructors to train them better.

The study findings are in line with findings by Heeks and Baark, (1998) that the main objective of donor funding is to support beneficiaries earn sustainable livelihoods either through direct funding in form of cash grants or through in kind support. It is worth noting that the funding is solely project centred and thus are time bound. This implies that in most instances, education projects sometimes may not be fully implemented to achieve the desired outcomes. Project managers therefore try to strategies on how to complement the donor funding to achieve full implementation of the programs.

5.3 Conclusions of the Study

From the discussions, the following conclusions were drawn from the study.

HELB financing has an influence on performance of technical, vocational education and training.

Self-financing has an influence on enrolment to TVETs though it comes with negative copying mechanisms where some parents will sell their assets to finance education. In addition, the study concludes that self-financing has some influence on completion rates at TVETs.

Donor financing has an influence on enrolments to TVETs as well as class retention with limited influence on completion.

In general, though, financing was found to have an influence on enrolment to TVET institutions and retention but with limited influence on completion rates.

5.4 Recommendations of the Study

In view of the research findings and conclusions above, the researcher recommends that:

- i. Policy makers should review avenues of scaling up higher education financing to reach more potential beneficiaries in order to improve on the timeliness and disbursement of the funds. In addition, they should seek to assure the beneficiaries of full funding for the course to demystify the fear of not completing the course.

- ii. School managers to establish plans for alternative avenues for TVET learners to cater for their education possibly through internal attachments for the learners to work part time and the wages they earn are transferred to cater for their training.
- iii. Project managers in NGOs to strategize for multi-year funding to ensure sustainability of their assistance to TVETs.

5.5 Suggestions for further studies

The researcher recommends further studies to look in detail how financing influence the academic performance of TVET learners. The same study should also be conducted in other types of organizations.

5.6 Contribution to the body of knowledge

This research contributes a wealth of knowledge to the project management body of knowledge by confirming that indeed financing has an influence on performance of programs. The researcher also recommends that this opinion should be developed into a full study in the project management body of knowledge.

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APPENDICES

Appendix I: Letter of Introduction

GEORGE RUNO MAINA

University of Nairobi

School of Open and Distance Learning

P.O Box 30197-00100

Nairobi.

To all respondents:

RE: RESEARCH DATA COLLECTION

I am a student pursuing a degree of Master of Arts in project planning and management of the University of Nairobi. Undertaking a research project on, “Influence of Financing on Performance of Technical, Vocational Education, And Training (TVET) Programs in Kenya: A Case of Nairobi County”. The data being collected is purely for academic purposes and a copy of findings will be availed to you upon request. Any information received will be treated with strict confidentiality and at no point will your name or that of your organization be mentioned in the final report.

Your cooperation will be highly appreciated.

Yours faithfully

George Runo Maina

Post Graduate Student

Appendix II: Questionnaire For Students

SECTION A: DEMOGRAPHIC INFORMATION

1. Please tick your gender

a) Male

b) Female

2. Please indicate by ticking your level of education

a) Certificate

b) Diploma

3. Kindly indicate which Institution you are enrolled in;

a) Kabete National Polytechnic

b) Karen Technical Training Institute for the deaf

c) Kasarani Technical Training Institute

d) Kenya Technical Trainers

e) Nairobi Technical Training Institute

f) PC Kinyanjui Technical Training Institute

4. Who is paying your fees? (*Select all that apply*)

a) HELB

b) Self

c) Donor

5. What course are you pursuing?

SECTION B: HELB FINANCING

Statement	1	2	3	4	5
How would you rate the effect of HELB funding on enrolment to this institution					
Had there been no HELB, what do you think would be the difference on female enrolments to this institution					
Do you agree that HELB financing has an influence on completion rates of the trainees					
To what extent do HELB disbursement timelines influence enrolments					
How does sufficiency of HELB funds affect enrolments to technical institutions					

SECTION C: SELF-FINANCING

6. Indicate the extent to which you agree with following statements with regards to the relationship between self-financing and enrolments to TVETs.

Statement	1	2	3	4	5
The financial background of my parents affects my training attendance					
There are learners that are not enrolled in TVET because of their inability to pay fee					
Some families have to sell their assets to pay fees					
Self-sponsored learners prefer certain courses					
Self-sponsored learners rarely complete their studies because its expensive					
The family source of income determines which gender is enrolled to TVET					

SECTION D: DONOR FUNDING

7. Indicate the extent to which you agree with following statements with regards to the relationship between donor funding and enrolments to TVETs.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The in-kind support by donors influences the enrolment to TVET					
There are learners that are not enrolled in TVET because of donor restrictions					
Cash assistance by donors contribute to the upkeep of learners in TVETs					
Donors recommend certain courses for their beneficiaries					
Donors prefer financing certain genders.					

SECTION E: PERFORMANCE OF TVET INSTITUTIONS

8. Please indicate below how the financing has influenced you.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I enrolled to this course because the finances could support me					
The finances available will take me through to completion of the course					
There is construction/rehabilitation of infrastructure as a result of finances we contribute as fees					
Our laboratories and library is sufficiently stocked					
The instructors are well motivated and are taken through progressive training					

Thank You!

Appendix III: Interview Schedule for TVET Managers

1. How long have you been managing this institution?
2. What is your observation on the enrolment trends in the past 5 years?
3. How many sources of funding do you know that support students in this institution?
What are they?
4. What do you think is the influence on funding from the different sources (HELB, Self and Donors) on performance of TVET?
 - i. Enrolment
 - ii. Retention and completion
 - iii. Infrastructure development
 - iv. Instructional materials
 - v. Capacity building of instructors

Appendix IV: Interview Schedule for HELB Loan Disbursement Manager

1. How long have you been working with HELB?
2. In your experience, how many TVET learners have benefited from HELB loans?
3. What is the influence of the selection criteria on access to this loans by the learners? (Is *it stringent or is it fair?*)
4. Do you get appeals on decisions not to grant a certain applicant?
5. Are there any complaints on delayed disbursements?
6. Do you feel the allocation per student is sufficient to fully cater for TVET education?
7. What is your take on the effect of HELB financing on enrolment and retention of learner in TVETs?

Appendix V: Interview Schedule for NGO Project Managers

1. How long have you been working with this NGO?
2. In your experience, how many TVET learners have benefited from your donation?
3. What is the influence of the selection criteria on access to this assistance by the learners/institutions? (*Is it stringent or is it fair?*)
4. Do you restrict the number of any gender to benefit from this assistance?
5. Do you have preferred courses for your beneficiaries?

Appendix VI: Krejcie & Morgan Table for Sample Size Determination

KEY: N=Population; S=sample size.

Populasi (N)	Sampel (n)	Populasi (N)	Sampel (n)	Populasi (N)	Sampel (n)
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Source Krejcie, Robert V., Morgan, Daryle W (1970)