

**Challenges of the Implementation of ICT Strategy in the University Students
Loans' Scheme: A perspective of The University of Nairobi government
Sponsored Medical Students**

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Declaration

This research project is my original work and has not been presented for the award of a degree in any other university or any other higher institution of learning for examination.

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Dedication

This research work is dedicated to my late father Justus Narkiso Oluoch, mother Mary Milcent Oluoch, my late wife Violet Ong'ute Otiende and my son Jerry Narkiso for always understanding my absence from home while attending classes or reading in the library. It is through their support, prayers and selfless sacrifices that made me attain this. I will forever remain indebted to them.

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ABBREVIATIONS AND ACCRONYMNS

ICT - Information and Communications Technology

IT -Information Technology

HELB -Higher Education Loans Board

JAB -Joints Admissions Board

MTI -Means Testing Instrument

MODULAR I -Government Sponsored University Students

ABSTRACT

Although valuable lessons may be learned from best practices around the world, there is no one formula for determining the optimal level of ICT integration in an organizational system or processes. Therefore, many organizations have come up with Strategy Implementation with a chapter on its ICT Strategy implementation. These too have challenges. The motivation to write this paper came from the need to learn what challenges the university students undergo in the process of acquiring loans to help them pursue their education and play their parts in the nation building. The study focused on the challenges of strategy implementation that the government sponsored University of Nairobi medical students face but the results of the study could be applicable to other similar groups of students. The students brought out the challenges and offered solutions that could be implemented to mitigate these challenges in ICT Strategy implementation by HELB. The respondents were drawn from the University of Nairobi Medical School government sponsored students and the HELB staff who attend to the student issues. However, due to the medical students' course program tight schedule, it was challenging to get all the data on time leading to delay in data collection. In chapter five a Summary was done, conclusions drawn and recommendations made. From the discussions and conclusions, the researcher recommends that in addressing these challenges from a high level; a national ICT education and training strategic plan be drawn by the government to increase the level of ICT literacy levels in the country to take full advantage of the advantages that go with ICT, an increase in investment in the field of network connectivity and power grid across the country through private public initiative to in. To a much more specific recommendation, HELB's Website Management needs to be totally over-hauled, students trained on its usage and incorporating students training and education in HELB's ICT strategic plans.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

ICT is no longer something that only appears on organizations' wish lists. Well-structured ICT strategy is the backbone that will enable organizations to deliver services effectively and efficiently, helping the organization reach more people and ultimately do more with their money. This research paper intends to look at how to have an effective ICT Strategy implementation process in organizations from planning through to using and its sustenance. The challenges to the students are myriad ranging from insufficient funding, high default rates, computer illiteracy, poor IT infrastructure, high cost of education, high cost of living, cost of accessing the internet especially for the students from far flung rural areas, lack of information on how to access HELB loans among others. Other challenges arise from the fact that the comparative uptake of ICT in the universities is still wanting while others are way beyond.

Dynamic Capability Theory and Resource-based theory or Resource-Based Views (RBV) of firms are based on the concept of economic rent and the view of the company as a collection of capabilities. These views of strategy have a coherence and integrative role that places them well ahead of other mechanisms of strategic decision making. Traditional strategy models such as Michael Porter's five forces model focus on the firm's external competitive environment. Most of them do not attempt to look inside the company. In contrast, the resource-based perspective highlights the need for a fit between the external market context in which a company operates and its internal capabilities. In this paper, we want to examine the challenges posed to the stakeholders of a firm in the firm's endeavour to effectively use its ICT resource.

The establishment of the Higher Education Loans Board in 1995 was to usher in needed reforms to broaden the program beyond the public universities to other post-secondary institutions and to some students in Kenya's growing private sector and improve on loan recoveries. Due to the liberalization of the educational subsector and unprecedented expansion in university enrolment, the surge in the demand for education loans by students admitted to universities continues to outstrip the supply capacity of the government.

1.1.1 Concept of Strategy

The word 'strategy' has entered in the field of management from the military services where it refers to applying the forces against an enemy to win a war. Originally, the word strategy has been derived from Greek, 'strategos' which means generalship. The word as used for the first time in around 400 BC. The word strategy means the art, skills and wiliness of the general to fight in a war and come out victorious over the enemy(ies)

In management, the concept of strategy is taken in broader terms. Strategy is all about asking the following questions: Where are we now? What is our situation? Where do we want to go? What business (es) do we want to be in and what market positions do we want to stake out for? What needs/groups do we want to serve, what outcomes do we want to achieve and last but not least how will we get there? In answering these questions, the management will be talking strategy.

The top management of an organization is concerned with the selection of a course of action from among different alternatives to meet the organizational objectives. The process by which objectives are formulated and achieved is known as strategic management and strategy acts as the means to achieve the objective. Strategy is the grand design or an overall 'plan' which an organization chooses in order to move or react towards the set of objectives by using its

resources. Strategies most often devote a general course of action and an implied deployment of emphasis and resources to attain comprehensive objectives. An organization is considered efficient and operationally effective if it is characterized by coordination between objectives and strategies.

There has to be integration of the parts into a complete structure. Strategy helps the organization to meet its uncertain situations with due diligence. Without a strategy, the organization is like a ship without a rudder. Without an appropriate strategy effectively implemented, the future is always dark and hence, more are the chances of business failure.

1.1.2. Strategy Implementation and Challenges

Successful organizations stay tuned to their internal and external environments and adapt quickly and flexibly by changing their internal processes, systems, competencies, products and services. They implement these changes while continuing to operate efficiently and effectively. Besides the activities that need to be accomplished if an organization wants to implement its strategies, one should not neglect variables in the organizational context that could hinder or represent obstacles to stakeholders and effective strategy implementation. The challenges range from but are not limited to non-involvement of most employees and stakeholders in strategy formulation and implementation, existence of different groups pulling in different directions, delay or lack of necessary information, changes in economic conditions, inadequate resources, organizational leadership, rigidity, stakeholders resistance to change, inadequate rewarding systems, sharing of the organizational vision, culture etcetera.

1.1.3. ICT Strategy

ICT Strategy is about leadership, attitude, belief and anchoring technology towards the business processes. New systems take time to bed in, cost money; bring in disruptions and chaos if not properly managed. Managing change is fundamental to the success of ICT. However bad your current system is, the new one will change the way you work, meaning your files could end up in different places and may cause new pressures on how organizations do their jobs. Working together is fundamental: It includes an ICT Vision, high level ownership, budget and predicted "return on investment" across the organization.

Technology does not work in isolation, training both internal and external stakeholder on its utilities/benefits is paramount, remember ICT costs resources. The organizations ICT strategy should be short, simple, able to clearly articulate benefits, what it wants to do and why, best built in phases and lastly able to support and accommodate change.

1.1.4. University Loans Program in Kenya

Like most African countries, higher education in Kenya was historically free, with the public purse covering both tuition and living expenses. The rationale for free higher education was based, among other things, on the country's desire to create highly trained manpower that could replace the departing colonial administrators. In return, graduates were bound to work in the public sector for a minimum of three years. Economic difficulties, and the alarming increase in population, coupled with rising oil prices of 1973 changed this trend and resulted in the reduction of the recurrent budget allocated to higher education, and eventually the introduction of user charges.

Austerity measures in the public budget for higher education, coupled with the poor performance of the sector in promoting access and equity in the eighties, has lead the government of Kenya to introduce a mechanism for cost-sharing and user charges in higher education.

In 1994, the government of Kenya decreased the education budget stating that it was not possible to allocate additional funding to higher education. This shortfall in the public budget for higher education brought about the impetus for institutions to look for alternative income generating sources, in effect, reducing their overdependence on the government budget. To this end, several strategies were developed among them the creation of the Higher Education Loans Board, the Government of Kenya institution mandated to disburse and recover loans to the university students to enable the needy students to access higher education institutions.

1.1.5. Government Sponsored Medical Students

Stakeholders in the university loans scheme are diverse. The main sponsor of the university loans program is the Government of Kenya on behalf of its people. The Government every financial year allocates a certain percentage of its budget to finance higher education. Part of this is forwarded to the Higher Education Loans Board to distribute to the needy university students using a means testing instrument developed by the institution. By extension therefore, HELB is therefore the management agent of this scheme. The beneficiaries are Kenyan Students attending private and public chartered universities in East Africa. The students range from the ones studying for the undergraduate and postgraduate programs.

The Government Sponsored Medical Students are admitted through the Joints Admissions Board. Public Universities in Kenya and their constituent colleges conduct a joint admission exercise to their universities under a common framework called the Joint Admission Board. This

is mainly to ensure access to university education, based on academic merit for institutional-based undergraduate students. This excludes students who are admitted to distance education and the self-sponsored programmes. Students admitted through the board get funding from the government directly and those who wish to apply for loans through the students funding programme are normally encouraged to apply. This admission exercise is performed annually before the start of each academic year.

1.2 Research Problem

Strategy implementation is the process through which a chosen strategy is put into action. It is the action stage of strategy management. It can also be defined as that phase in strategic management process when actions are taken to actualize approved plans. ICT strategy is the process of mainstreaming the ICT activities to support the overall organizational Strategic Plan. It enables organizations to deliver services effectively and efficiently, helping the organization reach more people and ultimately do more with their money by use of ICT.

Higher Education Loans Board is the agency mandated to manage the students Loans Scheme in Kenya. It was formed in 1995 and since then has instituted many measures in automating its processes and interactions with its clients. The loan application process, the payments and the recoveries of the said loans are marginally computerized. This has brought a myriad of challenges to its stakeholders due to a variety of issues that will be discussed in this paper

Some Strategy Implementation strategies are unique to the contexts but others are generic across all industries. Studies of strategic implementation challenges has gained root locally in various forms and fora. Kagori (2010), in her study of Challenges of Strategic Planning in Public Organizations in Kenya concludes that the challenges for the organizations is to build process

elements that provide for access and methods to deal with and adjudicate the challenges that come with Strategic Planning. Awino et al (2012) in their paper “Strategic planning in turbulent environment: A Conceptual View”, discusses how Strategic planning in organisations can match the pace of changes in the business environment. Chelimo (2008) concludes that there is need to for Strategic Audits as part of the organizational structure in measuring performance of the organizations. These audits will act as a monitoring, evaluation and control tools in the Strategic process. Beer and Eisenstat (2000) in the issue of "Sloan Management Review," in their paper titled the six silent killers of strategy implementation where he lists down all the key management practices in overcoming these challenges.

Kloppenborg and Laning (2012) advise leadership teams on implementing strategy through identifying, selecting, prioritizing, resourcing, and governing an optimal combination of projects that collectively helps them achieve their strategic goals. In crafting and Executing Strategy, Thompson et al (2012) concludes that success of strategy is directly attributable to the caliber of a company’s strategy and proficiency with which the strategy is executed in order to successfully address the challenges that come with it.

In pursuit of this study, we can observe that several studies have been conducted on strategy implementation challenges but none has been discussed in the context that is to be discussed in this paper. It is imperative to note that Strategy implementation has many challenges unique to specific contexts but none has been discussed in the area of Implementing ICT Strategy in University Students Loans’ Scheme in Kenya from the government sponsored students’ perspective. Therefore, the study seeks to establish and offer solutions to the challenges that students in general face and in this case we focus on the medical students caused by the processes of the students’ funding scheme being technologically driven through the

implementation of HELB's ICT Strategy. Therefore what challenges related to HELB implementing its ICT Strategy are the medical students in Modular I programmes encountering in their bid to secure funding from the students loans fund?

1.3 Research Objectives

The objectives of this study therefore are:

- i. To identify the challenges faced by the medical students on application of the student loans from HELB.
- ii. To offer solutions to HELB's strategy formulation and implementation process that will mitigate the negative effects on the students if any.

1.4 Value of the Study

Resource-based theory in Strategic Management is where a firm's resources enable them to achieve competitive advantage, and a subset of those that lead to superior long-term performance which gives a static view of the resource portfolio of the firm. It does not adequately explain the reason for competitive advantage during rapid and unpredictable change. The RBV theory breaks down at high velocity markets. The strategic challenge for managers is to maintain competitive advantage and the duration of advantage is highly unpredictable in a fast changing environment. It is here that Dynamic Capability Theory provides some explanations. Competitive advantage gained by firms in such scenario can be attributed to dynamic capabilities developed by such firms. Dynamic capability refers to the ability of a firm to utilize its resources effectively so as to achieve congruence with the changing business environment. This theory will be discussed deeply in this research either to support or disapprove its application in this context.

This study also tries to explain the policies of the government governing the financing of Higher Education as one of the Social Pillars in its Vision 2030. In the Medium Term Plan: 2008-2012 and beyond, the Government's reform agenda for the education sector was expected to yield higher transition rates to both secondary and university education. The vision for the educational sub sector "To have a globally competitive quality education, training and research for sustainable development". As a result of the substantial government's investment in the education subsector and according to the Medium Term Plan (MTP) 2008-2012 projections, the transition rate from secondary to university education was expected to rise from 3% in 2008 to 15% by the year 2012.

HELB occupies a strategic position of market leader in the business of student loaning in the Eastern Africa region and contributes significantly to the economic development in the country. As the premier institution, HELB disbursed Kshs 2.86B to 63,400 students in the 2008/09 financial year and is expected to meet unprecedented Kshs. 11.76B loan requirement at the end of the plan period 2013/2014 for a projected student population of 226,942.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will examine and explain the previous literatures that have been published locally and internationally by scholars on Strategy Implementation, its challenges and the solutions offered. It will discuss the existing theories supporting or negating the theory that will be propagated at the conclusion of this research. The chapter will also discuss what has been studied in relation to the university loans schemes, the success schemes, what makes them tower above others, their processes and challenges. It will also examine the studies that have been done on how organizations translate the strategy into action.

2.2 Theoretical Perspectives

Various theories have been developed by various scholars in this study of Strategic management. Among the theories that to be discussed in relation to this research topic are Resource Based theory by Rumelt (1991) on performance of the firms based on its resource capabilities, Dynamic Capability Theories on the dynamisms of the resources and its applications, Knowledge Based View which also extends the resource based view theory, the Agency theory that explains the stakeholders powers over the success of the organization. This research will add value to any of the above theories.

2.2.1 Resource-Based Theory

Rumelt (1991) describes the firm as a bundle of resources and capabilities. These resources and capabilities are made up of physical, financial, human and intangible assets. The theory is conditioned on the fact that resources are not homogenous and are limited in mobility. The firm can translate these resources and capabilities into a strategic advantage if they are valuable, rare,

in-imitable and the firm is organized to exploit these resources. It was found that the RBV or the firm's competitive advantage is one of the main strategic management theories applicable to explain organizational performance, and it is also a part of the larger management theory family. Examining organizational competitive advantage from the RBV allows the organization to gauge the magnitude of importance placed upon its internal firm resources and capabilities in particular towards attaining a competitive advantage level, thus providing further support and extension to the RBV.

2.2.2 Dynamic Capability Theory

Teece et al. (1997) define dynamic capabilities as ‘the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments’. The concept of dynamic capabilities arose from a key shortcoming of the resource-based view of the firm. The RBV has been criticized for ignoring factors surrounding resources, instead assuming that they simply “exist”. Considerations such as how resources are developed, how they are integrated within the firm and how they are released have been under-explored in the literature.

Dynamic Capabilities Theory attempts to bridge these gaps by adopting a process approach: by acting as a buffer between firm resources and the changing business environment. Dynamic resources help a firm adjust its resource mix and thereby maintain the sustainability of the firm's competitive advantage, which otherwise might be quickly eroded. So, while the Resource Based View emphasizes resource choice or the selecting of appropriate resources, dynamic capabilities emphasize resource development and renewal. According to Wade and Hulland (2004), Information Systems resources may take on many of the attributes of dynamic capabilities, and thus may be particularly useful to firms operating in rapidly changing environments. Thus, even if Information Systems resources do not directly lead the organization to a position of superior

sustained competitive advantage, they may nonetheless be critical to the firm's longer-term competitiveness in unstable environments if they help it to develop, add, integrate, and release other key resources over time.

2.2.3 Knowledge-Based View

The firm is a bundle of knowledge in this application which extends the Resource-Based View adds (Phelan and Lewin, 2000). They describe knowledge as a specific and special resource at the heart of the firm. Knowledge is both highly heterogeneous, difficult to imitate and difficult to understand by those outside the firm.

In this theory, knowledge forms the basis for competitive advantage. It should be noted that there are some researchers who question whether this is truly a theory of the firm. As such it is noted as a view. It provides a strong theoretical underpinning for the organization learning and intellectual capital resource. Knowledge is considered to be a special strategic resource that does not depreciate in the way traditional economic productive factors do

2.2.4 Agency Theory

Eisenhardt (1989) explains that the Agency theory is about goal incongruence between owners / principals / managers / shareholders and those they employ (agents). It describes the firm as a nexus of contracts. The problems that agency theory addresses are the ones that arise when the desires or goals of the principal and agent are in conflict and the problems that arise when the principal and agent have different attitudes towards risk because of different risk tolerances.

Contracts between parties operate best when they are efficient in sharing of risks and information and they recognize the variability of party's goals. Zajac and Westphal (2002) states that The Agency theory suggests that boards of directors act as monitors hired by shareholders to watch

over the executives in order to preserve their interests over the managers' interests. He also explains that some key stakeholders like debenture holders and long-term financiers or bondholders also sit in the boards to protect the interests of the loaning agencies.

2.3 Strategy Implementation and Challenges

Ansoff in 1965 described strategy as “moving from where you are to where you want to be in the future-through sustainable competitive advantage”. Mintzberg in 1994 described strategy as “a pattern in a series of decisions or action”. Chandler incorporates the how of achieving firm's intentions “the process of determining the basic long-term goals and objectives of an enterprise and adopting courses of action and allocating resources necessary for carrying out these goals”. Andrews (1971), in explaining strategy took into account Drucker and Chandler's ideas, “pattern of objectives, purposes or goals and the major policies and plans for reaching these goals”.

An important realization that emerges from this discussion of strategy making as a decision-making process is recognition that strategic management fulfills multiple roles within the organization. We can view strategy as a vehicle for achieving three key managerial purposes: Strategy as Decision Support, Strategy as a Process for Coordinating and Communicating and Strategy as a target.

According to Glueck, (1988) “Strategy is the unified, comprehensive and integrated plan that relates the strategic advantage of the firm to the challenges of the environment and is designed to ensure that basic objectives of the enterprise are achieved through proper implementation process” Strategy as decision support can be said as a pattern or theme that gives coherence to the decisions of an individual or organization. They further aver that any strategic process is broken into two phases-Formulation and Implementation. Decision making that is intentionally

rational, but is constrained by human beings' limited search and information processing capacity-creates the need for a strategy to establish a set of guidelines and criteria for how individual decisions will be made.

Smeltzer et al (1991) add that Strategy aids as a Process for Coordinating and Communicating and helps achieve consistency in decisions. The shift of responsibility of strategic planning from corporate planning departments to line managers and the increased emphasis on discussion of the businesses and the corporate are part of this increased emphasis on strategic planning as a process for achieving coordination and consensus within companies.

Hills and Johns (2009) state that Strategy implementation is the translation of chosen strategy into organizational action so as to achieve strategic goals and objectives. Strategy implementation is also defined as the manner in which an organization should develop, utilize, and amalgamate organizational structure, control systems, and culture to follow strategies that lead to competitive advantage and a better performance.

Pearce (1991) explains that the first concern in the implementation of a grand strategy is to translate the strategy into action throughout the organization. The strategy plans could be divided into three parts namely the Annual Objectives, the functional strategies and policies. He further defines as the annual objectives of strategy as being derived from the organizations long term objectives which they translate to current targets. He therefore concludes that Strategy must be institutionalized. Pearce also defines that a typical business strategy will cover a period of about 3-5 years (sometimes even longer). He describes functional strategies as those derived from the business strategy. They define the immediate, specifications that must be taken into consideration in the functional areas to implement the grand strategy.

Pearce further defines four fundamental organizations elements that must “fit” a strategy for the strategy to be effective namely organizational structure, leadership, culture and reward systems. Organizational structure allocates special value developing tasks and roles to the employees and states how these tasks and roles can be correlated so as maximize efficiency, quality, and customer satisfaction-the pillars of competitive advantage. But, organizational structure is not sufficient in itself to motivate the employees. An organizational control system is also required. This control system equips managers with motivational incentives for employees as well as feedback on employees and organizational performance. Organizational culture refers to the specialized collection of values, attitudes, norms and beliefs shared by organizational members and groups. Excellently formulated strategies will fail if they are not properly implemented. Also, it is essential to note that strategy implementation is not possible unless there is stability between strategy and each organizational dimension such as organizational structure, reward structure, resource-allocation process, etc.

Pearce therefore concludes that the implementation of organization strategy involves the application of the management process to obtain the desired results. Particularly, strategy implementation includes designing the organization's structure, allocating resources, developing information and decision process, and managing human resources, including such areas as the reward system, approaches to leadership, and staffing.

Mintzberg (1978) clarifies that planning theory postulates that the strategy-maker "formulates" from on high while the subordinates "implement" lower down. Unfortunately, however, this neat dichotomy is based on two assumptions which often prove false: that the formulator is fully informed, or at least as well informed as the implementor, and that the environment is sufficiently stable or at least predictable, to ensure that there will be no need for reformulation

during implementation. The absence of either condition should lead to a collapse of the formulation-implementation dichotomy, and the use of the adaptive mode instead of the planning one. Strategy formation then becomes a learning process, whereby so-called implementation feeds back to formulation and intentions get modified en route, resulting in an emergent strategy. Technology is rapidly expanding leading to increased use of computers, internet, mobile phones and Televisions. This not only affects the way organizations, their customers, suppliers and partners interact but how they do business with each other. The organizations have to interlink electronically with their stakeholders as knowledge is becoming a key asset and a source of competitive advantage (Wheelen and Hunger, 2008). Technology possesses a serious challenge to Strategy implementation and cannot be wished a way rather should be adopted.

Organizations require appropriate resources in terms of quality and quantity for the support of strategy implementation, evaluation and control. Knowledge stakeholders are required for success in strategy Implementation (Mintzberg et al 1999). The organization to have to set recourses in terms of financial, time, personnel which stretches the abilities of most organizations

Few hard and fast rules for organizing strategy is the common one big rule: that is the role and purpose of organization structure is to support and facilitate good strategy execution. Each firm's structure is idiosyncratic, reflecting. Its normally advisable to organize the structure prior to the internal politics. Executive judgments and preferences about how to arrange reporting relationships and how best to integrate and coordinate work effort of different work groups and departments. The challenge in this case is how to sustain the tempo and focus that that was there at the planning stage since most strategies end up in the shelves or not being obeyed at all due to internal politics according to A. J. Strickland, A. A. Thompson and J. Gamble (2004)

The other challenge comes when environmental volatility affects the strategy implementation (Smit, 2000). This is normally the case in volatile environments like the current global market where an action in one corner of the globe has replicating effects in the rest of the world. In addition, insufficient involvement of the stakeholders at the Strategy formation stage is also a contributing factor (Owuor, 2011). Stakeholders will feel ambushed if they were not consulted or involved in the planning stages. Strategic Management is normally an internal process but it is wise to involve key stakeholders whose normal activities could be frustrated by the change of operations due to strategy change. This also brings in the aspect of communicating the strategy to all the stakeholders and thus it is not out of context to mention the communication of Strategy as another important aspect of strategy implementation.

Tushman and O'Reilly (2002) stress that firms are continuously being challenged and increasingly by skilled competitors at the market place where changes in products, technology, knowledge, and sales and marketing methods are frequent. The firms have been able to meet the challenges because they have productively exploited the contradiction between on the one hand structured decision-making and implementation processes and on the other hand creative norm-breaking decisions that have made the firms competitive on the edge of technology and knowledge. They however advise that in order to do so the managers have sometime had to push rather strongly new ideas that were not easily accepted by other managers or by the organization because it was not clear how the ideas related to the everyday understanding within the firm. To some extent, this might not form a severe problem since organizational inertia frequently is a healthy sign of the fact that it is not productive to change processes that solve problems yet they are supposed to solve and create the solutions necessary to do so. It signifies that norm-breaking ideas often have the best chance in conditions of crisis (Tushman and O'Reilly, 2002).

A fundamental premise is based on a contingent view of leadership: at certain times organizational learning processes thrive under transactional leadership, and at other times they benefit more from transformational leadership. In times of stability, organizational learning processes serve to refresh, reinforce, and refine current learning a task best suited to transactional leadership. However, this contingent characterization presents a very gestalt view of the dominant processes in an organization. More accurately, every organization faces the challenges of both change and stability (Tushman and O'Reilly, 1996). An ideal strategic leader would be able to identify and exercise the leadership behaviors appropriate for the circumstances. An effective CEO, for example, would recognize when feed-forward or feedback learning is called for, or particular learning stock needs to be developed, and what type of leadership style would best suited for the circumstances. Nachman and Shrivastava (1989) conclude that these characteristics of strategic decisions put special demands on the leadership managing strategy implementation activities. They must be capable of adapting to drastically changing conditions, and operating in flexible, unstructured environments.

2.4 University Loans Schemes

According to Ziderman (2003), most countries in Asia are experiencing a dramatic increase in demand for higher levels of education at a time of both severe public budget constraints and profound overhaul of education systems aimed at significantly increasing their impact and relevance. In an attempt to ease the burden on public budgets, a number of countries have introduced student loans schemes, hoping to recover costs and increase the revenue base for the expansion of education, while at the same time providing opportunities for poorer segments of the population to access higher levels of education.

On the Student loans in Thailand: are they effective, equitable, sustainable?, he explains the broad configuration of the Student Loans Scheme (SLS) which was set out in a Cabinet document prepared by the Ministry of Finance in March 1995 (Ministry of Finance, 1995); the Cabinet adopted the document, both the general concept and the details of the Student Loans Scheme. The Scheme was to be put in place in the 1996 academic year, under the responsibility of the Ministry of Finance. The Scheme had been operated under the Cabinet regulation until the promulgation of the Student Loans Fund Act in March 1998.

The act further states its purpose; "... there is a need to develop human resources in order to achieve economic growth and to increase the competitive capacity of the country. Given these needs, educational development needs to be accelerated. Existing problems of educational inequality within society can be solved by enlarging the educational opportunities of students from low-income families. This will play a major part in improving general living standards. To achieve these goals, it is necessary to establish the Student Loans Scheme". In the Act itself, the only objective mentioned is "to lend money to poor students for tuition, educational expenses and other expenses necessary for living during studying" (Thailand's Students Loans Fund 1998, Clause 5). The declared aim of the Thai loans scheme to increase the access of the poor to upper secondary and tertiary education – through the targeting of loans to needy students under extremely favourable repayment conditions – has been complemented, de facto, by other objectives.

Blomand (2004) in a World Bank project pointed out that, in Mexican higher education sector, by the year 2000; almost two million students were enrolled in higher education. The enrollment rate in tertiary institutions is 21% in 2000/2001 (data from UNESCO; that defines enrollment rates as a percentage of the 5-year age cohort following on from the upper secondary-school

leaving age).³ Educational attainments shows an upward trend in Mexico. The relative supply of skilled workers with higher education was about 40% higher in 1999 than in 1987 (cf. De Ferranti et al., 2002). Estimates of the (annualized) private return to higher education in Mexico ranges from 13% (DeFerranti et al., 2002) to 24% (Chapman 2003b).

The relative wages of workers with tertiary education increased substantially over the past 15 years in Mexico, as well as in most other Latin American countries (De Ferranti et al., 2002). In combination with the observation that the relative supply of high-skilled workers has also increased, this points to the emergence of skill-bias technological change possibly related to increased openness of the Mexican economy. About 71% of the students in higher education are enrolled in public institutions, and 29% attend a private university. The physical capacity of public universities is limited, and there exists a large unmet demand in the public higher education system. About 80% of the applicants at public universities are denied access due to insufficient capacity, although about half of this group is academically qualified. Students who are not accepted at a public university could try to enroll in a private university.

In conclusion, At the same time, the prospect of meeting the rising costs of the rapidly increasing African demand for higher education with only public revenues seems even more remote, making some cost-sharing and subsidy targeting in African higher education, however limited, an imperative. Previous findings also suggests that so far, the cost sharing policy on higher education has had very significant impact on the expansion of university admissions in Kenya as most of the government subsidies could be directed to infrastructural improvement/expansion of the universities to expand their capacities to enroll more students. Addressing challenges that arise from strategy implementation in financing students' education is therefore paramount and is yet to be studied.

CHAPTER THREE: RESEARCH METHODOLOGIES

3.1 Introduction

This chapter dealt with the research design methodology that was used in the study. The chapter was organized into subheadings which includes research design, study population, sampling design, sampling method, techniques and procedures, data collection and procedures, and data analysis presentation

3.2 Research Design

Research design can be defined as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with the research purpose. Any collection of data from a sample of individuals (or groups) at a particular point in time as a basis for inferring the characteristics of the population from which the sample comes is known as a cross sectional survey. This survey of a population can be one-off or repeated at regular intervals thereby providing a means of ‘monitoring’ changes in the population in response to societal and policy change.

Cross-sectional surveys are described as ‘descriptive’ or ‘analytic’ depending on whether the prime purpose is to provide descriptive estimates of the population's parameters or to test hypotheses about the relationships between the variables encompassed by it. The data was collected, studied and analyzed using cross-sectional survey statistical method.

3.3 Population of the Study

Also referred to as Study Population, Polit and Hungler (1999:37) defines that population in the research context as an aggregate or totality of all the objects, subjects or members that conforms

to a set of specifications. Study population is a group of individuals, objects or items from which samples are taken for measurement. Population therefore refers to the entire group of people, events, things or interest that the researcher wishes to investigate. The researcher in some cases might prefer to conduct a pre-testing interview that might help to find out the most appropriate time when the respondent shall be available. This enables the researcher to plan the interviews accordingly.

In this study, the study population was the government sponsored medical students of the University of Nairobi and the HELB staff members serving them. The government sponsored medical student population stands at about 700 and the HELB staff population approximated to be about 120. The researcher ensured that the selected population met the quality of representativeness, diversity and un-biasedness.

3.4 Data Collection

Data collection is the gathering of specific information aimed at proving or refuting some facts. Data collected can either be primary or secondary. Primary data is data collected at the source by the researcher himself, while secondary data is data collected previously by other researchers. Primary data was from questionnaires issued to the targeted population. Secondary data will be from journals, websites and other previous done research.

A total of 82 questionnaires were printed and distributed based on the 10% of the population as the sample size. Out of these 82 questionnaires 58 of these questionnaires were filled and returned making it a percentage success of 71% return. They were handed over the questionnaires and given reasonably ample time to fill the questionnaires and return.

The questionnaires were distributed by the researcher in the HELB service counters and to the office of the Assistant Registrar, University of Nairobi's School of Medicine where the researcher booked an appointment and personally visited. Data was collected by the researcher personally and where not possible, the instruments was left with the respondents and collected at agreed times. The researcher kept a record of the questionnaires, where they were distributed and the dates distributed and returned.

3.5 Data Analysis

Data analysis refers to examining what has been collected in a survey or experiments and making deductions and inferences. It involves uncovering underlying structures, extracting important variables, detecting any anomalies and testing any underlying assumptions.

These data most of which was qualitative data, was coded and entered in a computer using SPSS Statistics 17.0 after which analysis was done using descriptive statistics. The major purpose of descriptive statistics is to describe characteristics of a population or phenomenon. It seeks to determine the answers to who, what, when, where, and how questions. This therefore gave the researcher a quick picture of how the variables behaved. It also enabled the description of the distribution of the research variables using a few indices or statistics. Tables and graphs were created which gives an objective pictorial opinion of the behavior of the variables.

CHAPTER FOUR: DATA PRESENTATION AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter contains findings of the study, which have been presented under various thematic headings in line with objectives of the study, including Challenges of Implementing ICT Strategy in the University Students Loans' Scheme and proposals on how these challenges can be addressed.

The provision of ICT in Kenya is affected by a number of challenges. Information and Communication Technologies are costly and require a number of conditions to be met (for example, stable supply of electricity, ICT expertise and training, literacy and equipment maintenance). Yahya (1993) examined some of the problems facing efficient use of information technology in developing countries. He concluded that they result from, among other factors, the high costs of imported systems (both hardware and software, the lack of sufficiently trained personnel and deficiencies in the industrial infrastructure. Opoku-Mensah (2008) provides a partial explanation about the reasons that account for a limited pool of ICT practitioners and ICT educators in Africa. She believes that there is a “lack of scientific capacity due to the limited number of trained scientists and researchers in the continent.”

In our findings we will categorize them into 6 broadened categories namely awareness, experience in using HELB ICT Systems, success rate of the ICT Strategy in the University Loans Scheme, challenges, measures to address the challenges affecting ICT Strategy Implementation and conclusion.

Figure 1: Age of Respondents

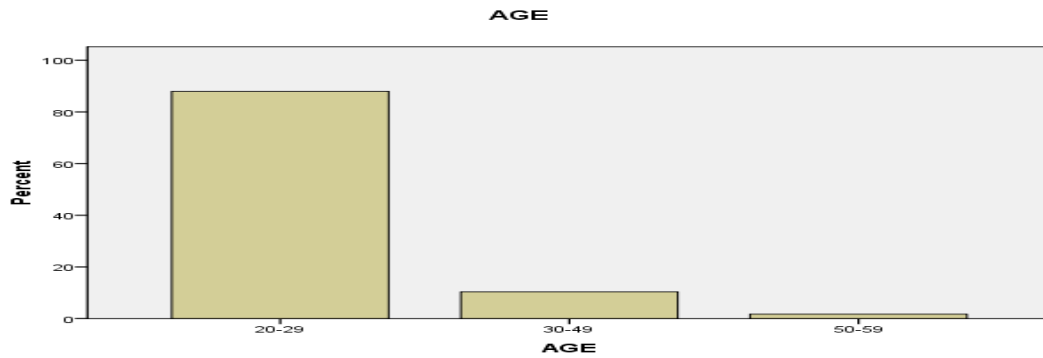
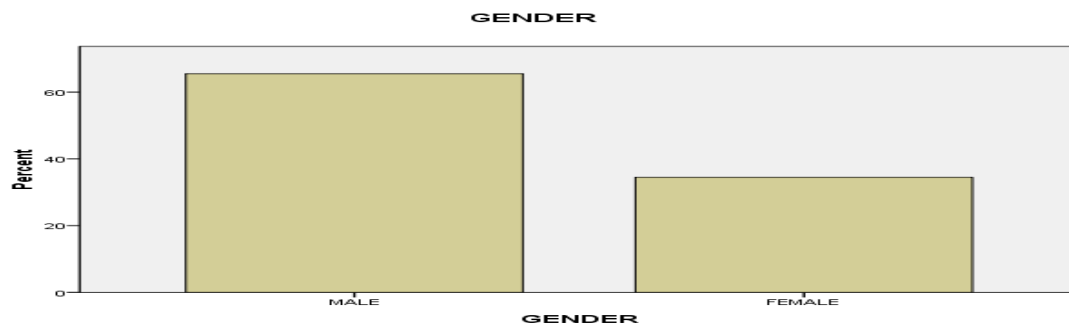


Figure 2: Gender of Respondents

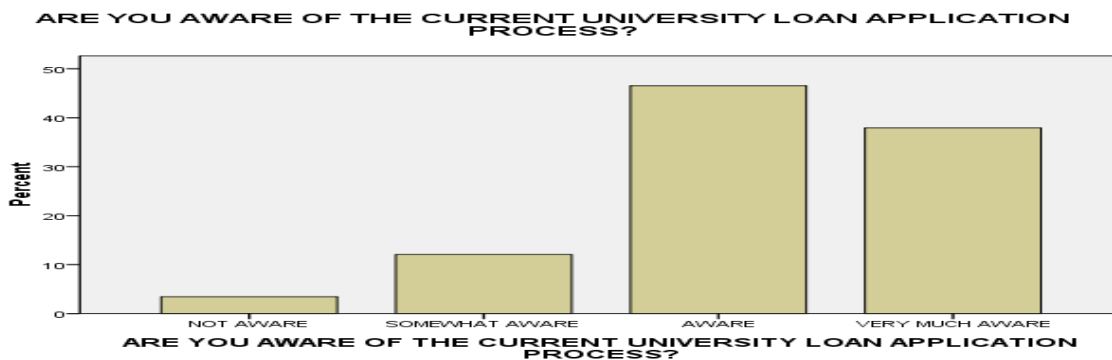


As can be seen from the figures 1 and 2 above defining the demographics of the respondents, over 80% of the respondents were below 30 years of age. This could be explained by the fact that most over 80% of the respondents were University Students and the rest were HELB staff members serving the said students. It can also be noted that the male were slightly over 60%, the rest being female. This in the research was caused by the natural comparative shyness of ladies to participating in surveys and also the admission criteria of the University's school of medicine which has more male than female..

4.2 Awareness of the University Loans Scheme

As per www.thefreedictionary.com awareness is the knowledge gained through one's own perceptions or by means of information, cognizant and consciousness. Awareness of the University Loans Scheme hereby means that the knowledge of the ICT strategic focus of the Students Loans Scheme and its processes. As per our findings, we established that 96.6% of the respondents were aware of the University Loans Scheme and its processes as per the graph below

Figure 3: Awareness of the ICT Processes



4.3 Experience in Using HELB ICT Systems

According to Ziderman (2003), in attempts to ease the burden on public expenditure, a number of countries have introduced student loans schemes, hoping to recover costs and increase the revenue base for the expansion of education, while at the same time providing opportunities for poorer segments of the population to access higher levels of education.

In our research findings we have established that 93.1% of the respondents had applied and have experience with the loans scheme using its ICT systems. The rest did not have an experience. A negligible 1.7% did not respond. This proves that the austerity measures that Kenya has

introduced in the higher education sector as is indicated in the literature review is actually being supported by the ICT Strategy at the Students Loans Scheme. This therefore also confirms Ziderman's research is also applicable to Kenya as indicated in the table below

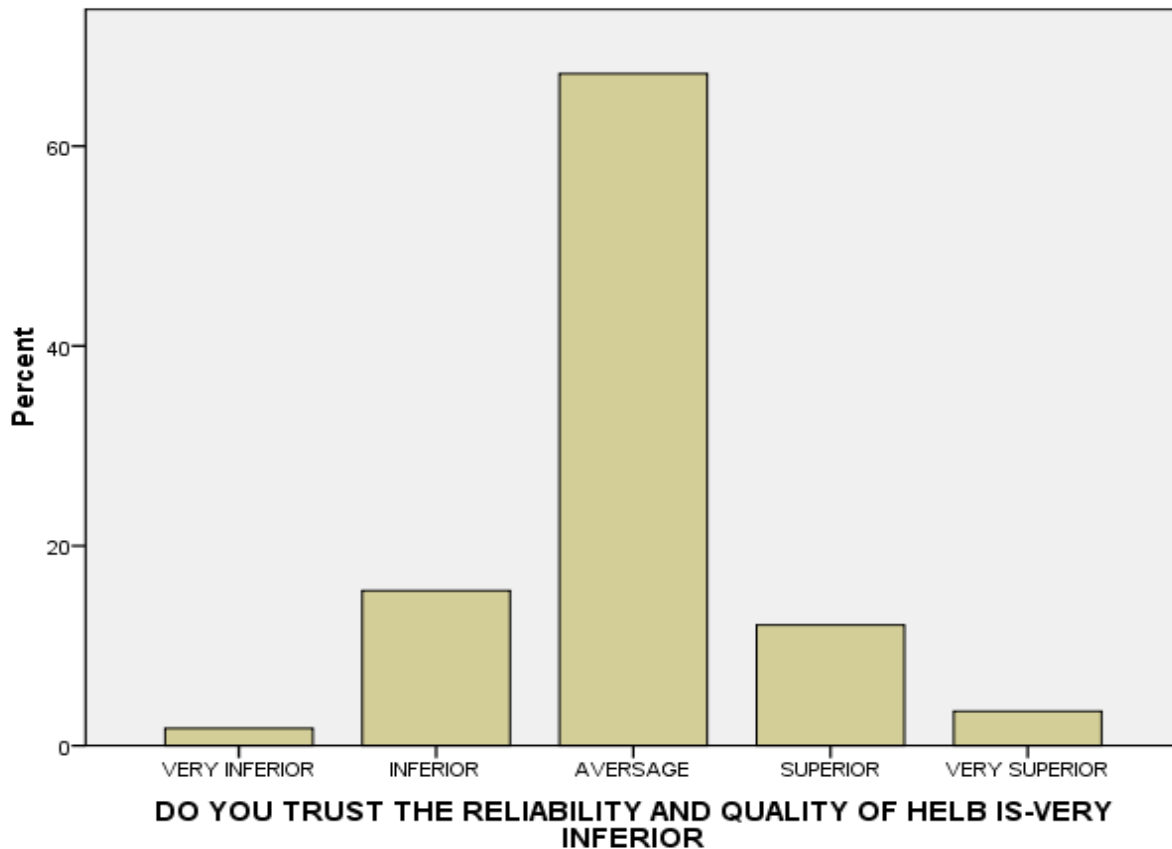
Table 1: Relation with the Loans Scheme

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STUDENT	28	48.3	49.1	49.1
LOANEE	18	31.0	31.6	80.7
NO Experience	3	5.2	5.3	86.0
HELB Employees	8	13.8	14.0	100.0
Total	57	98.3	100.0	
No Response	1	1.7		
Total	58	100.0		

As has been said in the earlier chapters, the current University Students Loans Scheme is managed by the Higher Education Loans Board popularly known as HELB to the students. Most students indicated that they had accessed the student's loans scheme product through their personal modems, Cyber-Cafés, Universities' Wi-Fi and others. Out of these, 23.87% of the students preferred accessing the students' loans scheme through the Mobile Phones and Cyber-Cafes respectively, universities' Wi-Fi and personal visits to the HELB Offices following closely at 22.42% and 20.87%.

Most of the respondents as shown from the below graph, believe that the HELB's ICT Systems are not inferior. They indicated the reliability of the systems as average in providing them with the required service. All they indicated for is that the systems be improved.

Figure 4: Reliability and Quality of HELB ICT Systems

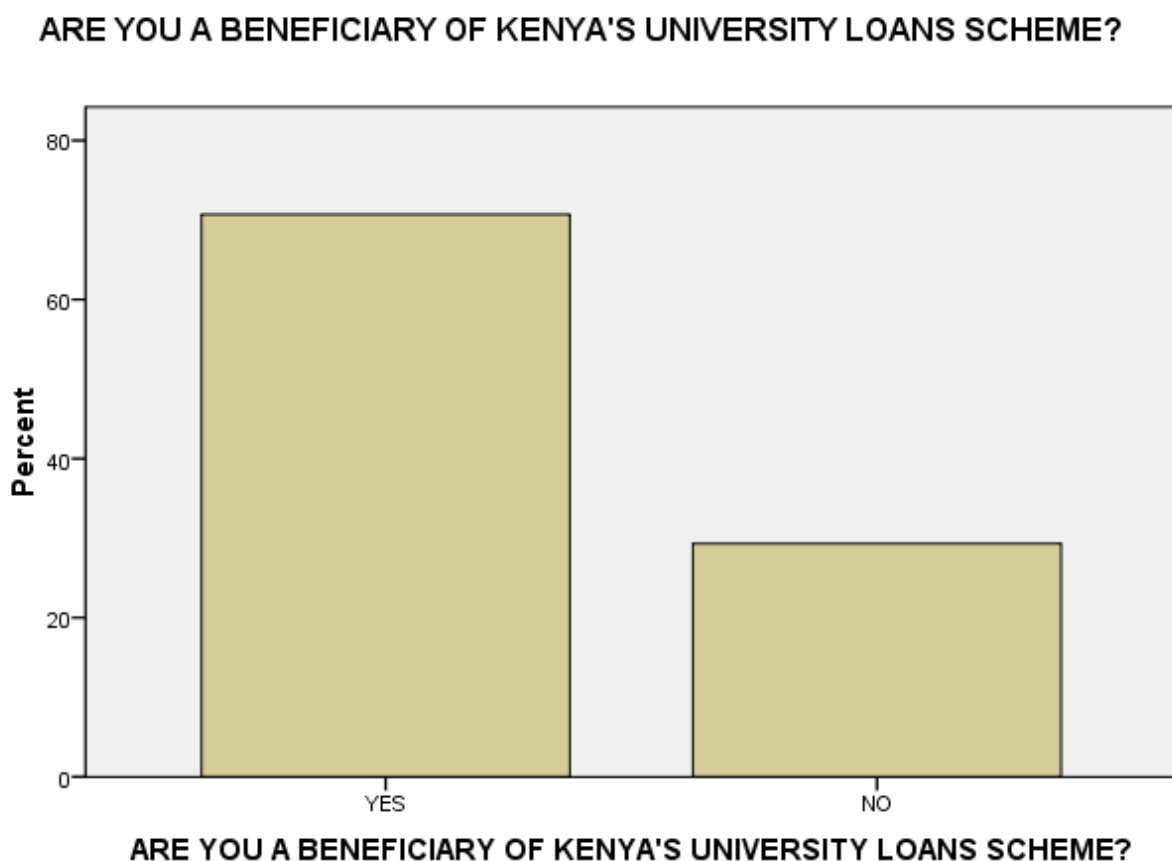


4.4 Success Rate of Medical Students in applying for the financing facility

Success rate is the fraction or percentage of success among a number of attempts, and may refer to as opportunity success rate. Out of the applicants of the University Loans Scheme using HELB's ICT systems, as indicated below we can see that the success rates of the beneficiaries is at 70.7% therefore confirming the success of the application of ICT Strategy in the university

loans scheme. However as per the HELB documentation www.helb.co.ke, the success rate of the program stands at over 90%. This difference in success rate of medical students could be as a result of the background of majority of the med students in comparison to students in the Kikuyu campus which hosts predominantly education based causes with a success rate of about 95%.

Figure 5: Are you a Beneficiary of the Loans Scheme



On further investigation with the HELB offices, we realized that as at the time the data collection was being undertaken, some first year's loans had not yet been processed and thereby possibility of the 70.7% going up could not be ruled out.

4.5 ICT Strategy Implementation in the University Loans Scheme

Table 2: Do you understand the HELB Strategic focus?

DO YOU UNDERSTAND THE HELB ICT STRATEGIC FOCUS				
Option	Frequency	Percent	Valid Percent	Cumulative Percent
YES	2	3.4	3.4	3.4
NO	53	91.4	91.4	94.8
ADEQUATELY WELL	2	3.4	3.4	98.3
VERY WELL	1	1.7	1.7	100.0
Total	58	100.0	100.0	

Using information and communication technologies (ICT) in a strategic way, and implementing it as was anticipated in HELB's Strategic Plan 2009-2014, is a central element of the success of the plan. As can be seen from the table above, a whopping 91.4% of the respondents did not understand the HELB ICT Strategy. This really paints a grim picture on HELB's process of strategy formulation and implementation.

The respondents further gave the following ideas to improve the knowledge of HELB's ICT strategy by the stakeholders. The suggestions were diverse as follows: adequate educational campaigns and training of the students as part of the strategic plan, use of more modern technologies which students nowadays prefer such as SMS, Emails, Social platforms like

Facebook and Twitter, linkages with university websites, more so having HELB's strategy document at a more pronounced page, well located suggestion boxes and better implementation strategies by involvement of the stakeholders in the process.

4.6 Challenges of Implementing ICT Strategy in the University Students

Loans' Scheme

Although valuable lessons may be learned from best practices around the world in implementing ICT Strategies, there is no one formula for determining the optimal level of ICT integration in businesses with their stakeholders. Significant challenges that policymakers and planners, educators, institutional administrators and other stakeholders need to consider include educational policy and planning, infrastructure, language and content, capacity building, and financing. The challenges identified by this research in implementing ICT Strategy in the University loans Scheme were diverse but in varying degrees as illustrated below:

Most of the students acknowledged that the application process was quite difficult. These difficulties in the students loans application process was pointed out as caused by systems time-out, HELB website failure, connectivity failure due to poor ICT infrastructure, computer literacy levels, difficulty in acquiring some requisite government documents among many other difficulties that the researcher found out. This corroborates the previous researches conducted by Yahya (1993) where he pointing out at that computer literacy and ICT infrastructural deficiencies were major contributors to the low level of ICT Strategy success in Africa.

4.5 Suggestions' For Improvement to the ICT Strategy Implementation By The University Loans Scheme

A country's technology infrastructure sits on top of the national telecommunications and information infrastructure. Before any ICT based program is launched, policymakers and planners must carefully consider the expected implementation challenges and mitigate against them. Issues in respect to capacity-building, infrastructure-related challenges, implications of ICT-driven business processes, change management and Integrating ICT into the lives of the stakeholders. Various suggestions' were brought forward by the medical students on the measures that the students' loans scheme needs to employ to improve the Students Loans Scheme. The following table will be explained in the subsequent subtopics. Students had the option of choosing more than one option for their suggested improvements.

Table 3: Suggested Improvements

<u>Suggested Improvements</u>	<u>Preferred Responses</u>	<u>Percentage Responses</u>
Better Website Management & Better Response Time	24.2	29.16
Confirmation Screens Before Submission	1.7	2.05
Poor MTI	6.9	8.31
All Students Should be awarded loans	12.1	14.58
Everything should be done online	10.3	12.41
Continuous application Process with no deadline	5.2	6.27
Application should be reduced	10.3	12.41
Online help through phones/SMS/Email	8.9	10.72
Sharia Compliant Loans For Muslims	1.7	2.05
Training Education of applicants	<u>1.7</u>	<u>2.05</u>
Totals	83	100

4.5.1 Website Management

This can be defined as the multiple tasks involved in the administration of a Web site, including hosting, monitoring, maintenance and so on and verification that all contained links are active. Most of the respondents decried the unfriendliness of the HELB Website and were unanimous that drastic measures need to be taken to improve the site. The site was blamed for continuous hanging, inaccessibility, no help facility; the application process is very lengthy,

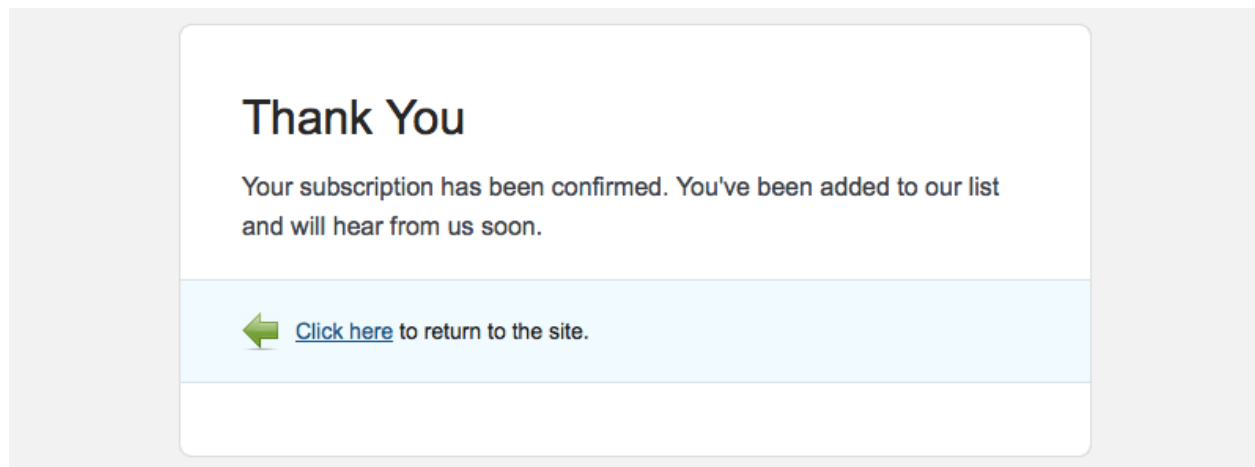
The suggestions for improvement of the website were among others; a fast and robust website management system, on-line help facility-through SMS, phone calls and social media, they also suggested that the whole process should be computerized and no physical forms should be printed, signed by the authorities and sent to HELB Offices as is done in the current system. In addition, they respondents also felt that the application process should be continuous to avoid last minute online application rush which is as per the Kenyan typical culture, incorporate increased computer literacy programs to HELB's ICT Systems among others. As per the above graph, 22.89% of the responses preferred that there is need for the inline application process be retained but its management to be improved.

4.5.2 Confirmation Screens before Submission

With this option enabled, the student will get a confirmation screen after filling in the form in which the form entries are displayed. The user can then choose to modify or confirm the entries. It also informs the student of a successful completion of the transaction. The screen also should also provide the reference number of transaction, which serves for better identification of the transaction before data is accepted for further processing.

This does not mean that the transaction will be always processed. 2.05% of the students in the study preferred that a confirmation screen be incorporated into the system to make it friendlier i.e. those whose forms have not been successfully transmitted will be aware. A snapshot of a confirmation screen can be seen below.

Figure 6: Model Confirmation Screen



Source: Internet accessed from <http://help.campaignmonitor.com/topic.aspx?t=187> on 2/10/2013 at 11:46 am

4.5.3 Poor MTI

Also known as the Means Testing Instrument, it is an internal mechanism for awarding loans based on a previously set criteria based on merit. MTI can be defined as a form of individual assessment that compares resources such as income belonging to an individual or household with some cut-off.

The Board applies a 'Means Testing' instrument in order to identify deserving students. Means tested financial assistance is expanding in other part of the world as well. Our investigation as shown in the table above indicated that 8.31% of the students believed that the MTI needs to be improved and was not fair.

4.5.4 All Students Should Be Awarded Loans

To maintain customer loyalty amid potential future competitive markets, HELB needs to increase lending to Kenyans as one good strategy for customer retention. The research also found out that new financiers, including commercial banks, are likely to encroach into the business of education loans where HELB's leadership role has remained uncontested in the past. It will therefore be prudent for HELB to adopt winning strategies aimed at maintaining student loyalty so as to grow its customer base.

From our survey as per the table above we have observed that 14.58% of the respondents felt that all the students who apply for loans should be awarded as per the mandate of HELB rather than be subjected to the rigors of verification. Most respondents also believed that some students were being awarded loan at the expense of deserving students. They therefore felt that the vetting was beating the purpose of the loan and should be scrapped

4.5.5 Continuous Application Process

As online technology continues to have a significant influence on the students' loans processes, the resources become overstretched thus calling for some balancing mechanism to accommodate the pressure. Continuous on-line application processes spreads wide the use of resources and therefore eases the pressures on the systems resources at the disposal of HELB.

6.27% of the students suggested that the application process for HELB Loans should be a continuous process and not an event every year. They believed that if this is implemented then the problems of system congestions during rush hours will be an issue of the past and therefore free the HELB website and employees from the rush of finishing up the forms.

4.5.6 Reducing the Size of the Application Form

The information required in the form also is way too much as per the respondents. This is because the form asks students information of as yore as their primary school to current address, their parents and guardians documentation, some secondary documentation that can only be found in other agencies like the Kenya Revenue Authority which also has its own bottlenecks.

12.41% recommended that as a way of improving the students' application process, the form should be drastically reduced and some unnecessary data removed. They believed that the huge amount of data that the HELB information system required could be contributing to the constant collapsing of the website.

4.5.7 Sharia Compliant Loans

Islamic banking is banking or banking activity that is consistent with the principles of sharia and its practical application through the development of Islamic economics. As such, a more correct term for 'Islamic banking' is 'Sharia compliant finance'. Sharia prohibits the fixed or floating payment or acceptance of specific interest or fees (known as riba, or usury) for loans of money.

Investing in businesses that provide goods or services considered contrary to Islamic principles is also haraam ("sinful and prohibited"). 2.05% of the respondents felt that the ICT Strategy on the University loans scheme was unfair to the Muslim Students who they said host approximately 11.21% of the Kenyan population as per the Kenya National Bureau of Statistics last Population and Housing Census.

4.5.8 Online Help through Phones/SMS/Email

Stands for "Short Message Service." SMS is used to send text messages to mobile phones. The messages can typically be up to 160 characters in length, though some services use 5-bit mode,

which supports 224 characters. SMS was originally created for phones that use GSM (Global System for Mobile) communication, but now all the major cell phone systems support it. While SMS is most commonly used for text messaging between friends or co-workers, it has several other uses as well. For example, subscription SMS services can transmit weather, news, sports updates, and stock quotes to users' phones. SMS can also notify employees of sales inquiries, service stops, and other information pertinent to their business. Doctors can receive SMS messages regarding patient emergencies.

On the other hand, Email can be defined as a system for sending messages from one individual to another via telecommunications links between computers or terminals. Most modern businesses use SMS and Email messaging services to communicate to their customers since they are quick, convenient and cheap. In our table above, we have identified that 2.05% of the respondents felt that online help through SMS and Email would be a faster way of addressing the problems being experienced during the process

In response to this challenge facing the students, the researcher noted that HELB had opened an on-line customer care facility at their premises so as to address some of the issues brought about by the respondents. This on-line customer care desk at the time of this research was a new facility that was incorporated by the students' loans body to address some of these challenges. Besides phone call help, they also offer help through SMs and social media platforms such as twitter and Facebook. The effect of this addition is yet to be analyzed.

4.5.9 Training and Education of Applicants

Information and Communication Technologies (ICTs) have been touted as playing a major role in bridging the social and economic divides that exist in most developing countries, with the

potential of overcoming obstacles like geographical barriers, communication difficulties and information inaccessibility. Motivated by this potential of ICT to bring about transformational changes in education and in response to the information needs of the modern information society, the implementation and use of ICT in Kenya's higher education institutions has increased dramatically.

Despite the increased use of ICT in education and for entertainment purposes, many university students still lack the ICT literacy needed for the completion of HELB forms. ICT literacy can be defined as “the ability to use digital technologies, communication tools, and/or networks to solve information problems in order to function in an information society”. In an attempt to create ICT literate individuals, a lot of effort is being put into providing access to ICT. Yet, researchers have argued that access alone does not lead to effective usage, and that there are other socio-cultural and behavioural issues that have to be addressed.

While, increased reliance upon ICT, HELB assumes that students are ICT literate, it also assumes that all learners have similar levels of ICT literacy. In developing countries this is not true and can potentially lead to deepening ICT literacy inequality. Studies within the South African university sector have confirmed the diverse computer experiences of students'. Brown and Czerniewicz (2012) refer to the massive social and digital exclusion problems in South Africa as well as the reality that the divide is not reducing but is in fact a “deepening divide”.

On the other hand, this research tends to disagree with the research by Brown and Czerniewicz (2012) where only 2.05% of the respondents as per the above table believe that ICT Literacy is a major challenge towards the implementation of Financing Higher Education in Kenya.

The respondents believe that the literacy levels are comparatively quite high in Kenya comparatively to the other developing countries. They believe that other factors than this contribute to the challenges in implementing ICT Strategy.

4.5.10 Other Industry Players

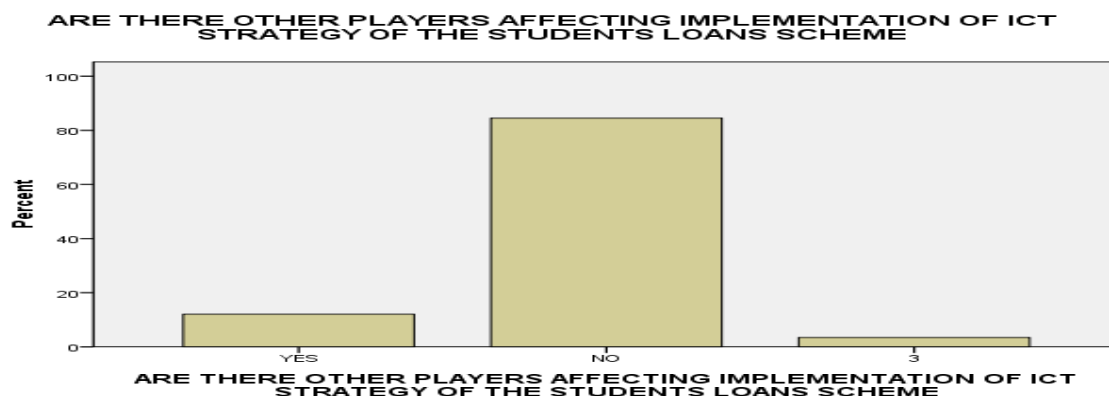
Industry refers to a group of companies that are related in terms of their primary business activities. In modern economies, there are dozens of different industry classifications, which are typically grouped into larger categories called sectors. Players could be competitors or businesses that complement each other in an industry. E.g., in the milk industry, makers of milk sachets could be defined as players within the milk industry albeit backwardly integrated.

In our case, most respondents felt that there were other industry players that were contributing to the challenges in the pursuance of ICT Strategy Implementation and named the Internet Service Providers eg Safaricom, AccessKenya, the fiber-optics backbone etc.

4.5.11 Potential Competition

As per the below graph, over 80% of the respondents did not believe that HELB has or will be a potential competitor in the near future who can match their interest rates and security free loans.

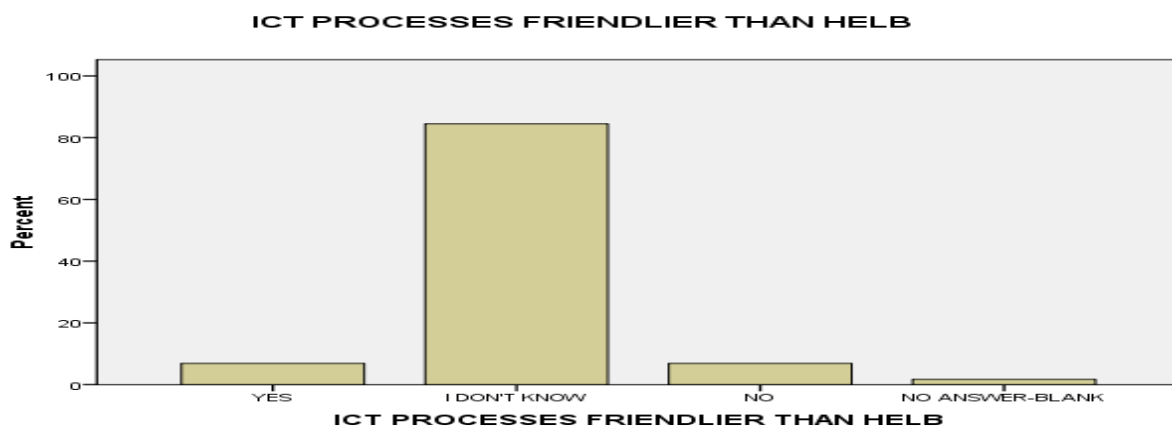
Figure 7: Other Players affecting implementation of ICT Strategy



When further asked to name potential competitive entrants, most respondents named the central government, Micro-Finance institutions, banks, University bursaries, County Governments, Non-Financial Institutions eg. Rattansi Trust, Non-Governmental Organizations and even the shylocks.

When asked whether they thought that ICT processes for the competitors are better than the HELB's ICT Strategy, over 80% of the respondents claimed not to know and slightly above 10% believed that HELB's ICT Systems were better as can be seen from in the below chart.

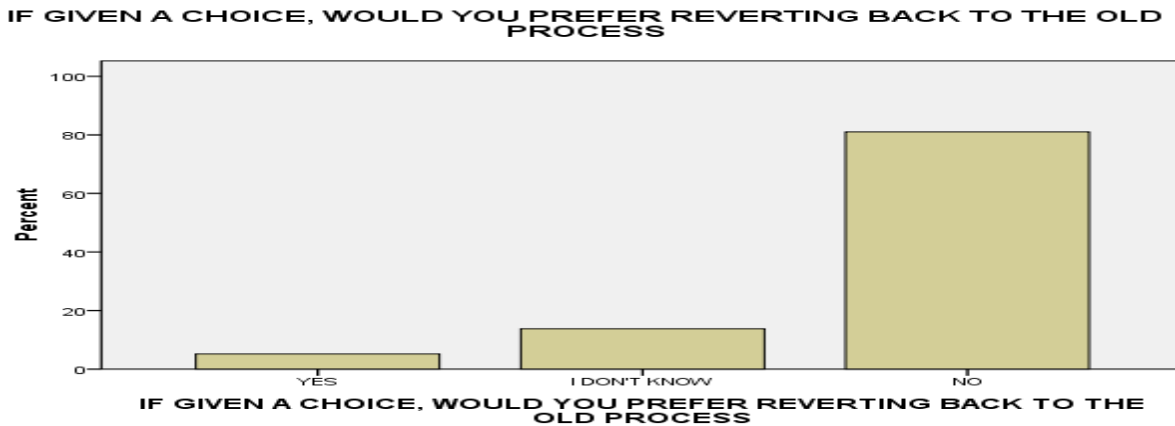
Figure 8: Rating of ICT Processes of similar organizations in relation to HELB



4.6 Discussion of the Findings

From the below graph, it can be seen that despite the challenges being encountered in implementing ICT Strategy in the University Loans Scheme, most respondents were in agreement that the Students Loans Scheme should never revert to the old manual system but improve the quality of its ICT implementation strategies.

Figure 9: Given a Choice, would you revert to the old system?



These findings have far-reaching conclusions to the body of knowledge. It supports Rumelt (1991) Resource Based Theory which explains that the firm can translate its resources and capabilities into a strategic advantage if they are valuable, rare, in-imitable and the firm is organized to exploit these resources. HELB's financial, human and intangible asset in terms of Government and through the exchequer's support is in-imitable by any other organization in the country upon its internal firm resources and capabilities in particular towards attaining a competitive advantage level. It takes advantage of its internal resources such as ICT resources at its disposal and capabilities in particular towards attaining a competitive advantage over any other potential rivals that are trying to enter the industry such as the financial institutions.

From the research we can also observe that HELB also needs to adopt the Dynamic Capability Theory (Teece et al., 1997) by adopting a process approach of acting on its resources and as per the changing business environment. This is true since as can be seen from the findings, the challenges that have been identified by the respondents could be caused by the lack of dynamism on the part of HELB on its resources with the changing environmental conditions and requirements of their clients.

Previous studies have shown that the Challenges of Strategic Planning in Public Organizations in Kenya (Awino et al., 2012) is to build process elements that provide for access and methods to deal with and adjudicate the challenges that come with Strategic Planning. In this study we have observed that ICT implementation strategies are key in ensuring the success of organizations processes and customer satisfaction especially the government bodies offering social services.

Other studies by Chelimo, (2008) mentioned earlier in this paper concluded that the need of change of strategy implementation in volatile industries and economies is inevitable. These changes can only be accomplished through continuous monitoring and audits of the processes in an organization together with the impact of the processes on the organizations clients'. In this study we have observed the need for periodic changes on ICT strategy implementation with the changes of student's needs, technological changes and also economic realities.

CHAPTER FIVE: SUMMARY, DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter will look at the conclusion of the findings by the researcher in line with the original objectives found in chapter one. It will summarize the findings; discuss the implication of the findings on the theories, policies and practice also mentioned earlier, limitations of the study and suggest areas for further research.

5.2 Summary

Students are aware of the processes involved in the students' loans scheme. This therefore leads us to the inference that the HELB's ICT Strategy has an impact on its major clients, the students. The success rate of HELB's ICT Systems in its core mandate of loan distribution to the needy students is majorly successful as can be seen from the success rate of the students who successfully apply for loan. Most of the respondents have in one way or another interacted with the HELB's ICT Systems.

It was a general consensus among all the respondents that the HELB's Website Management Strategy was not working well and there was great need to overhaul the website. Most respondents expressed frustration on the website mentioning the website downtimes as extremely unacceptable and frustrating to them. It can also be generally observed that as much as the ICT Literacy levels in the country has not been properly researched and documented; most respondents were comfortable with their interactions with the HELB's ICT Systems in terms of ICT knowledge. One area that the students felt could help in the improvement of ICT Literacy was on-line help through text messages, on-line phone help and education facility and email help lines.

Competencies must be developed throughout the educational system for ICT integration to be successful. Most respondents also felt that the loan awarding instrument was not fair and needs to be re-looked at. Some respondents also felt that the loan should be offered to everyone who applies for the loan and not based on the current criteria where some students are awarded and others are not. They also felt that the loans application process should be a continuous process throughout the year and not periodical which leads to a mad rush. This they explained leads to the downtime in HELB's information technologies infrastructure since it could not support the pressure. The respondents also felt that HELB needs to address its technological readiness and improve the vibrancy of its systems which should be evolving with their requirements.

The suggested solutions to these challenges seem to be two pronged. First is at the national level which is beyond HELB's mandate and the second one is within its ambit. Although valuable lessons may be learned from best practices around the world, there is no one strategy for determining the optimal level of ICT integration in the organizational processes.. Significant challenges that policymakers and planners, educators, administrators and other stakeholders need to consider include IT literacy policy and planning, infrastructure, language and content, capacity building, and financing. This has been suggested elsewhere in this paper can be done through Public Private Partnership between the government and private investors.

Within the mandate of HELB, Website management improvement, involvement of students in strategy formulation, a policy on public education programs and aggressive investment on on-line help which could be done through on-time text messages, on phone support, emails etc. are among the measures that HELB can adopt in its efforts to improve its strategy formulation and implementation process that will mitigate the negative effects on its stakeholders.

5.3 Conclusion

We can hereby conclude that adopting proper strategies in ICT is no longer a wish but a practice that should be adopted by organizations. Well-structured ICT strategy is the backbone that will enable organizations to deliver services effectively and efficiently. We can also conclude that some of the ICT challenges do not arise from internal causes but causes outside the control of the individual organizations such as ICT Infrastructure and ICT literacy levels.

In zeroing into the context of this study, we can conclude that the university students face a myriad of challenges in their pursuance of financing their higher education but with proper ICT Implementation strategies being put in place by the university funding bodies, the needy students can get a better quality service in terms of students loans than is currently the practice. From the respondents we can conclude that there is a positive acknowledgment and confidence by the respondents of the contribution by the students funding body in this case, The Higher Education Loans Board, in improving the quality of their ICT to benefit their clients.

5.4 Implications on Theory, Policy and Practice

From the above discussion of the value of the study in chapter one, the researcher intended to support two theories: The Resource Based View and the Dynamic Review Theory. As can be observed in this study, the student loans scheme benefits from the resource based view of an organization through its unique tangible and intangible assets such as the act of parliament forming it which gives it the backing of the law compared to any similar organizations, the exchequer support funding the scheme, the ICT resources at its disposal, the management capability in the organization among many other inherent resources. The challenges facing the student's loans fund as can be seen from the findings are due to the volatility of external

environments and can only be appropriately addressed by adopting the Dynamic Capability Theory which advocates the change of the use of organizational resource as per the dynamism of its environment and its stakeholders.

From this study, we can deduce that there is a great need for a National ICT literacy campaign policy to induct most Kenyans to the digital world regardless of their status in life. This will make Kenyans of all walks of life to enjoy the advantages of the digital age and have a positive impact on the country's development. This cannot be wished away. This therefore gives credence to the need for a nationwide grid of fiber cabling and a consistent supply of power throughout the country.

Private Public Partnership initiatives need to either pilot or fast track ICT-based projects in a synergetic way to gain a milestone in covering most areas with the much needed IT infrastructure. These partnerships take many forms, including private sector grants with government counterpart contributions, donations of equipment and education-related content by corporations to state-run schools, and the provision of technical assistance for planning, management, and strengthening human resources at the grassroots level. This will make the students from far-flung areas like the northern part of this country to have equal opportunity for online loan application just like the ones in urban areas.

Most respondents felt that as per the current practice, the Students loans scheme was here to stay and potential entrants into the market will be there but will not enjoy the comparative advantages that HELB enjoys due to its positioning.

5.5 Limitations of the Study

Though the interviewer provided all the assurance for the confidentiality of the information (by making the name or address optional) some found it difficult to give confidential information on their finances. The biggest limitation of this research was to get data from the usually reserved medical doctors. Most of them claimed that their study schedules were too tight to grant interviews.

Medical students are normally comparatively thought to be busier than the other university students due to the course work involved and to get their time to fill the questionnaire was quite daunting. Because the respondent in a personal interview were not anonymous they may have been reluctant to provide confidential information to another person.

5.6 Suggestions for Further Research

Establish whether medical students come from more affluent families than other degree courses since this research has found out that the percentage of students success rate in the loan awards is greater in the Kikuyu campus which hosts the education students compared to the Medical school. This needs to be an area of study to confirm whether families of lower end income bracket of the society are disadvantaged in some of the so called prestigious courses.

ICT literacy levels in Kenya also need to be researched and documented. We need to know which sectors of the economy still sits behind in computer literacy, the causes and offer suggestions that will help improve these important aspect of the modern world. It would be prudent to also mention at this point that the new Governments Class one laptop project is a shot in the arm towards this direction.

One area that also needs to be researched on in the education loans area is the possibility of introducing Sharia Loans together with other faith based and culturally friendly loans. The Muslim students felt that the HELB loan went against their religion by charging interest on their loans. This they claimed led to few Muslim students applying for the facility. This is an area that needs further researching on. The effect of the strategy of adopting the on-line customer care desk in the Students loans scheme that addresses the myriad of challenges that the students have articulated in this research findings also needs to be researched further and see whether it has reduced this challenges. This will help in deciding on whether to enrich the online help program or to change its implementation maybe by thinking of out-sourcing the service as is done by most service providers worldwide.

As at the time of conducting this study, HELB had indicated its intention of changing its payment system to students using the Smart Card technology. Before this is actualized, it would be prudent for the organization to study its applicability and whether the changeover will bring about efficiency in its ICT processes and the add value to the students' academic growth.

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APPENDICES

APPENDIX I: SAMPLING FRAME

No.	Category	Sample Size
1	Medical Students from the University of Nairobi (JAB Only)	70
2	HELB Staff	10
	Total Sample Size	80
	Returned Questionnaires	58

APPENDIX II: RESEARCH QUESTIONNAIRE

Dear Respondent,

The information to be gathered from these questions concerns the Challenges of Implementing ICT Strategy in the University Students Loans' Scheme. A perspective of The University of Nairobi Government Sponsored Medical Students. All information gathered is purely for academic purposes and will not be divulged to the general public without the consent of the University of Nairobi and your organization. Your co-operation will be highly appreciated.

Thank you.

INSTRUCTIONS:

1. Kindly answer the following questions as accurately as possible.
2. Please tick the appropriate box.

SECTION A

PERSONAL INFORMATION

1. Name (Optional) _____
2. Age: 20 - 29 years ☐ 30 - 49 years ☐ 50 - 59 years ☐
60 and Above ☐
3. Gender/ Sex: Male ☐ Female ☐
4. Level of academic achievement.
O-level ☐ College certificate ☐ College Diploma ☐
Degree ☐ Masters ☐ PhD ☐
5. Relationship with Student Loans Scheme.
Student ☐ Loanee ☐ Non-Loanee ☐
Employee of HELB ☐

SECTION B

6. Are you a beneficiary of Kenya's University Students Loans' Scheme?

Yes	No
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7. Is any member of your family ever benefitted or intending to be a beneficiary of the Scheme?

No	Not Sure	Yes
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8. Are you aware of the current university loan application process?

Not aware	Somewhat aware	Aware	Very much aware
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9. In (8) above, what was your experience?

Very hard	Hard	Neither hard nor easy	Easy
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10. List the difficulty (ies) you encountered?

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11. Do you have any suggestions of improving this process for the benefit of its students?

.....

.....

.....

SECTION C:

12. In what channel have you accessed HELB ICT Services. (tick all you have used)

Mobile Phone	Cyber Cafe	University Wi-Fi	Personal Modem	HELB <u>Offices</u>	Others
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If Others,. Please specify

13. What channel was the most convenient?

Mobile Phone	Cyber Cafe	University Wi-Fi	Personal Modem	HELB <u>Offices</u>	Others
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If Others, Please specify

14. Do you trust the reliability and quality of the HELB Information systems?

Very inferior	Inferior	Average	Superior	Very superior
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15. If your answer in (14) above is Very Inferior or Inferior, state why?

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.....

16. Suggest improvements to its information systems

.....

.....

.....

17. Do you understand HELB ICT Strategic Focus?

Very poorly	Poorly	Adequately Well	Very well
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18. What Recommendations would you give towards implementation of 17 above?

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.....

.....

19. Are there other players that affect the implementation of ICT strategy of the students Loans Scheme?

YES	I don't know	NO
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If Yes above, name a maximum of 3

- 1.....
- 2.....
- 3.....

15. Do you know of any potential entrants into the students Loans Scheme apart from HELB?

If yes, please name a maximum of 3

- 1.....
- 2.....
- 3.....

16. Is their (organizations in 15 above) ICT process friendlier than HELB

YES	I don't know	NO
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SECTION D

17. What are the major ICT challenges in the student loans scheme program in Kenya?

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18. What suggestions can you give HELB to improve Information and Communications Technology in the organization?

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19. If given a choice, would you prefer reverting back to the old manual loan application process in contrast to the current digitized process in accessing HELB Products or Services?

YES	I don't know	NO
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Thank you for your participation.