

The Challenges of Asset Management in Institutions of Higher Education in Masvingo Province, Zimbabwe

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Abstract: This study focused on asset management in Institutions of Higher learning in Masvingo Province in Zimbabwe. The study was motivated by the fact that there is improper asset management in higher educational institutions in Zimbabwe. The study was to establish the types of assets (human, financial, facilities) required by Institutions of Higher Education in Zimbabwe in Masvingo Province. The second research objective was to assess the extent of the inadequacy of assets at the Institutions. The third research objective was to assess the current strategies for asset management at these Institutions. The fourth research objective was to isolate the challenges faced in asset management and the last research objective was to propose options for ensuring effective management and the adequacy of required assets at Institutions of Higher learning in Masvingo Province, Zimbabwe. The study used mixed methods and there was both quantitative and qualitative data. The research was centred on Institutions of Higher learning in Masvingo Province, Zimbabwe. The population was made up of 3200 academic and non-academic staff in Institutions of Higher learning in Masvingo Province and 8 Zimbabwe Congress of Students Union (ZICOSU) executive members, and 10 Zimbabwe National Student Union (ZINASU) executive members. There was use of simple stratified random sampling technique when selecting participants from the academic and non-academic staff in Institutions of Higher learning. There was use of 'fish bowl' method to select 10 non-academic staff members and 36 academic staff members. The study also sought the opinions of key stakeholders such as the Zimbabwe Congress of Students Union (ZICOSU) and Zimbabwe National Student Union (ZINASU). There was use of questionnaires and interviews to collect data for this study. Quantitative data analysis was conducted through use of the Statistical Package for Social Sciences (SPSS) while qualitative data was analysed using thematic analysis. The study found out that assets like financial resources, furniture, and ICT hardware and software were said to be highly significant. Most of the assets that are required by Institutions of Higher learning were inadequate. There were financial resource, human resource, technology, and facilities plans. The research showed that Masvingo Polytechnic College has adequate structures for asset management. Financial resources were a major challenge affecting asset management at Masvingo Polytechnic College. The study concluded that there was inadequacy of the required assets and it was recommended that these institutions could engage in income generating projects, for example agriculture, to finance asset acquisition. Partnerships with private companies, which could provide assets like student accommodation can also be explored. There was a need to fully embrace the concept of results based management in asset management.

I. INTRODUCTION

According to Marmolejo (2007), Peter Drucker shocked Amany in 1997 when he suggested that higher educational institutions will not survive and argued that the facilities at most institutions are hopelessly unsuited and totally unneeded. Although Drucker was perhaps exaggerating with this prediction since universities are still around and continue to grow, he helped stakeholders to recognise that while higher education is becoming a dynamic, global enterprise, the strategic management of higher education facilities and assets is becoming increasingly complex. Not surprisingly, in a study conducted among the most important management-oriented higher education associations in the United States, an increasing number of higher education leaders identify the challenges associated with 'aging and expanding facilities' as one of the top change drivers in the field, exceeded only by insufficient financial resources, technological change and changing student demographics (Marmolejo, 2007). Insufficient facilities are also considered among the top threats to the success of higher education (Yizengaw, 2008). Accordingly, there was a call to action and the recognition that leadership is 'a key ingredient that will ensure higher education's future success and help mitigate its threats'. Two of these change drivers, resource scarcity and information technologies are the critical issues that higher education facilities professionals face (The Association of Higher Education Facilities Officers, United States, 2006).

There is no question that, confronted with the changing needs, and means for delivering education, institutional planners, and managers need to reconsider the way higher education facilities are designed, planned, and managed. Higher education is a large and complex system. Over the last decade, Higher Education around the world is facing a number of challenges. In recent years considerable interest has focused on identifying those challenges (Goldstein, 2006).

In Africa, higher education is critical to economic success and long-term development, in a continent facing several challenges of growth and development on many fronts (Eziubochi, 2011). Higher education provides economic and social benefits, both to the individual and the public, produces qualified human capital, adapts and generates knowledge,

promotes international cooperation and improves competitiveness in the global knowledge based economy.

The higher education sector in Africa faces challenges related to critical shortage of quality faculty; limited capacity of governance, leadership, and management; inadequate financial support and problems of diversify funding; inadequate facilities, and infrastructures (Biggs and Tang, 2007). There are also problems of quality and relevance of teaching and research, limited capacity of research, knowledge generation and adaptation capabilities; and problems in meeting increasing demand for equitable access. Across Africa and disciplines, on average, only 70% of the required faculty positions are filled, and in some departments, this is only about 30-40% (Bourne and Jenkins, 2013). Not less than 40% of the faculty in many universities in Africa is near retirement age, and over 30% of faculty sent overseas for training fail to return (Bourne and Jenkins, 2013).

In Zimbabwe, Higher Educational Institutions are essential for the process of human capital formation. They produce engineers, accountants, administrators, and other professionals who play a critical role in economic development. However, the higher education institutions are clearly in the midst of rapid change in response to environmental, social, economic, technological, and political transformations sweeping the globe. As a result, universities are facing a number of challenges and we identified those challenges in this paper as presented in the literature. Addressing the challenges is critical not only for the future of institutions but also for that of the world at large. Institutional repositories consist of formally organised and managed collections of digital content generated by faculty, staff, and students at the institutions, which can help at this end. The potential of Institutional repositories across the Higher Education sector to address these challenges (Higher Education Funding Council for England, 2009).

In addition McFall (2008) argues that since the long-gone days of just a chalkboard and a set of books, modern educational systems have grown to rival most industries in the range and volume of assets they require to function, from buildings to buses to IT systems, but resources to handle them have not kept pace. With the increasing complexity of facilities and equipment, educational institutions need to learn new lessons in asset management to keep up. Administrators face an ongoing dilemma; 'how to maximise their investment in innovative, advanced learning strategies while budgets are tightened and aging infrastructure drains the available resource pool?'. Simply fuelling college buses and support vehicles can be a major source of capital investment. Add in the increasingly 'smart' addition of technology into physical infrastructure, and managing this new all-inclusive infrastructure accurately and cost-efficiently becomes an entirely new pursuit (McFall, 2008).

There was improper asset management in higher educational institutions in Zimbabwe. If one visits to most of the

government colleges he/she cannot miss observing 'junk yards' with broken furniture, broken down vehicles, and dilapidated buildings. At the same time, the institutions of higher learning are facing resource challenges so that they will be able to effectively discharge their mandate. Accordingly, this study focused on asset management challenges at higher education institutions in Masvingo Province, Zimbabwe. The overall objective of this study was to assess the function of asset management at institutions of higher learning in Masvingo Province. This study sought to attain a number of specific research objectives, which were to:

- Establish the types of assets (human, financial, facilities) required by institutions of higher learning in Masvingo Province in Zimbabwe;
- Assess the extent of the inadequacy of assets at institutions of higher learning in Masvingo Province in Zimbabwe;
- Assess the current strategies for asset management at institutions of higher learning in Masvingo Province in Zimbabwe;
- Isolate the challenges faced in asset management at institutions of higher learning in Masvingo Province in Zimbabwe; and
- Propose options for ensuring effective management and the adequacy of required assets at institutions of higher learning in Masvingo Province in Zimbabwe.

1.1. Theoretical and conceptual frameworks

The theoretical roots of this study are the resource-based view (RBV) and the strategic asset management model. According to Jurevicius (2013), the RBV is a model that views tangible and intangible resources (assets) as superior to organisational performance. The RBV is an approach to competitive advantage that emerged in the 1980s and 1990s after the works of Wernerfelt (1984 and 1995) and Barney (1991) who argue that organisations need to effectively manage and utilise the resources at their disposal in order to attain competitive advantage. Resources play a major role in helping companies to attain their objectives. According to Rothaermel (2012), resources can be tangible (facilities) or intangible (information). There is a need for effective management of resources (assets) so that they are of value to the institutions of higher learning. Jurevicius (2013) argues that the resources, themselves, do not confer any advantage for an organisation if they are not managed to capture their value.

According to Candy, Lewtas, McGregor, Schumann, and Stack (2000), the Strategic Asset Management (SAM) model provides guidance to institutions with the techniques to structure and operate their assets in a way that best supports their service delivery aspirations. According to Model, the role of the Facilities Manager is to provide leadership to ensure this happens. In similar vein, Abdullahi (2015) argues that asset management must be viewed as a financial concept and managed alongside core business and other corporate elements such as Finance, Human Resources, and Information

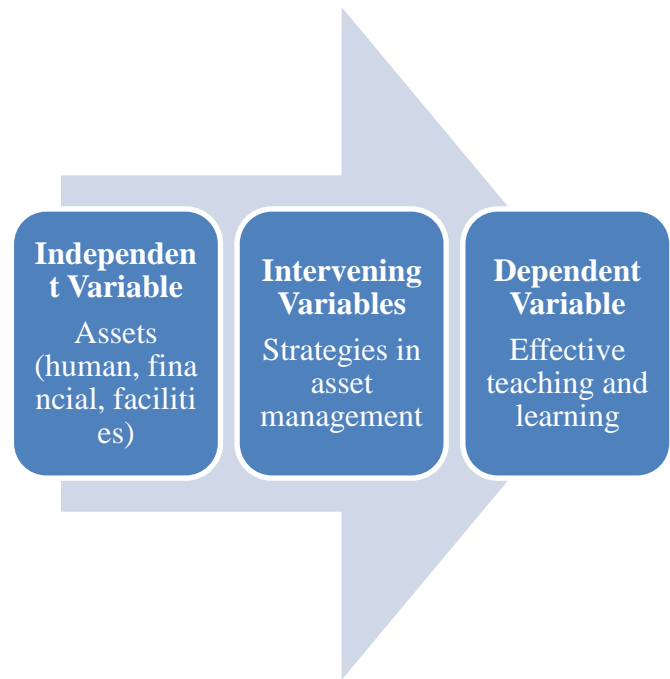
Technology. According to Bourne and Jenkins (2013), the assets need to be managed, not just maintained. Therefore, strategic asset management, including property management, must be part of an effective corporate plan that is vigorously promoted to gain wide support. Facilities Managers must provide pro-active leadership, focus on the big picture, handle the difficult politics, and constantly appraise senior executive with their asset management plans (Abdullahi, 2015). The following headings outline the guidelines for SAM implementation, and key elements institutions should address in their plans. These are:

- *The Plan:* Asset planning is a key corporate activity, to be considered along with planning for finance, human resources, and information technology. To maintain the appropriate focus on the SAM process, institutions need to identify a SAM process owner, at executive level, who coordinates the involvement of executive members responsible for planning the institution's service delivery programmes. The SAM process owner needs to be able to pull together the requirements of these service delivery programmes and identify the asset implications, along with Finance, Human Resource and Information Technology implications of their teaching and research strategies. The institution executive then need to collectively decide on key asset decisions such as project priorities (Bourne and Jenkins, 2013).
- *Organisation Structure:* Sound asset management require the establishment of organisational structures and systems for ensuring the attainment of objectives (Goldstein, 2006). These structures and the communication lines for asset management decisions need to be documented to ensure that effective asset decision-making occurs (Bourne and Jenkins, 2013).
- *Action Plan:* To demonstrate a commitment to implementing SAM, institutions need to prepare an implementation action plan that documents specific actions, issues, priorities, dates, and people. The action plan needs to be managed by the SAM process owner on behalf of the Principal, Vice-Chancellor, or Chief Executive, and needs active involvement by executive academic managers and senior service directors (McFall, 2008).
- *Physical Asset Register:* According to Abdullahi (2015), the starting point for capturing physical asset information is the establishment of a register of buildings and infrastructure. The register could include information such as asset replacement values, year built, date of purchase/installation and estimated life, and be expanded later to include performance, utilisation, physical condition, and future plans as the information is gathered (Eziubochi, 2011).

The framework of analysis in this study was the function of asset management at institutions of higher learning in Masvingo Province in Zimbabwe. The assets are the

independent variable while effectiveness in teaching and learning is the dependent variable. There mere existence of assets does not automatically leads to results and there is need for proper management of the strategic resources. Figure 1 shows the independent, intervening, and dependent variables in the study.

Figure 1: The Variables in the Study



Source: Self-Generated by Researcher (2020)

II. LITERATURE REVIEW

2.1 *The Types of Assets Required by Higher Educational Institutions*

According to Biggs and Tang (2007), organisations require resources so that they will be in a position to attain their objectives. In a similar vein, Eziubochi (2011) states that resources are the 'fuel' that drives organisational processes. For higher educational institutions, there is need for competent human resources, and facilities like lecture rooms and student accommodation. Moreover, given the developments in technology, there is need for adequate informational and Information Communication Technologies (ICTs). The mentioned assets require that there is the adequacy of financial resources.

2.1.1 *Human Resources*

According to Bartlett and Ghoshal (2011), human, not financial capital must be the starting point and on-going foundation of a successful strategy. This is a changing view of strategic resources in organisations. The challenge is to alter the belief that finance is the critical strategic resource to be managed and senior managers' key responsibilities should focus on its acquisition, allocation, and effective use. For the vast majority of organisations, that assumption simply is no

longer true. According to Caliskan (2010), without denying the need for prudent use of financial resources, financial capital is not the resource that constrains growth. Global capital markets have opened up the supply side, while widespread excess industry capacity has reduced the demand side. The recent reversals in some sectors notwithstanding, most organisations are awash in financial capital. However, many cannot even generate sufficient high quality human resources to use the available finances productively and face challenges. Therefore, there is a need to recognise that any company's scarce resource is knowledgeable people and this means a shift in the whole concept of value management within corporations. Along the same vein, the researcher believed that manufacturing organisations needed to acquire and manage competent human resources. According to Schuler and Jackson (2007), people make up an organisation and are one of the most important resources of today's firms. People and how they are managed are becoming more important because many other sources of competitive success are less powerful than they used to. Recognising that the basis for competitive advantage has changed is essential to develop a different frame of reference for considering issues of human resource management and strategy (Caliskan, 2010).

2.1.2 Technology

There is need for new and efficient technology. Peterson (2010) postulates that technology strategy is the task of building, maintaining and exploiting a company's technological assets. It is important to do technological forecasting and technological assessment. Integrated technology road mapping provides a practical instrument for middle and long-range technology development and corporate business strategy formulation by aligning internal and external resources and social marketing focus. The world's top industrial organisations like China, Italy, and Germany have invested heavily on modern production systems and innovation in manufacturing to meet a variety of global consumer needs (Otley, 2012). Economic theory, historical evidence, and growth models confirm that advancing technological knowledge is the most important single factor that contributes to long-term productivity and economic growth. Machine speeds have risen, and automated operations have reduced costs, improved quality, increased production capability, and flexibility (Sabanci, 2008). Although labour is still dominant in Asian manufacturing, developed nations machine production speeds have risen tremendously to reduce labour requirements by approximately 40% (Johnson and Scholes, 2010).

2.1.3 Facilities

Facilities consist of all types of buildings for academic and non-academic activities; equipment for academic and non-academic activities, areas for sports and games, landscape, farms and gardens including trees, roads and paths. Others include furniture and toilet facilities, lighting, acoustics, storage facilities, parking lot, security, transportation, ICT,

cleaning materials, food services, and special facilities for the physically challenge persons. Researchers have shown that non-availability and inadequacy of such facilities have great influence on the performance of both students and lecturers in higher institution of learning. The facilities can be categorised into physical and non-physical facilities. The physical facilities comprises of buildings, land, compound, equipment's, tools, space and so on, while the non-physical facilities include consultancy, catering, security, supply, relocation and event and both are required to be planned, design, documented, resourced, provided or delivered and monitored (Abdullahi, 2015).

2.1.4 Financial Resources

Financial resources fuel business operations; therefore, higher educational institutions need to have adequate financial resources for both working capital and capital expenditure. Finance, operations, and marketing are often referred to as the three fundamental areas that require strong management expertise (Grant, 2008). Therefore, careful financial planning should precede the acquisition of any significant asset or change in organisational focus (Johnson and Scholes, 2010). Revenue and expenses must be scrutinised in line item detail on at least a monthly basis to assure financial obligations are on target. Cash flow is crucial to wise financial planning and cash or similar current assets on hand should be 1.5 times the level of current liabilities. Financial resources can be raised from a number of sources, both internal and external. For educational institutions, internal sources include revenue from tuition fees and disposal of assets while loans, hire purchase, and credit purchases are external sources (Grant, 2008).

2.2 Influence of Assets on Teaching and Learning in Educational Institutions

According to Eziubochi (2011), leadership and management face many challenges, as expressed by inability to retain and attract faculty, underutilised facilities, and duplication of programs, high drop-out and uneconomical procurement and large allocation of scarce finance to non-instructional expenditures. Academic leaders have little preparation, orientation and training in skills required for the positions. Yizengaw (2008) argued that, in the face of increasing enrolment in higher education, over four fold between 1985 and 2005 in sub-Saharan Africa, quality of education and research is declining largely dues to inadequate assets. The relevance of teaching and research is not maintained, and institutional quality assurance and enhancement mechanisms are either not in place or are very weak and inefficient. Due to improper resource management, research capacities are generally poor- given the shortage of senior faculty, poor infrastructure and facilities, lack of funding and strategic leadership. Though most research skills are acquired during graduate training, master's and doctorate levels, sub-Saharan African universities have a tiny proportion of their student enrolment in graduate studies programs. Less than 30% of students are enrolled in the fields of agriculture, engineering,

and technology, basic and applied sciences, and health sciences, fields required for innovation and problem solving (Yizengaw, 2008).

The situation calls for focus and urgent intervention by governments, institution leaders, and development partners in enhancing the adequacy of assets. The importance of higher education as a driver of sustainable development has become one of the core development agenda items by policy makers, scholars, and international development partners. There is a changing perception and understanding that higher education plays a pivotal role in development and transformation and should be given priority. There is a general consensus that neglect to higher education cannot and should not continue (Sirman, Hitt, and Ireland, 2007; Bourne and Jenkins, 2013). African governments have started to show commitment and international donors are gearing their support to the sector realising it as an engine of development, producing the qualified human capital, generating knowledge, ensuring participation in the global knowledge economy and building the necessary institutions and leadership capabilities in Africa (Sirman et al., 2007).

2.3 Strategies for Asset Management in Higher Educational Institutions

According to Bourne and Jenkins (2013), there are a number of strategies for asset management in higher educational institutions. Some of the strategies are computer-based, for example, the asset management solution for education, powered by IBM Maximo, provides a single application to efficiently manage the complete life cycle of all asset types that are essential to college operations, including facilities, and fleet management. The Maximo software can extend traditional asset management by offering contract management and service management, and consolidates all types of assets onto a single platform. An easily deployed Web-based application built on service-oriented architecture (SOA) for flexibility, the solution enhances the availability, utilisation, reliability, and performance of critical education assets. To help educational institutions thrive on a smarter planet, the asset management solution provides clients with visibility to respond faster and make better decisions. It also helps to ensure complete, real-time visibility improves responsiveness and supports high-level, integrated use of information technology for effective, adaptive, and mobile operational capability. There is also the control function to maximise return on investments and reduce risk. In addition, the asset management software are built on a cost-effective, robust, secure and agile foundation, the solution delivers higher-quality services for improved customer satisfaction. There is automation to streamline processes, accelerate growth, and build greater agility into business operations. This reduces operational cost, risk, and complexity by integrating business and IT services across the enterprise. For more than 80 years, IBM people and solutions have been helping schools and institutions of higher education innovate for greater achievement, productivity, and efficiency (Rothaermel, 2012).

Former educators and school administrators contribute extensive industry knowledge to our education consulting practice, understanding your goal of creating a safe, functional environment for students and helping your school thrive on a smarter planet.

2.4 Common Asset Management Challenges in Higher Educational Institutions

Higher education institutions are large, complex, adaptive social systems like all other human organisations (Abdullahi, 2015). Over the last decade, Higher Education around the world is facing a number of challenges, and potential threats to effective learning and teaching support (Eziubochi, 2011). In recent years, considerable interest has focused on identifying those challenges, identifying opportunities and threats and proposing ways to address them. However, the relevant literature on higher education challenges is scattered over many textbooks, conferences, and journals. Higher Education facing a number of challenges and most contributions mention curriculum design, student retention, new technologies, quality of learning and teaching, widening participation, quality of research, funding, and the necessity to improve governance and management as the most burning challenges. To provide the best service to the new students, higher education institutions need to change and hence, they need to respond to the challenges (Bourne and Jenkins, 2013).

In addition, today's world is driven by technology for its communications, its economy, and increasingly its day-to-day organisation (Biggs and Tang, 2007). The rapid development of information technology has made available a plethora of new tools for higher education. New technology offers learning opportunities anywhere to anyone at any time anywhere. Further, the response of higher educational institutions to this new technology is uncharacteristically rapid. The lack of investment in technology-based learning in higher education may prove to be a significant barrier to the ability of universities to compete in new or changing markets. Technologies like internet and its associated technologies can increase the capacity of an educator more quickly, easily and more scalable to help students make connections to content, context, and community, resulting in more powerful learning experiences (McFall, 2008).

Furthermore, higher educational institutions are in serious financial crisis (Goldstein, 2006). Moreover, increased student fees, substitutions of loans for grants, diminishing subsidies to student facilities and so on form a financial barrier to perspective students. There is also the shortage of skilled professionals in Africa has its roots in tertiary education systems that are in crisis (Abdullahi, 2015). Although Africa's universities ought to be the breeding grounds for the skilled individuals whom the continent need, they are plagued by critical shortage of teaching faculty and research scholars. The situation is more serious with respect to the shortage of senior faculty at levels of PhD. Higher education institutions in

almost all African countries are largely unable to retain qualified faculty and research scholars. They also face shortage of technical, administrative and management staff. The situation is crippling not only the higher education institutions but also affects the other levels of education services, health care systems, and overall economic activities. The shortage of faculty and other staff is further amplified by brain drain, retirements, unattractive working conditions and the attrition of HIV/AIDS (Bourne and Jenkins, 2013).

2.5 Options for Ensuring Effective Management and Adequacy of Assets

Higher education institutions' governing bodies are responsible for ensuring the effective management of the institution and for planning its future development (Goldstein, 2006). They are ultimately responsible for all the affairs of the institutions. Generally, they are responsible for approving institutional mission and the strategic plan, financial solvency, resourcing policy, employment and Human Resource (HR) policy and strategy, estates policy, senior appointments and remuneration, audit, legal compliance, determining educational character and mission and so on. They are facing challenges to effectively manage the institutions hence become one of the crucial challenges in higher education. To cope with this challenge, institutions need better leadership who will be able to provide academic freedom and will be able to make collective decision with the new requirements that is the necessity to make and implement important and often unpopular decisions in a timely manner (Goldstein, 2006).

Moreover, beyond being a core business solution, effective asset management takes a holistic view of facilities, transportation, IT, and other assets to maximise capital value, increase return on investment, and reduce operating expenses and maintenance costs (Rothaermel, 2012). According to Eziubochi (2011), getting asset management on the executive agenda can achieve the biggest improvement. The Facilities Managers should have explicit purpose, goals and targets for their services. There is a need to provide the institution community with access to information on the asset management plan and to improve the operational effectiveness of existing assets. Optimising asset management helps address current challenges and future opportunities by enabling improved service and high availability for assets and the services or functions they deliver. There is also a need to reducing costs and extending asset life through more effective maintenance and business processes, and efficient use of human resources (Bourne and Jenkins, 2013).

In addition, Bourne and Jenkins (2013), to address their facility needs, colleges, and universities are developing comprehensive capital plans. These plans are addressing all phases of the capital life cycle, from new construction to on-going operational costs to deferred maintenance of existing facilities. Included in the plans are space studies to determine the most effective and efficient use of existing space, and to

evaluate whether it is more advantageous to renovate existing buildings or construct new structures. Detailed deferred maintenance reviews and cost-benefit analyses of owning versus leasing are all being factored into overall capital strategies (Bourne and Jenkins, 2013). Many institutions are seeing the benefit of having a collaborative capital planning process with involvement of key individuals throughout the university (Goldstein, 2006). This involvement includes key representatives from facilities, the budget office, finance, advancement, academic planners, and executive leadership. The collaboration continues with the board of trustees and appropriate subcommittees of the board including facilities, finance, audit, and executive committees. Funding options are at the forefront of all discussions, given the long-range implications of campus planning.

It is essential to note that, of all the parts that go into making a successful strategy implementation, in general, and asset management, in particular, nothing is more important than leadership. Day and Antonakis (2012) define leadership as an attempt at influencing the activities of followers, through the communication process, towards the attainment of some goal or goals. In similar vein, Shephard (2016) defines leadership as the process of influencing the activities of an individual or a group in efforts toward goal achievement in a given situation. Wisner (2011) adds another dimension by defining leadership as the development of a clear and complete system of expectations in order to identify, evoke, and use the strengths of all resources in the organisation, the most important of which is people. Many of the problems that weigh down organisations rarely have anything to do with the quality of staff or management, but that they have everything to do with leadership (Grant, 2008). Moreover, Jared, Bleak, and Fumer (2009) believe that today's (and tomorrow's) leaders must be flexible, collaborative, able to leverage subject matter expertise, and willing to continue their learning. Effective leadership involves a type of responsibility aimed at achieving particular ends by applying the available resources (human and material) and ensuring a cohesive and coherent organisation in the process (Men, 2010). Northouse (2007) described leadership as a process whereby an individual influences a group of individuals to achieve a common goal. Leadership is arguably one of the most observed, yet least understood phenomena on earth (Ford and Kiran, 2008). Over time, researchers have proposed many different styles of leadership, as there is no particular style of leadership that can be considered universal. Despite the many diverse styles of leadership, a good or effective leader inspires, motivates, and directs activities to help achieve group or organisational goals. Conversely, an ineffective leader does not contribute to organisational progress and can, in fact, detract from organisational goal accomplishment. Effective leadership is a product of the heart and an effective leader must be visionary, passionate, creative, flexible, inspiring, innovative, courageous, imaginative, experimental, and initiates change.

In addition, there is need for a strong and performance orientated culture in organisations. According to Shephard (2016), the characteristics of a strong culture include being strategic in nature, globally competitive, human resource focus, continuous improvement and visionary leadership. Strong culture produced a strong leader and ensured the success of organisations. The culture of organisations is dependent on the attributes of the leaders. The leaders should continue exhibiting some of the traits of effective leaders, which are courage, patience, a steely mental toughness, the passion and enthusiasm needed to bring about change (Men, 2010).

III. RESEARCH METHODOLOGY

This study was guided by both the positivism and anti-positivist philosophies because when looking at the issue of asset management at institutions of higher learning in Masvingo Province in Zimbabwe, there were both objective and subjective aspects in the debate. The study used mixed methods and there was both quantitative and qualitative data. A pure quantitative research is objective but lacks explanatory value. On the other hand, qualitative research is able to provide detailed explanations but is subjective (Simon, 2011). The use of both techniques helped the researcher to maximise on their strengths while overcoming the limitations. According to Kato (2002), business and management researches always involve both quantitative and qualitative analyses. Therefore, a mixture of the two approaches yielded more reliable data than reliance on one philosophy. This research was case study of institutions of higher learning in Masvingo Province. A case study allowed for a detailed investigation to be conducted. A case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context (Saunders et al., 2012). Kothari, (2004) defines a case study as a comprehensive research strategy that ties together several data gathering measures. It may concentrate on individuals, group, or a community and at the same time employing other data collection methods such as participant observation, secondary data, or in-depth interviews. A case study also aims to understand social phenomena within a single or small number of naturally occurring settings.

The population was made up of 3200 academic and non-academic staff in Institutions of Higher learning in Masvingo Province and 8 Zimbabwe Congress of Students Union (ZICOSU) executive members, and 10 Zimbabwe National Student Union (ZINASU) executive members. There was use of simple stratified random sampling technique when selecting participants from the academic and non-academic staff in Institutions of Higher learning. There was use of 'fish bowl' method to select 10 non-academic staff members and 36 academic staff members. The study also sought the opinions of key stakeholders such as the Zimbabwe Congress of Students Union (ZICOSU) and Zimbabwe National Student Union (ZINASU). Table 2 shows the categories of participants in the sample.

Table 2: Participants in the Sample

Category of Participants		Sample Target
Institutions of Higher learning staff	Non-Academic Staff	10
	Academic Staff	36
Student Representative (ZINASU)		1
Student Representative (ZICOSU)		1
Total		48

There was use of questionnaires to collect data from the 10 non-academic and 36 academic staff members at the institutions of higher learning in Masvingo Province, Zimbabwe. The researcher used questionnaires because they afforded an opportunity to collect large volume of data, as more participants could be covered. The use of questionnaires also enabled the respondents to remain anonymous and to be honest in their response source. Questions in the questionnaire were closed ended. Closed questions made it easier for participants to complete questionnaires. In addition, closed questions facilitated easy analysis of data. The researcher interviewed one executive member of the Zimbabwe National Student Union (ZINASU) and Zimbabwe Congress of Students Union (ZICOSU). Interviews provided a multi-perspective understanding of the issues under investigation and they had the potential to reveal multiple, and sometimes conflicting, attitudes about the issue of asset management (Taylor et al., 2016). The advantages of using an interview technique were that the respondents provided detailed explanations and used non-verbal communication such as facial expressions to emphasise their responses (Henning, 2004). However, interviews were time consuming and expensive to conduct, and they involved protocol in setting up appointments and being granted authority to conduct them (Simon, 2011). Despite the shortcomings, interviews remained a valuable research instrument for this study.

This study had both quantitative and qualitative data. According to Simon (2011), quantitative data in a raw form, that is, before these data have been processed and analysed, convey very little meaning to most people. These data, therefore, needed to be processed to make them useful, that is, to turn them into information. Quantitative analysis techniques such as graphs, charts, and statistics allowed a researcher to do this, helping to explore, present, describe, and examine relationships and trends within the data. There was use of the Statistical Package for Social Sciences (SPSS) in coming up with the frequency tables, cross-tabulations and statistical tests like regression analysis. According to Saunders et al. (2012), qualitative data refers to all non-numeric data or data that have not been quantified and is usually the product of interviews. To be useful, the varied responses from qualitative data need to be analysed and the meanings understood. In this study, qualitative data was analysed using thematic analysis. Thematic analysis condenses raw data into

categories or themes based on valid inference and interpretation (Simon, 2011).

IV. FINDINGS

4.1 Types of Assets required by institutions of higher learning in Masvingo Province, Zimbabwe

The first objective of the study was to establish the types of assets that are required by institutions of higher learning in Masvingo Province, Zimbabwe. The assets were categorised into human resources, technology, financial resources, and facilities. Table 3 shows the findings.

Table 3: Types of Assets Required by Masvingo Polytechnic College

Asset	Responses					Mean Response
	1. Highly Insignificant	2. Insignificant	3. Unsure	4. Significant	5. Highly Significant	
Human resources	0%	0%	0%	60%	40%	4.3
Technology	0%	0%	0%	50%	50%	4.5
Financial Resources	0%	0%	0%	0%	100%	5
Facilities						
Lecture rooms and theatres	0%	0%	0%	60%	40%	4.3
Laboratory and library facilities	0%	0%	0%	60%	40%	4.3
Sports facilities	0%	5%	10%	40%	40%	4.2
Furniture	0%	0%	0%	0%	100%	5
ICT hardware and software	0%	0%	0%	0%	100%	5
Disabled and medical facilities	0%	0%	0%	60%	40%	4.3
Student accommodation	0%	0%	0%	50%	50%	4.5

Table 3 shows that there was unanimous agreement that assets were essential at institutions of higher learning in Masvingo Province as all the mean responses were above 4 (significant). Assets like financial resources, furniture, and ICT hardware and software were said to be highly significant. The findings of this study are supported by Jurevicius (2013), who argued that the Resource Based View states that tangible and intangible resources (assets) as superior to organisational performance. According to Biggs and Tang (2007), organisations require resources so that they will be in a position to attain their objectives. In similar vein, Eziubochi (2011) states that resources are the 'fuel' that drives

organisational processes. For higher educational institutions, there is need for competent human resources, and facilities like lecture rooms and student accommodation. Moreover, given the developments in technology, there is need for adequate informational and Information Communication Technologies (ICTs). The mentioned assets require that there is the adequacy of financial resources.

4.2 Extent of Inadequacy of Assets at institutions of higher learning in Masvingo Province

The study sought to establish the extent of asset inadequacy at institutions of higher learning in Masvingo Province, Zimbabwe. The findings are in Table 4.

Table 4: Existing Assets as Percentage of Requirements

Asset	Existing Assets as a % of Requirements					Mean Response
	1. Less than 20%	2. 20-40%	3. 40-60%	4. 60-80%	5. 80-100%	
Human resources	0%	0%	0%	60%	40%	4.3
Technology	5%	50%	45%	0%	0%	2.4
Financial Resources	10%	60%	30%	0%	0%	2.1
Facilities						
Lecture rooms and theatres	0%	0%	0%	60%	40%	4.3
Laboratory and library facilities	5%	50%	45%	0%	0%	2.4
Sports facilities	5%	50%	45%	0%	0%	2.4
Furniture	0%	0%	0%	60%	40%	4.3
ICT hardware and software	5%	50%	45%	0%	0%	2.4
Disabled and medical facilities	60%	40%	0%	0%	0%	1.4
Student accommodation	10%	60%	30%	0%	0%	2.1

Table 4 shows that most of the assets that are required by institutions of higher learning in Masvingo Province, Zimbabwe were inadequate. Only three types of assets, that is, human resources, lecture rooms, and furniture were said to be adequate.

4.3 Strategies for Asset Management at institutions of higher learning in Masvingo Province, Zimbabwe

The study sought to establish the strategies that are used by institutions of higher learning in Masvingo Province, Zimbabwe in asset management. It is essential that higher educational institutions effectively manage and utilise the resources at their disposal in order to attain competitive advantage. Resources play a major role in helping companies to attain their objectives. According to Rothaermel (2012), resources can be tangible (facilities) or intangible (information). There is a need for effective management of resources (assets) so that they are of value to the institutions of higher learning. Jurevicius (2013) argues that the resources,

themselves, do not confer any advantage for an organisation if they are not managed to capture their value.

4.3.1 Asset Management Plans

The study sought to establish whether institutions of higher learning in Masvingo Province, Zimbabwe make use of asset management plans. The findings are in Figure 1.

Figure 1: Responses on Use of Asset Management Plans

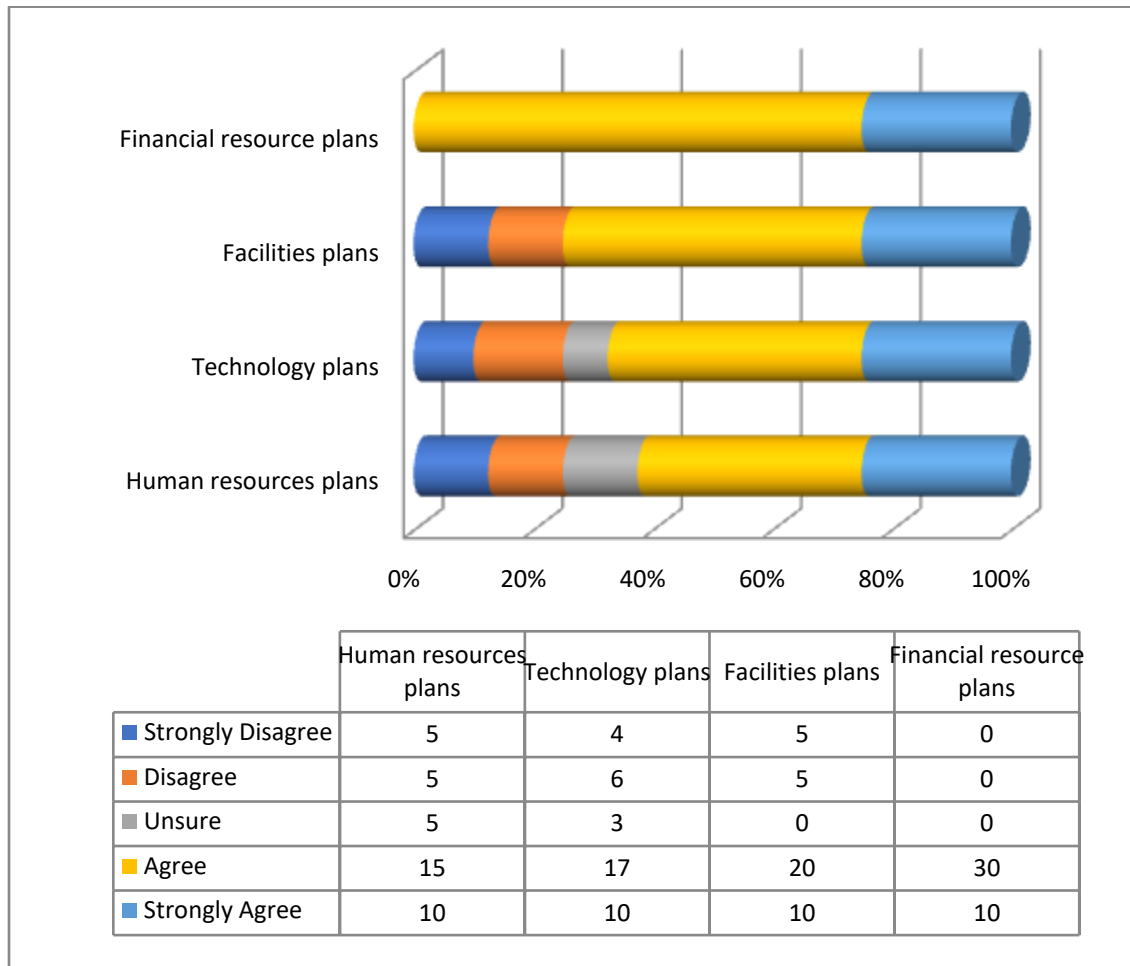


Figure 1 shows that all the respondents were in agreement that there were financial resource plans at institutions of higher learning in Masvingo Province, Zimbabwe. The financial resource plans were in the form of budgets. In addition, most of the respondents said that there were human resource, technology, and facilities plans. Having asset management plans is paramount and this is supported by literature. According to Bourne and Jenkins (2013), asset planning is a key corporate activity, to be considered along with planning for finance, human resources, and information technology. To

maintain the appropriate focus on the SAM process, institutions need to identify a Strategic Asset Management (SAM) process owner, at executive level, who coordinate the involvement of executive members responsible for planning the institution’s service delivery programmes.

4.3.2 Organisational Structure for Asset Management

The research also sought to establish whether there were organisational structures for asset management. The findings are in Figure 2.

Figure 2: Response on Appropriateness of Asset Management Structure

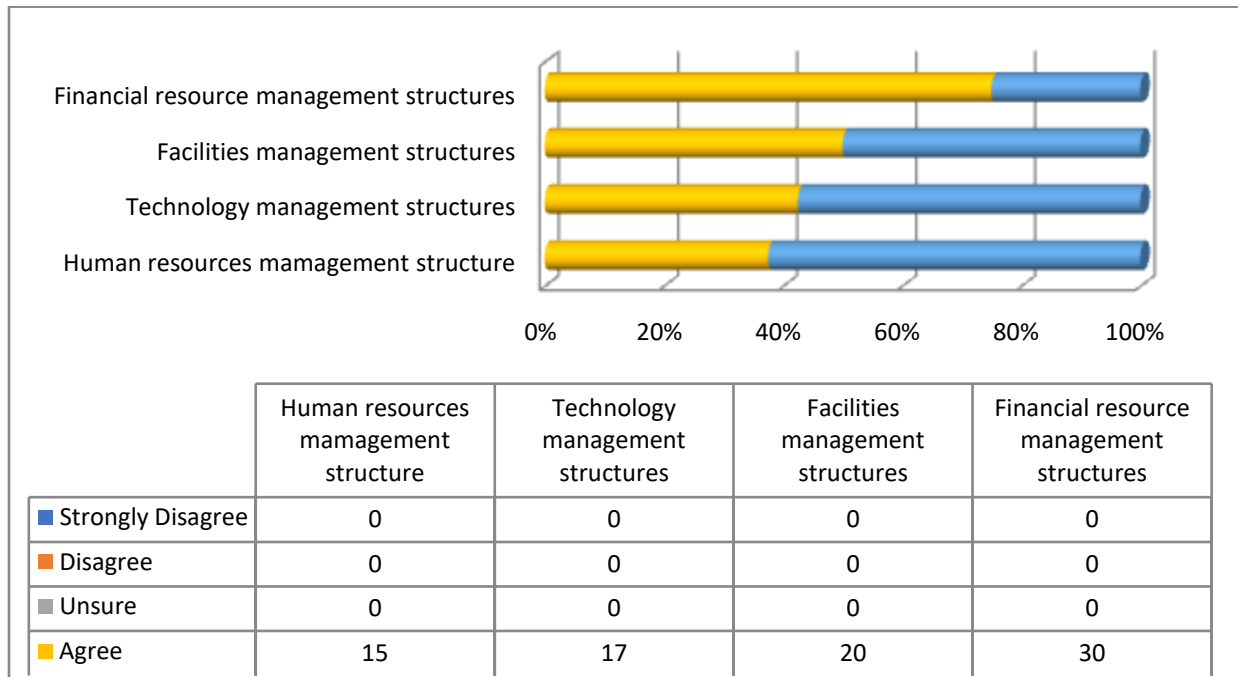


Figure 2 show that institutions of higher learning in Masvingo Province, Zimbabwe have adequate structures for asset management. The structures are in the form of departments or units, for example, human resources, IT, estate and valuation, and finance. These departments have superiors and subordinates who have clearly demarcated roles. Having clear structures for asset management is essential because there are structural issues in all institutions that require special consideration to understand their impact on asset management decision-making processes, for example, single campus versus

multiple campuses (Goldstein, 2006). These structures and the communication lines for asset management decisions need to be documented to ensure that effective asset decision-making occurs (Bourne and Jenkins, 2013).

4.3.3 Action Plans for Asset Management

The research sought to establish if there were action plans for asset management at institutions of higher learning in Masvingo Province, Zimbabwe. The findings are in Figure 3.

Figure 3: Response on Action Plans for Asset Management

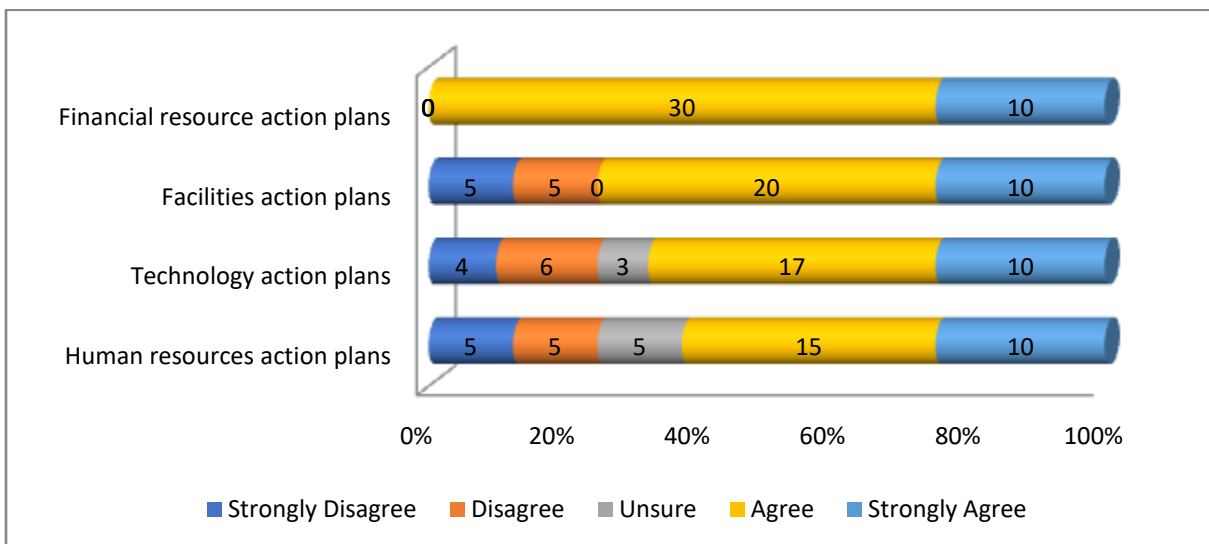


Figure 3 shows that most of the respondents were in agreement that there were action plans for asset management. Every department was required to come up with action plans for specific periods. This finding is in line with McFall

(2008), who pointed out that, to demonstrate a commitment to implementing SAM, institutions need to prepare an implementation action plan that documents specific actions, issues, priorities, dates, and people. However, the challenge is

on ensuring the success of the action plans. One of the officials interviewed said, “our institutions are just coming up with very good action plans that are never implemented. There is need to fully embrace the concept of results based management because plans without results are useless”.

4.3.5 Physical Asset Registers

The study sought to establish whether institutions of higher learning in Masvingo Province, Zimbabwe had physical asset registers or records. The findings are in Figure 4.

Figure 4: Responses on Physical Asset Registers

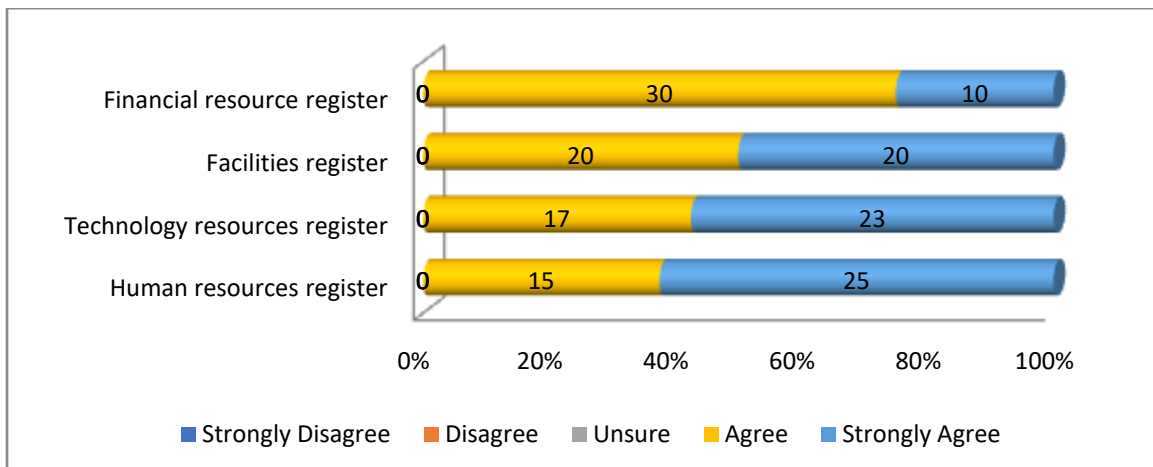


Figure 4 shows that there was unanimous agreement that institutions of higher learning in Masvingo Province, Zimbabwe maintained registers or records for all its assets. One of the officials interviewed said that maintaining registers and records is in line with recommended practice and it helps to prevent losses of assets. The findings also agree with literature and, according to Abdullahi (2015), the starting

point for capturing physical asset information is the establishment of a register of buildings and infrastructure.

4.4 Challenges Faced in Asset Management

The study sought to establish the challenges that are faced by institutions of higher learning in Masvingo Province, Zimbabwe in asset management. The challenges are illustrated in Figure 5.

Figure 5: Challenges Faced in Asset Management

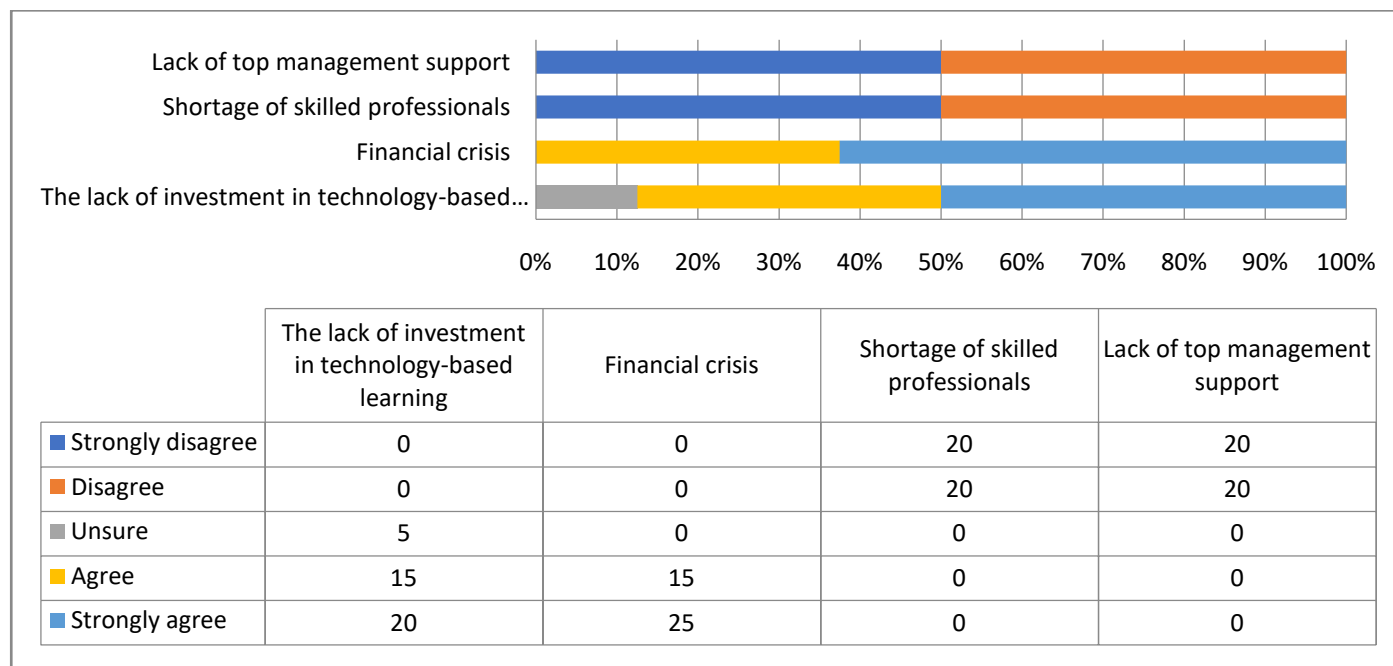


Figure 5 shows that financial resources were the major challenge affecting asset management at institutions of higher

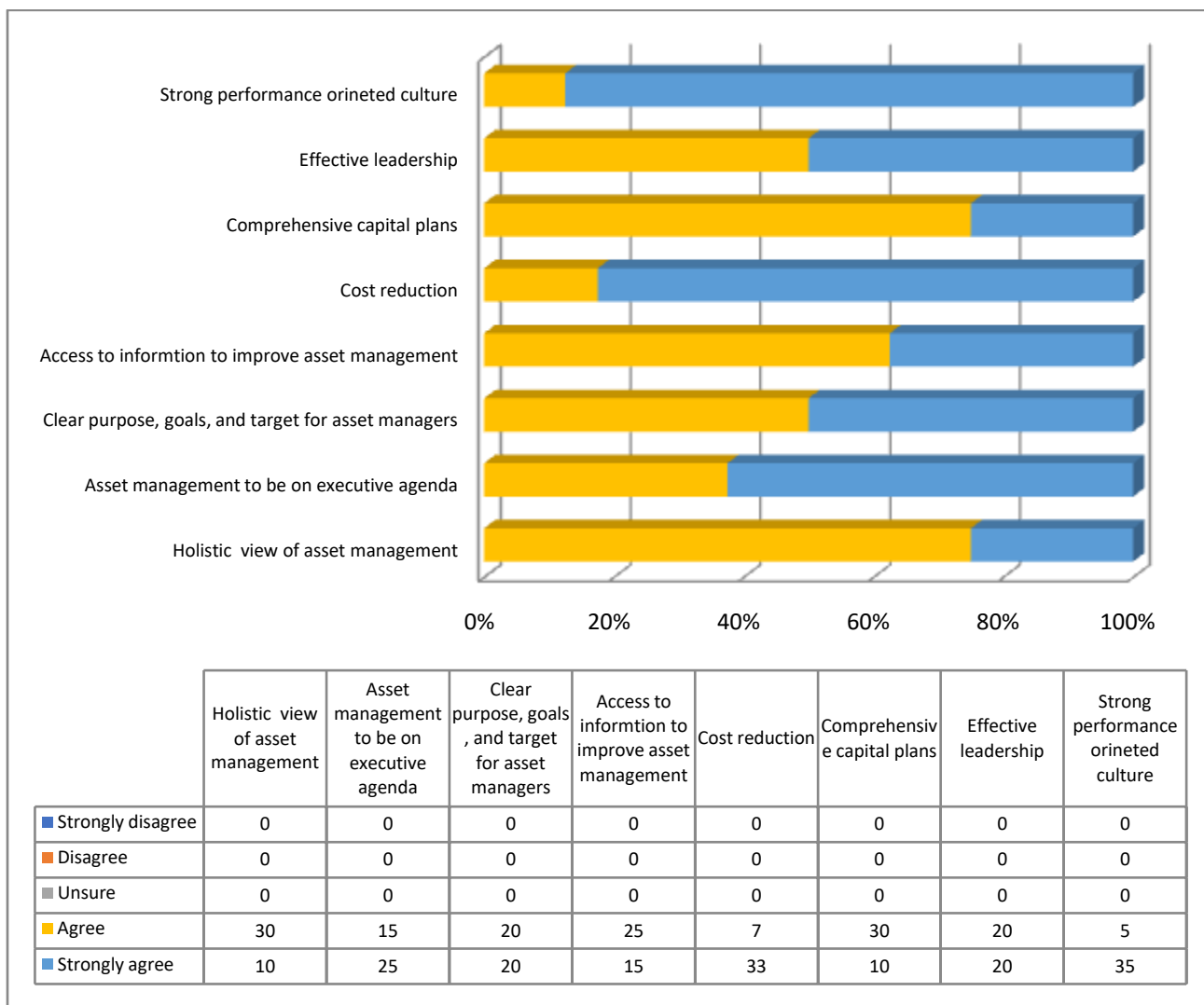
learning in Masvingo Province, Zimbabwe. However, there were no challenges in human resources and management

support. One of the official interviewed said; “our institutions of higher learning have been affected by the economic challenges. There has been a decline in government support and there is decline in revenue from fees and other ancillary activities”. The findings of this study are supported by literature and Abdullahi (2015) argued that higher educational institutions are in serious financial crisis.

4.5 Options for Ensuring Effective Management and Adequacy of Assets

The study sought to explore some of the options for ensuring effective management and adequacy of assets at institutions of higher learning in Masvingo Province, Zimbabwe. The results are in Figure 6.

Figure 6: Options for Effective Asset Management



According to Figure 6, there was unanimous agreement that effective asset management takes a holistic view. There is need to have a conceptual skill of managing assets, including facilities, transportation, IT, and other assets to maximise capital value, increase return on investment, and reduce operating expenses and maintenance costs. In addition, it was stated that getting asset management on the executive agenda can achieve the biggest improvement. There is a need to provide the institution community with access to information on the asset management plan and to improve the operational

effectiveness of existing assets. Optimising asset management helps address current challenges and future opportunities by enabling improved service and high availability for assets and the services or functions they deliver. There is also a need to reducing costs and extending asset life through more effective maintenance and business processes, and efficient use of human resources. In addition, there is need for a strong and performance orientated culture in organisations. According to Shephard (2016), the characteristics of a strong culture include being strategic in nature, globally competitive, human

resource focus, continuous improvement and visionary leadership. Strong culture produced a strong leader and ensured the success of organisations. The culture of organisations is dependent on the attributes of the leaders. The leaders should continue exhibiting some of the traits of effective leaders, which are courage, patience, a steely mental toughness, the passion and enthusiasm needed to bring about change.

V. RECOMMENDATIONS

The study came up with recommendations in line with research objectives. These are presented in the succeeding sub-sections.

- The study showed that all forms of assets were essential at institutions of higher learning in Masvingo Province, Zimbabwe. Therefore, there was need for adequate financial resources to 'fuel' the acquisition of assets. The institutions of higher learning in Masvingo Province, Zimbabwe could engage in income generating projects, for example agriculture, to finance asset acquisition.
- The research showed that most of the assets that are required by the institutions were inadequate. Accordingly, income generating projects were paramount. Partnerships with private companies, which could provide assets like student accommodation can also be explored.
- The study showed that the institutions of higher learning in Masvingo Province make use of asset management plans (financial resource, human resource, technology, and facilities plans). In addition, there were organisational structures for asset management, action plans, and physical asset registers. However, the challenges were on successful implementation. Accordingly, there was a need to fully embrace the concept of results based management in asset management. Focus should be on the attainment of results.
- The study showed that financial resources were a major challenge affecting asset management. Therefore, the institutions of higher learning in Masvingo Province, Zimbabwe could engage in income generating projects, for example agriculture, to finance asset acquisition.
- There is need to have a conceptual skill of managing assets, including facilities, transportation, IT, and other assets to maximise capital value, increase return on investment, and reduce operating expenses and maintenance costs. In addition, it was stated that getting asset management on the executive agenda can achieve the biggest improvement. There is a need to provide the institution community with access to information on the asset management plan and to improve the operational effectiveness of existing assets. There is also a need to reducing costs and extending asset life through more effective

maintenance and business processes, and efficient use of human resources. In addition, there is need for a strong and performance orientated culture in organisations.

5.1. Suggestions for further study

This study focused on asset management at institutions of higher learning in Masvingo Province, Zimbabwe and had a limitation of coverage. With more time and resources, a survey on asset management in institutions of higher learning all the ten provinces in Zimbabwe would yield results that are generally applicable to the whole country.

VI. CONCLUSION

The study concluded that assets were essential at institutions of higher education in Masvingo Province, Zimbabwe. Assets like financial resources, furniture, and ICT hardware and software were said to be highly significant. Most of the assets that are required by the institutions were inadequate. Only three types of assets, that is, human resources, lecture rooms, and furniture were said to be adequate. All the respondents were in agreement that there were financial resource plans at the institutions of higher learning in Masvingo Province, Zimbabwe. The financial resource plans were in the form of budgets. In addition, most of the respondents said that there were human resource, technology, and facilities plans. The research showed that the institutions for higher learning in Masvingo Province, Zimbabwe have adequate structures for asset management. The structures are in the form of departments or units, for example, human resources, IT, estate and valuation, and finance. Most of the respondents were in agreement that there were action plans for asset management. Every department was required to come up with action plans for specific periods. However, the challenge was on ensuring the success of the action plans. The study showed that the institutions maintained registers or records for all their assets. Financial resources were a major challenge affecting asset management at the institutions of higher learning in Masvingo Province, Zimbabwe. The research showed that effective asset management takes a holistic view. There was also a need to reducing costs and extending asset life through more effective maintenance and business processes, and efficient use of human resources.

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