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Preservation of organisational memory at the National University of Science and Technology, Zimbabwe

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Abstract

Rationale of Study – The study aimed to assess the memory preservation practices at NUST. It sought to identify the records and information sources that made up organisational memory, determine their state of preservation, establish the policies for that preservation, and suggest best practices.

Methodology – The study was qualitative, and a case study design was utilised. Data collection utilised semi-structured interviews and document analysis to gather qualitative data. The study purposively sampled 14 participants from a total population frame of 82. Data was analysed thematically.

Findings – The study's main findings showed that organisational memory records are not recognised as such, nor are their importance acknowledged in the university's survival. Organisational memory continues to be neglected and destroyed because of inadequate information management systems, a lack of knowledge about how to preserve it, and the lack of implementation of a records management policy implies that NUST's organisational memory is managed without reference to standards and best practice benchmarks.

Implications – The study offers best practices for documenting, protecting, and strengthening organisational memory, as well as for creating, putting into practice, and disseminating a preservation policy.

Originality – The study adds to the body of knowledge on the preservation of organisational memory in state universities in Zimbabwe and emphasises the relationship between competitive advantage, records management, memory preservation, and governance.

Keywords

Preservation, knowledge and information, policies, best practices, Zimbabwe

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1 Introduction

Universities invest much money producing knowledge and information to advance and expand societies. While most of this knowledge is tacit (resides in people's heads, hands, and hearts), some are translated into records that become archives that preserve organisational memory, ultimately becoming a strategic asset and resource of the institution (New Zealand Qualifications Authority, 2015). An organisation's culture, procedures, and information systems are all ingrained with organisational memory. It is a method for applying information from the past to current activities (Stein, 1995). Data, information, knowledge, and socially built answers to old problems are amassed in an organisation's life. It has two repositories: people's memories and an organisation's archives, including its electronic databases. According to The Society of American Archivists (2005), academic archives are the collective records and holdings of a university, college, or other educational institution. They are present in the university's buildings, libraries, archives, and records centres to honour and preserve the institution's past. According to Tsvuura and Ngulube (2020), digitising records in Zimbabwe's state universities has made it possible to access information sources, preserve information, and disseminate it. However, this enormous volume of records necessitates ongoing interactive management.

Similarly, Clemence et al. (2023) recognise that ICTs have altered recordkeeping practices. Higher education institutions in developed nations increasingly implement e-records management systems to improve efficiency and accountability. Despite the crucial role that records and information play in higher education, numerous studies (Adom-Nyankey & Andoh, 2022; Tsvuura, 2022; Guto & Jumba, 2021; Momoti & King, 2019; and Khumalo & Chigariro, 2017) have found a variety of issues that make universities less competitive or result in poor governance, accountability, transparency, being ineffective and inefficient. According to Netshakhuma and Makhura (2022), universities need records management to support significant university activities, including student administration and research. They add more context by highlighting the importance of records management for university management since it helps governance, risk management, and compliance.

It has been 31 years since the National University of Science and Technology (NUST) was founded. It is situated in Zimbabwe's City of Bulawayo. According to the National University of Science and Technology (2013), many archival and recordkeeping forms

chronicle that history accurately writes the NUST institutional memory in indelible ink and store it in stone. These documents must be kept for future generations because they are essential in administrative, legal, fiscal, evidentiary, informative, and historical contexts. Although universities are frequently urged to conduct themselves in a businesslike manner in order to be self-sufficient and remain competitive, they fail to recognise the significant benefits that good records management and preservation practises could offer to the accomplishment of their goals (Mnjama, 2002; Procter, 2002). Mnjama and Wamukoya (2004) noted that colleges in East and Southern Africa faced significant difficulties in collecting and maintaining records. According to Egwunyenga (2009), universities' records management systems are lacking, as evidenced by the unfavourable attitudes of staff, inadequate computer terminals, inadequate record security, and ineffective record retrieval methods, to name just a few. Nyathi and Dewah (2017) agree that universities' main issues in managing their records effectively are a lack of functional recordkeeping policies and insufficient funding and resources.

On the other hand, according to Netshakhuma and Makhura (2022), good governance and transparency depend significantly on the proper maintenance and administration of records throughout their entire lifecycle. Integrating records management procedures into the institution's overall corporate strategy is essential; however, this is poorly understood. Similar issues facing universities are confirmed by Clemence et al. (2023), who also note that these e-records systems are not adequately used to assist electronic records management.

2 Problem statement

Organisational memory is a crucial knowledge base for every organisation where priceless insights and recorded data can assist and provide for well-informed business decisions in the present and the future (PAHO & WHO, 2015). Improved university programmes and activities result in more efficient university governance and operation thanks to planned and systematic record management and organisational memory preservation (State of Florida, 2009). However, organisational memory is not acknowledged enough by NUST as a historical resource and an essential source of information for NUST's survival in making informed business decisions derived from planned and systematic records management. This is demonstrated by the dearth of systems suitable for managing and preserving organisational memory at NUST, the poor state of records management in sections and departments, the absence of functional Records Management and Preservation, and the lack of devoted staff with the necessary knowledge and experience. These issues endanger the university's ability to operate effectively and efficiently, endangering its ability to survive in dynamic circumstances. Numerous research studies have discussed the advantages of improving organisational memory through records management (Masenya & Ngulube, 2019; Nyathi & Dewah, 2017). The study aimed to provide recommendations for the better preservation and protection of organisational memory by describing the current condition of records management, policies for the preservation of organisational memory, and information sources composing organisational memory at NUST.

The study sought to identify records and information sources that constitute organisational memory at the National University of Science and Technology; ascertain the state of organisational memory preservation at the National University of Science and Technology; establish the policies in place for the preservation of organisational memory at the National University of Science and Technology; and recommend best practices for the preservation of organisational memory.

3 Review of related literature

The review of related literature included a conceptualisation of organisational memory preservation. It was thematic and centred on the definition of organisational memory, its significance and components, and its constituents. The review also covers organisational memory preservation literature.

3.1 Organisational memory

According to Zakaria and Mamman (2015:4), organisational memory can be located and identified through staff experience and knowledge, technical systems, electronic databases and various paper records, organisational routines, and SOPs. On the other hand, Perry, Fruchter, and Rosenberg (1999) suggest that how individuals use distributed knowledge is crucial in designing organisational memory and approaching the conceptualisation of organisational memory from an anthropological perspective. They also argue that organisational memory is not dependent on technology and that technology enhances the coordination of cooperative activity rather than creating organisational memory. According to Ketelaar's (2005) theory, organisational memory falls within the third dimension of memory since it is organised, socially built, and maintained by people who are acutely aware of the political nature of the system. Records influence a group's structure because they affect the nature of the social relationships that they serve to organise. Developing an organisation's complete history or collective knowledge can also be considered a goal of organisational memory (Al-Sakran, 2016). According to Megill (2005), organisational memory is the knowledge an organisation generates and finds valuable for reuse. It consists of the current and past information held by an organisation that is valuable for management, sharing, and preservation for future use. The critical work on organisational memory by Walsh and Ungson (1991) is criticised by Yu and Glynn (2015) for not being applied or elaborated in strategic management. They suggest the "construct of competitive memory," which they define as a dynamic capability made up of information from a competitor's prior competitive interactions that can be used to influence competition in the present or the future. When Yu and Glynn (2015) propose that competitive memory is both procedural and declarative, can be accessed voluntarily and automatically, and is dynamic and may be formed and reconstructed over time, they provide further context. Its importance is inherent in its emphasis on the connections between significant events, decisions, milestones, projects, and other vital actions and how they relate to, or support, broad strategic and organisational themes and keep everyone on the same page, according to Braendle, Corbin, and Al Matarneh (2019). In order to lead future success and prevent making the same mistakes again, successful organisations have long memories and the ability to recollect information from those experiences (Corbett et al., 2018).

3.2 Organisational memory preservation

Any organisation must protect its organisational memory. In the context of the Information Society, it enhances decision-making. According to PAHO (2015), organisational memory preservation refers to adopting standards, procedures, and content management systems that permit collecting, classifying, preserving, and disseminating knowledge produced inside an organisation. For it to be practical, guidelines, procedures, and policies that allow the institution to organise and preserve the variety of tangible and intangible organisational knowledge sources, as well as the dissemination of organisational information, are required to be adopted and put into practice (Megill, 2005). On the other hand, Ketelaar (2005:50) asserts that "people in these systems classify away traces that they know to be relevant but which should not be officially recorded" from the perspective of the community of records, asserting that "recordkeeping systems are active creators of categories in the world." As a result, each axis in the records continuum model presents a unique perspective on transactions, identities, evidence, and recordkeeping. According to Tsvuura and Ngulube (2020), a

university's loss of organisational memory is caused by the absence of records management procedures. Although they acknowledged that there had been some progress made globally in digital preservation, Adu and Ngulube (2017) argued that rapid technological obsolescence was a constant threat to the preservation of digital records. However, the issue of permanent access to information and the longevity of digital records remained unresolved. Similar difficulties in digitally preserving organisational memory, particularly data management in academic libraries, are listed by Sheikh, Malik, and Adnan (2023). On the other hand, Zakaria and Mamman (2015) contend that the same factors that promote organisational learning may also pose barriers to preserving and using organisational memory. In conclusion, research shows that human, organisational, technological, and regulatory variables pose the most significant obstacles to maintaining organisational memory, as Clemence et al. (2023) claimed. The gap in the literature is evidenced by limited literature on state universities in Zimbabwe, let alone in Southern Africa; most of the literature available was predominately Western. A few studies were done when conducting this study in 2022, as evidenced by (Adu & Ngulube, 2017 Nyathi & Dewah, 2017 and Tsvuura & Ngulube, 2020). This study contributes to this growing body of knowledge on organisational memory preservation in state universities in Zimbabwe.

4 Methodology

A case study design was used in the investigation. A total of 82 NUST members made up the study's population. They included senior administrators in the academic and administrative wings of the university, including 44 chairpersons, 14 senior assistant registrars, ten directors, eight deans of faculties, and the six principal officers who are charged with making decisions and carrying out organisational policies that either directly or indirectly affect how the university operates. The top office holders at NUST, who had a combined total of 14 responses, came from a purposeful sampling and had extensive expertise and insightful knowledge of organisational memory. The conceptual framework informed the study of organisational memory systems (Walsh & Ungson, 1991) to formulate the research objectives (search, retrieve, capture, store, access and replenish organisational memory). Data collection for the study included interviews, observation, and document analysis. Face-to-face, semi-structured interviews were used as the primary data collection method for the study. A total of 8 interviews were performed, 7 of which were in-person meetings, while the eighth was conducted using the Google Meet platform. The interviews took place from June 23, 2022, through July 6, 2022. Additionally, when the researchers visited the offices for interviews, observations were made, and respondents consented to be observed whilst they managed and used organisational memory at NUST. A checklist was utilised for data collection during the observations; emphasising memory preservation practises such as handling and protecting records. The themes in the data produced by the interviews, observations, and document analysis were identified, examined, and reported on thematically (Braun & Clarke, 2022).

5 Findings and discussions

5.1 Organisational memory

When asked if they understood what organisational memory was, respondents said yes. Four people answered they were aware; two said they were not, and the other two claimed to have a layperson's understanding of what organisational memory was.

5.2 Constituents of organisational memory at NUST

The initial goal included a search for the elements of organisational memory at NUST. Interviewees were asked what they thought made up the university's organisational memory. The results unequivocally demonstrate that the organisational memory of NUST is intelligence that resides in the university due to the epoch in the minds of its staff members, in university guidelines, procedures, protocols, and records—regardless of format—produced by the university activities and functions.

5.3 Importance of organisational memory

The following questions focused on how frequently respondents used organisational memory as a point of reference, what academic tasks they used it for, and how significant they perceived it to be. According to Clemence et al. (2023), the accessibility of organisational memory is difficult at NUST due to human, organisational, technological, and regulatory variables. Yu and Glynn (2015) found a similar issue with their concept of competitive memory. It might be argued that NUST lacks competitive memory due to its poor preservation and management of this vital resource. Due to this, it is more susceptible to competition from other state universities in research output, expanded enrolment, internationalisation, and overall university management and service delivery to its major stakeholders. Negative revenue levels could result, which would be disastrous for the industry when government spending significantly decreases.

5.4 NUST's current organisational memory preservation situation

Finding out how NUST preserves organisational memory served as the second goal. The respondents were questioned about their departments' organisational memory preservation practices. The findings showed that NUST's organisational memory preservation generally is not very good, with seven respondents describing it as dangerous, disastrous, haphazard, and uncoordinated before venting their aggravation at being unable to access some information. According to Egwunyenga's (2009) findings, recordkeeping issues are particularly severe in the university system since accurate, trustworthy records that satisfy evidential standards are being created but are not being adequately managed. This conclusion aligns with those made by Kootshabe and Mnjama (2014), who found that while government institutions had a respectable preservation commitment, their management strategies varied widely. The same point was made by Sheikh, Malik, and Adnan (2023), who discovered in their study that the main obstacles to data access in university libraries were primarily caused by the following, which has an impact on overall preservation of organisational memory: a lack of institutional commitment, collaboration, technological development, and, most importantly, a lack of institutional commitment, inability to complete duties at hand due to a lack of policies, funds, inadequate storage facilities, and skills and abilities. Overall, improving organisational governance and efficiency is challenging due to the failure to retain and manage its memory. Because memory plays a significant role in organisational governance in a university setting, NUST has to strengthen its preservation measures. Because it chronicles planning, implementation, and monitoring, recordkeeping is essential to efficiently and effectively managing university systems. Additionally, records management in universities was not being used to its full potential and did not help to make them more intelligent, according to Momoti and King (2019). Little was understood about records management, and senior management did not show any interest in records management initiatives.

5.5 Archiving and maintaining organisational memory

Interviewees were questioned on the location of NUST's organisational memory. According to the findings, organisational memory is stored in employees' memories, digital records, the cloud, files, hard copy document stakes, computers, storerooms, passageways, and boxes. One participant said that the organisational memory of NUST can be found in the offices, newsletters, Navision, annual/periodic reports, and on the NUST website. Another reply hinted that organisational memory is primarily kept in

filing cabinets and drawers, depending on who creates and receives records at the institution. Additionally, research reveals that NUST's organisational memory is kept on Google Drive and Solid State Drives (SSDs). However, the primary preservation strategy is boxing, while photocopying, lamination, digitalisation, microfilming, and encapsulation are very low to non-existent, consistent with the findings at NUST. Kootshabe and Mnjama (2014) observed that state institutions in Botswana did not respond uniformly to preservation management. On the other hand, Tsvuura and Ngulube (2020) contend that technology instruments must be supported by legal, social, and corporate frameworks to meet minimum expectations and ensure that recorded memory is well-kept (interactive management). They provide further context by pointing out that, as a component of organisational memory, digital records and archives require suitable management, policies, processes, guidelines, and legal protection for their preservation. At NUST, there is a conspicuous gap in the areas above, endangering the storage and preservation of its memory. As this study discovered, there needed to be more storage space, and records were rarely or never consulted for decision-making, planning, research, and competitive advantage, according to Momoti and King (2019). On a related point, research by Abdulrahman (2015) on managing university records in Nigeria revealed similar issues about filing and storage. In order to increase the lifespan of university documents, Abdulrahman (2015) suggested that proper filing systems, space, security measures, and climate control be implemented.

5.6 Employees' responsibility for protecting NUST's organisational memory

Interview subjects were also questioned on who at NUST is in charge of maintaining organisational memory. Four respondents said that no one at NUST is in charge of maintaining organisational memory, and they added that this is a vacuum that has to be closed since NUST needs an all-encompassing functional unit with expertise to do so. According to one respondent, the Registrar, who is also in charge of maintaining university policies, is responsible for maintaining organisational memory. In contrast, the other three respondents held departmental secretaries and Senior Assistant Registrars accountable. The discovery that no one at NUST is specifically paid to perform the records administration role means that no one is specifically accountable for managing organisational memory. Therefore, NUST needs personnel with the necessary abilities and competencies to manage its memory. In order to effectively administer institutions, Abdulrahman (2015) proposed that records management professionals receive new training and refresher courses in ICT applications and records management. According

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records staff qualified to manage digital records. The same conclusion is reached by Netshakhuma and Makhura (2022), who state that a knowledge gap in incorporating records management practices into the university's overall corporate strategy facilitates and supports governance, risk management, and compliance. Tsvuura and Ngulube (2020) argued that best records management practices must be followed when developing appropriate strategies, procedures, and standards for preserving recorded digital memory. By observing that state universities in Zimbabwe lacked skilled records management employees responsible for managing electronic communications, let alone digital records, Sigauke, Nengomasha, and Chabikwa (2016) confirmed the same finding. When Tsvuura (2022) discovered that state universities in Zimbabwe employed records and archivists without the necessary training, he came to similar conclusions. Therefore, State institutions must update their hiring practices and hire personnel with the qualifications to manage records in the digital age. In a previous study, Zakaria and Mamman (2015) discovered that employee transfers by Ghana's central government and lousy recordkeeping hindered municipalities' capacity to integrate the knowledge and expertise needed for the best organisational performance. The same is true for NUST, which has substantial staff turnover due to subpar wages and staff retention measures, adversely affecting performance and losing its competitive edge.

5.7 Organisational policies for memory preservation

The third goal was to determine if NUST has any procedures in place for the preservation of organisational memory. Six respondents claimed no policy existed for preserving organisational memory at NUST, whereas two said the Records and Archives Management department created a policy. However, they were unsure if it was in use. The interviews also revealed that several university policies are alleged to have been discussed in meetings (such as the verification policy), to have been written but never implemented (such as the records management policy), or actually to exist (such as the information and communication technology policy). They are never shared with everyone, so nobody is aware of their existence, and because no one follows them, they are useless. These findings are consistent with Kootshabe and Mnjama's (2014) study, which found that all government ministries and departments in Botswana lack documented and legally binding preservation strategies for preserving government data. Numerous research (Adom-Nyankey & Andoh, 2022; Tsvuura, 2022; Guto & Jumba, 2021; Momoti & King, 2019; Khumalo & Chigariro, 2017; Netshakuma & Makhura,

2022) have confirmed the absence of effective policies on the preservation of organisational memory. The significance of policies cannot be overstated because they serve as a roadmap and benchmark, spelling out the norms and practises that must be followed to preserve organisational memory. According to Luyombya and Ndagire (2020), improper records management policies present significant difficulties in processing information.

5.8 Advice from Zimbabwe's National Archives

As a public university, it creates documents and data that will eventually contribute to Zimbabwe's collective memory. Respondents were asked if they had ever consulted the National Archives of Zimbabwe for advice on preserving the university's organisational memory, which is also a component of its archives. One respondent said there was routine communication with the national archival organisation, while seven others said there was no communication between NUST and the National Archives of Zimbabwe regarding preserving NUST's organisational memory. Overall, the results show that the National Archives of Zimbabwe was not consulted or given any advice about preserving organisational memory.

5.9 A reduction in organisational memory

The question of whether NUST had ever lost crucial organisational memory was also put to the respondents, and the results showed that 6 of them agreed that the university had. However, 1 of the respondents claimed they were unaware of any corporate memory lapses, and one more said there had not been any so far. The results show that NUST has, at some point, lost crucial organisational memory due to poor recordkeeping, system failure, and personnel emigration in search of better opportunities. These results are consistent with those by the World Bank (2000), which contends that crucial organisational memory is still neglected and lost due to, among other things, a lack of understanding of its importance, ignoring its codification and retention, inadequate information management systems, and a lack of knowledge regarding the best ways to preserve it for future generations. Additionally, one of the critical components of success for an organisation is its capacity for learning and memory retention. However, businesses are particularly susceptible to memory loss for various organisational, social, and economic reasons (Panchuk, n.d.).

5.10 Elements that affect NUST's organisational memory preservation

The study also examined the elements influencing NUST's ability to preserve organisational memory. The results showed that, despite the will, insufficient resources

were set aside expressly for memory retention. Memory preservation is hampered by several factors, such as omissions and flawed systems, prohibitive server purchase costs, a lack of capital, a dearth of human resources, a dearth of e-records management systems, inadequate pay and working conditions for experts and custodians of organisational memory, a lack of a dedicated office for NUST memory, a lack of memory tracking, and a lack of understanding and awareness of the need to preserve memory. These results are supported by Prabowo (2015), who asserts that factors affecting organisational memory preservation generally include the lack of budgets, human resources, technology, rules, and policy. This assertion by Prabowo (2015) is also supported by other studies on universities in general (Sheikh et al., 2023; Clemence et al., 2023; Tsvuura, 2022; Netshakhuma & Makhura, 2022; Tsvuura & Ngulube, 2020; Khumalo & Chigariro, 2017), as well as (Sigauke et al., 2016), all of which can be characterised as being of a social, technological, financial, legislative, or regulatory nature.

5.11 Ability to maintain organisational memory

Further questions were then asked of the respondents to ascertain whether NUST could maintain its memory. Responses ranged from saying that NUST should have the capacity because it is not a matter of choice to saying that there is not enough capacity and resources need to be found. They also stated that priorities are crucial and that it is necessary to value the memory of NUST, which is not currently being done. Given the numerous difficulties encountered in NUST's management of organisational memory, it can be concluded from these responses that the capacity to preserve now does not exist. Asogwa (2013) discusses the significance of records management to universities and tertiary institutions and suggests that records administration must be viewed as a business process created to serve institutional goals for educational institutions to be effective and efficient. This is conspicuously absent at NUST, making it an academic institution that is both inefficient and ineffective. This was confirmed by (Sigauke et al., 2016; and Khumalo and Chigariro, 2017), who discovered a lack of organisational memory and the ability to maintain records at NUST in their respective research. This was especially true of digital records.

6 Conclusions

According to the study, NUST employees are generally unaware of organisational memory. Despite this lack of knowledge, respondents nonetheless laud the significance of organisational memory as a resource for advice on university business. According to

the study's findings, the university's policies, guidelines, procedures, and protocols, such as the NUST Act, yearbooks, MOUs, and terms of reference, have been able to preserve the organisational memory of NUST over time in the minds of its students and members. Records in whatever format contain the organisational memory of NUST. Findings also show that NUST has lost crucial organisational memory, such as the founding documents. The organisation's memory preservation practices are also in poor shape, as evidenced by the loss of records and information due to carelessness, theft, negligence, improper handling, and lack of policies and devoted staff. The preservation of memory at NUST is in danger since no policies are in place to maintain its organisational memory. These findings align with those of Khumalo and Chigariro (2017), who found that NUST required a records and archives management programme in their study. Without a system to handle records and archives, NUST risks litigation, losing necessary research, keeping only partially full documents, and making bad decisions. The study offered best practices for preserving organisational memory and boosting competitiveness among Zimbabwean universities. On the other hand, the study emphasises the connection between organisational governance, competitive edge, and memory preservation; it is anticipated that this will guide NUST management and Council regarding memory preservation as a crucial component of university governance and operations.

7 Recommendations

- 1. Because organisational memory is undervalued, the study advises the Records and Archives Management department to take the initiative and contact the NUST community to spread the word about organisational memory and its significance. Obunde, Wasike, and Awour (2022) noted the same thing and recommended that staff members be aware of the value of organisational memory and records management.
- 2. NUST should collaborate with the Records and Archives Management department to create practical structures and methods for preserving organisational memory.
- 3. At NUST, the maintenance of organisational memory should be prioritised using a team approach rather than merely with managerial assistance. While Tsvuura and Ngulube (2020) suggested ongoing interactive management to solve the issue of the sheer volumes and types of records in universities, Asogwa (2013) also

suggested that it is necessary to treat records management as a commercial activity.

- 4. A timeline of notable events and activities at NUST over the years should be displayed on an interactive page on the NUST website.
- 5. To direct the management and preservation of NUST's organisational memory, NUST should develop, implement, and disseminate a preservation policy and promote the execution of the records management policy. To ensure that the information NUST develops is not lost to deterioration and neglect, Kootshabe and Mnjama (2014) advocated adopting preservation policies and procedures to guide standard practices for preservation.
- 6. The National Archives of Zimbabwe should work with the university to provide guidelines on managing and preserving its organisational memory.
- 7. A reliable power source and storage space are necessary for the memory of NUST residents in virtual spaces to be adequately preserved, so NUST should set up backup power sources and data storage facilities. Employees who manage organisational memory should also have ICT training and refresher courses and be able to manage digital documents. NUST should also use or transition to electronic records management systems to enhance business processes. For e-records management systems to be used effectively, multiple actors must be involved.
- The study also suggests creating a university archive to compile and save NUST's memories for future generations; Khumalo and Chigariro (2017) made a similar suggestion.

8 Limitations and future research

The study's primary weakness was that it was a single case study, and the conclusions could only be extrapolated to NUST and not to other state universities in Zimbabwe. Future research should focus on how state universities can preserve organisational memory because it is a vital but frequently overlooked component of their operations.

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