



The Role of Strategic Change Management in Enhancing Academic Institutions' Sustainability

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Abstract: This study aims to highlight how strategic change management enhances the sustainability of academic institutions. Thus, the study explores sustainability in a volatile, uncertain, complex, and ambiguous world (VUCA), primarily focusing on academic institutions in Namibia through the lens of strategic change management. The central question the study attempts to answer is how strategic change management can be employed to achieve sustainability in academic institutions. Academic institutions must be sustainable as it enables the graduates produced to be competitive at their workplaces and enables them to be employable not only for the local industry but internationally. A qualitative approach through action research design was adopted to explore the role of strategic change management on the sustainability of academic institutions through a reflexive thematic analysis using ATLAS.ti. The participants employed in this study consisted of five (5) managerial personnel, eleven (11) lecturers/professors, and eight (8) postgraduate and undergraduate students, totalling 24 participants for data collection through the use of open-ended questionnaires. The study examines how various academic stakeholders view sustainability integration in their educational programs and strategies to implement the desired change. Methodologically, this study can be described as explorative and interpretative, which reflects on sustainability in academic institutions by paying closer attention to strategic change management to address the challenges and effective management of change, which in most cases is inevitable. The study found that sustainability in academic institutions can be achieved by recalibrating a strategic plan through all stakeholder participation. The students should be at the core of sustainability initiatives, and an inclusive change approach should be adopted, this enables appropriate change management initiatives to be employed for enhancing sustainability in academic institutions. The pedagogical approach advanced in this paper addresses how strategic change management can be used to achieve sustainability in academic institutions. Hence, the findings indicate that a strategic plan fosters interaction with all associated stakeholders and inspires the combining efforts of stakeholders toward achieving a sustainable academic institution.

Keywords: Strategic change management in academic institutions, Sustainable education in Namibia, Stakeholder engagement in academia, Sustainability strategies for academic institutions, Sustainable mindset, Covid-19, Sustainable Development Goals, VUCA World

1. Introduction

The world is not static; it is dynamic, such as the education sector. Academic institutions need to be sustainable by embracing strategic change to produce graduates compatible with the ever-changing working environment (Kioupi and Voulvoulis, 2019). Hence, strategic change management is crucial in ensuring sustainability in an academic institution. Academic institutions should be sustainable in the academic modus operandi, hence the need to employ strategic change management since change is inevitable in modern education. There is a paradigm shift in the way academic institutions are operating in the modern world (Howe et al., 2021). It is quite notable that academic institutions are going digital,

there is minimum physical interaction between the tutors and the students, and this has also been prompted by the outbreak of the Covid-19 pandemic which limits the physical association of people (Hesen et al., 2022). Over the past decade, there have been major changes in technology which have also changed the work processes and the way people and organizations interact, therefore academic institutions need to remain relevant by ensuring that they implement strategies that incorporate the changes in the technological space to ensure that the product viable and high performing students who will enable organizations to achieve their goals and objectives (Hesen et al., 2022; Asa et al., 2022). There has been a significant change in the education system since the outbreak of Covid-19, which has disrupted academic institutions' operations. Given this, academic institutions thus need to adapt to this change if they are to remain sustainable and produce productive competitive graduates in this volatile, uncertain, complex, and ambiguous (VUCA) world. Strategic change management is necessary for assisting academic institutions to embed new learning and teaching methods in their operational fraternity. However, the general observation is that most academic institutions in Namibia have been lagging to employ strategic change management to ensure that they are sustainable, hence they are producing an abundance of students that cannot be absorbed in the workplace, and this has caused the skyrocketing of the unemployment rate. Sustainability in academic institutions aims to integrate people and the world by paying attention to individuals' social and emotional needs. An academic institution is sustainable if it embodies modern forms of learning (Eernstman and Wals, 2013). Sustainable academic institutions are often seen as a means to enhance the sustainability competencies of students, and employers give preference to job candidates who have pursued their academic endeavors at a sustainable academic institution (Brundiens et al., 2021).

Strategic change management shifts from traditional teaching and learning and focuses on research, innovation, and leadership; hence these are the main pillars of achieving a sustainable academic institution. Furthermore, a sustainable academic institution facilitates academic progress, bridges research efforts, and develops the community to achieve a more sustainable-oriented society (Lozano et al., 2017). Hence, the role of strategic change management is to bring about a change in the way students are taught and how knowledge is imparted to them, this allows products from institutions of higher learning to be equipped with sustainability awareness, skills, and values that they will take into their professions (Scheyvens et al., 2016). Developing countries such as Namibia need to have sustainable academic institutions that will enable the attainment of developmental trajectories such as Vision 2030 in the case of Namibia, which ultimately aims at the sustainability of economies (Asa et al., 2013). Strategic change management causes academic institutions to come up with new and better pedagogical ideas and transdisciplinary approaches that promote student learning by addressing experimental, interactive, and real-life cases (Lozano et al., 2017). Strategic change management creates awareness of the challenges and supports knowledge about sustainability and raises critical thinking among students. The purpose of this study was to ascertain the role that strategic change management plays in achieving a sustainable academic institution.

2. Literature Review

A theoretical framework and literature review on strategic change management and sustainability outcomes were used to explore the research questions and inform the study. The researchers reviewed the work of various scholars in determining the role that strategic change management plays toward the establishment and enhancement of sustainable academic institutions.

2.1 Theoretical Framework

There are various models for managing a change process. However, this study is informed by Kotter's Change Model in conceptualizing strategic change management. The model typically stipulates that organizations and academic institutions lead employees (academics and managerial personnel) and students through eight critical steps (Ávila et al., 2019). The eight steps include:

- Establishing a sense of urgency or making sure that there is a need for the change and that individuals understand that need. Academic institutions need to agree on the change to be made and the parties who need to be involved in this change.
- Creating a guiding group of supporters that can help model the new transition and operate efficiently as a team, as Academic institutions may be assisted by the government or stakeholders who may be interested in producing an efficient and effective workforce from students.
- Developing both vision and strategy of where the academic institutions are heading and the path that will lead to that destination.
- Communicating that vision to employees and students appropriately and understandably.
- Empowering employees and throughout the institutions to show initiative in making the change possible.
- Generating short-term wins or small celebrations along the change process to foster a sense of success.
- Re-enforcing what is learned from the current change to help the academic institutions to improve the change process in the future.
- Consolidating the change in the corporate culture through effective strategies such as making clear distinctions of performance, profit, and customer satisfaction.

Therefore, Kotter's Change Model becomes an effective tool in the attainment of strategic change management. In this light, the process of managing change is structured and there is a thoughtful way that can reach organizational goals and objectives. Kotter's Change Model adjudicates the fact that change is a necessary process for the organization to continue to function and also exceed competitors' expectations. Change within an educational institution is influenced by the external environment in which the organization operates as well as the actions of its competitors.

Sustainability in academic institutions of higher learning involves embedding sustainability development into teaching and curriculum as well as taking cognizance of the stumbling blocks encountered in raising student awareness and agency (Petronzi and Petronzi, 2020). Strategic change management in academic institutions should mold an environment that allows for the interpersonal development of students' key competencies in sustainability. Universities have the task of molding the career as well as the student to fit those careers. Universities should aim to produce unique graduates, not just producing professionals who are just able to replicate what they have been taught and cannot think outside the box (Loftus and Madden, 2020). Academic institutions should create the well-being of a student and allow students to appreciate the inherent differences in people, hence enabling them to pay a listening ear to everyone when they finally get into the industry to take up various leadership responsibilities, since leadership is a social contract between the leader and the followers (Hassl f and Malmberg, 2015). Thus, sustainability-oriented higher education stimulates critical thinking and reflection to challenge the discourse surrounding sustainability challenges and to promote alternative ways of being and doing (Hassl f and Malmberg, 2015).

Institutions of higher learning are faced with several challenges in this 21st century, however, strategic change management can be employed to overcome these stumbling blocks (Leal Filho et al., 2019). Universities play a pivotal role in achieving the Sustainable Development Goals (SDGs) of a country, hence the need to implement strategic change management to develop innovative sustainable solutions: science, technology, highly educated researchers, teaching staff, and motivated students (Leal Filho et al., 2019). In addition, Sonetti et al. (2019) argue that strategic change management assist in the crafting of new course educational outlines for various modules and programs aimed at molding better leaders and practices in teaching which will culminate into behavioral change acceptable in the community. In a nutshell, sustainable academic institutions improve students' capabilities, stimulating innovation.

2.2 Strategic Change Management

Strategic change management is explained by Jones et al. (2016), as the process by which entities manage internal change in response to changing external environment. In other words, strategic change management is a process through which organizations design and implement plans on how they deal with change. Alm et al., (2021) describe change as a process used by organizations to manage change in a structured manner to meet the organization's goals, mission, vision, and objectives. In institutions of higher learning, change is inevitable, which calls for academic institutions to produce graduates that are capacitated to the tasks of various professions (Nautwima and Asa, 2022). Strategic change in academic institutions focuses on how tertiary institutions can appropriately manage change, for example, in the face of Covid-19, tertiary institutions have made use of the online platform to administer assignments, lectures, and examinations. However, this initiative has faced resistance from both lecturers and students for numerous reasons such as a lack of basic digital devices, infrastructure, and internet connectivity (Ferri et al., 2020). Academic institutions in Namibia should come up with a blueprint that will allow all stakeholders to accept that education is going digital and embrace the use and implementation of online platforms of tertiary institutions. Alm et al., (2022), highlights that strategic change management is the strategic positioning of an organization to appropriately respond to change without facing any hurdles that will negatively affect operations. Given the above-identified definitions, the researchers thereby conclude that strategic change management refers to a plan that is designed and implemented by an organization to manage change efficiently and effectively to enable the entity to satisfy its mandate. This study was driven by the fact of establishing the part that strategic change management plays to ensure the sustainability of academic institutions. Kotter's Change Model is used, which highlights the steps that should be followed when implementing change to allow for a smooth transition.

2.3 Sustainability of Academic Institutions

Sustainability pertains to the integration of environmental stability, social balance, and economic boost to achieve thriving, healthy and diversified communities for the present generation and those to come (Hesen et al., 2022). The UCLA Sustainability Committee (2018) acknowledge that the practice of sustainability recognizes how all global issues are interconnected and require a systems approach and acknowledgment of complexity. Sustainable pursuits support human, environmental, and economic stability. It is then important to incorporate the sustainability of academic institutions in the rubric of society as a potential catalyst for sustainable development for the coming generation, its fundamentality is starting to erect in a more commercialized platform, and universities seem to be the key to a sustainable future (Quiroz-Ni o and Murga-Menoyo, 2017). Academic institutions have an important role to play in building and enhancing sustainability. They are vital elements in the academic habiliments of future leaders who will contribute effectively to Sustainable Development Goals set by the United Nations and the African Union. Academic institutions contribute precisely to the creation of a mindset that is in line with SDG morals and principles (Zguir et al., 2021). Higher Education has a great effect on student habits and behavior and contribution to a functional society, however, to establish

the required change in education, sustainability values need to be at the core of academic institutions' strategy. Anyhow, predicaments need to be eradicated from inside and outside the institutions, such as incorporating sustainability principles, considering the political sphere, and stakeholder involvement.

3. Research Methodology

The following segment of this research presents the methods employed in this study, which were aligned with the aim of the research.

3.1 Process

The research methodology adopted in this study was action research design. Action research aims at transformative change through the concurrent processes of action and inquiry, which are connected by critical reflection (Dickens and Watkins, 1999). In addition, the study is explorative, interpretative, and critically reflective to attain the purpose and questions of the study. The study made an empirical analysis of the subject matter in question using participants from academic institutions in a developing nation context by focusing on Namibia. In terms of the explorative nature of this study, the researchers sought to obtain an understanding of the role of strategic change management in achieving sustainability in academic institutions. Regarding the interpretative nature, the researcher allows lecturers, students, and the management of academic institutions to express their views by directing them to open-ended questions around emergent themes. The study was considered to be action research as it seeks transformative change to embrace sustainability in academic institutions through strategic change management. The participants which are a composition of management staff, lecturers, and students of the academic institutions were requested to actively engage in some reflective tasks, including the writing of personal views relating to how strategic change management influences the attainment of a sustainable university in a purposive sampling technique.

3.2 Open-ended Questionnaire

The purposive distribution technique of open-ended questionnaires was conducted with 24 participants from various categories (management, lecturers/professors, and students). These participants provided rich qualitative responses. The participants were asked about the role of strategic change management in ensuring that academic institutions were sustainable. The open-ended questionnaires were essential to obtain an in-depth understanding of the participants' view of sustainability in academic institutions. The questions used were designed to study the opinions of participants about strategic change management as a tool used to achieve sustainability in the higher education fraternity. To further understand the role of strategic management in enhancing sustainability in educational institutions, the following research questions were explored to guide this whole research paper; What is the importance of strategic change management in an academic institution? How does strategic change management influence the sustainability of an academic institution? What is the relationship between strategic change management and sustainability in academic institutions? Finally, what sustainability strategies can be embedded in academic institutions' practices? These research questions assisted the researchers to unravel the role that strategic change management plays in influencing sustainability in academic institutions in the Namibian context. Hence, the significance of this study is to assist academic institutions to produce competitive and innovative graduates, who will overwhelmingly contribute towards economic growth and development.

3.3 Analysis

The qualitative dataset collected was sufficient in drawing views from the three (3) categories which are the management, lecturers/professors, and students which led to data coding and consequently the thematic networks (maps). The analysis results identified the main themes and sub-themes to depict the kinds of existing relationships within the role of strategic change management in enhancing sustainability in academic institutions. Moreover, interpretation was given to data extracts, codes, and the defined themes. The collected qualitative data were coded using a data analysis software called ATLAS.ti and employed a reflexive thematic analysis approach (Fouche et al., 2021; Nautwima and Asa, 2022). Reflexive thematic analysis is supported by Braun and Clarke (2006) as a means of drawing on your own experiences, prior knowledge, and social position (such as your race, gender, or socioeconomic class, etc.), and then critically questioning how these characteristics influence and contribute to the research process and possible insights into qualitative data, is an example of the practice of reflexivity.

4. Results

This section is divided into the demographic descriptions and thematic analysis results, their interpretation, as well as the discussion of the findings.

4.1. Demographic Analysis of the Participants

Table 1: Demographic data of the participants

Participants	Gender	Category
Participant 1	Female	Managerial Personnel
Participant 2	Female	Managerial Personnel
Participant 3	Male	Managerial Personnel
Participant 4	Female	Managerial Personnel
Participant 5	Female	Managerial Personnel
Participant 6	Male	Lecturer/Professor
Participant 7	Male	Lecturer/Professor
Participant 8	Male	Lecturer/Professor
Participant 9	Male	Lecturer/Professor
Participant 10	Female	Lecturer/Professor
Participant 11	Female	Lecturer/Professor
Participant 12	Male	Lecturer/Professor
Participant 13	Female	Lecturer/Professor
Participant 14	Male	Lecturer/Professor
Participant 15	Female	Lecturer/Professor
Participant 16	Male	Lecturer/Professor
Participant 17	Female	Student (Masters)
Participant 18	Female	Student (Masters)
Participant 19	Male	Student (Masters)
Participant 20	Female	Student (Honours)
Participant 21	Male	Student (Honours)
Participant 22	Male	Student (Honours)
Participant 23	Female	Student (Undergrad)
Participant 24	Female	Student (Undergrad)

Authors’ compilation (2023)

This study employed all 24 targeted participants for qualitative data analysis indicating a 100% response rate. The researchers attempted to gender balance the participants through a purposive technique to solicit the participants’ views on the role of strategic change management. However, the composition of females was slightly higher 13 out of 24 total participants (54%), and male participants were 11 out of 24 (46%). The gender gap is slightly skewed to female than male participants. However, the gap is not worrisome in concluding the study analysis. Moreso, the demographic analysis shows that students from various faculties and levels were 8 (33%), 11 (46%) lecturers/professors, and 5 (21%) managerial personnel.

4.2 Participants’ General Knowledge of Sustainability

Under this section, the study intended to understand if participants indeed understood the meaning of sustainability of an academic institution. Thus, participants were asked if they understood the concept of the term sustainability, when posed with this question, all of them indicated that they were familiar with this concept of sustainability. One undergraduate student stated that, “*Sustainability in education deals with the ability of an institution to produce competitive graduates,*” and on the other hand another master’s student highlighted that, “*An academic institution is referred to as sustainable if it can produce innovative and creative minds for the betterment of the society*”. This showed that the majority of the

participants had a strong understanding of the sustainability concept in the context of an academic setting.

Participants were also asked about their understanding of strategic change management. Thus, 98% of the participants revealed that they understood, while the other 2% revealed that they had little to no understanding of what this phrase meant in the real world. One participant who holds a managerial position reflected that *"Strategic change management refers to plans and initiatives that are implanted by the management of an institution in eliminating resistance to change and cultivating the spirit of change in all stakeholders involved in the change process"*. In view of this, the researcher was certain that respondents understood that strategic change management is a plan that is adopted by an academic institution in managing change that befalls the entity.

Participants were asked if they were involved in sustainability issues by the institution. In response to this question, 19 (79%) participants indicated that they have been consulted in the past on issues of sustainability, however, 5 (21%) indicated that they have never been consulted. One Lecturer said that *"I have attended two meetings held by the institution where sustainability matters were discussed."* Another master's student indicated that *"I have never been invited to participate in matters concerning sustainability, it is important to include students in such strategic matters that affect students one way or another"*. The general observation was that students are rarely involved in sustainability issues of academic institutions. However, overwhelmingly all the lecturers/professors and those in managerial positions participated in matters of sustainability.

An important question on teaching and learning was posed about whether there have been some changes at their respective institution in terms of the learning environment. All the participants articulated that there have been various changes aligning with sustainability matters at their institution. One student indicated that *"Assignments are now being submitted through an online platform instead of hard copies"*. Another student revealed that *"In class, some tests are now being written on an online platform"*. One lecturer revealed that *"Mid-semester tests and activities of a mathematical and accounting nature are marked by the system and the results are given instantly."* Student 9 indicated that, *"Assignments and research projects are submitted through Turnitin to check for plagiarism"*. Participant 3 holding a managerial position cited that, *"Some lectures and examinations were done online, due to COVID-19 measures which prohibit physical association of people"*. This indicated that academic institutions applied strategic change management in the learning and teaching environment. There has been a paradigm shift in the methods of teaching and learning as well as the submission of academic material. Most of these changes have been initiated and adopted in response to the Covid-19 pandemic.

Participants were asked if they engage in lessons of a practical nature. When asked this question participants gave the following responses as indicated below. One master student participant cited, *"We have never received any practical sessions during lectures even if our course outlines prescribe so"*. To allude to this, one lecturer said, *"I have never administered the practical aspect of the modules I teach"*. Another lecturer also revealed that *"The modules I lecture only have theoretical aspects and no practical aspects"*. A participant who held a managerial position answered, *"All 3-year undergraduates should do an internship (work integrated learning before graduation. And I am sure that students are required by the curriculum to do practical sessions in some modules"*. The consensus is that practical engagements especially at the post-graduate level such as company visits have been lacking in the application of teaching and learning.

4.3 Strategic Change Management

Strategic change management is a critical process that organizations must undergo to adapt to changes in their environment and achieve their goals (By, 2005). However, the process of change can be challenging, particularly in the face of external events such as the Covid-19 pandemic, and internal resistance from stakeholders such as students and faculty members. In this study, some of the challenges of strategic change management are explored, with a focus on the impact of Covid-19 and resistance from students and faculty. Whilst, managing strategic change is an essential aspect of sustainability in academic institutions (Yanez et al., 2019). Change is inevitable, and it is essential to manage it effectively to ensure long-term success. The incorporation of practical lessons, lectures, examinations, and online platforms that cultivate innovative and creative minds, and interpersonal development is a critical strategy in managing strategic change in academic institutions. This study maps how academic institutions can manage strategic change through these tools.

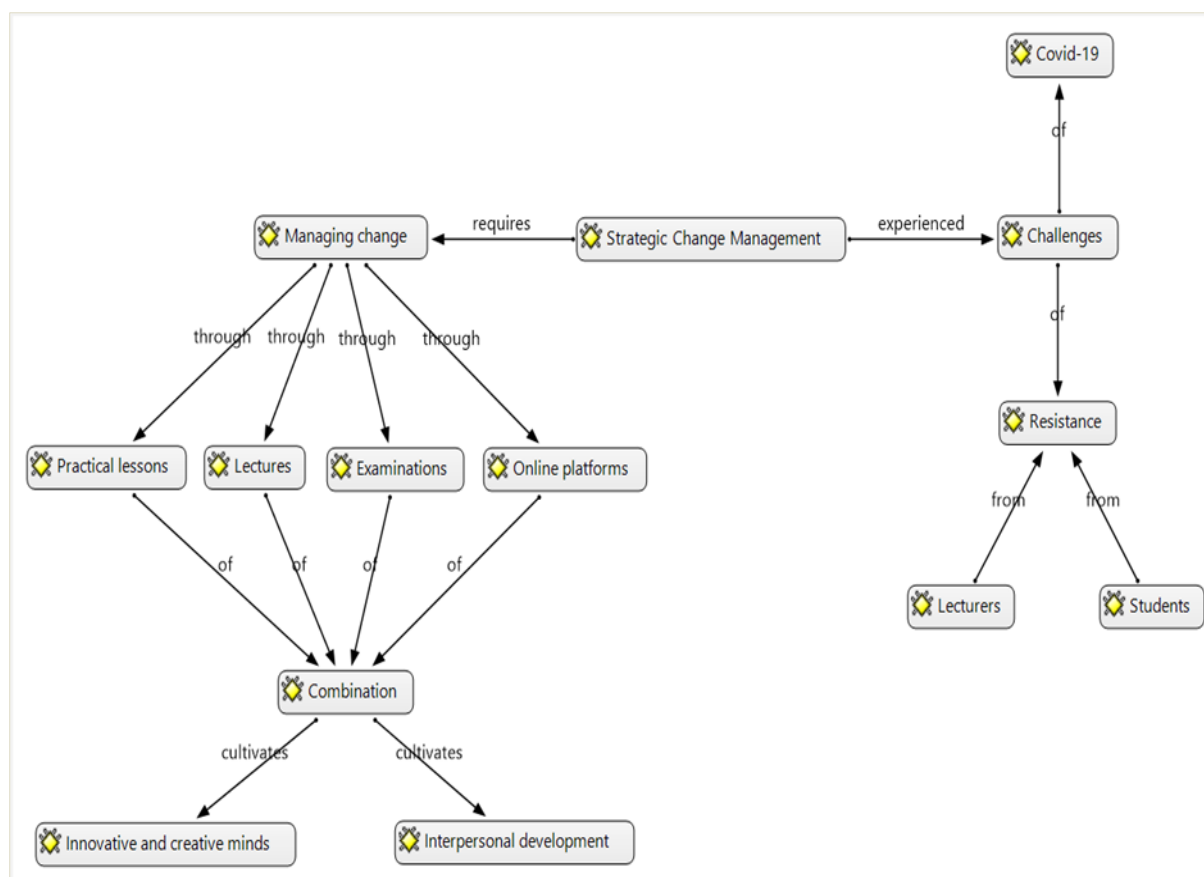


Figure 1: Challenges and managing change
Source: Authors' extraction from the analysis (2023)

4.3.1 Challenges Faced in Academic Institutions

4.3.1.1 Covid-19

The Covid-19 pandemic has had a profound impact on academic institutions, forcing Namibian academic institutions to rapidly adapt to new modes of teaching and learning. This sudden shift has created significant challenges for strategic change management, including the need to balance the demands of remote learning with the need for student engagement and interaction. In addition, the pandemic has created financial challenges, with reduced revenues from tuition and other sources, which has made it difficult for institutions to invest in new technologies and training for faculty (Tamrat, 2021).

4.3.1.2 Resistance from Students and Faculty

The students can be resistant to strategic change initiatives, particularly when they feel that their needs and preferences are not being taken into account. For example, students may resist changes to the curriculum, teaching methods, or campus facilities that they perceive as disrupting their academic experience. This resistance can be a significant challenge for change managers, as it can impact the success of change initiatives and lead to decreased student engagement and satisfaction. Whereas resistance from faculty members can also hinder strategic change initiatives, particularly when they feel that their academic freedom or professional autonomy is being threatened (Mitchell et al., 2015). The study found that faculty members resisted changes to their teaching methods or research priorities or changes to the administrative structure of their department in the pursuit of sustainability initiative processes. This resistance can be a significant challenge for change agents, as it can impact the success of change initiatives and lead to decreased faculty engagement and productivity.

4.3.2 Managing Change

Managing change effectively to ensure long-term sustainability is critical to academic institutions. The incorporation of practical lessons, lectures, examinations, and online platforms that cultivate innovative and creative minds, and interpersonal development is a critical strategy in managing strategic change in academic institutions. An emphasis on practical lessons and real-world applications, and utilization of online platforms for teaching, learning, and assessments came out strong from the findings. Academic institutions should focus on practical lessons and real-world applications

that prepare students for the challenges of the future. This can be achieved by incorporating hands-on learning experiences, case studies, and industry partnerships into the curriculum. Practical lessons and real-world applications enable students to apply theoretical knowledge to real-world scenarios, which is critical in managing strategic change (Brundiers et al., 2010). Online platforms can be used to facilitate learning and collaboration. Hence, academic institutions can use online platforms to offer courses, workshops, and other learning opportunities that are accessible to faculty, staff, and students across different locations and time zones. Importantly, online platforms enable academic institutions to reach a broader audience and facilitate collaboration among students and faculty from different parts of the world.

In order to foster a culture of innovation and creativity, the study findings reinforce academic institutions to create an environment that encourages experimentation, risk-taking, and innovation. This can be achieved by providing opportunities for faculty and students to collaborate on research projects, participate in hackathons (business simulation training), and attend conferences and workshops. This is well supported by a study done by Martins and Terblanche (2003) which argues that an innovative and creative culture encourages the development of new ideas and solutions that can be applied to the management of strategic change. Furthermore, interpersonal skills such as communication, teamwork, and leadership are essential for managing strategic change (Robles, 2012). Academic institutions can provide training and development programs that focus on building these skills, such as leadership workshops, communication seminars, and team-building exercises. These programs enable students and faculty to develop the necessary interpersonal skills that can be applied to managing strategic change.

4.3.3 Role of Strategic Change Management

On an institutional level, the contributions that universities make to sustainable development have been coordinated in several ways. These include altering an institution's strategic plan and forming interdepartmental sustainability strategy groups to include sustainability matters, embedding sustainability in curriculum development, and stakeholder involvement which is associated with eliminating resistance to change, and stimulating critical thinking through cultivating a mindset of sustainability and producing competitive graduates. Moreover, this has resulted in more effective management of resources (including the consumption of energy and water for cost saving), improved purchasing practices, enhanced staff development opportunities, and curriculum innovation for new modules and courses, as well as interdisciplinary seminars and auditing processes (Johnston and Buckland, 2002).

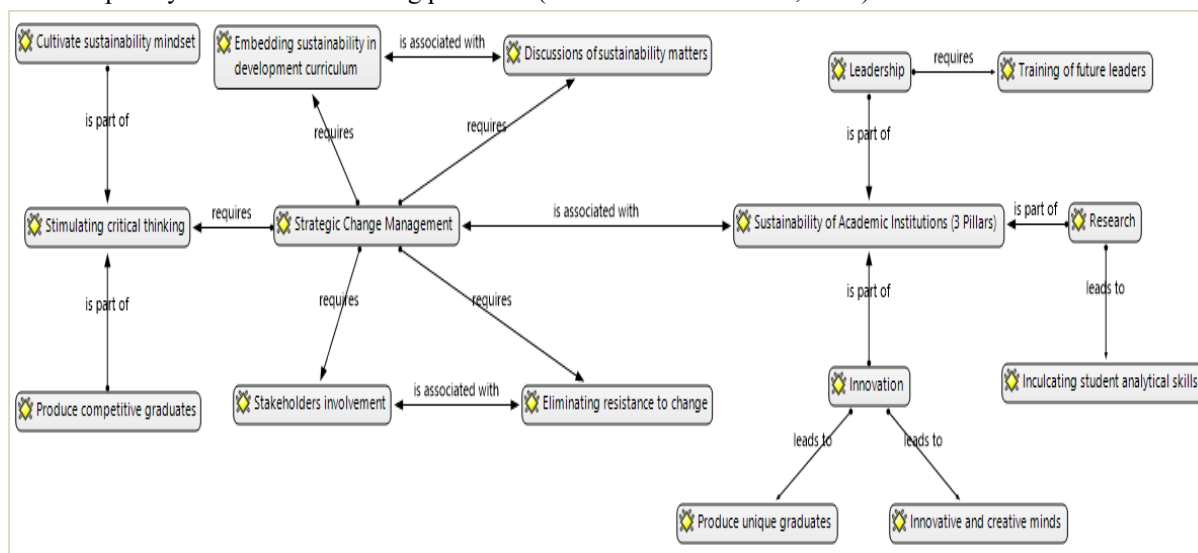


Figure 2: Role of strategic change management
 Source: Authors' extraction from the analysis (2023)

The three (3) pillars of sustainability of academic institutions namely leadership, research, and innovation are strongly linked with strategic change management. The sustainability of academic institutions is heavily reliant on their ability to manage strategic change effectively. Three pillars that are critical to the sustainability of academic institutions are leadership, research, and innovation (Iqbal and Piwowar-Sulej, 2022; Aleixo et al., 2018). These pillars are strongly linked with strategic change management, and academic institutions must focus on managing strategic change to maintain their sustainability in the long term.

4.3.3.1 Leadership

Leadership is a critical pillar for the sustainability of academic institutions. Effective leadership is essential for managing strategic change and driving innovation and growth. Leaders play a crucial role in creating a vision and strategic plan that aligns with the institution's mission and goals. They must also communicate this vision effectively to all stakeholders to ensure alignment and buy-in. Effective leaders empower their teams to develop and implement strategies that support the institution's long-term sustainability (Fernandez and Shaw, 2020).

4.3.3.2 Research

Research is another critical pillar for the sustainability of academic institutions. Research enables academic institutions to stay at the forefront of their respective fields and contribute to the advancement of knowledge. Effective research requires a culture of innovation and creativity, which is also critical for managing strategic change (Dereli, 2015). Academic institutions that prioritize research are better equipped to adapt to changing circumstances and remain relevant in their respective fields.

4.3.3.3 Innovation

Innovation is the third critical pillar for the sustainability of academic institutions. Innovation is essential for developing new ideas, processes, and technologies that can be applied to managing strategic change (Kenny, 2002). Academic institutions must prioritize innovation to remain competitive and relevant in the long term. Innovative solutions can also help academic institutions overcome challenges and seize opportunities. The link between sustainability pillars and strategic change management is evident. Effective leadership is necessary for developing and implementing strategies that support sustainability (Fernandez and Shaw, 2020). Research provides the knowledge and expertise required to manage strategic change, while innovation helps academic institutions adapt to changing circumstances and seize opportunities. Academic institutions must focus on managing strategic change to maintain their sustainability in the long term, and the three pillars of leadership, research, and innovation are critical to achieving this goal. Hence, the three pillars of leadership, research, and innovation are strongly linked with strategic change management in academic institutions. Academic institutions must prioritize these pillars to maintain their sustainability in the long term. Effective leadership provides direction and support for managing strategic change, while research and innovation provide the knowledge and tools necessary to adapt to changing circumstances and seize opportunities (Hauer et al., 2020). By focusing on these pillars, academic institutions can manage strategic change effectively and maintain their sustainability in the long term.

4.3.4 Sustainability Strategies for Academic Institutions

The sustainability strategies for academic institutions are two-fold covered in this study, promotional enablers, and execution enablers. Promotional enablers are focused on promoting sustainability in the operations of an academic institution. Whereas execution enablers are focused on the implementation of sustainability in academic institutions. The following execution enablers were found; diversification of funding sources, sustainable culture development, a commitment towards energy efficiency, replacement of paperwork with digital technologies, inducing sustainable behavior in the academic community, quality assessment, and management of research, teaching, and learning. Whereas the promotional enablers consist of the promotion of sustainable mobility, decentralized management, promotion of academic ethics, the inclusion of sustainability values and actions in strategic plans, promote and guiding engagement with stakeholders which are strongly linked with mobilization with the wider academic community.

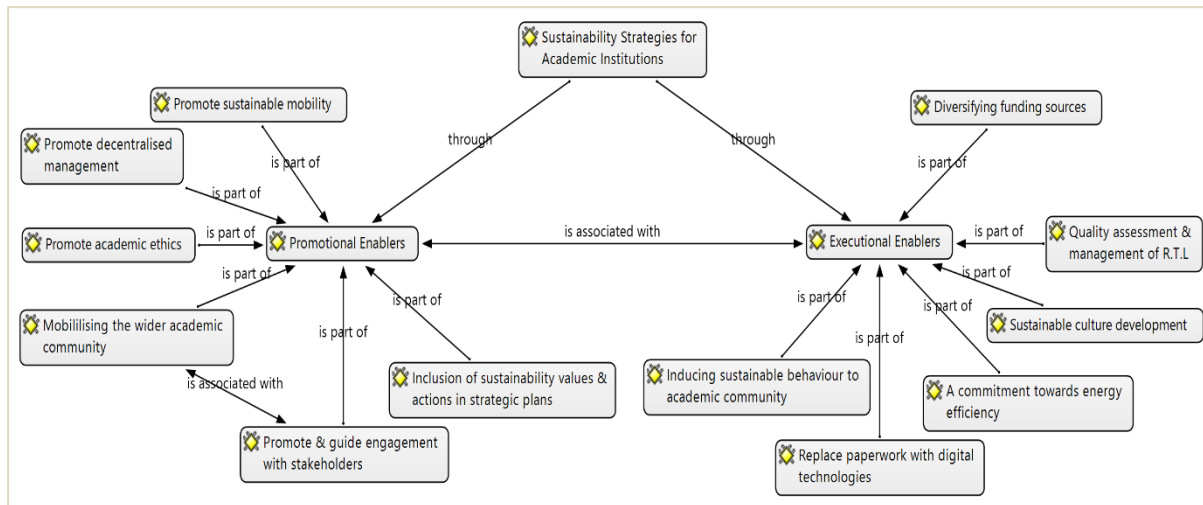


Figure 3: Sustainability strategies for academic institutions
Source: Authors' extraction from the analysis (2022)

5. Discussion

Regarding the implementation of strategic change management, applying effective communication and collaboration as critical tools for successful strategic change management, but they can also be significant challenges. Change managers must communicate the rationale for change, the expected outcomes, and the roles and responsibilities of stakeholders in the change process. They must also foster collaboration and engagement among stakeholders, which can be difficult when stakeholders have different goals and priorities (Bundy et al., 2018). Strategic change initiatives often require significant resources, including financial resources, staff time, and technical expertise. In the face of budget constraints or competing priorities, it can be difficult for change managers to secure the resources they need to implement change initiatives effectively. This can lead to delays or compromises in the change process, which can impact the success of the initiative.

Achieving sustainability in academic institutions requires a multifaceted approach that involves the participation and collaboration of all stakeholders, including students, faculty, staff, administrators, and the community (Tilbury, 2004). It requires ongoing assessment, planning, and implementation of sustainable practices, as well as monitoring and reporting on progress. Additionally, sustainability in academic institutions is a critical component of their long-term success and impact. It requires a commitment to environmental, financial, social, and educational sustainability, and ongoing efforts to implement and monitor sustainable practices (Tilbury, 2004; Gu et al., 2023). By prioritizing sustainability, academic institutions can ensure that they continue to fulfill their mission and contribute to a sustainable future for all.

6. Conclusion

In conclusion, the role of strategic change management is crucial in enhancing sustainability in academic institutions. By focusing on the three pillars of leadership, research, and innovation, academic institutions can manage strategic change effectively and maintain their sustainability in the long term. Effective leadership provides direction and support for managing strategic change, while research and innovation provide the knowledge and tools necessary to adapt to changing circumstances and seize opportunities. Through a comprehensive approach that encompasses social, economic, and environmental sustainability, academic institutions can create a safe and inclusive learning environment, manage resources efficiently and effectively, and reduce their impact on the environment. To achieve sustainability in academic institutions, it is important to have a strategic plan that incorporates all three dimensions of sustainability and involves collaboration across departments and stakeholders. The strategic plan should prioritize long-term planning, investment in infrastructure and facilities, diversification of revenue streams, and reduction of waste and unnecessary expenses. By prioritizing sustainability and strategic change management, academic institutions can maintain their relevance and contribution to their respective fields, and also create a positive impact on society and the environment. Therefore, academic institutions need to embrace the role of strategic change management in enhancing sustainability to achieve long-term success and impact.

Based on the discussion above, here are some recommendations for academic institutions to enhance sustainability through strategic change management:

- Develop a comprehensive sustainability plan: Academic institutions should develop a sustainability plan that encompasses social, economic, and environmental sustainability. The plan should include specific goals and targets, as well as strategies and actions to achieve them. It should also involve collaboration across departments and stakeholders.
- Foster a culture of innovation: Academic institutions should foster a culture of innovation by encouraging research, experimentation, and creativity. This can be achieved by providing support and resources for faculty and staff to engage in innovative practices, such as online platforms, blended learning, and digital technologies.
- Prioritize staff and faculty development: Academic institutions should prioritize staff and faculty development to build their capacity for managing strategic change. This can be achieved through professional development programs, mentorship, and coaching.
- Engage in partnerships and collaborations: Academic institutions should engage in partnerships and collaborations with other organizations, including industry and community groups, to leverage resources and expertise. These partnerships can also help academic institutions to better understand the needs and expectations of their stakeholders.
- Adopt sustainable practices: Academic institutions should adopt sustainable practices that reduce their impact on the environment and promote social and economic sustainability. This can include investing in energy-efficient infrastructure, reducing waste, promoting sustainable transportation, and engaging in community service.

By following these recommendations, academic institutions can enhance their sustainability through strategic change management, maintain their relevance and contribution to their respective fields, and create a positive impact on society and the environment.

References

- Adebola, B.Y., Ayinde, T.A. & Olufemi, A.J. (2016). Change Implementation and Competitive Positioning. *Journal of International Business Research and Marketing*, 2(1), 14-23.
- Aleixo, A. M., Leal, S., & Azeiteiro, U. M. (2018). Conceptualization of sustainable higher education institutions, roles, barriers, and challenges for sustainability: An exploratory study in Portugal. *Journal of cleaner production*, 172, 1664-1673.
- Alm, K., Beery, T.H., Eiblmeier, D. & Fahmy, T. (2022). Students learning sustainability – implicit, explicit or non-existent: a case study approach on students' key competencies addressing the SDGs in HEI program. *International Journal of Sustainability in Higher Education*, 23(8):60-84.
- Asa, A. R., Campbell, H., & Nautwima, J. P. (2022). A Critical Review of Organizing Knowledge Management for Innovation. *International Journal of Management Science and Business Administration*, 8(2), 7-15.
- Asa, A. R., Prasad, N. S., & Htay, M. M. (2013). Evaluation of National Innovation System in Developing Economies: A Namibian Perspective. *IOSR Journal of Economics and Finance*, 1(2), 8-12.
- Ávila, L.V., Beuron, T.A., Brandli, L.L., Damke, L.I., Pereire, R.S. and Klein, L.L. (2019), "Barriers to innovation and sustainability in universities: an international comparison". *International Journal of Sustainability in Higher Education*, 20(5):805-821. [CrossRef](#)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brundiers, K., Barth, M., Cebrian, G., Cohen, M., Diaz, L., Doucette-Remington, S., Dripps, W., Habron, G., Harré, N., Jarchow, M. & Losch, K. (2021). "Key competencies in sustainability in higher education towards an agreed-upon reference framework". *Sustainability Science*, 16(1):13-29.
- Brundiers, K., Wiek, A., & Redman, C. L. (2010). Real-world learning opportunities in sustainability: from classroom into the real world. *International Journal of Sustainability in Higher Education*.
- By, R. T. (2005). Organisational change management: A critical review. *Journal of change management*, 5(4), 369-380.
- Dickens, L., & Watkins, K. (1999). Action research: rethinking Lewin. *Management learning*, 30(2), 127-140.
- Eernstman, N. and Wals, A. (2013). "Locative meaning-making: an arts-based approach to learning for sustainable development". *Sustainability*, 5(4):1645-1660.

- Faulks, B., Yinghua, S., Khudaykulov, A. & Jumanov, A. (2023). Exploring Organizational Readiness to Change and Learn: A SciVal Analysis from 2012 to 2021. *Journal of International Business Research and Marketing*, 7(4), 18-22.
- Fernandez, A. A., & Shaw, G. P. (2020). Academic leadership in a time of crisis: The Coronavirus and COVID-19. *Journal of leadership Studies*, 14(1), 39-45.
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86.
- Fouche, C.B., Strydom, H. & Roestenburg, W.J.H. (2021). *Research at Grass Roots: For the social sciences and human services professions*, 5th ed. Van Schaik Publishers, Pretoria, South Africa.
- Gu, X., & Mao, E. Z. (2022). The impacts of academic stress on college students' problematic smartphone use and Internet gaming disorder under the background of neijuan: Hierarchical regressions with mediational analysis on escape and coping motives. *Frontiers in Psychiatry*, 13. [CrossRef](#)
- Gu, X., Qin, L., & Zhang, M. (2023). The impact of green finance on the transformation of energy consumption structure: Evidence based on China. *Frontiers in Earth Science*, 10, 1097346. [CrossRef](#)
- Hasslöf, H., & Malmberg, C. (2015). Critical thinking as room for subjectification in Education for Sustainable Development. *Environmental Education Research*, 21(2), 239-255.
- Hauer, K. E., Lockspeiser, T. M., & Chen, H. C. (2020). The COVID-19 pandemic as an imperative to advance medical student assessment: 3 areas for change. *Academic Medicine*.
- Hesen, R., Wals, A.E.J. & Tauritz, R.L. (2022). Creating a sense of community and space for subjectification in an online course on sustainability education during times of physical distancing. *International Journal of Sustainability in Higher Education*, 23(8):85-104.
- Howe, D. C., Chauhan, R. S., Soderberg, A. T., & Buckley, M. R. (2021). Paradigm shifts caused by the COVID-19 pandemic. *Organizational dynamics*, 50(4), 100804.
- Iqbal, Q., & Piwowar-Sulej, K. (2022). Sustainable leadership in higher education institutions: social innovation as a mechanism. *International Journal of Sustainability in Higher Education*, 23(8), 1-20.
- Johnston, A., & Buckland, H. (2002). How can Higher Education produce graduates with the capacity to accelerate change towards a more sustainable society?. *Planet*, 8(1), 16-18. [CrossRef](#)
- Jones, G.R., George, J.M. & Hill, C.W.L. (2016). *Contemporary Management*, 5th ed. Von Hoffmann Press, Inc.
- Kenny, J. (2002). Managing innovation in educational institutions. *Australasian Journal of Educational Technology*, 18(3).
- Kioupi, V., & Voulvoulis, N. (2019). Education for sustainable development: A systemic framework for connecting the SDGs to educational outcomes. *Sustainability*, 11(21), 6104.
- Kotter, J. P. (2012). Leading change. *Harvard business press*.
- Leal Filho, W., Skouloudis, A., Brandli, L. L., Salvia, A. L., Avila, L. V., & Rayman-Bacchus, L. (2019). Sustainability and procurement practices in higher education institutions: Barriers and drivers. *Journal of cleaner production*, 231, 1267-1280.
- Loftus, M., & Madden, M. G. (2020). A pedagogy of data and Artificial Intelligence for student subjectification. *Teaching in Higher Education*, 25(4), 456-475.
- Lozano, R., Merrill, M., Sammalisto, K., Ceulemans, K. & Lozano, F. (2017). "Connecting competences and pedagogical approaches for sustainable development in higher education: a literature review and framework proposal". *Sustainability*, 9(10):1889.
- Martins, E. C., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. *European journal of innovation management*, 6(1), 64-74.
- Mitchell, L. D., Parlamis, J. D., & Claiborne, S. A. (2015). Overcoming faculty avoidance of online education: From resistance to support to active participation. *Journal of Management Education*, 39(3), 350-371.
- Nautwima, J. P., & Asa, A. R. (2022). Exploring the Challenges and Factors Impeding Effective Public Service Delivery at a Municipality in Namibia. *International Journal of Innovation and Economic Development*, 8, 15-24. [CrossRef](#)

- Nautwima, J. P., & Asa, A. R. (2022). The impact of quality service on customer satisfaction in the banking sector amidst Covid-19 pandemic: A literature review for the state of current knowledge. *International Journal of Management Science and Business Administration*, 8(3), 31-38.
- Petronzi, R., & Petronzi, D. (2020). The Online and Campus (OaC) Model as a Sustainable Blended Approach to Teaching and Learning in Higher Education: A Response to COVID-19. *Journal of Pedagogical Research*, 4(4), 498-507. [CrossRef](#)
- Quiroz-Niño, C., & Murga-Menoyo, M. Á. (2017). Social and solidarity economy, sustainable development goals, and community development: The mission of adult education & training. *Sustainability*, 9(12), 2164.
- Salkind, N.J. (2010). *Encyclopaedia of Research Design*. SAGE Publications, Thousand Oaks, CA.
- Scheyvens, R., Banks, G. and Hughes, E. (2016), "The private sector and the SDGs: the need to move beyond 'business as usual'". *Sustainable Development*, 24(6):371-382.
- Sonetti, G., Brown, M. and Naboni, E. (2019). "About the triggering of UN sustainable development goals and regenerative sustainability in higher education". *Sustainability*, 11(1):254.
- Tamrat, W. (2021). Enduring the impacts of COVID-19: experiences of the private higher education sector in Ethiopia. *Studies in Higher Education*, 46(1), 59-74.
- Yanez, S., Uruburu, A., Moreno, A., & Lumbreras, J. (2019). The sustainability report as an essential tool for the holistic and strategic vision of higher education institutions. *Journal of Cleaner Production*, 207, 57-66.
- Zguir, M. F., Dubis, S., & Koç, M. (2021). Embedding Education for Sustainable Development (ESD) and SDGs values in curriculum: A comparative review on Qatar, Singapore and New Zealand. *Journal of Cleaner Production*, 319, 128534. [CrossRef](#)