



The Role of Youthful Entrepreneurs in the Sustainable Development Programme at the Durban University of Technology (DUT)

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Abstract

In this contemporary era, how to encourage more growth-oriented businesses to arise and scale up is the key concern for policymakers. The aim of the study was to investigate the role of youthful entrepreneurs in the sustainable development programme at the Durban University of Technology (DUT). To realize this aim, this study adopts the use of both secondary and primary research. In the secondary research literature review on both youthful entrepreneurs and the sustainable development programme was done. In the primary research, a questionnaire was used to gather primary data required for this study backed up by semi - structured interviews. Findings from the primary research highlight the positive impact of DUT in motivating students towards entrepreneurship and sustainable development. Many students express a strong understanding of entrepreneurship and its role in addressing societal challenges. Recommendations focus on curriculum enhancement, faculty expertise, incubation and support programs, and industry partnerships to strengthen DUT's support for entrepreneurial endeavours. Continuous review and updates to the entrepreneurship curriculum, fostering faculty expertise, and establishing robust support systems and partnerships aim to provide students with a holistic entrepreneurial education. The study concludes with recommendations for further research, encouraging a comparative analysis of perceptions and attitudes towards entrepreneurship and sustainable development at different institutions and a longitudinal study to assess the long-term effectiveness of entrepreneurship education.

Subject Areas

Economics

Keywords: *Entrepreneurship; Youthful entrepreneurs; DUT, Sustainable development, SMME and South Africa*

1. Introduction

Entrepreneurship extends beyond initiating new ventures; it encompasses adding values, structuring, transforming and promoting established companies (Arafeh 2016). Thus, an entrepreneurial mindset is applicable to anyone, whether to start their venture or become a valuable employee in an existing organization. The Global Entrepreneurship Monitor (GEM) highlights that the South African economy continues to exhibit lower levels of entrepreneurial activities compared to other developing nations. In the quest for sustainability, Spiegel (2017) emphasizes the necessity of instilling a youth entrepreneurial mindset. Student entrepreneurs are seen as transformative agents, influencing job creation, poverty alleviation, crime reduction, and food provisioning. Addressing prevalent global issues demands the proficient role of student entrepreneurs in ensuring sustainability (Sarker and Khan 2013). Seham Ghalwash, Ahmed Tolba and Ismail (2017) define an entrepreneur as a "problem seeker, a problem solver, and an innovator." This dynamism necessitates changes such as an effective entrepreneurial mindset, critical thinking, technological advancements, and increased competition, underscoring the need for sustainable development (Trivellas and Reklitis 2014). Despite the significant contributions of youth entrepreneurs in reshaping the economy, their impact remains hindered by challenges. Examples are financial constraints, lack of skills and experience, shortage of innovative ideas, and low emotional intelligence. Additionally, factors such as high illiteracy rates, poverty, changes in government policies, and bureaucratic hurdles further impede the transformative potential of entrepreneurs (Moshina, 2015). Post-apartheid South Africa faces socio-economic challenges, including a high unemployment rate (29.1%), skills shortages, high illiteracy rates, escalating crime rates, and urban-rural poverty (Matshidze 2021). These constraining factors have profound cost implications as they affect the effectiveness of entrepreneurs, managers, and operators in the realm of operational management (Nijhuis, Vrijhoef and Kessels 2015). Given these circumstances, for entrepreneurs to exhibit high job performance and ensure sustainable development, it is an pertinent for managers and business operators to understand how to imbibe available resources (human, time, and operational) into their operation if they are to thrive in the competitive business market.

2. Conceptual Framework

The conceptual framework guiding this study revolves around the Personality Traits Theory, indispensable for comprehending how personality impacts human relationships within organizational contexts. Most theories are meticulously crafted by their architects, each designed with specific intentions in mind. Traditionally, rational models sought to elucidate and prognosticate human behaviour but grappled with challenges due to inherent information limitations (Busenitz and Lau 1996). The actual decision-making process lacks absolute objectivity, exhibiting segments of rationality interspersed with inherent inconsistencies. Responding to these challenges, Simon (1976) advocated for the integration of motivation as a supplementary explanation for human behaviour. It entails individuals embracing a set of priori assumptions grounded in motivation, thereby simplifying subsequent behavioural choices. These assumptions encompass both structural (plan) and dynamic (motivational) components (Birch 2009). The motivational system plays a pivotal role in shaping behaviour, serving as a reflection of intrinsic nature, needs, attitudes, and values Naffziger, Hornsby and Kuratko (1994). Intrinsic nature, shaped by individual perceptions, subjective views, potential, and personality, becomes a guiding force in decisions such as opting for an entrepreneurial path. Plehn-Dujowich (2010) introduces a dichotomy in decision-making, rational and motivational. The rational level centers on objective reasoning, while the motivational level delves into subjective expectations.

In the early 1960s, David McClelland delved into the exploration of psychological factors influencing entrepreneurial behaviour. His psychological theory of entrepreneurship, grounded in the "need for achievement," posits that individuals exhibiting a high need for achievement are intrinsically motivated by the desire to excel. McClelland's Achievement Motivation Theory identifies three intrinsic

urges shaping an individual's personality: the need for power (n-Pow), the need for affiliation (n-Aff), and the pivotal need for achievement (n-Ach).

- The Need for Achievement (n-Ach): This central motive, deemed crucial for entrepreneurial development, propels individuals towards goal pursuits for the sake of achievement itself. McClelland associates this drive with an optimistic and enthusiastic approach, emphasizing accomplishments over material rewards.
- Core Drive and Contents: McClelland elucidates the concept of "Achievement Motivation" or "need achievement" as centered on "making a thing happen for its own sake." It operates with a unique standard of excellence rooted in comparative and superlative degrees.

McClelland's Achievement Motivation Theory offers valuable insights into the psychological foundations of entrepreneurial behaviour. The need for achievement emerges as a critical factor, steering individuals toward entrepreneurial pursuits marked by optimism, enthusiasm, and a distinctive standard of excellence.

In terms of content, the n-Ach consists of the following:

- Thinking of improvement when doing any activity.
- Feeling excitement towards everything that one does.
- Behaving ethically progressively in all dimensions of one's actions.
- Being in competition with oneself, i.e. doing anything one has or wants to do better than one did before in content and in process as well as in the use of resources for achieving goals.
- Being in competition with others, i.e. doing anything one has or wants to do better than anyone else in content and process as well as in the use of resources to achieve desired goals.
- Long-Term Involvement: This is doing anything one has or wants to do in a long-term involvement or investment to achieve spectacular results.
- Unique Accomplishment: Doing anything one has or wants to do that is unique for inanimate/animates" development and progress.

McClelland's theory contends that individuals with high need achievement exhibit a penchant for taking risks, albeit reasonable ones. Such risks serve as stimuli, propelling individuals towards greater efforts. The theory dismisses the notion that classes, tribes, or nations differ in entrepreneurship due to varying ideologies and value systems. Instead, it attributes these disparities to differing positions in the pyramid of intrinsic motives, particularly the "need-for-achievement."

McClelland's viewpoint extends to the societal level, suggesting that certain societies have a higher prevalence of individuals with a pronounced "need for achievement." This, according to him, contributes to the scarcity of effective entrepreneurs and the subdued level of entrepreneurial activities in many countries. The theory correlates these factors with the observed disparities in industrialization and economic development among nations.

The support for McClelland's theory extends beyond his work. Psychologists like Thomas Begley and David Boyd delved into the psychology of entrepreneurship in the 1980s, identifying internal locus of control as another determinant alongside the need-achievement factor. They argue that individuals with a high "need for achievement" tend to manifest an internal locus of control, a tolerance for ambiguity, and a

behavioural pattern characterized by a persistent and incessant drive to achieve more within a shorter timeframe (Frederick, O'Connor and Kuratko 2018). This additional psychological dimension reinforces the foundational aspects of McClelland's theory.

3. Literature Review

Youth Entrepreneurship

Entrepreneurship is a multifaceted concept, embodying individuals who conceive, organize, manage, and undertake the risks of a business venture (Blake 2018). Defined by the belief in value creation, identifying opportunities, and nurturing them into unique business ventures, entrepreneurs exhibit advanced skills in planning, organizing, directing, and controlling while embracing the inherent risks within entrepreneurship (Nana 2019). Thus, an entrepreneur is a person who possesses the drive, aptitude, and initiative to launch and run a company with lofty goals (Dhaliwal, 2016). Rwigema and Venter (2014) articulate entrepreneurship as a process involving the conceptualization, organization, launch, and innovation-driven nurturing of a business opportunity in a complex and unstable environment. This underscores the need for extraordinary skills, especially among youth entrepreneurs, to navigate this challenging process successfully. Schoof (2006) categorizes youth entrepreneurship into three stages: pre-entrepreneurs (15-19 years), budding entrepreneurs (20-25 years), and emergent entrepreneurs (26-29 years). The latter stage implies a higher level of experience and maturity, making them more likely to establish viable businesses.

In South Africa, where the majority of the population comprises young people, the levels of youth entrepreneurship have been historically low (Worku 2016). Prevailing socio-economic conditions and high youth unemployment rates contribute to this challenge, forcing young individuals to seek employment rather than create opportunities. Despite policy attention and interventions, youth unemployment rates remain persistently high, indicating a chronic situation (Ogunsola 2017). The poor economic empowerment of the youth reflects the inadequacy of consistent budget allocation and reporting by government departments and agencies responsible for driving enterprise development at various levels (Swapi 2019). Addressing the unique challenges faced by youth entrepreneurs in South Africa requires a comprehensive understanding of the socio-economic factors contributing to the prevailing conditions and designing targeted interventions for sustainable youth entrepreneurship development. Petersen (2018) sums up a number of reasons for promoting youth entrepreneurship:

- Creating employment opportunities for self-employed youth as well as the other young people they employ
- Bringing alienated and marginalized youth back into the economic mainstream and giving them a sense of meaning and belonging
- Helping addresses some of the socio-psychological problems and delinquency that arise from joblessness.
- Helping youth develop new skills and experiences that can then be applied to other challenges in life.
- Promoting innovation and resilience in youth
- Promoting the revitalization of the local community by providing valuable goods and services.
- Capitalizing on the fact that young entrepreneurs may be particularly responsive to new economic opportunities and trends.

- It is against this background that initiatives for developing entrepreneurial skills amongst the youth, such as the Youth Enterprise Development Strategy, have been implemented.

Sustainable Development

Sustainable development according to Holden, Linnerud and Banister (2014) is the act of addressing present needs without putting future generations in danger. It involves maintaining a balance between environmental, economic and social factors for sustainable development to be effective.

- **Environmental Factors:** These are those incidental events that result in changes to the current environment. The growth of technology, ozone depletion, tropical deforestation, climate change, and business opportunities have all significantly impacted people's quality of life.
- **Social Factors:** These are factors intended to support people's social welfare. By educating people about the value and impact of legislative protection, social factor aims to expand people's perspectives and shield them from the destructive actions of organizations that could otherwise lead to an unhappy existence.
- **Economic Factors:** The present environment suffers from a number of problems that impair lifestyles, mentality, and socialization, all of which have an impact on economic sustainability. The government has included SMME activities as one of the tools to address these economic problems, using them as corrective actions to create a climate that is conducive to growth. To yet, nevertheless, there hasn't been enough encouragement to transform the economy through the employment of SMMEs as a weapon to combat this problem. This is caused by things like financial instability, high rates of theft and crime in the community, inflation, unfavourable exchange rates, trade deregulation, and rising energy and food prices.

Barbier and Burgess (2017) shared similar views that sustainable development is necessary to achieve economic objectives without negatively impacting the environment. Organizations and individuals alike must work together to make sustainable development a reality. To ensure the sustainability of the economy, SMMEs should be given considerable assistance from stakeholders, the government, financial institutions, and non-financial institutions.

Ayuso and Navarrete-Báez (2018) describe sustainable development as strategy that can guarantee social and economic prosperity on a national and international scale while addressing environmental sustainability. Ayuso and Navarrete-Báez (2018) contend that capacity building must include sustainable development since it raises awareness of the connections between environmental constraints and socioeconomic problems, which are linked to poverty, inequality, and human rights issues on a global scale. To be sustainable, development must consider a broad range of interconnected objectives and be tracked using a variety of indicators. It is a dynamic approach to connecting local, social, economic, and ecological issues in ways that meet current demands as well as those of future generations.

4. Method

This study employed a mixed-methods approach, integrating both quantitative and qualitative research. The decision to start with qualitative research, specifically using an interview schedule, aligns with the nature of exploratory research. Qualitative methods, being unstructured and open-ended, inform the development and implementation of a subsequent quantitative survey (Creswell 2015). This sequential approach allows for the exploration of social contexts and informs the design of structured survey questions. The choice of exploratory research design is strategic, aiming to gather in-depth knowledge and hunches that can be tested using a quantitative research approach. For the purposes of this study, the

probability sampling method was used, as this sampling method utilizes some form of random selection. The population utilized for the research was youthful entrepreneurs registered as students at DUT. The recommended sample size for this study was obtained from the generalized scientific guidelines for sample size decisions, developed (Sekaran and Bougie 2016). By applying this model to the total population of members, who consisted of about 786 members, a sample size of 253 was recommended.

253 youthful entrepreneurs were chosen using a simple random sampling method whereby computer-generated random numbers were used to select the sample. If any numbers were repeated, those numbers were not considered. According to (Bristowe, Selman and Murtagh 2015), simple random sampling provides the researcher with a sample that is inclusive of the population under investigation, assuming that there is limited missing data. Moreover, Glaser and Strauss (2017) explain that simple random sampling allows us to generalize from the sample to the population, as the observations selected for inclusion in the sample are chosen using probabilistic methods. Thus, this is advantageous because such generalizations are more likely to have external validity.

The primary data on the impact of ethical values of SME owner-managers on the performance of their enterprises in the study area were collected using a self-administered questionnaire. Questionnaires are written instruments for obtaining information from sample respondents, chosen for their ability to ensure comparability, increase speed and accuracy, facilitate data processing, and maintain economic efficiency in terms of time and money (Creswell and Creswell 2017). The questionnaire, divided into sections aligning with the study's objectives, covered basic personal information and aspects related to young entrepreneurship and sustainable development. In addition to the structured questionnaire, in-depth interviews were conducted to gather more comprehensive insights. Interviews, categorized as structured, semi-structured, or unstructured, were employed to complement survey-style research (Babbie 2015). This study utilized semi-structured interviews, allowing for specific questions while offering flexibility for probing and clarification. An interview schedule guided the process, and appointments were made with 10 owner-managers based on questionnaire responses. The semi-structured interviews aimed to cover critical issues requiring further clarification and in-depth information. Recorded using an MP3 recorder, the interviews were transcribed for analysis. The semi-structured interview technique was chosen for its flexibility, allowing for the emergence of new questions during the process. Questions were constructed based on areas in the questionnaire requiring clarification. The interviews were conversational, allowing the researcher to explore complexities and elicit participants' subjective interpretations. A degree of flexibility proved crucial in accommodating participants' interests and willingness to elaborate further. NVivo 12-plus software facilitated qualitative data analysis, organizing themes and sub-themes abstracted from interview responses. The software assisted in establishing word frequencies, key patterns, and connections between themes, contributing to a comprehensive qualitative analysis. Data analysis involved descriptive and inferential statistics. Descriptive statistics, including frequency distribution tables, histograms, and pie charts, summarized, and presented information. Inferential statistics examined relationships between demographic variables and sustainable development. The results, processed using SPSS Version 28, were presented through graphs and tables.

In this study, statistical validity was emphasized, employing a pre-test or pilot study to identify and rectify any flaws within the quantitative questionnaire. This is to ensure that the instrument covered all inferential statistics relevant to specific variables of interest. Reliability, associated with the consistency of scores and the replicability of results, was evaluated using Cronbach's alpha as a measure (Sekaran and Bougie 2013). Cronbach's alpha, a test reliability technique, provided a single test administration estimate of the instrument's reliability. The mixed methods approach allowed for triangulation, combining numerical and non-numerical data for a comprehensive analysis. Reliability, essential for the consistency and repeatability of results, was interconnected with validity, ensuring the instrument measured the intended outcomes.

5. Findings and Discussion

Quantitative Statistics

1. Gender

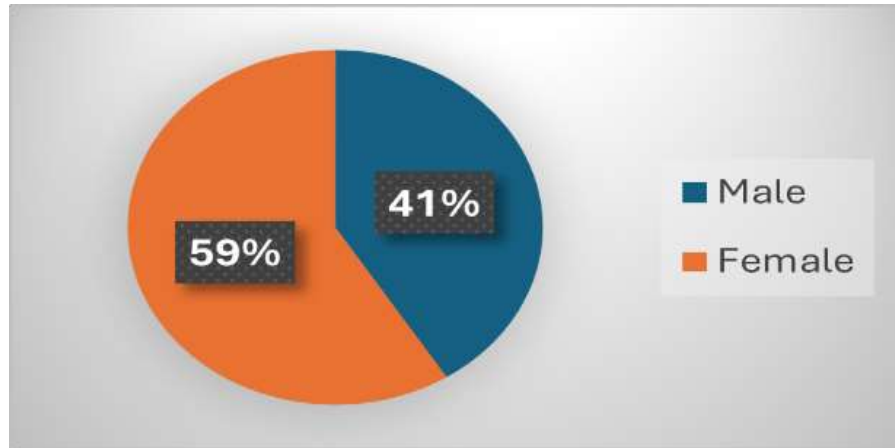


Figure1: Gender of respondents

The data provided indicates that out of the 253 respondents, 70 identified as male (41%) and 183 identified as female (59%). The gender distribution among the respondents is not equal, with a higher representation of female respondents compared to male respondents. In the context of the present study at DUT, the higher representation of female respondents may indicate an active involvement and interest of female students in entrepreneurship and sustainable development initiatives. It suggests the need for tailored support and resources to empower female student entrepreneurs and promote gender equality in entrepreneurial endeavours.

2. Age

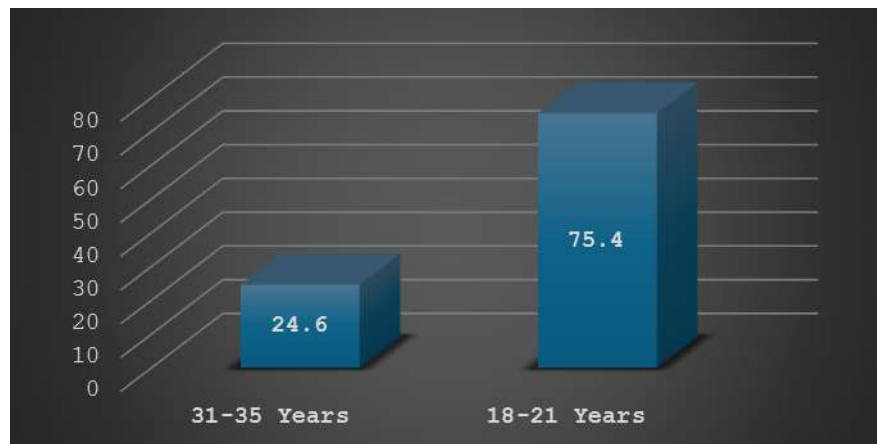


Figure 2: Age distribution of respondents

The data provided shows the age distribution of the respondents. Out of the 253 respondents, the majority (211 respondents, 75.4%) fell within the age range of 18-21 years, while a smaller proportion (42 respondents, 24.6%) fell within the age range of 31-35 years. The age distribution of the respondents indicates that a significant portion of the participants in the study are relatively young, with the majority

falling within the age range of 18-21 years. In the context of the present study at DUT, the strong representation of respondents in the 18-21 age range suggests a focus on youth entrepreneurship. This aligns with the idea that young entrepreneurs can play a significant role in driving sustainable development through their innovative ideas, energy, and adaptability.

3.Race

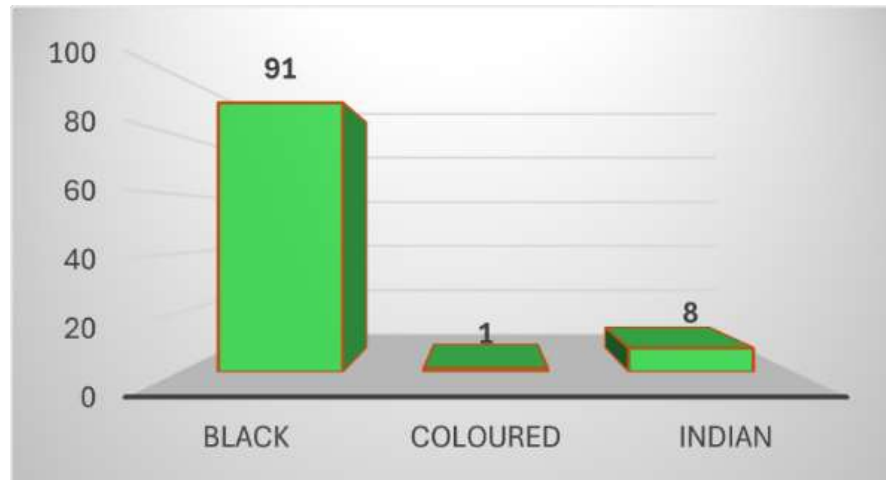


Figure 3: Racial distribution of respondents

The data provided highlights the racial distribution of the respondents in the study. Among the 171 respondents, the majority (91%) identified as Black, followed by (8%) respondents who are identified as Indian, and a small proportion of (1%) are identified as Coloured. The predominance of Black respondents in this study aligns with the demographic profile of South Africa, where the majority of the population belongs to the Black racial group. Mtshali, Mtapuri and Shamase (2017) note that Black people have recently stepped into small business, trying to contribute to the economy. The authors have noted factors such as unemployment, starvation, price increases and economic decline forced people into small businesses.

4.Educational Qualification

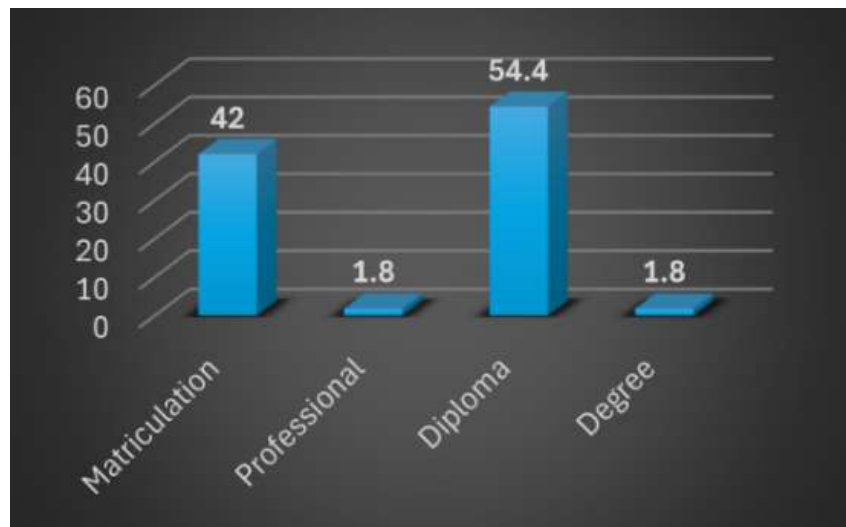


Figure 4: Educational Qualification

The data provided reveals the educational qualifications of the respondents in the study. Out of the 171 respondents, the majority (54.4%) held a Diploma, followed by (42%) with a Matriculation qualification. A smaller proportion of the respondents held a Professional Certification (1.8%) or a degree (1.8%). The educational qualifications of youth entrepreneurs are significant in understanding their role in sustainable development. The findings suggest that a substantial number of respondents in the study held Diploma qualifications, indicating that they have completed specialized vocational or technical training beyond the secondary level. This implies that these individuals possess specific skills and knowledge related to their entrepreneurial pursuits, which can contribute to sustainable development in various sectors. In the context of the current study at DUT, the prevalence of Diploma qualifications among the respondents suggests a focus on understanding the experiences and contributions of individuals with specialized vocational or technical skills in entrepreneurship. This highlights the need for targeted support, such as practical training, mentorship, and networking opportunities, to harness the potential of Diploma holders as youth entrepreneurs for sustainable development.

Table 1: DUT motivates students to start a new business as an approach to sustainable development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	120	70,2	70,2	70,2
	Agree	47	27,5	27,5	97,7
	Neutral	4	2,3	2,3	100,0
	Total	171	100,0	100,0	

The data presented represents the responses of students at Durban University of Technology (DUT) regarding the university's motivation and support for starting a new business as an approach to sustainable development. Out of the 171 respondents, the majority (120 respondents, 70.2%) strongly agreed that DUT motivates students to start a new business. Additionally, 47 respondents (27.5%) agreed with this statement, while only 4 respondents (2.3%) expressed a neutral viewpoint. Considering the responses from DUT students, where a majority strongly agreed that the university motivates students to start new businesses as an approach to sustainable development, it reflects the positive impact of entrepreneurship education and support systems at DUT. The university's efforts in encouraging entrepreneurship align with the global recognition of the role of entrepreneurship in sustainable development.

Table 2: DUT students understand entrepreneurship and use it as an approach to sustainable development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	95	55,6	55,6	55,6
	Agree	66	38,6	38,6	94,2
	Neutral	10	5,8	5,8	100,0
	Total	171	100,0	100,0	

The data provided represents the responses of DUT students regarding their understanding of entrepreneurship and its utilization as an approach to sustainable development. Out of 171 respondents, 95 students (55.6%) strongly agreed that they understand entrepreneurship and use it as an approach to sustainable development. Additionally, 66 students (38.6%) agreed with this statement, while 10 students (5.8%) expressed a neutral viewpoint. The findings indicate that a significant portion of DUT students have a positive understanding of entrepreneurship and its potential for contributing to sustainable development. This reflects a positive attitude and awareness among the students regarding the role of entrepreneurship in addressing sustainability challenges. Ruskovaara and Pihkala (2015) conducted a

systematic literature review to explore the link between entrepreneurship education and sustainable development. The study emphasized that entrepreneurship education plays a crucial role in fostering sustainable entrepreneurial mindsets and practices among students. It highlighted the importance of incorporating sustainability concepts, values, and skills into entrepreneurship curricula to enable students to understand and apply entrepreneurship as an approach to sustainable development. Relating to the findings of DUT students to existing literature, it is evident that a considerable proportion of them demonstrate a strong understanding of entrepreneurship and its application to sustainable development. This aligns with the broader understanding that entrepreneurship education plays a crucial role in equipping students with the knowledge, skills, and attitudes necessary to contribute to sustainable development through entrepreneurial endeavours.

Table 3: DUT youth students understand entrepreneurship and have a proper knowledge of how they work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	40	23,4	23,4	23,4
	Agree	115	67,3	67,3	90,6
	Neutral	11	6,4	6,4	97,1
	Disagree	4	2,3	2,3	99,4
	Strongly Disagree	1	0,6	0,6	100,0
	Total	171	100,0	100,0	

The data presented represents the responses of youth students at Durban University of Technology (DUT) regarding their understanding of entrepreneurship and their knowledge of how it works. Out of the 171 respondents, 40 students (23.4%) strongly agreed that they have a proper understanding of entrepreneurship and how it works. Additionally, 115 students (67.3%) agreed with this statement, while 11 students (6.4%) expressed a neutral viewpoint. Only 4 students (2.3%) disagreed, and 1 student (0.6%) strongly disagreed. Considering the responses from DUT youth students, majority of the participants agree that they understand entrepreneurship and have proper knowledge of how it works, it indicates a positive impact of entrepreneurship education at the university. However, the presence of some students expressing neutral, disagree, or strongly disagree viewpoints suggests the need for further investigation into the reasons behind their perceptions. It could be beneficial for DUT to conduct follow-up assessments or surveys to gather more detailed feedback and identify areas for improvement. Liñán and Fayolle (2015) conducted a study to examine the impact of entrepreneurship education on university students' entrepreneurial intention. The study found that entrepreneurship education positively influenced students' understanding of entrepreneurship concepts, their knowledge of how businesses operate, and their entrepreneurial self-efficacy.

Table 4: DUT youth students require proper training about entrepreneurial activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	84	49,1	49,1	49,1
	Agree	66	38,6	38,6	87,7
	Neutral	14	8,2	8,2	95,9
	Disagree	7	4,1	4,1	100,0
	Total	171	100,0	100,0	

From the table 4, 84 students (49.1%) strongly agreed that DUT youth students require proper training, while 66 students (38.6%) agreed with this statement. Additionally, 14 students (8.2%)

expressed a neutral standpoint, and 7 students (4.1%) disagreed. The findings suggest that a significant proportion of DUT youth students recognize the importance of receiving proper training in entrepreneurial activities. This highlights their understanding that specific knowledge and skills related to entrepreneurship are essential for their success in entrepreneurial endeavours. Participants expressed agreement with the presence of monitoring and coaching factors affecting the growth of youth-owned enterprises. Martin, McNally and Kay (2013) conducted a meta-analysis to examine the relationship between entrepreneurship education and new venture creation. The study revealed a positive correlation between entrepreneurship education and the likelihood of students engaging in entrepreneurial activities. Relating the findings of DUT youth students to the existing literature, it is evident that their recognition of the need for proper training aligns with the broader understanding of the importance of entrepreneurship education. Proper training provides students with the knowledge, skills, and mindset required to identify and pursue entrepreneurial opportunities, manage risks, and navigate the challenges of starting and growing a business.

Table 5: There are monitoring and coaching factors affecting the growth of youth-owned enterprises.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	55	32,2	32,2	32,2
	Agree	65	38,0	38,0	70,2
	Neutral	36	21,1	21,1	91,3
	Disagree	15	8,7	8,7	100,0
	Total	171	100,0	100,0	

The data presented in the table shows the responses of participants regarding the presence of monitoring and coaching factors affecting the growth of youth-owned enterprises. The majority of participants expressed agreement with the statement, with 32.2% strongly agreeing and an additional 38% agreeing. On the other hand, 21.1% of participants remained neutral, while only 8.7% disagreed with the statement. These findings indicate that there is a perceived importance of monitoring and coaching in the context of youth-owned enterprises. The positive responses suggest that participants recognize the role of monitoring and coaching as significant factors contributing to the growth and success of such enterprises. One previous study conducted by AL-Maamari, Vedava and Alrefaei (2023) explored the impact of mentoring on the performance of youth-owned businesses. The study found that mentoring programs positively influenced the growth and sustainability of these enterprises. Mentors provided valuable guidance, advice, and monitoring, which enhanced the entrepreneurs' skills, knowledge, and decision-making capabilities. This aligns with the current findings, as the participants' agreement with the statement implies their recognition of the positive effects of monitoring and coaching on youth-owned enterprises.

Table 6: Poverty reduction, job creation, crime reduction and supporting emerging businesses are measures of sustainable development

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	47	27,5	27,5	27,5
	Agree	91	53,2	53,2	80,7
	Neutral	24	14,0	14,0	94,7
	Disagree	7	4,1	4,1	98,8
	Strongly Disagree	2	1,2	1,2	100,0
	Total	171	100,0	100,0	

Table 6 presents the responses of participants regarding the measures of sustainable development, specifically focusing on poverty reduction, job creation, crime reduction, and supporting emerging businesses. Among the participants, 27.5% strongly agreed with the statement, while an additional 53.2% agreed. 14.0% of participants remained neutral, 4.1% disagreed, and 1.2% strongly disagreed with the statement. The high percentage of participants expressing agreement (80.7%) indicates a positive perception of the mentioned measures as indicators of sustainable development. The participants recognize the importance of poverty reduction, job creation, crime reduction, and supporting emerging businesses in achieving sustainable development goals. These measures are widely acknowledged in research and policy contexts as crucial elements for fostering economic growth, social stability, and environmental sustainability. These findings align with previous studies that have emphasized the significance of poverty reduction, job creation, crime reduction, and supporting emerging businesses in the context of sustainable development. For example, a study by Wadee and Padayachee (2017) found that addressing poverty, promoting employment opportunities, and supporting small and medium enterprises were key factors in achieving sustainable development goals. The agreement among participants in the current study supports the notion that these measures are integral to sustainable development efforts.

Qualitative Statistics

The purpose of the interviews was to gain insight into the role of youthful entrepreneurs in the Sustainable Development Programme at the Durban University of Technology (DUT). The study objectives' major components were taken into consideration while identifying the themes. To further corroborate the research findings, the analysis will combine various elements from primary and secondary research sources.

Thematic Analysis

Theme 1: Views on the Role of Youth Entrepreneurs in Sustainable Development

Sub-theme: Collaboration

The methods in which DUT's young student entrepreneurs could support the sustainable development initiative were covered in this theme. For example, as stated by Respondent 1:

"It is our role to build revenues that will change the state of our society and families. This can only be done through collaboration".

Furthermore, according to Respondent 2, *"young people are now compelled to work for themselves to maintain a sustainable lifestyle due to a shortage of employment. Youth who possess sound business acumen can lessen poverty and open employment chances for other young people in their areas."*

The third respondent likewise emphasized that *"the most driven and self-motivated group are young entrepreneurs. Young people may build sustainable livelihoods and provide employment possibilities for other young people in their communities by coming up with smart business ideas."*

Respondent 4 *"went on to say that youth are the most creative and innovative generation and that they are also the most dynamic and adaptive bunch."*

The opinions of DUT respondents about the contribution of young entrepreneurs to sustainable development are largely favourable. They acknowledge that young entrepreneurs can reduce poverty, effect positive change, and open doors for other young people by creating jobs (Respondent 1, Answer 1; Respondent 2, Answer 1; Respondent 3, Answer 1; Respondent 4, Answer 1).

The results of a comparative study on young entrepreneurs by Dzomonda and Fatoki (2019), which emphasized their influence on economic growth and job creation, corroborate these findings and reflect the opinions of the respondents regarding the contribution of youthful entrepreneurs to sustainable development and job creation. This study backs up the notion that to further sustainable development, educational establishments like DUT should encourage and support students who have an entrepreneurial spirit. Therefore, it can be said that youthful entrepreneurs can contribute to bringing about change and establishing sustainability through their businesses.

Theme 2: Factors Affecting DUT Youth Student Entrepreneurs

Sub-theme: Flow of Information

This sub-theme focused on the factors affecting DUT youth student entrepreneurs. The elements influencing DUT youth student entrepreneurs are also briefly discussed in this sub-theme. Additionally, it offers advice on how to make the transformation policies effective as well as the prerequisites for a successful policy implementation change. According to the information gathered from the interview, a variety of elements must be considered to properly implement the transformation policy. During the interview, various participants noted various difficulties. For instance, Respondent 1, regarding the flow of information, states:

“We lack proper mentorship, which is not biased to other objectives. I also feel that the flow of information is rigid, leaving students unaware of important matters concerning their future. Most but not least politics, it is clear that we live in a country that is governed by politics, and most students find themselves caught in the crossfire”.

As shown by Respondent 2:

“Lack of support from government, crime and inability to manage finances effectively”.

Respondent 3 stated that:

“Lack of funding to start-up businesses, poor support from government institutions, crime, inability to manage finances effectively and not having marketing skills to advertise to the right customers. Also not having clients to buy products or services offered”.

Respondent 4 agreed with this shortcoming as noted in his own words:

“...that lack of funds to start-up and run businesses, crime, inability to manage finances effectively. Having no clients to buy products offered”

According to the respondents, the primary issues that impact DUT youth student entrepreneurs are insufficient capital for new ventures; insufficient backing from governmental bodies; criminal activity; challenges in efficiently handling finances; and insufficient marketing expertise. According to a study on the impact of funding on entrepreneurial activities,

Zwane and Nyide (2017) discovered that youth entrepreneurs' success is highly influenced by their ability to secure funding. The results are consistent with the respondents' worries regarding how DUT student entrepreneurs are impacted by a lack of funding. Hodgkinson and Andresen (2020) investigated the connection between crime rates and business. According to their research, increased crime rates can discourage entrepreneurship and impede the growth of the economy. This corroborates the respondents' assertion that one issue impacting DUT student entrepreneurs is criminal activity.

Theme 3: Spotting and Utilizing Business Opportunities**Sub-theme: Business Opportunities**

This sub-theme's primary goal was to find out if young entrepreneurs could recognize and seize business opportunities. According to Respondent 1:

"While I make every effort to pursue entrepreneurial endeavours, it can be challenging at times because I have no one to turn to for guidance and don't always get a positive answer".

Respondents 2 and 3 elucidated that they can recognize business opportunities, however, they lack the necessary resources, funding, and expertise. Respondent 4 further added that:

"Yes, I can identify business opportunities. However, due to a lack of knowledge and support, our ideas are wasted to the point where we choose to look for work at other companies, even though there are no jobs available due to a variety of factors affecting South Africa and the nation as a whole".

The respondents admit that they can recognize business prospects. Nonetheless, they convey difficulties capitalizing on those opportunities because of inadequate funding, understanding, and assistance. regarding how to better prepare and educate student entrepreneurs. Afolayan and de la Harpe (2020) conducted a study on entrepreneurial opportunities and highlighted the importance of resources and capabilities in recognizing and exploiting opportunities. The study stressed that to improve students' capacity to recognize and seize business opportunities, entrepreneurial education is essential.

Theme 4: Actions to Reduce Poverty by DUT Student Entrepreneurs**Sub-theme: Poverty Alleviation**

This sub-theme addressed how poverty prevents entrepreneurs' businesses from growing to greater heights.

Respondent 1 shared that:

"Illiteracy is frequently linked to poverty, and this can have an impact on output. Entrepreneurs who are not very literate may find it difficult to comprehend workflow guidelines. As such, they are more likely to commit work-related errors that lead to decreased revenue and diminished client trust".

Furthermore, Respondents 2 and 4 shared similar views that:

"A path to sustainable development is working together with other small business owners and supporting each other through positive relationships such as sharing skills, experience, and knowledge that young entrepreneurs can emulate".

Respondent 3 mentioned that:

"People can collaborate with other business owners and help one another out by purchasing locally manufactured goods. They will be able to decrease the quantity of foreign-imported enterprises by doing this".

According to the respondents, DUT student entrepreneurs can lessen poverty by working together with other business owners, assisting small companies in their community, and inspiring and guiding

other young people to pursue entrepreneurship (Respondent 1, Answer 4; Respondent 2, Answer 4; Respondent 3, Answer 4; Respondent 4, Answer 4).

Research on the connection between poverty alleviation and entrepreneurship was done (Sutter, Bruton and Chen 2019). The research emphasized how entrepreneurship may alleviate poverty and generate job possibilities. The results of this study validate the recommendations made by the participants for DUT student entrepreneurs to lessen poverty. The study conducted by Cui and Bell (2022) investigated how entrepreneurial training influences the intentions and behaviours of entrepreneurs. To encourage entrepreneurship and address societal issues, such as poverty, the study stressed the significance of teaching and training budding entrepreneurs. This study supports the recommendations made by the respondents that DUT assists and educates aspiring business owners.

Theme 5: Improving student Entrepreneurs at DUT for Sustainable Development.

Sub-theme: Mentoring.

This sub-theme focused on how mentoring significantly raises the likelihood of upskilling by fostering a culture of learning and inspiring others to be successful in their chosen fields. As stated by Respondent 1:

“Mentoring assists students who exhibit an entrepreneurial spirit. It establishes a long-lasting relationship between the mentor and the student by fostering professional competence and confidence.” ...

Additionally, Respondent 2 stated that:

“Financial aid to the students is important in business. However, a lack of knowledge about how to infuse it into a business result in failure. Another challenge that appears to face student entrepreneurs is creating a suitable business plan”.

Furthermore, based on the data collected from Respondent 3 and 4, it was noted that:

“Giving young entrepreneurs access to suitable mentorship programmes can help them develop their abilities. This needs to be done in a way that would make them wanted to learn”.

It is suggested by the respondents (Respondent 1, Answer 5; Respondent 2, Answer 5; Respondent 3, Answer 5; Respondent 4, Answer 5) that DUT offer mentorship, support, financial aid, and entrepreneurship education to enhance student entrepreneurs and foster sustainable development.

A study conducted by Jena (2020) stressed how important it is for educational institutions to help student entrepreneurs by offering them financial resources, mentorship, and assistance. The respondents' suggestions that DUT assist student entrepreneurs in a variety of ways are supported by this study. The study emphasized the value of business planning, financial support, and mentoring in raising student entrepreneurs' performance. This study supports the recommendations made by the respondents, according to which DUT should encourage student entrepreneurs financially and with mentorship.

Theme 6: Components used to Measure Impact on Sustainable Development

Sub-theme: Teaching and Education

The information collected from Respondent 1 established that:

“By evaluating my efficacy, I observe my students' comprehension levels. Since I enjoy coding, I teach other young people in my community the same things”.

Respondent 2

“I educate other people in my community about entrepreneurship and make them aware that small businesses can have a very big change if there is support of the community”. Respondents 3 and 4 also agreed that *“they teach other people in their community about entrepreneurship.”*

Educating others in their community about entrepreneurship and raising awareness of the positive changes that small enterprises can bring about with assistance from the government and community are two ways that the respondents estimate their effect on sustainable development.

A study on the impact measurement of social entrepreneurship was carried out by (García-Jurado, Pérez-Barea and Nova 2021). The study emphasized the value of community outreach and education projects as ways to gauge the social impact of entrepreneurship. The idea of entrepreneurial behaviour and its impact on societal well-being was studied by (Brieger, De Clercq and Meynhardt 2021). The study stressed the importance of socially and environmentally conscious entrepreneurial endeavours as a gauge of their influence on sustainable development. This survey supports the respondents' emphasis on using entrepreneurship to bring about positive change.

Theme 7: Recommendations to Enhance Student Entrepreneurs at DUT

Sub-theme: Entrepreneurship programmes

The topics covered in this theme were how DUT student entrepreneurs might improve their business practices. For instance, as Respondent 1 put it:

“Outspread entrepreneurial programmes to student who is interested and give them the chance to join”.

Respondent 2 mentioned that:

“Teach entrepreneurship to every student at DUT. Students should know where to look for information if they wish to launch their own firms”.

Respondent 3 and 4

“Every department at DUT should offer entrepreneurship education so that first-year students are familiar with the concept and, by the time they are in their final year, are passionate about launching their own businesses”.

The respondents (Respondent 1, Answer 7; Respondent 2, Answer 7; Respondent 3, Answer 7; Respondent 4, Answer 7) recommend that DUT provide comprehensive entrepreneurship education, integrate entrepreneurship modules into all departments, and develop collaborative programmes to foster student entrepreneurs.

These results are corroborated by Otache *et al.* (2024), who performed research on the effects of entrepreneurship education on entrepreneurial attitudes and abilities. The study emphasized how crucial it is to offer thorough entrepreneurship education to foster entrepreneurial competencies. According to the study's findings, entrepreneurship education boosts entrepreneurial intentions through mechanisms that include entrepreneurial self-efficacy, awareness, and opportunity perception. This study supports the

respondents' recommendation that DUT provide extensive training and education programmes for student entrepreneurs.

The views of the respondents regarding the role of youth entrepreneurs in sustainable development at DUT were thematically analyzed. Common themes that emerged from this analysis included identifying the difficulties faced by student entrepreneurs, highlighting the significance of financial support and support, realizing the potential of youth entrepreneurs, and suggesting ways to improve entrepreneurship education. The analysis has the backing of earlier research that sheds light on related topics and explains the importance of entrepreneurial education, mentoring, teamwork, and effect measurement for sustainable development.

Discussion

The majority of students (70.2%) strongly agreed that DUT motivates students to start new businesses as an approach to sustainable development. An additional 27.5% agreed with this statement, indicating that DUT's efforts in encouraging entrepreneurship align with the global recognition of its role in sustainable development. A significant proportion of students (55.6%) strongly agreed that they understand entrepreneurship and use it as an approach to sustainable development. Furthermore, 38.6% agreed with this statement. These findings highlight a positive attitude and awareness among students regarding the role of entrepreneurship in addressing sustainability challenges. The majority of youth students (67.3%) agreed that they have proper knowledge of entrepreneurship and how it works. An additional 23.4% strongly agreed with this statement. While there is a small percentage expressing neutral or negative viewpoints, the findings indicate that DUT's entrepreneurship education has been effective in providing students with a positive perception of their understanding.

A significant portion of youth entrepreneurs at DUT (42.9% strongly agreed and 42.3% agreed) recognized and believed in the vital role they can play towards sustainable development. This reflects a positive attitude and awareness among youth entrepreneurs about the importance of sustainable development and their potential contribution towards it. A considerable proportion of students (48.5% strongly agreed and 41.5% agreed) perceived DUT as a provider of the necessary knowledge for starting innovative businesses. This indicates that DUT's educational support is seen positively in terms of fostering entrepreneurial skills and knowledge among students.

A significant proportion of youth students (49.1% strongly agreed and 38.6% agreed) recognized the importance of receiving proper training in entrepreneurial activities. This highlights their understanding that specific knowledge and skills related to entrepreneurship are essential for their success in entrepreneurial endeavours. Participants expressed agreement with the presence of monitoring and coaching factors affecting the growth of youth-owned enterprises. About 32.7% strongly agreed and 38.7% agreed with this statement, indicating the recognition of the importance of support systems such as monitoring and coaching in facilitating the growth of youth-owned businesses.

6. Conclusion

Proper training in entrepreneurship positively influences students' entrepreneurial intentions. It emphasized the need for targeted educational programs that provide practical training, mentorship, and exposure to real-world entrepreneurial experiences to enhance students' entrepreneurial skills and motivations. Student entrepreneurs from DUT possess the skills, knowledge, and resources necessary to make a meaningful contribution to poverty alleviation efforts. This aligns with the notion that entrepreneurship can play a crucial role in creating jobs, generating income, and driving economic development, which can ultimately lead to poverty reduction.

7. Recommendation

By considering insights from previous studies on educational qualifications, entrepreneurship, and sustainable development, policymakers, educators, and stakeholders at DUT can develop tailored initiatives that leverage the unique skills and knowledge of youth entrepreneurs with different educational backgrounds. This can involve integrating practical entrepreneurship training into diploma programs, establishing partnerships with industry experts, and providing resources for continued learning and skill development. To further strengthen this support, DUT can continue to enhance its entrepreneurship programs, initiatives, and resources. This can include offering specialized entrepreneurship courses, organizing workshops and mentorship programs, establishing incubation centers or accelerators, and facilitating connections with industry professionals and potential investors. By fostering an entrepreneurial ecosystem, DUT can empower students to create businesses that address societal challenges, promote sustainable practices, and contribute to economic development in the region.

To further enhance DUT's support in this regard, the following measures can be considered:

- **Curriculum Enhancement:** Continuously review and update the entrepreneurship curriculum to ensure it covers the latest trends, technologies, and practices relevant to innovation and business creation. Incorporate modules or courses specifically focused on fostering innovation, creativity, and design thinking.
- **Faculty Expertise:** Foster a pool of faculty members with expertise in innovation and entrepreneurship. Encourage faculty members to engage in research and industry collaborations related to innovative business creation. This will enhance the knowledge and insights they can impart to students.
- **Incubation and Support Programs:** Establish or strengthen incubation and support programs within the university to provide students with hands-on experience and guidance in developing innovative business ideas. These programs can offer mentorship, access to resources, networking opportunities, and funding avenues for student entrepreneurs.
- **Industry Partnerships:** Foster partnerships and collaborations with industry stakeholders, startups, and innovation ecosystems to provide students with exposure to real-world innovation and entrepreneurial practices. Facilitate internships, industry projects, and guest lectures to bridge the gap between academia and industry.
- **By implementing these measures,** DUT can further enhance its role in providing students with the knowledge needed to start innovative businesses. This will contribute to fostering an entrepreneurial culture on campus and enable students to effectively leverage their knowledge and skills for innovative and sustainable entrepreneurship. By implementing these measures, DUT can provide its youth students with the proper training and education required for entrepreneurial activities. This will enhance their entrepreneurial competencies, increase their likelihood of engaging in entrepreneurial ventures, and contribute to sustainable development and economic growth.

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