

Sustaining The Education System Through Developing Entrepreneurship Skills In Learners In Zimbabwe.

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Abstract

The study aimed to establish the effect of entrepreneurship skills development on the sustainability of the education system. To test the relationship that exists between entrepreneurship skills development and a sustainable education system, structural equation modeling was used to analyze quantitative data from 330 teachers. In addition, 20 interviews were conducted with the school Heads and qualitative data were analysed using thematic analysis. The results show that entrepreneurship skills development positively influences the sustainability of the education system. The results also indicate sociological, psychological and economic factors that influence entrepreneurship skills development as well as the sustainability of the education system. The study concludes that in order to enhance the sustainability of the education system in Zimbabwe, a holistic approach is needed in which all stakeholders should focus on entrepreneurship skills development at the same time taking into cognisance factors that influence it. The study recommends that school heads should spearhead the implementation of entrepreneurship skills development among learners while the government of Zimbabwe consider provision of financial and infrastructural resources toward entrepreneurial skills development in the education sector. The study also recommends the Ministry to provide entrepreneurially trained teachers. Businesses and entrepreneurs' engagement, community engagement and student engagement is also recommended for the

benefit of entrepreneurship skills development in learners in sync with the Heritage-Based Education 5.0 Philosophy.

Keywords: Entrepreneurship, entrepreneurship skills development, sustainable education system

Introduction

Several scholars revealed that entrepreneurship skills development is crucial for the creation of wealth, innovation, employment and income (Vig, 2023 & Garavan et al.,2022). Entrepreneurship skills development refers to the enhancement of skills and knowledge through training (Andelic et al., 2017). Entrepreneurship skills development has become an increasingly important strategic model for sustainability particularly in terms of growth and development (Adeoye et al.,2024). Through it, the world has been turned to a global community (Efegbudu et al., 2023).

Entrepreneurship skills development has gained increasing consideration from many countries in educational institutions (Galvao et al., 2025; Zhang, 2020 & Zarharia et al., 2020). It has been labelled a driving factor of social progress, well-being of societies and economic development (Lerro et al., 2022). Entrepreneurship skills development has also been embraced not only in the business environment, but in the education system (Tarhan, 2021; The Times Commission, 2022; Zhang, 2020; Lipinge & Shimpanda, 2022). The education system in any given nation is crucial and serves as an indicator of development, prosperity and sustainability (Ogele, Ishiwu, & Onwuka, 2020). However, the population worldwide has lost confidence in the education system (Ndofirepi, 2021). They accuse the education system of creating unemployable graduates, social misfits and lazy school leavers who know little about the dignity of labour. High number of unskilled graduates have been produced because of an outdated curriculum that lacks relevance to the industry's needs (Lerro et al., 2022).

The aim of entrepreneurship skills development is to lower dependency rates by equipping students with the skills they need to become successful business owners (Akingbade, 2021). It significantly helps in the development of new markets, the increase of income, social wealth, the creation of employment, technological improvements and higher living standards. Recent research indicates that gaining these skills boosts learners' chances of getting employed (Zhang, 2020) and enables them to start their own businesses. Entrepreneurship skills development cultivates an entrepreneurial mindset that enables learners to identify opportunities and

transform them into social, cultural and financial value while expertly managing risks (Adeoye et al, 2024). Thus, it is important to link science, business, education and policy in the educational system.

Entrepreneurship skills development encourage learners to explore creative and innovative solutions in order to respond to issues that are prevalent in communities and educational systems such as economic decline, skills gaps, and educational inequality (Kirkley, 2017). Research (Strachan, 2018; Lawal et al., 2018) highlights its significance in preparing young people for a changing labour market. Entrepreneurship skills development has been studied for its effect on various economic sectors (Anigbogu & Ndubuisi, 2019; Rashid, 2019; Lipinge & Shimpanda, 2022). However, despite the importance of entrepreneurship skills development, empirical evidence on the relationship that exists between entrepreneurship skills development and sustainability of the education system and the factors that affect it is scarce (Anigbogu et al., 2019; Rashid, 2019; Dawo et al., 2020; Zarharia et al., 2020).

Poi (2022) states that developing entrepreneurial skills stimulates innovation in learners and facilitates the conversion of entrepreneurial ideas into successful and marketable business ventures. Such development has a positive impact on the society, especially vulnerable sections, by creating jobs and encouraging product innovation (Patrick, 2021). However, there is little knowledge on the effect of entrepreneurial skills development on the educational systems. This study aims to fill that gap by exploring the relationship between the development of entrepreneurial skills and sustainable education in Zimbabwe, thus contributing to academic research and educational strides in developing countries.

The development of entrepreneurship skills is influenced by a number of factors, including social, economic, and psychological aspects (Idam, 2014; Galvao et al., 2017; Naji, 2019; Gwani et al., 2020; Poi (2022). However, further research is required to identify the precise influencers and circumstances that foster these entrepreneurial skills, which are essential for sustaining the education system. While the effects of this development have been noted, understanding the specific influencers of students' entrepreneurial intentions and the precise definition of the social, economic, psychological and institutional conditions that foster entrepreneurship skills development requires further research (Maheshwari et al., 2022; Lerro et al., 2022). The

motivation behind individuals becoming entrepreneurs is a persistent area of interest in entrepreneurship studies (Poi, 2022).

Thus this study sought to evaluate the factors that influence entrepreneurship skills development in learners and to establish effect of developing entrepreneurship skills in learners and how it sustains the education system.

Literature, Hypotheses and Conceptual Framework

Before looking at how entrepreneurship skills sustain the education system, there is need to define entrepreneurship skills development and sustainable education system in order to understand the concepts.

Entrepreneurship Skills Development concept

Entrepreneurship skills development is concerned with the development of entrepreneurial skills, values, entrepreneurial personality, motivation and behaviours that allow individuals to perform entrepreneurship roles (Ezenwakwelu et al., 2019). In the education system, its goal is to equip students with skills that transform them into successful business persons whilst serving to reduce dependency rate, poverty and crime (Lerro et al., 2022). It serves to improve standards of living by significantly contributing to the economic and social activities carried out by entrepreneurs (Lerro et al., 2022).

Entrepreneurship skills development plays a significant role in the sustainability and development of economies (Tarhan, 2021; Akingbade, 2021; The Times Commission, 2022). Promoting entrepreneurship education has yielded notable returns on investment for European countries (Galvao et al., 2017). Entrepreneurship has made significant strides in America and the entrepreneurial ventures has significantly contributed to Gross Domestic Product (GDP) and economic growth (Saiden, 2017). In Africa, Ghana recognised entrepreneurship as a strategy for poverty reduction (Nyoni, 2018)

Sustainable Education System concept

A sustainable education system concentrates on solving current problems bedevilling society such as poverty reduction, climate change, disaster and risk reduction, high unemployment, biodiversity and sustainable consumption (Mensah & Casadevall, 2019). A sustainable education system is defined as the cultivation of an entrepreneurial and innovative spirit among students and staff through institutional ethos, teaching, and learning by all (Ogele et al., 2020). On another hand, a sustainable organization is one that is able to generate social, economic and

environmental development and establish fair relationships with employees, suppliers, consumers and other stakeholders while seeking methods that promote good use of natural resources (Brito et al., 2018). Thus, a sustainable education system can be referred to as the ability of the education system to deliver what it was designed to deliver for the benefit of the students, the school, society and the international community at large.

The concept of sustainable education system can be traced back to Zimbabwe's educational reforms in which the curriculum shifted from preparing white-collar job students to blue-collar jobs through the use of generated knowledge for the creation of goods and services (Muzira & Bondai, 2020). While pre-colonial and colonial eras also taught life skills, such as iron smelting, hunting, farming, and household chores, racial segregation impacted resource allocation in education. The current system focuses on practical and hands-on training for real-time work experience (Chillakuri & Mahanandia, 2018; Burbules et al., 2020). An entrepreneurial education system fosters diversified learners who can identify opportunities in uncertain environments, differing from traditional educational models (Bhebhe et al., 2015).

Sustainability according to Sarango-Lalangui et al. (2018) is shown by the main activities that are performed in their environments, by the goal achievement, impact evaluation, transparent communication of results, and satisfying people's vital needs. However, the concept of sustainability has been silent on entrepreneurship discussions. It has been absent from the education curriculum (Barnard et al., 2016). Therefore, this study sought to establish whether entrepreneurship skills development affects sustainability of the education system.

Effect of Entrepreneurship Skills Development on the Educational System sustainability

Mohammadali et al. (2019) discovered that entrepreneurship skills development has an impact on economic development. A strong entrepreneurial culture supports economic growth by creating startups, production, creating jobs and increased innovation, revenues technical skills (Fudamu et al., 2024). The stronger an economy, the more a government can afford to spend on educational resources, teacher training programs and educational resources.

Entrepreneurship skills development is widely supported by evidence, correlating with the creation of new employment, new businesses and the expansion of existing ones. This process generates wealth through technological innovation, new industries, job creation, market expansion, increased income and improved living standards (Diraditsile & Ntseane, 2022).

Entrepreneurship skills development is considered a human capital investment aimed at preparing individuals to launch new ventures through skill advancement, experience integration, and knowledge acquisition (Chaudhuri et al., 2023). Therefore, against this backdrop, most, Western countries, including the United States and China have integrated entrepreneurship skills development into their educational systems in its policies to combat unemployment (Eneji, 2017; Saiden, 2017, Kunicina et al., 2019). While some African countries like Mozambique, Egypt, Kenya and Uganda have adopted similar approaches, challenges related to infrastructure and financial support have impeded their outcomes (Rashid, 2019).

In addition, the relationship existing between entrepreneurship skills development and a sustainable education system is reflected through innovativeness. International Labour Conference (ILO) (2017) pointed out that new ways of doing old things and new ways of doing new things should be sought to become more sustainable and that is through innovation. Entrepreneurship skills development enhances innovation and helps translate entrepreneurial ideas into marketable business ventures (Poi, 2022). Therefore, student creativity, capacity to commercialize new ideas, product improvement and realising market opportunities are fostered by the development of entrepreneurial skills. Dawo et al. (2020) argue that combining open innovation with knowledge management, leads to improved sustainability performance. Therefore, entrepreneurial skills development through innovation leads to the development of sustainable products and services and implementation of new projects that stand as solutions to environmental and social concerns (Omri et al., 2017).

Moreover, the development of entrepreneurial skills is vital for national development, enhancing student quality by equipping them with knowledge and behaviours necessary for entrepreneurship (Abu et al., 2022), thereby reducing unemployment and generating wealth (Aledejebi, 2018). These skills positively impact entrepreneurial spirit, attitudes, survival rates and profitability (Jena, 2020), which are recognized by policymakers for economic development and social problem-solving (Lyons et al., 2020). Nevertheless, the specific impact of entrepreneurship skills development on educational system sustainability remains uncertain despite its success in other domains (Rezaei-Moghaddam et al., 2019).

Factors Influencing Entrepreneurship Skills Development

Studies carried out show that most students displayed low interest in becoming entrepreneurs thus giving rise to high unemployment (Yohana, 2020). This idea was supported by Ibrahim et al. (2016) who posit that, after leaving school, most students and graduates are reluctant to take up entrepreneurship as a career and seek for white collar jobs. This has given rise to various models on entrepreneurship skills development being developed and exploration of various factors that influence entrepreneurship skills development in a bid to understand which factors influence student's entrepreneurial intentions (Maheshwari et al., 2022). According to Onodugo and Onodugo, (2015), development of entrepreneurship skills take place within a framework of forces that constitute the system environment, which are either internal or external.

Naji (2019) submits that entrepreneurship skills development is influenced by a combination of economic, social and psychological factors. Economic influences include infrastructure, credit systems, legal frameworks and markets (Josiah et al., 2015). Concurrently Agwu et al. (2018) suggest that socio-cultural factors be analysed in terms of their language, beliefs, customs, values, tastes, traditions and education, when formulating strategies as these interact with individual characteristics to predict entrepreneurial behaviour. Ambitious and compelling factors also play a role (Mawoli et al., 2021). Ngorora et al. (2018) cite that entrepreneurship training and education are critical for skill enhancement, behavioural changes and fostering opportunity identification, ultimately enabling individuals to actualize career opportunities. Every child's well-being according to The Times Commission (2022) should be prioritized with learning and creativity to allow for the recognition and development of potential, contributing to the physical, psychological and social development of individuals. Education and training are essential for people's social, psychological and physical development within a community, with the particular goal of improving entrepreneurship skills (Hasan et al., 2017).

Nevertheless, it was noted by Smith et al. (2020) that factors that influence entrepreneurship are not universally the same. As such, the examination of entrepreneurship skills development may assist in enhancing the sustainability of the education system.

Development of Research Hypothesis and Conceptual Framework

Henley (2017) conducted a study on religion influencing entrepreneurship skills development and found some form of co-relations between religion, specifically, Christianity and entrepreneurial skills. Another study by Smith et al, (2020), focusing on cultural and societal

factors influencing entrepreneurship skills in Australia, Mexico, Finland, Scotland, South Africa, Kenya, North America and Slovenia established a significant relationship between culture and entrepreneurship. Lerro et al, (2022)'s study, also indicated that social factors and the development of entrepreneurial abilities are more closely related. According to Tur-Porcar et al. (2018), sustainability requires ethical values and principles. This therefore, culminates to this study's first hypothesis that:

H₁-Sociological factors have a positive effect on entrepreneurship skills development.

Furthermore, Chatterjee et al. (2015) established that psychological factors are co-related and play a crucial role in entrepreneurial success, as they act as a medium for anticipating development. In a similar note, studies conducted in Bangladesh revealed that self-confidence, locus of control, attitude and need for achievement positively influence entrepreneurship skills development (Shahneaz et al., 2020). This shows that both psychological and non-psychological factors play a significant role in entrepreneurship success. Therefore, leading to the study's second hypothesis that:

H₂-Psychological factors have a positive effect on entrepreneurship skills development.

Gbadeyan et al. (2017) discover that when economic factors are business-supportive, more business ventures are created and established and the existing ones flourish. In addition, Moya-Clemente et al. (2020) established a strong effect on entrepreneurship skills development. Their study indicated capital as an encouragement to the durability of ventures and an excellent entrepreneurship incentive. Similarly, Babajide et al. (2020) concludes that the establishment of credit facilities and the formation of new companies is facilitated by the stability in the financial environment. Josiah et al. (2015) established that the absence of a supportive economic environment is a disadvantage to entrepreneurs. Therefore, these observations from the literature imply that economic factors positively impact entrepreneurship skills development. This led to the study's third hypothesis that:

H₃- Economic factors have a positive effect on entrepreneurship skills development

Meyer et al. (2020) established that entrepreneurial training significantly contributes to entrepreneurs' commitment, self-efficacy, confidence and skills. Munyoro & Gumisiro (2017) found that training fosters entrepreneurial culture, impacting employee performance. Khalid et al. (2019) noted that entrepreneurship skills development is personal and related to enterprise culture. Ezenwakwelu (2019) encourages employee training investment to improve the

satisfaction of customers, creativity for new product ideas, worker retention rates and reducing time spent on problem-solving and wealth creation in the long run., In this regard, it is possible to assume that training influences the development of entrepreneurship skills, as hypothesized below that:

H₄-Training has a positive effect on entrepreneurship skills development.

Empirical review suggests that entrepreneurship skills development affects various sectors of the economy. Anah and Asogwa (2017) learned that entrepreneurship skills development enhances economic development in Nigeria, creates job opportunities and improves living standards. Gwani et al. (2020)'s study also discovered a significant relationship between skills development and sustainable job creation. Similarly, Ekpe et al.,(2015) established that entrepreneurship skills development positively influences entrepreneurial activity and self-employment of graduates in Nigeria, France, Germany, Italy and Malaysia. Patrick, (2021)'s study reflected that entrepreneurship skills development positively impacts civil society and vulnerable sectors by creating jobs, developing products and strengthening macroeconomics, thereby enhancing sustainability. Thus, it is acceptable to assume when the entrepreneurship skills development is practiced, the more sustainability is enhanced. As such it is therefore hypothesized that:

H₅: There is a positive correlation between entrepreneurship skills development and a sustainable education system

Basing on the hypotheses, the study presents the Conceptual Framework in Figure 1 below.

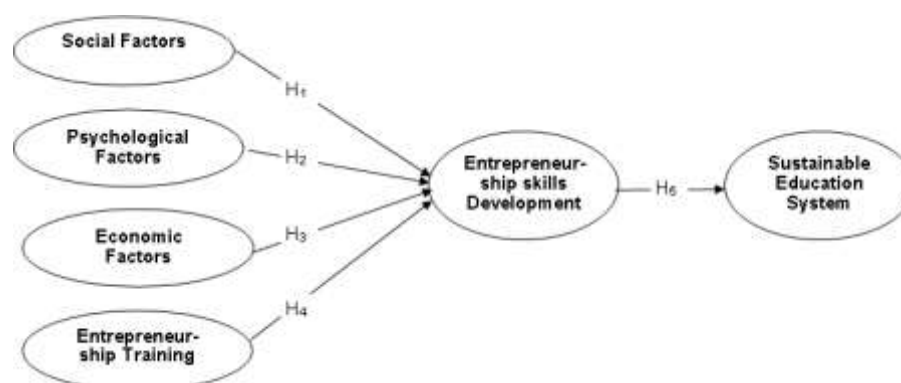


Figure 1: Conceptual Framework

Source: Researcher (2021)

Methodology

Research Design

Pragmatism research philosophy was used to guide the study. The philosophy was chosen because of its ability to use more systems of philosophies (Saunders et al., 2024). A mixed method approach was also utilised because it allows new theories to be developed, generalisations and testing of hypothesis (Saunders et al., 2024). A descriptive and cross-sectional survey research design used allowed the collection of both quantitative and qualitative data. Cluster sampling, simple random sampling and purposive sampling were used to conduct the study. The chosen sampling methods apart from costs issues, were found to be appropriate because they allowed incorporation of all the elements of study within the study sample (Saunders et al., 2024). A structured questionnaire was used to collect quantitative data and an interview guide and Focus group discussion guide collected qualitative data respectively. For the questionnaire, two major sections made the questionnaire which comprised of demographics, factors that influence entrepreneurship skills development and education system factors that affects entrepreneurship skills development. Items used to measure the constructs were taken from existing literature and adjusted to fit the current study. The constructs were measured on a five point Likert scale and respondents were required to state their level of agreement to the statements mentioned.

Sampling and Data Collection

The study target population comprised secondary school teachers in Mashonaland West Province in Zimbabwe. The sampling frame was drawn from the database of registered secondary school teachers in the Province. It encompassed 5311 secondary school teachers and Heads. Mashonaland West Province was chosen because it has vast entrepreneurial activities including agriculture and mining as well as all facets of settings; the rural, urban and peri urban. The environment was good enough to give credible results. Cluster sampling and simple random sampling were used to collect quantitative data and qualitative data was gathered using purposive sampling. A total of 357 teachers made the sample from which data were collected. A structured questionnaire was used to collect quantitative data while qualitative data were gathered through interview guide and focus group discussion guide. A total of 330 questionnaires were returned out of the 357 distributed, marking a response rate of 92%. IBM SPSS version 21 was used to analyse quantitative data and NVivo analysed qualitative data respectively. Data was analysed and presented as Descriptive statistics. Data were presented in the form of Tables, figures and charts. Research hypotheses were tested using Structural

Equation modelling in AMOS (Analysis of momentum structures) after conducting Exploratory factor analysis on each item. The study required use of AMOS inorder to allow analysis of data and testing of the correlations between the paths. Principal component analysis was the extraction method that was utilized and the Rotation method was Varimax with Kaiser normalization. In qualitative analysis and presentation, Nvivo version 12 was used because it allowed the classification of data into several themes that included diverse views of respondents. Since the study adopted a mixed method approach, 20 interviews were purposively conducted from the key informants and point of saturation was reached at 20. The study had planned to interview 30 respondents at first but saturation was reached at 20. Reliability of results, validity and data adequacy were guaranteed by data saturation. Saturation indicates that the researcher had to stop gathering additional data.

Analysis And Results

Demographics

Table 1: Demographics

Characteristic	Frequency	Percentage
Response rate	330	92%
Gender of respondents		
Male	147	44.5%
Female	183	55.5%
Respondents age		
Less than 30	49	14.8%
31-40	92	27.9%
41-50	111	33.6%
51-60	76	23%
61+	2	0.6%
Respondent highest educational attainment		
Below diploma	1	0.3%
Diploma	42	12.7%
Degree	246	74.5%
Masters	41	12.4%
School location		
Urban	202	61.2%
Rural	128	38.8%

Period respondent worked at the school		
0-3 years	114	34.5%
4-8 years	84	25.5%
9+	132	40%
Teaching of entrepreneurship skills in secondary schools		
Yes	121	36.7%
No	209	63.3%
School policy that allows teaching of entrepreneurship skills		
Yes	92	27.9%
No	238	72.1%

Source: Survey Data (2024)

Table 1 shows that teaching of entrepreneurship by secondary schools was lower (36.7%) than secondary schools not teaching entrepreneurship (63.3%). Furthermore, schools with entrepreneurship policy were fewer (27.9%) than school without the policy (72.1%). Females (55.5%) dominated the study than males (44.5%) though the difference was not much. The study also show that most respondents attained tertiary education (degree level, 74.5%). Most respondents' age ranged from 41-50 (33.6%) and most of them were from the urban schools (61.2%). 40% of the teachers had spent more than 9 years at the school compared to those that had spent less years at the same schools. There was relatively even distribution of respondents since all facets of the environment (rural and urban) were accommodated.

Descriptive statistics

Table 2: Descriptive Statistics

Averages for items	SD	Mean	Mean Response
Economic factors	0.9962	3.998	Agree
Social Factors	0.951	3.841	Agree
Psychological factors	0.863	3.974	Agree

Training factors	0.778	4.25	Agree
Entrepreneurship skills development	0.767	4.26	Agree
Sustainable Education System	0.615	4.176	Agree

Standard deviation and Mean score results for all items used to measure the factors that influence entrepreneurship skills development in the education system were shown in Table 2. The average mean responses shown by the results indicate that they ranged between 3.841, SD= 0.951 agree out of a possible score of 5 (strongly agree). The results shown indicated that economic, social, Psychological and Training factors influenced entrepreneurship skills development in the education system. The results also show that entrepreneurship skills development influence sustainable education system (SD=0.767 and Mean 4.26) and sustainable education system is affected by entrepreneurship skills development as shown by SD= 0.615 and Mean=4.176. This implied that the listed factors played an important role on the sustainability of the education system.

Scale Validation

Confirmatory factor analysis was done to validate data and Maximum likelihood estimation was used to estimate the measurement model. Conditions for convergent and discriminant validity were met. The assessed measurement model fit indices comprise: CMIN/DF (χ^2/DF) =4.231, Adjusted Goodness of Fit index (AGFI)= 0.904, Normed Fit Index (NFI)= 0.917, Tucker-Lewis Index (TLI)= 0.933, Comparative fit index (CFI) =0.960, and (RMSEA) Root mean square error of approximation=0.053. The measurement model had a good fit. A good model should display a χ^2/DF of scale between 0-5 with smaller values indicating a better fit (Hu & Bentler;1999 & Hooper et al.,2008). According to Herzog et al. (2007) and Reisinger and Mavondo (2007), values for GFI, AGFI, NFI, TLI and CFI define a good fit when they are closer to 1, and RMSEA between 0.05 and 0.080 for it to be acceptable. All constructs shown in Table 3 had reliabilities Cronbach's alpha (α) above the 0.6 cut-off point (Nawi et al, 2020). All items standardised factor loadings exceeded the minimum cut-off point of 0.5. Critical ratios (CRs) were satisfactorily substantial (>2) and were significant at $p < 0.001$ (Suruccu, 2020).

Table 3: λ , C.R, (α) reliability

Construct	Item	Λ	C.R	A
ECON	ECON1	.831	-	.733
	ECON2	.605	10.24***	
	ECON3	.922	22.364***	
	ECON4	.848	13.641***	
	ECON5	.717	9.345***	
SOCF	SOCF1	.813	-	.890
	SOCF2	.721	7.146***	
	SOCF3	.841	31.240***	
	SOCF4	.734	20.472***	
	SOCF5	.711	11.301***	
	SOCF6	.942	15.012***	
	SOCF7	.832	8.457***	
	SOCF8	.725	10.575***	
	SOCF9	.923	9.336***	
PSYC	PSYC1	.740	-	.773
	PSYC2	.864	15.241***	
	PSYC3	.880	9.345***	
	PSYC4	.744	16.345***	
	PSYC5	.778	23.641***	
ETED	ETED1	.643	-	.788
	ETED2	.674	14.365***	
	ETED3	.693	4.361***	
	ETED4	.765	7.364***	
	ETED5	.839	16.324***	
	ETED6	.887	12.014***	
RESES	RESES1	.822	-	.804
	RESES2	.736	7.365***	
	RESES3	.698	9.145***	
	RESES4	.855	9.996***	
	RESES5	.647	33.601***	
	RESES6	.842	27.014***	
	RESES7	.808	13.014***	
	RESES8	.719	8.145***	
	RESES9	.730	5.457***	

SYS	SYS1	.654	-	.740
	SYS2	.617	10.024***	
	SYS3	.743	4.365***	
	SYS4	.593	7.145***	
	SYS5	.689	14.201***	
	SYS6	.772	30.145***	
	SYS7	.790	25.614***	
	SYS8	.807	6.174***	

Abbreviations: CR, critical ratios; ECON, economic factors; SOCF, social factors; PSYC, psychological factors; ETED, entrepreneurship training; RESES, Entrepreneurship skills development; SYS, sustainable education system; N.B: C.R is fixed; *** p < 0.001.

Source: Survey Data (2023)

Furthermore, discriminant validity was assessed by comparing average variance extracted (AVEs) against inter-construct correlations (SICs) as shown in Table.

Table 4: Average variance extracted (AVES) and squared inter-construct correlations (SICs)

Construct	ECON	SOCF	PSYC	ETED	RESES	SYS
ECON	.697					
SOCF	.234	.608				
PSYC	.325		.712			
ETED	.417	.371	.225	.597		
RESE	.221	.401	.341	.178	.673	
SYS	.231	.118	.147	.330	.214	.634

Abbreviations: AVEs, Average variance extracted; ECON, economic factors; SOCF, social factors; PSYC, Psychological factors; ETED, entrepreneurship training; RESES, entrepreneurship skills development; SYS, sustainable education system.

N.B* AVEs are represented by bold diagonal elements.

Source: Survey Data (2023)

As shown in Table 4 above, all AVEs were greater than the corresponding inter-construct correlations meaning all conditions for discriminant validity were met.

Hypotheses Testing

The hypothesised relationships in Table 5 (H1 to H5) were tested using SEM (Structural equation modelling). The model fit indices displayed by the structural model were satisfactory as shown; ($\chi^2/Df = 3.972$; GFI = 0.899; AGFI = 0.947; NFI = 0.963, TLI = 0.928; CFI = 0.943, RMSEA = 0.045. Table 5 presents hypothesized test results.

Table 5: Hypothesis Testing Results

Hypothesis	Hypothesised Relationship	SRW	CR	Remark
H1	Social factors → Entrepreneurship skills development	.302	12.140***	Supported
H2	Psychological factors → Entrepreneurship skills development	.212	10.312***	Supported
H3	Economic Factors → Entrepreneurship skills development	.221	11.025***	Supported
H4	Entrepreneurial training → Entrepreneurship skills development	.206	9.768***	Supported
H5	Entrepreneurship skills development → Sustainable education system	.256	11.302***	Supported

Abbreviations; SRW. Standardized regression weight; C.R., critical ratio; ** significant at $p < 0.05$ ***

Source: Survey Data (2023)

The results in Table 5 show that social, psychological, economic and entrepreneurship training all positively influence entrepreneurship skills development. Thus, H1-H4 are supported. Also, the results show that Entrepreneurship skills development has a significant influence on a sustainable education system. Hence H5 was also supported.

Interviews were held with the Heads and 19/20 of the Heads agreed that there is a relationship between entrepreneurship skills development and a sustainable education system.

When asked if there was a relationship between developing entrepreneurship skills and a sustainable educational system, one of the participants stated.

‘You can’t have Entrepreneurship Skills Development without a sustainable education system because industry and society now demand a relevant education system, and when we talk of a relevant education system, we are talking of an education system that produces at an exit point, learners who have pre-requisite skills for them to survive in their post-education period.’

Another participant also said,

‘Yes, the education system is developing and equipping learners with quality education.’

According to the interviewees' comments, skills are an essential tool for those who have completed secondary school. As one respondent put it,

'Perhaps, if I say skills and skills and skills, it's an understatement, a lifelong skill. These are skills that are inherent in our learners up to deathbed so learners can make a living in their post education period. The quality of life for their families is going to be transformed and the economy to some greater extent.'

According to another interviewee, the competency-based curriculum emphasizes the acquisition of skills necessary for sustaining life and the educational system provides relevant education.

Based on these responses, it appears that entrepreneurial skills are equally important as the kind of education a student receives. Entrepreneurship skills are essential for achieving a sustainable education system. The responses show that learners are receiving a relevant and high-quality education from the educational system.

Another participant said,

that '.... doing projects at school such as poultry, furniture/carpentry, will lead to better lives by practicing Agriculture they become better farmers after leaving school.'

Another participant said that they run poultry projects, which have benefitted the school by generating income, some of which are utilized for furniture purchases. Another participant claimed that through income-generating projects, schools that engage in more entrepreneurial activities have improved in terms of infrastructure, resources and equipment.

These results show the relationship between the development of entrepreneurial skills and a sustainable educational system.

Results Discussion

Findings from both the quantitative and qualitative results show that the development of entrepreneurial skills is important for the sustainability of the educational system. This means that when governments, schools, communities, companies and entrepreneurs work together to

promote entrepreneurship education, the education system is likely to change in a long-lasting way. The study revealed that financial and infrastructural support, relevant and quality education and opportunities to obtain entrepreneurial training for students can improve long term effectiveness and sustainability of the education sector. The results are consistent with earlier studies of Al Mamari et al. (2022), Khalid et al. (2019) and Galvao et al. (2017) who established that teaching entrepreneurial skills improves educational sustainability.

The study also discovered the importance of school and government policies that promote entrepreneurship among secondary school students. Policies that encourage outdoor entrepreneurial activities, such as allowing use of laptops and smartphones for innovation and opportunities for students to develop and present entrepreneurial ideas can enhance students' creativity, inventiveness and problem-solving abilities. These results confirm the statement by Gbadeyan et al. (2017) and Tleuberdinova et al. (2021) that more attention should be paid to the factors that affect the development of entrepreneurial abilities. Therefore, the study proves that the chances of achieving sustainability in the education system increase with the number of stakeholders that focus on entrepreneurial education.

The study also established that entrepreneurship education promotes critical values such as creativity, hard work, innovation, confidence, persistence and determination in students. These entrepreneurial values are vital in preparing students to become innovative and productive citizens that will contribute in the social and economic growth. The results also show that entrepreneurial education improves productivity and performance, the two indicators of sustainability. The study did note that many of the tactics used to promote the development of entrepreneurial skills are often short-term and may not assure long-term viability. Furthermore, Ratten, V. (2023) pointed out that the determinants of entrepreneurship are different among countries, regions and communities. Therefore, policies and strategies to promote entrepreneurial education should be formulated with due consideration for the specific conditions and needs of each country or region.

The study concludes that governments, schools, businesses, communities, parents and entrepreneurs need to work together to change the education system in a sustainable way. Thus, the government should provide sufficient resources and supportive regulations for entrepreneurship education and schools should create the favourable learning environment. Partnerships with entrepreneurs and owners of businesses can also provide students with

networking opportunities, mentorship and hands on training to further develop entrepreneurial skills and sustainability in education.

Conclusions

Findings

The study established that economic, social, psychological, and training aspects impact the development of entrepreneurial skills, which in turn impacts the sustainability of the school education system. By demonstrating that the development of entrepreneurial skills has a favourable impact on the sustainability of the educational system, the study adds to the body of knowledge. The results corroborate earlier research by Galvao et al. (2017) and Al Mamari et al. (2022), which highlights the value of entrepreneurship education in fostering innovation and sustainable development. The study also demonstrates that factors influencing entrepreneurship vary across countries and regions, supporting contextual theories of entrepreneurship as noted by (Ratten, 2023). In addition, the findings showed that entrepreneurship education helps learners develop important values and skills that contribute to improved learner performance and sustainability within the education system.

Recommendations

Results show that entrepreneurship skills development positively influences the sustainability of the education system. To enhance sustainability of the education system, the government should ensure that they provide both financial and infrastructural support to enhance entrepreneurship skills development. The Ministry of primary and secondary education to continuously focus more on development of entrepreneurship skills and the factors that influence it. More entrepreneurially trained teachers should be availed in the classroom. More attention should be paid to developing entrepreneurial skills of learners so that they can be self-reliant and since most companies and entrepreneurs prioritize these areas, entrepreneurship skills maximize performance, which in turn raises revenue, profits and value addition. Learners should also be exposed to Networks and training from businesses and entrepreneurs so that they gain experience. Schools and the Ministry of education are also encouraged to involve the community and parents in the process of entrepreneurship skills development through awareness campaigns so that sustainability can be enhanced.

Implications for Future Research

The target population for future similar studies should incorporate parents and school dropouts as this would bring new insights relevant to the research credibility. Since the study was conducted focusing on one sector (Education) and in one country (Zimbabwe), the research results may lack diversity and as such future studies should focus on various sectors and countries so as to detect variants.

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