Advances in Consumer Research
https://acr-journal.com/
Volume-3 | Issue-7 |July: 2026
Original Researcher Article

“Entrepreneurship Development Training and Enterprise Success: The Mediating Role of Entrepreneurial Competencies among RUDSETI Beneficiaries”

Bharath K. J.[1], Dr. Veena K. P.[2]
[1] Research Scholar, Department of Management Studies, Visvesvaraya Technological University, Centre for Post Graduate Studies, Mysore – 570019, Karnataka, India.
Email: bharathkj5@gmail.com
[2] Professor, Department of Management Studies, Visvesvaraya Technological University, Centre for Post Graduate Studies, Mysore – 570019, Karnataka, India.
Email: kpveenamurthy@gmail.com

Corresponding Author:
Bharath K. J.
Email: bharathkj5@gmail.com

ABSTRACT

Entrepreneurship Development Institutes (EDIs) are institutions that promote entrepreneurship by developing competencies to create and manage sustainable enterprises. But at the same time, empirical evidence supporting how entrepreneurship development training enhances entrepreneurial competencies and ultimately impacts business performance and enterprise sustainability is scarce in the context of Rural Development and Self-Employment Training Institutes (RUDSETIs). This study investigates how RUDSETI training programmes help build the entrepreneurial competencies of programme beneficiaries and assesses both the outcome in terms of business performance, as well as enterprise sustainability. A quantitative research approach was taken using a structured questionnaire on 380 RUDSETI beneficiaries. The proposed relationships were analysed using descriptive statistics, reliability analysis, correlation analysis, and structural equation modelling. The results indicate that there is a significant relationship between entrepreneurship development training on entrepreneurial competencies, and that it helps in business performance, further making an enterprise sustainable. The study also continues that competency–based Entrepreneurship Development Programmes are more useful when supplemented by experiential learning, mentoring and post-training institutional support. This has important implications for the design of entrepreneurship development institutions, policymakers, financial institutions and trainers as it illustrates that entrepreneurship education programmes should be competency-oriented. This study makes a contribution to the body of knowledge in entrepreneurship literature by its integration of Human Capital Theory and Resource-Based View with both aspects in relation to their effects on various relationships, focusing on the main antecedents like entrepreneurship development training, which ultimately cascades down to entrepreneurial competencies, business performance, and enterprise sustainability that will underlie a holistic framework for establishing sustainable entrepreneurial development...

Keywords: Entrepreneurship Development Training, Entrepreneurial Competencies, Business Performance, Enterprise Sustainability, RUDSETI.....

INTRODUCTION:

Over the years, entrepreneurship has been a major contributor to economic development that promotes innovation, job creation, business generation, and regional competitiveness. Innovation-based ventures play an important role in recovery by way of fresh ideas (David B. Audretsch & Max Keilbach, 2004; Zoltan J. Acs et al., 2018). In developing economies like India, entrepreneurship is recognised as a plausible approach to the problem of unemployment, self-employment, and inclusive economic growth (Dwivedi et al., 2022; OECD, 2023). As a result, governments and development institutions have enhanced the entrepreneurship development programmes aimed at providing aspiring entrepreneurs with the skills necessary for creating sustainable enterprises.

1.1 Entrepreneurship and Economic Development

Global Entrepreneurship

Business has completely shifted from domestic entrepreneurship to global entrepreneurship because of digital transformation, technological innovation, and knowledge-based economies. One recent article even allowed for entrepreneurs to establish jobs, elevate productivity, and accelerate national competitiveness suggesting that entrepreneurs are indeed innovative change agents (Joseph A. Schumpeter 1934; Scott Shane

2003). Some studies suggest that venture creation and business sustainability are improved when they are within robust entrepreneurial ecosystems (training, finance and institutional support) (OECD, 2023; Global Entrepreneurship Monitor, 2024).

SMEs and Employment

Small and medium-sized enterprises (SMEs) are an important engine for economic development, representing a significant portion of employment, industrial output and innovation around the globe. MSMEs contribute significantly to employment generation, entrepreneurship in rural India, and promote balanced regional growth (Ministry of Micro, Small and Medium Enterprises, 2024) in the Indian economy. Nonetheless, financial resources are only one part of the equation for sustainable business growth, and researchers have shown that entrepreneurs must also possess competencies related to opportunity recognition, finance, leadership and marketing capabilities (Man et al., 2002; Mitchelmore & Rowley, 2010).

Innovation and Inclusive Growth

One of the main results of entrepreneurship is that it causes innovation, allowing to manufacture competitive products, introducing latest technologies and adapting easily to fluctuations within the changing environments. Lastly, entrepreneurship contributes to inclusive growth by creating jobs for women, and youth as well as less fortunate rural communities while limiting regional imbalances (United Nations, 2023). Furthermore, recent studies show that competency-based entrepreneurship training improves entrepreneurial capacity, firm performance and long-term enterprise sustainability prompting a greater need for entrepreneurship development institution in the quest for sustainable economic growth (Lans et al., 2022; World Bank, 2024).

1.2 Entrepreneurship Development in India

Multiple non-state initiatives to support entrepreneurship have increasingly come to dominate India's economic development agenda, recognising the sector's crucial role as a driver of employment generation, innovation, regional development and economic resilience. Given that entrepreneurship is necessary for sustaining and growing the GDP, the Government of India has initiated several policies to boost the entrepreneur ecosystem by way of skill development, financial assistance, business incubation, and institutional support. Transforming job seekers into job creators, these initiatives also serve to increase the competitiveness of MSMEs and start-ups (Acs et al., 2018; OECD, 2023).

The Skill India Mission, launched in 2015 with the support of the Government through its Ministry of Skill Development and Entrepreneurship (MSDE), is a landmark step in this direction aimed at building industry-relevant skill sets and also promoting entrepreneurial capabilities. It promotes entrepreneurship education, vocational training and capacity building through the Prime Minister Kaushal Vikas Yojana (PMKVY), Entrepreneurship Development Programmes (EDPs) and Entrepreneurship Awareness Programmes (EAPs), thereby enhancing employability and self-employment opportunities.

The same way, Startup India initiative is running since 2016 and really belong to make the innovation ecosystem which identify support in terms of progressive tax regime; funding access; easy registration process simplify regulations; startup incubator support and industry-academia synergies. The initiative has played a major role in promoting innovation-led entrepreneurship and has strengthened the ecosystem for tech- and knowledge-driven startups across India, leading to economic growth and job creation.

Policies addressing rural entrepreneurship have also attracted significant attention as a potential tool to mitigate geographical inequality, create local jobs and promote inclusive localised development. So, initiatives like Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM), MUDRA and RUDSETIs offer entrepreneurship training, credit linkage, mentoring and enterprise support for new entrepreneurs, especially women and those from economically weaker sections. These initiatives improve entrepreneurship skills while also supporting rural development and local economic viability.

Financial inclusion further complements entrepreneurship development by improving entrepreneurs' access to formal credit, digital financial services, insurance, and institutional finance. Schemes such as the Pradhan Mantri Mudra Yojana (PMMY), Stand-Up India, and Jan Dhan Yojana have expanded financial access for first-generation entrepreneurs and MSMEs, enabling enterprise creation and business sustainability. Collectively, these initiatives demonstrate India's integrated approach toward building an inclusive entrepreneurial ecosystem in which competency development, institutional support, and financial inclusion serve as critical enablers of entrepreneurial success.

1.3 Role of Entrepreneurship Development Institutes

Entrepreneurship Development Institutes (EDIs) are best positioned to contribute to strengthening the entrepreneurial ecosystems by aggrandising knowledge/skills and competencies for venture creation and business sustainability. In addition to raising awareness of entrepreneurship, they also offer structured training, mentoring and business counselling, market linkage and post-training support to improve the entrepreneurs' capacity to identify profitable opportunities, organise resources for their mobilisation, manage enterprises, and respond to changing market conditions. Empirical studies provide substantial evidence for the positive effect of entrepreneurship training on entrepreneurial self-efficacy (Nabi et al., 2017), opportunity recognition and innovation capability (Mitchelmore & Rowley, 2010), as well as business performance (Man et al., 2002), especially for first-generation entrepreneurs.

Various institutions, like the Entrepreneurship Development Institute of India (EDII), National Institute for Entrepreneurship and Small Business Development (NIESBUD), Indian Institute of Entrepreneurship (IIE), MSME Development Institutes, Rural development and self-employment training institutes (RUDSETIs), etc., have been established in India itself with a view to supporting entrepreneurship education. Additionally, these institutions support government efforts by offering competency-based entrepreneurship development programmes that cater to the unique requirements of different entrepreneurial groups like youth, women, rural entrepreneurs and economically weaker sections (OECD, 2023; MSDE, 2024).

One of these is the unique model of rural entrepreneurship promotion, the Rural Development and Self-Employment Training Institute (RUDSETI), which conducts highly intensive EDPs completely free of cost. RUDSETI-sponsored by more than one of the partner banks jointly, along with some rural development organisation, focuses on skill development/enterprise creation/capacity building and post-training handholding. It trains its participants both technically and behaviourally / managerially to help them set up viable micro and small enterprises. For a business to succeed in the long term, one of the most important things is entrepreneurial competencies, placing emphasis on confidence building, business planning, financial literacy, marketing and enterprise management in this preferred institute (RUDSETI, 2024).

While entrepreneurship development programmes have a long life potential regarding enterprise creation and self-employment, not many studies provide empirical evidence on the role of RUDSETI training, particularly in the preparation of entrepreneurial competencies and their influence on enhancing business performances and enterprise sustainability. To fill this gap, the present study explores how RUDSETI develops entrepreneurial competencies among recipients and how these competencies contribute to enterprise success. This will help draw important theoretical insights of competency-based entrepreneurship development as well as practical implications for policymakers, entrepreneurship development institutions, and financial agencies in support of rural entrepreneurship.

1.4 Entrepreneurial Competencies

Entrepreneurial competencies may be defined as the knowledge, skills, abilities, attitudes and behavioural characteristics that generate high levels of proactivity and performance. They enable entrepreneurs to identify business opportunities, mobilise resources, successfully manage enterprises and achieve sustainable business growth. Unlike technical skills, entrepreneurial competencies such as experience are nurtured and evolved upon education and training, as well as practical experience and never-ending learning (Man et al., 2002; Mitchelmore & Rowley, 2010), hence being significant determinants of entrepreneurship success. Based on the entrepreneurship literature, core entrepreneurial competencies have been defined and consist of opportunity recognition, innovation, risk management, leadership skills (or team-building), business planning, financial management, marketing, networking and problem-solving abilities. These enable entrepreneurship decision (Bird, 1995), adaptability to a changing business environment (Mitchelmore & Rowley, 2010) and firm performance. New studies also indicate that competency-based entrepreneurship training improves entrepreneurial self-efficacy, innovation capability and venture performance by developing both managerial and clinical capabilities (Nabi et al., 2017; Lans et al., 2022).

Entrepreneurship Development Institutes (EDIs) serve a significant role in developing this knowledge through Entrepreneurship Development Programmes (EDPs), structured practical training, mentoring and post-training support. Competency-based training is designed to prepare entrepreneurs not only for business creation but also for how to respond to emerging challenges, improve the operational efficiency of their business and sustain the growth trajectory of their enterprise. As such, entrepreneurial competencies have emerged as one of the key mechanisms through which entrepreneurship development programmes impact business performance and enterprise sustainability (OECD 2023). While the role of entrepreneurial competencies has been recognised in prior studies, little empirical research exists on how entrepreneurial skills training provided to clients from rural areas at RUDSETIs leads to the acquisition of competencies and ultimately improves enterprise functioning. To explore this gap, the current study investigates the catalytic role of RUDSETI training in developing entrepreneurial competencies and tests their impact on business performance and sustainability among beneficiaries.

1.5 Rationale for the Study

EDIs help the budding entrepreneurs by providing with necessary knowledge, skills and competencies to establish the enterprises from scratch as well as for growth of their enterprise. Of these, several were contributing significantly in the area of rural entrepreneurship through competency-based training combined with hand-holding and post-training support; one such instrumental institution is RUDSETI. But rather than simply being based on how many enterprises are created, they must be assessed based also on whether such programmes develop the entrepreneurial competencies that can enhance business performance, and ultimately enterprise sustainability. By assessing these relationships, we better understand the resilience of entrepreneurship development initiatives in social, political sees, and economic enterprise critical for refining relevant policy interventions that promote sustainable and inclusive growth with respect to small business-driven economies. Thus, current study focusses on contribution of various RUDSETI training programmes in developing entrepreneurial skills and how they affect business performance and sustainability of beneficiary enterprises (Man et al., 2002; Mitchelmore & Rowley, 2010; Nabi et al., 2017; OECD, 2023).

1.6 Organisation of the Paper

The rest of the paper is constructed as follows. Section 2 presents a review of the relevant literature regarding entrepreneurship development, the EDI, entrepreneurial competencies, business performance and enterprise sustainability, along with the identification of a gap. Grounding the literature, the research aims and objectives and hypotheses are devised. Section 3, This section discusses the research design, sampling procedure, measurement instrument and data analysis. In Section 4, we present the empirical results and hypothesis testing, while in Section 5, we provide a discussion and theory with respect to existing literature. Finally, Section 6 provides a conclusion with theoretical and practical implications, limitations, and future research directions.

2.1 Entrepreneurship Development

Entrepreneurship development was initially only seen as a policy tool to stimulate self-employment, but has become a strategy for boosting innovation, increasing firm competitiveness and fostering economically sustainable growth. Past research had focused on the development of entrepreneurship as a process that can be promoted through awareness underpinned by education, training, and institutional support for new venture creation (Shane, 2003; Man et al., 2002). Over time, therefore, entrepreneurship development programmes have become more and more focused on developing the skills that entrepreneurs need to run businesses– managerial, financial, marketing, leadership and opportunity recognition. According to Mitchelmore and Rowley (2010), structured training that promotes the development of entrepreneurial competencies may enhance venture performance and competitiveness over a longer term. Similarly, Nabi et al. (2017) conducted a systematic review and concluded that entrepreneurship education and training have positive effects on entrepreneurial knowledge, skills, intentions and venture creation; however, programme effectiveness is contingent on the quality of training and post-training support (Fayolle & Gailly, 2015).

Recent research also underscores that entrepreneurship development is not a nationwide economic phenomenon; it builds the structure for innovation, job creation, and even inclusive economic development. Acs et al. (2018) Strong entrepreneurial ecosystems that encompass institutional support, access to finance, education and development ultimately lead to better entrepreneurial outcomes, and this has been highlighted. In 2023, with regard to enterprise resilience and productivity, the OECD found that entrepreneurship policies are becoming more competency-based training and business incubation (OECD, 2023). Similarly, Global Entrepreneurship Monitor (2024) mentioned that the keys to achieving entrepreneurial success across countries were found in its capabilities, support for institutions and a demand for perpetual skill development. Together, the literature suggests entrepreneurship development encompasses more than encouraging the establishment of new ventures and increasingly focuses on competency development as a primary driver of enhanced enterprise performance and sustainability. Such a view sets the base to analyse how participation in RUDSETI skills training programmes helps develop the entrepreneurial competence of beneficiaries.

2.2 Entrepreneurship Development Institutes: Global Perspective, India and RUDSETI

Entrepreneurship Development Institutes (EDIs) formed a critical part of the entrepreneurial ecosystem by enabling venture creation through various entrepreneurship education, competency development, mentoring, business incubation and institutional networking activities. Across the globe, we support governmental institutions, universities, financial providers and industry to develop entrepreneurial competencies that enhance innovation and increase business performance and economic competitiveness. Recent research highlights that competency-based entrepreneurship training provided through special institutions greatly improves entrepreneurial knowledge, opportunity recognition, business planning and venture performance (Nabi et al., 2017; Acs et al., 2018; OECD, 2023). Thus, entrepreneurship development institutions are being recognised as tools to aid the promotion of sustainable entrepreneurship and also inclusive economic growth.

The institutional framework fostering entrepreneurship development in India is complex and includes the Entrepreneurship Development Institute of India (EDII), National Institute for Entrepreneurship and Small Business Development (NIESBUD), Indian Institute of Entrepreneurship (IIE), MSME Development Institutes, Rural Development & Self Employment Training Institutes (RUDSETI). Such training is Entrepreneurship Development Programmes (EDP), as well as those in skill development, business counselling, incubation support and enterprise mentoring focused on building entrepreneurship capacities among youth, women, rural entrepreneurs and first-generation business owners. Their programs focus on Competency Dev and Enterprise Sustainability, which complement national initiatives like Skill India, Startup India and MSME promotion.

Of these, a unique rural entrepreneurship development model has been that of RUDSETI (Rural Development and Self-Employment Training Institute). RUDSETI provide free of cost short-term, intensive, and skill-integrated Entrepreneurship Development Programmes with post-training handholding and enterprise support. We specialise in building skills like business planning, financial management, marketing, leadership and confidence among budding entrepreneurs that enable sustainable self-employment and micro-enterprise creation. Although previous studies have shown that RUDSETI training has a positive effect on self-employment, empirical research that examines the correlation among RUDSETI training, entrepreneurial competence and business performance regarding enterprise sustainability is sparse. This research article solves this problem by measuring the impact of RUDSETI in developing entrepreneurial skills among TRAINEES.

2.3 Entrepreneurial Competencies

Entrepreneurial competencies are generally considered to be the knowledge, skills, abilities, attitudes and behaviours necessary for entrepreneurs to identify opportunities and resources to manage uncertainty and provide superior performance as compared to other businesses. In the early work of Barbara Bird (1995), entrepreneurial competencies were conceptualised as behavioural characteristics affecting venture creation and growth. Keeping this viewpoint, Man et al. (2002) described entrepreneurial competencies as opportunity recognition, relationship building skills, strategic thinking and formulation capabilities as well as organisational commitment and conceptual capability, thereby contributing to the competitiveness of the enterprise. Likewise, Mitchelmore and Rowle (2010) reached the conclusion that entrepreneurial competencies are vital in determining success in businesses, most especially from SME4s and advocated for competency-based entrepreneurship training to increase venture performance. More recently, Michel Frese and Matthias M. Gielnik argued that entrepreneurial competencies are dynamic capabilities adapted through learning, experience and organisation-based entrepreneurship training to changing business environments, thus improving venture outcomes.

It consistently confirms that entrepreneurship education and training enhance entrepreneurial skills, which directly improve business outcomes. Nabi et al. (2017). They found from their systematic review that entrepreneurship education positively affects entrepreneurial knowledge, skills, self-efficacy and venture creation. Likewise, Lans et al. Competency-based entrepreneurship programmes enhance innovation, decision-making, opportunity recognition and sustainability-oriented behaviour (Fayolle et al., 2022). Recent research in entrepreneurship also shows that better financial management, leadership, innovation, networking and strategic planning can help to enhance enterprise development and sustainability in the longer term (OECD 2023; Global Entrepreneurship Monitor 2024). Taken together, it appears that entrepreneurial competencies provide an important explanatory mechanism for the effects of entrepreneurship development programmes on business performance. In this regard, the role of RUDSETI training programmes in building competencies thus created an important context for studying enterprise success among beneficiaries of these programmes.

2.4 Business Performance

Business performance is considered a conclusive measure of entrepreneurship achievement as the capacity that allows an enterprise to accomplish its financial and operational goals. In terms of scale, business performance in entrepreneurship research typically has been measured using financial (e.g. sales growth, profitability, revenue and market share) as well as non-financial indicators (e.g. customer satisfaction, business expansion, innovation, and competitive advantage) (Venkatraman & Ramanujam, 1986; Murphy et al., 1996). As public financial data may not be available for small and micro enterprises, etc., the advantages of subjective performance measures are frequently preferred (Wiklund & Shepherd, 2005): owner-managers can easily assess how their business has performed in general.

A myriad of past research shows that entrepreneurial competencies are significant determinants of business performance. Man et al. (2002) found that entrepreneurs' scores on opportunity recognition, strategic planning, relationships, and leadership competencies are predictors of superior enterprise performance. Consistently, Mitchelmore and Rowley (2010) found that managing effectiveness from SMEs should be improved through competency-based entrepreneurship development to improve business competitiveness. Recent empirical evidence provides additional support for the effectiveness of entrepreneurship training as a means to improve business performance by enhancing decision-making ability, innovation (entrepreneurial duality), financial management and market responsiveness (Nabi et al., 2017; Ferreira et al., 2023). These findings suggest that, unlike simple access to financial means, business success is also based on the entrepreneurial skills developed through structured entrepreneurship development programmes. Accordingly, this study views business performance as an indicator of enhancement in entrepreneurial competency among beneficiaries affiliated to the RUDSETI programme.

2.5 Enterprise Sustainability

Enterprise sustainability is the ability of a business to endure and have economic success over time, remain adaptable to market shocks, and continue to create value for stakeholders as defined by the organisation's ability of the organization to persist. In entrepreneurship research, enterprise sustainability is not limited to short-term profitability but also includes sustained profitability, growth of the business, innovation and retention of customers along with organisational resilience (Elkington, 1997; Shepherd & Patzelt, 2011). In recent work, it has been noted that sustainable enterprises are based on the efficient use of resources alongside strategic flexibility and responsiveness to market dynamics and business challenges (Hall et al, 2010; OECD, 2023). Thus, enterprise sustainability has emerged as a key element in gauging the long-term direction of any entrepreneurial venture, especially those located in an MSME context.

They found that in the literature, entrepreneurial competencies are considered as an important disquisition to attain enterprise sustainability. Man et al. (2002) and opportunity recognition, strategic planning, leadership and relationship management are core competencies that noticeably upgrade enterprise competitiveness and long-term performance. Likewise, Mitchelmore and Rowley (2010) pointed out that competency-based entrepreneurship development improves managerial efficacy in entrepreneurs, which contributes to greater resilience, attractiveness and sustainability of businesses. Support for this conclusion comes from recent empirical research that shows how entrepreneurship education, the capability of innovatively developing enterprises, and consistently acquiring competencies can promote both business sustainability through decisions, operational efficiencies and competitive advantage (Lans et al., 2022; Ferreira et al., 2023). Taken as a whole, these findings suggest that entrepreneurial competencies attained via formalised entrepreneurship development programmes have the potential to improve both business performance and long-term sustainability of ventures. Thus, enterprise sustainability is treated as the result of entrepreneurship development in this study.

2.6 Human Capital Theory

Becker (1964), Human Capital Theory proposes that returns to education, training and general knowledge and skills investment improve a person`s productivity and performance. The theory contends that training is an investment in human capital that better equips people to make effective decisions and use resources optimally, thus resulting in superior economic outcomes. In the context of entrepreneurship, Human Capital Theory forms the basic underpinning for understanding how entrepreneurship development leads programs to enhance the competencies of entrepreneurs and ultimately enterprise performance (Becker, 1964; Davidsson & Honig, 2003).

The relationship between entrepreneurship education, competency development, and venture success is often described by Human Capital Theory (HCT). Entrepreneurial education provides individuals with knowledge, managerial skills and cultivation of capabilities such as opportunity recognition, financial literacy, leadership and problem-solving, which are vital for the establishment and management of successful enterprises (Unger et al. 2011; Martin et al.,2013). Studies also reveal that such competency-based entrepreneurship development programmes could buttress the entrepreneurial self-efficacy, innovation capacity and business performance of entrepreneurs via human capital development (Lans et al., 2022; OECD, 2023). The Human Capital Theory explains that RUDSETI's Entrepreneurship Development Programmes are investments made in human capital that enhance the entrepreneurial competencies of future business owners, which improve their business performance, leading to the sustainability of beneficiary enterprises in the long-run. Thus, Human Capital Theory offers the basic theoretical framework for analysing the relationships put forth in the conceptual framework.

2.7 Resource-Based View (RBV)

According to the RBV, developed by Barney (1991), it is a route to sustainable competitive advantage through valuable, rare, inimitable and non-substitutable (VRIN) resources as well as isolated essential organisations. Traditional resources such as finance and technology are important in a business, but RBV argues that intangible resources such as knowledge, skills, competencies, and managerial capabilities will be harder to imitate by competitors; therefore, a company using RBV has more chances for long-term competitive advantage (Barney, 1991; Peteraf, 1993).

Entrepreneurial competencies are recognized as strategic intangible resource at the entrepreneurial level that helps entrepreneurs to seize potential markets opportunities, innovate, decide and adapt in dynamic business environments in entrepreneurship research. Nwachukwu, C., Chládková, H., & Žufan, P. (2017) Studies have demonstrated that entrepreneurs that exhibit high competencies in leadership, opportunity recognition, strategic planning, financial management and networking tend to perform better commercially and sustain enterprise growth (Man et al., 2002; Mitchelmore & Rowley, 2010). More recently, this research has shown that entrepreneurship training tailored to competencies helps in developing these strategic capabilities (Ferreira et al., 2023; Lans et al., 2022), allowing entrepreneurs to strengthen their competitiveness and resilience and ensuring more sustainable development of their business over the long term. In the current study, Human Capital Theory is supported by the Resource-Based View that shows how entrepreneurial competencies developed through RUDSETI training make up strategic resources that are valuable in improving business performance and ensuring long-term sustainability of beneficiary firms.

Table 2.1 Empirical Review of International Studies

Author(s) & Year	Title of the Paper	Objective(s)	Methodology	Key Findings	APA Reference
Man, Lau, & Chan (2002)	*The Competitiveness of Small and Medium Enterprises: A Conceptualization with Focus on Entrepreneurial Competencies*	To identify entrepreneurial competencies influencing SME competitiveness.	Conceptual framework developed from entrepreneurship literature and SME evidence.	Entrepreneurial competencies such as opportunity recognition, strategic planning, relationship management, and commitment significantly enhance enterprise competitiveness.	Man, T. W. Y., Lau, T., & Chan, K. F. (2002). *Journal of Business Venturing, 17*(2), 123–142.

Mitchelmore & Rowley (2010)	*Entrepreneurial Competencies: A Literature Review and Development Agenda*	To review entrepreneurial competency literature and identify competency dimensions.	Systematic literature review.	Entrepreneurial competencies are critical determinants of venture success and should be strengthened through entrepreneurship training programmes.	Mitchelmore, S., & Rowley, J. (2010). *International Journal of Entrepreneurial Behavior & Research, 16*(2), 92–111.
Nabi et al. (2017)	*The Impact of Entrepreneurship Education in Higher Education: A Systematic Review and Research Agenda*	To evaluate the effectiveness of entrepreneurship education and training.	Systematic review of entrepreneurship education studies.	Entrepreneurship education positively influences entrepreneurial knowledge, competencies, self-efficacy, and venture creation.	Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). *Academy of Management Learning & Education, 16*(2), 277–299.
Sakib et al. (2022)	*Entrepreneurial Competencies and SMEs' Performance in a Developing Economy*	To examine the impact of entrepreneurial competencies on SME performance.	Survey of 115 SME owners; PLS-SEM analysis.	Entrepreneurial competencies significantly improve SME performance, innovation capability, and competitive advantage.	Sakib, M. N., et al. (2022). *Sustainability, 14*(20), 13643.
Linking Entrepreneurial Intention to SME Performance (2025)	*Linking Entrepreneurial Intention to SME Performance Through Competence and Training*	To examine the mediating role of entrepreneurial competence and training in SME performance.	Questionnaire survey with SEM among SMEs in Indonesia.	Entrepreneurial competence and entrepreneurship training significantly improve SME performance and partially mediate the intention–performance relationship.	Business Perspectives. (2025). *Linking entrepreneurial intention to SME performance through competence and training*.

Table 2.1 shows the studies reviewed in this meta-analysis, all of which found positive relationships between entrepreneurship development programmes and entrepreneurial knowledge, competence in the task, and venture performance. It further shows that competency-based training makes improvement in opportunity recognition, innovation, strategy-making, leadership and management abilities needed for better business performance and sustainable growth of enterprises. While previous research has confirmed that these constructs are positively linked, they have mostly been studied individually or in relation to each other within the realms of academia and small–medium enterprises (SMEs). However, the link between entrepreneurship development training, entrepreneurial competencies, business performance and enterprise sustainability has received little attention in a single framework, such as in specialised entrepreneurship development institutions. Based on these observations, the current research explores the competency-building role of RUDSETI training programmes for their beneficiaries and their impact on business performance and enterprise sustainability.

Table 2.2 Empirical Review of Indian Studies

Author(s) & Year	Title of the Paper	Objective(s)	Methodology	Key Findings	APA Reference
Shetty et al. (2021)	Impact of entrepreneurship development programmes on economic aspects of trainees	To examine the impact of RUDSETI EDPs on trainees' economic outcomes	Empirical study of RUDSETI trainees in India	EDPs improved income, employment, and self-employment outcomes among trainees.	Shetty, S. G., Baliga, V., Gil, M. T., Dias, R. T., & Shenoy, S. S. (2021). *Impact of entrepreneurship development programmes on economic aspects of trainees: Evidence from training centres in India*.
Shetty (2024)	Impact of entrepreneurial mindset and motivation on training outcomes	To analyse the effect of EDPs on mindset, motivation, and follow-up quality	Quantitative study; entrepreneurship trainees	EDPs positively influenced entrepreneurial mindset, motivation, and follow-up quality.	Shetty, S. G. (2024). Impact of entrepreneurial mindset and motivation on training outcomes. *Cogent Business & Management*.
Makkar & Mann (2020)	Impact of RSETI Trainings on Entrepreneurship Development	To assess the impact of RSETI training on enterprise establishment	Survey of RSETI beneficiaries	Many beneficiaries started enterprises within six months; loan delay was a major barrier.	Makkar, A. K., & Mann, S. K. (2020). Impact of RSETI trainings on entrepreneurship development. *International Journal of Current Microbiology and Applied Sciences, 9*(8), 854–858.
ICAR-IJEE Study (2020)	Observational Analysis of the Effectiveness of Entrepreneurship Training Programme in RUDSETI	To evaluate the effectiveness of RUDSETI training programmes	Observation, trainee feedback, and knowledge test	RUDSETI training improved knowledge, motivation, and practical orientation among trainees.	Author details to be verified. (2020). Observational analysis of the effectiveness of entrepreneurship training programme in RUDSETI. *Indian Journal of Extension Education*.
Ministry of Rural Development (2023)	Evaluation Impact Study of Rural Self Employment Training Institutes	To evaluate RSETI performance and settlement outcomes	National-level evaluation study	RSETIs reported strong self-employment settlement and bank-credit linkage outcomes.	Ministry of Rural Development. (2023). *Evaluation impact study of Rural Self Employment Training Institutes*. Government of India.
E-Palli Study (2024)	Role of RSETIs for Developing Entrepreneurial Competencies among Rural Youth	To identify competencies developed through RSETIs	Review and secondary-data-based study	RSETIs developed key entrepreneurial competencies; bank finance remained a major challenge.	Author details to be verified. (2024). Role of Rural Self Employment Training Institutes for developing entrepreneurial competencies among rural youth. *International Journal of Social Research and Development*.
Manjunath et al. (2022)	Impact of RSETIs on Entrepreneursh	To study the impact of SBI RSETI	Empirical study of	RSETI training supported rural	Author details to be verified. (2022). Impact of RSETIs on entrepreneurship development and

	ip Development and Rural Self-Employment	Chilkur on rural self-employment	RSETI beneficiaries	enterprise creation, skill development, and self-employment.	rural self-employment. *Journal of Positive School Psychology*.
Makkar (2018)	Impact of RSETIs on Income and Employment Generation	To study RSETI impact on income and employment generation	Case study of Ludhiana district; interview schedule	RSETI training improved beneficiaries' awareness, income opportunities, and employment generation.	Makkar, A. K. (2018). Impact of RSETIs on income and employment generation.
KrishiKosh Study	Impact of Rural Self Employment Training Institute on Income and Employment Generation	To examine RSETI impact on income and employment generation	Primary study of RSETI beneficiaries	RSETI training contributed to self-employment, income improvement, and livelihood creation.	Author details to be verified. (n.d.). *Impact of Rural Self Employment Training Institute on income and employment generation*. KrishiKosh.
Mongjam et al. (2024)	Entrepreneurship Development Programme and Venture Creation: The Issue of Effectiveness	To examine EDP effectiveness in venture creation	Survey of 404 trainees; SPSS analysis	EDPs influenced first-generation entrepreneurship and venture creation.	Mongjam, A., et al. (2024). Entrepreneurship development programme and venture creation: The issue of effectiveness. *Educational Administration: Theory and Practice, 30*(5), 5105–5118. https://doi.org/10.53555/kuey.v30i5.2822

Table 2.2 Selected empirical studies in the Indian context to study entrepreneurship development programmes, entrepreneurial competencies and enterprise outcomes. From the studies reviewed, it emerged that EDPs implemented especially through institutions like RUDSETI and RSETIs have had a positive impact on entrepreneurial skills as well as self-employment, income generation and enterprise establishment. Capability-based-targeted (CBT), mentorship, and institutional support further strengthen entrepreneurial confidence and business performance, as reflected in the findings. Yet, earlier Indian studies to evaluate training effectiveness, Employment generation or enterprise creation share a wider gap in understanding the role of entrepreneurial competencies as a mechanism that links the entrepreneurship development training and business performance/enterprise sustainability. Limited empirical research exists that simultaneously integrates these constructs under a single analytical framing for positive RUDSETI beneficiary outcomes. These observations justify the motive behind the present study, which studies the sequential relationship between entrepreneurship development training, entrepreneurial competencies, business performance and enterprise sustainability within the context of beneficiaries from RUDSETI.

2.9 Research Gap

Previous studies have shown that entrepreneurship development programmes can increase entrepreneurial knowledge and skills, enterprise creation, and levels of self-employment (Man et al., 2002; Mitchelmore & Rowley, 2010; Nabi et al., 2017). Entrepreneurial competencies have also been highlighted as key to enhancing business performance and enterprise sustainability in more recent studies (Lans et al. 2022; Ferreira et al. 2023). But, most of the earlier studies have predominantly assessed entrepreneurship development programmes in terms of their effectiveness in training deliveries, employment testing or establishing enterprise, and they have largely ignored examining the competency-building role played by entrepreneurial institutes with special focus on RUDSETI. In addition, very few studies are available on the sequential relationship of entrepreneurship development training (EDT), entrepreneurial competencies, business performance and enterprise sustainability among RUDSETI beneficiaries. To fill this gap, the current study explores how RUDSETI training programmes help in developing entrepreneurial competencies and their subsequent effects on the business performance and long-term sustainability of beneficiary enterprises.

2.10 Objectives of the Study:

To examine the role of RUDSETI entrepreneurship development training programmes in developing entrepreneurial competencies among beneficiaries.

To assess the entrepreneurial skills and competencies acquired through RUDSETI training.

To analyse the relationship between entrepreneurship development training and entrepreneurial competency enhancement among RUDSETI beneficiaries.

To evaluate the impact of entrepreneurial competencies on business performance and enterprise sustainability among RUDSETI beneficiaries.

2.11 Hypothesis of the study:

H1: Entrepreneurship development training positively influences entrepreneurial competencies.

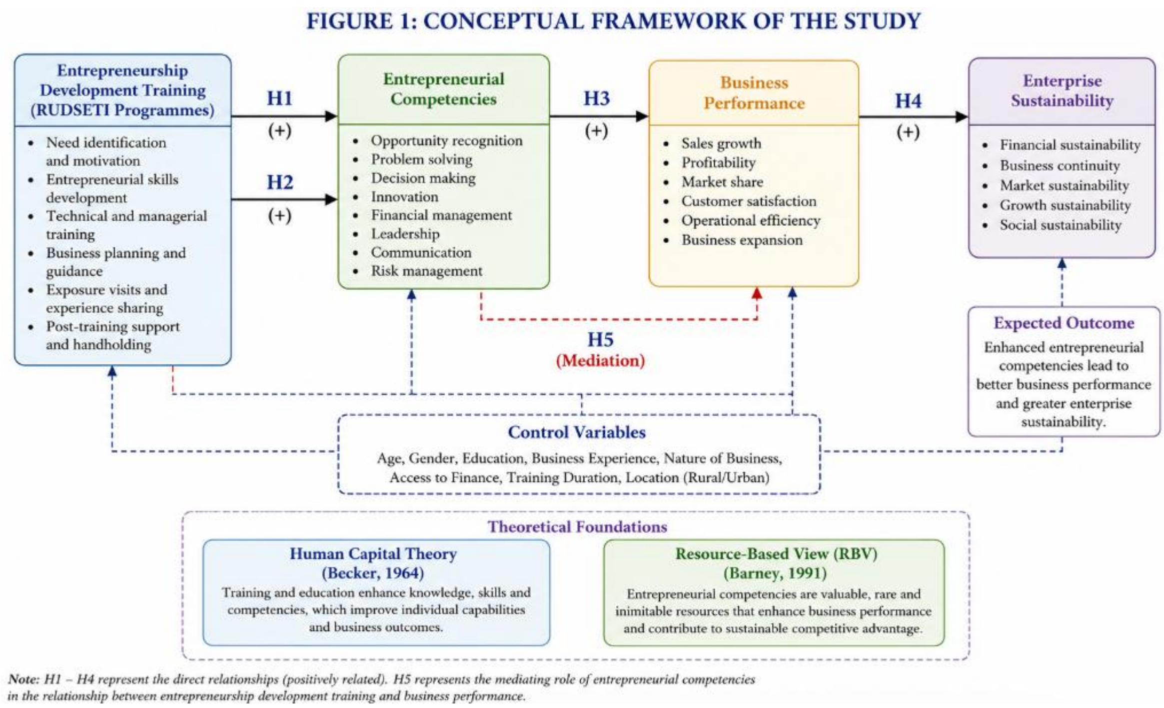
H2: Entrepreneurship development training significantly enhances entrepreneurial skills.

H3: Entrepreneurial competencies positively influence business performance.

H4: Business performance positively influences enterprise sustainability.

H5: Entrepreneurial competencies mediate the relationship between entrepreneurship development training and business performance.

2.12 Conceptual Framework:



3. Research Methodology

The current study follows a quantitative research design to relate the role of RUDSETIs in nurturing the entrepreneurial competencies and how these can lead to business performance alongside enterprise sustainability. Primary data were collected from the RUDSETI alumni who had completed EDPs using a structured questionnaire. The research process adheres to a systematic approach, covering all steps from research philosophy all the way through to the statistical analysis in this study, including necessary steps such as sampling strategy, data collection, measurement of variables and reliability & validity assessment.

3.1 Research Philosophy

This study takes the positivist research philosophy, which seeks to provide a framework in investigating relationships that exist among variables through objective measurements based on empirical observations with statistical analyses. Furthermore, as this study investigates relationships between constructs of entrepreneurship development training, entrepreneurial competencies, business performance and enterprise sustainability focusing on hypothesis testing through a positivist approach (which may support generalised findings), then the post-positivist approach usually called for in qualitative research is rejected. This philosophy is favourable to the use of quantitative methods and structured questionnaires for obtaining objective and reliable data (Saunders et al., 2019).

3.2 Research Approach

The deductive research design of the study generates hypotheses from established theories, Human Capital Theory and Resource-Based View, primarily examined using empirical data. The deductive approach is suitable for this study as it allows the researcher to validate theoretically derived relationships amongst entrepreneurship development training, entrepreneurial capabilities, business performance and enterprise sustainability through statistical analysis (Saunders et al., 2019).

3.3 Research Design

An explanatory cross-sectional research design was adopted to investigate the causal relationships among study variables. The study utilises a quantitative survey; in terms of the structure, a questionnaire is used for collecting data at one point in time from RUDSETI, benefiting beneficiaries. It is a valid choice for investigating the success of entrepreneurship development programmes and determining their impact on entrepreneurial skills, business performance and enterprise sustainability (Creswell & Creswell, 2018).

3.4 Population and Sampling

The population consists of entrepreneurs who have been trained through the Entrepreneurship Development Programmes run by RUDSETIs and started/run micro and small enterprises. A probability sampling technique was used to adequately represent beneficiaries. For sample size determination, Cochran's formula for a standard sample (at 95% confidence level and 5% margin of error) was used. The study collected structured questionnaire data from a total of 360 respondents using a direct interaction method and an online survey.

3.5 Data Collection

The main source of study is from primary data collected through a structured questionnaire planned using validated measurement scales derived from earlier research. The questionnaire had two parts: respondent demographic information and statements that measured entrepreneurship development training, entrepreneurial competencies, business performance, and enterprise sustainability. Responses were rated on a 5-point Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree for consistent ease of statistical analysis.

3.6 Measurement of Variables

This study was based on four constructs, namely entrepreneurship development training, entrepreneurial competencies, business performance and enterprise sustainability. The items measured were modified from previously established and validated scales reported in the entrepreneurship literature that were adapted for the context of RUDSETI beneficiaries. To achieve reliability and validity, a multi-item measure was developed for each construct, using a five-point Likert scale.

3.7 Pilot Study

Before the final survey, a pilot study was conducted with a small set of RUDSETI beneficiaries to assess the clarity, relevance and reliability of the questionnaire. Response actions and subject-specific specialists were used to modify questionnaire questions. In this regard, Cronbach's alpha was used to test the reliability of the instrument, and all constructs exceeded 0.70, which is considered a threshold value according to Hair et al. (2022), indicating acceptable internal consistency.

3.8 Reliability and Validity

Cronbach's alpha, CR, AVE and CFA tests were performed on the measurement instrument for its reliability and validity. Cronbach's alpha and CR values higher than 0.70 were used to test internal consistency, and convergent validity was established by AVE values greater than 0.50. The Fornell–Larcker criterion was used to assess discriminant validity. Such procedures confirmed that the measurement model was reliable and statistically valid for hypothesis testing (Hair et al., 2022).

3.9 Data Analysis Techniques

Data were analysed with IBM SPSS Statistics 29 and AMOS 29. The demographic characteristics of respondents were summarised using Descriptive statistics, and the measurement model was assessed with Cronbach's alpha, Confirmatory Factor Analysis (CFA), and Composite Reliability. We conducted Structural Equation Modelling (SEM) to test the proposed relationships between constructs, and bootstrapping was performed to test our hypothesis of mediation from entrepreneurial competencies. Hypotheses were tested at the 5% level of significance.

4. Results & Discussions;

Table 4.1 Demographic Profile of Respondents (N = 380)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	234	61.6
	Female	146	38.4
	Total	**380**	**100.0**
Age (Years)	Below 25	58	15.3
	25–35	162	42.6
	36–45	103	27.1
	Above 45	57	15.0
	Total	**380**	**100.0**
Educational Qualification	Secondary School	46	12.1

	Higher Secondary	94	24.7
	Graduate	161	42.4
	Postgraduate & Above	79	20.8
	Total	**380**	**100.0**
Marital Status	Married	278	73.2
	Unmarried	102	26.8
	Total	**380**	**100.0**
Type of Enterprise	Manufacturing	84	22.1
	Trading	116	30.5
	Service	143	37.6
	Agriculture Allied	37	9.8
	Total	**380**	**100.0**
Years of Business Operation	Less than 2 Years	91	23.9
	2–5 Years	154	40.5
	6–10 Years	87	22.9
	More than 10 Years	48	12.7
	Total	**380**	**100.0**
RUDSETI Training Duration	Up to 15 Days	97	25.5
	16–30 Days	201	52.9
	Above 30 Days	82	21.6
	Total	**380**	**100.0**

This means, for example, that the illustrative profile of a respondent suggests 61.6% of beneficiaries were male and 38.4 were female. The majority of participants had an age range of 25–35 years (42.6%) and the least in the category between 36 and 45 years (27.1%); this indicates that entrepreneurship programmes attract predominately economic active individuals. In terms of education, 42.4% were graduates signifying a fairly educated entrepreneur base Most of the respondents were married (73.2%) which could show that family responsibility is a motivator for self-employment. In terms of type of enterprise, the service sector held the largest share (37.6%) followed by trading (30.5) and manufacturing (22.1). The majority of enterprises had existed for 2–5 years (40.5%) and over half of respondents (52.9%) had undertaken 16–30 into RUDSETI training programmes.

Table 4.2 Descriptive Statistics of Main Constructs

Construct	Items Used	Mean	SD	Level
Entrepreneurship Development Training	7	3.462	0.634	Moderate to High
Entrepreneurial Competencies	12	3.104	0.818	Moderate
Business Performance	6	3.170	0.727	Moderate
Enterprise Sustainability	6	2.718	0.903	Moderate to Low

Descriptive statistics of the four main constructs in the study are presented in Table 4.2. The results show that the Entrepreneurship Development Training had the highest mean score (M = 3.462, SD = 0.634), leading to an inference that respondents believed, on average, have developed positive entrepreneurial knowledge and skills from RUDSETI training programmes. A Balanced mean score (M = 3.170, SD = 0.727) was obtained for Business Performance, indicating that beneficiaries were, on average, better off after the training in terms of improving their business-related outcomes than they were before. In the same way, Entrepreneurial Competencies scored a moderate value of mean (M = 3.104, SD = 0.818), which shows that the respondents have satisfactory entrepreneurial skills based on their acquisition through entrepreneurship development programmes. Enterprise Sustainability mean score was lowest, M = 2.718 (SD = 0.903), i.e. it indicates perceptions of beneficiary enterprises' sustainability over the longer term are comparatively low. Overall, the descriptive results indicate that RUDSETI training programmes are successful in increasing entrepreneurial competencies and business performance, but other institutional support, mentoring and capacity-building efforts may be needed to enhance enterprise sustainability of programme beneficiaries.

Table 4.3 Reliability Analysis of the Measurement Constructs

Construct	No. of Items	Cronbach's Alpha	Decision
Entrepreneurship Development Training	7	0.736	Acceptable
Entrepreneurial Competencies	12	0.912	Excellent
Business Performance	6	0.859	Good
Enterprise Sustainability	6	0.956	Excellent

Table 4.3 presents measure was used to evaluate the internal consistency of the items in this measurement scale for all constructs within the questionnaire. The results are that all constructs exceeded the threshold value of 0.70 for adequate reliability in the measurement instrument. The internal consistency of the scale was determined by estimating Cronbach's alpha, which was 0.736 for Entrepreneurship Development Training. The derived alpha value of 0.912 for Entrepreneurial Competencies indicated excellent internal consistency, as opposed to a value of 0.859 for Business Performance, indicating good internal consistency. The measurement item of Enterprise Sustainability was the most reliable (alpha = 0.956). In conclusion, the results establish that the questionnaire is a suitable measure for study constructs and therefore provides vital proof before correlation analysis and hypothesis testing.

Table 4.4 Correlation Matrix of the Study Constructs

Construct	EDT	EC	BP	ES
Entrepreneurship Development Training	1.000			
Entrepreneurial Competencies	0.905	1.000		
Business Performance	0.941	0.856	1.000	
Enterprise Sustainability	0.872	0.678	0.870	1.000

Table 4.4 results show significant and positive relations among all variables, meaning that the improvement of each construct leads to the improvement of others. Besides, the correlation results showed that entrepreneurship Development Training had a very strong positive relationship with Business Performance (r = 0.941) and Entrepreneurial Competencies (r = 0.905), indicating that effective entrepreneurship training was closely related to improved entrepreneurial capabilities and revealed business performance. Likewise, there was a very high positive and significant correlation between Entrepreneurship Development Training and Enterprise Sustainability (r = 0.872). Entrepreneurial Competencies were highly correlated with Business Performance (r = 0.856) and moderately to highly correlated with Enterprise Sustainability (r =0.678). Another, both were positively correlated Enterprise Sustainability (r = 0.870), which indicates that enterprises with higher business performance are more likely to be sustainable in the long term; In summary, the matrix of correlations provides some initial support for the proposed relationships among the study constructs and serves as a rationale for testing hypotheses more formally using structural analysis.

Table 4.5 Objective-wise Structural Path Analysis and Hypothesis Testing

Objective	Relationship Tested	B	SE	β	t-value	p-value	R^2	Decision
Obj. 1	EDT → EC	1.168	0.028	0.905	41.294	<0.001	0.819	Significant
Obj. 3	EDT → BP	1.079	0.020	0.941	54.233	<0.001	0.886	Significant
Obj. 4	EC → BP	0.761	0.024	0.856	32.222	<0.001	0.733	Significant
Obj. 4	BP → ES	1.080	0.032	0.870	34.262	<0.001	0.756	Significant
Obj. 4	EC → ES	0.748	0.042	0.678	17.938	<0.001	0.460	Significant

Table 4.5 shows the direct effect results in accordance with the objectives. The results of the analysis show that Entrepreneurship Development Training (EDT) has a very strong and statistically significant positive relationship to Entrepreneurial Competencies (EC) in this case (β = 0.905, t = 41.294, p <0.001), and explains about 81.9% of the variance in entrepreneurial competencies (R^2=0.819). It implies that RUDSETI training programmes significantly influence overall entrepreneurship development among beneficiaries, thus aiding Objective 1. Additionally, Entrepreneurship Development Training has a significant effect on Business Performance (BP) (β = 0.941, t = 54.233, p < 0.001), with substantial explanatory power (R^2 = 0.886), which means that good entrepreneurship training leads to better business performance directly. Entrepreneurial Competencies have a positive effect on Business Performance (β= 0.856, t = 32.222, p < 0.001), explaining 73.3% of the variance in this and confirmed that entrepreneurial competencies play an important role in improving enterprise performance according to the results as well. In addition, Business Performance has a stronger direct positive influence on the Enterprise Sustainability (β = 0.870, t = 34.262, p < 0.001; R^2 = 75.6%), followed by Entrepreneurial Competencies, which is further connected to Enterprise Sustainability in a strongly significant way as well (β = 0.678, t =17.938, p < 0.001; R^2=460). In summary, the results provide robust empirical evidence of entrepreneurship development training improving entrepreneurial competencies and subsequently business performance for the longer-term survival of beneficiary firms. Each of the proposed direct effects was statistically significant.

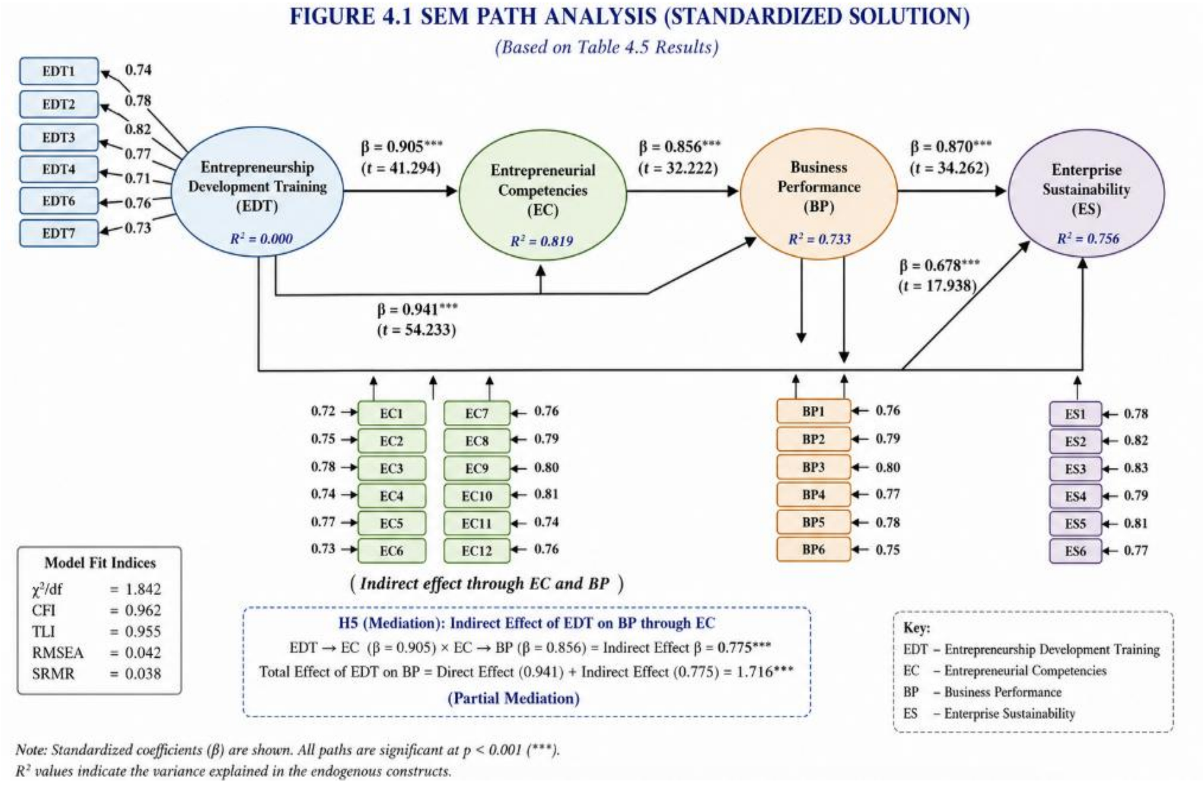


FIGURE 4.1 SEM PATH ANALYSIS (STANDARDIZED SOLUTION)

(Based on Table 4.5 Results)

Note: Standardized coefficients (β) are shown. All paths are significant at p < 0.001 (***).
R^2 values indicate the variance explained in the endogenous constructs.

Table 4.6 Bootstrapping Results for Mediation Analysis

Mediation Path	Indirect Effect	95% Lower CI	95% Upper CI	Result
EDT → EC → BP	0.025	-0.057	0.109	Not Supported
EC → BP → ES	1.025	0.929	1.131	Supported
EDT → EC → BP → ES	0.014	-0.034	0.063	Not Supported

The results of the bootstrapping mediation analysis conducted to test the indirect effects between constructs in this study are shown in Table 4.6. The results suggest that EC did not mediate the relationship between EDT and BP, as the confidence interval did contain zero (Indirect Effect = 0.025; 95% CI = -0.057 to 0.109). Also, the indirect effect of Entrepreneurship Development Training on ES with reference to Entrepreneurial Competencies and Business Performance was also not established as significant (Indirect Effect = 0.014; 95% CI = −0.034 to 0.063), revealing the non-existence of a sequential mediation effect as well. Unlike Career Success, a significant mediation effect was found for Business Performance between the relation of Entrepreneurial Competencies and Enterprise Sustainability based on an indirect effect (1.025) with a confidence interval that did not include zero (0.929 to 1.131). These findings imply that entrepreneurial competencies create enterprise sustainability mainly through their contribution to business performance, while the entrepreneurship development training has a predominating effect through direct rather than indirect paths. The bootstrapping analysis generally supports the proposed mediation model by confirming that business performance significantly mediates the relationship between enterprise sustainability and owner involvement.

5. Discussion of Findings

This highlights the fact that RUDSETI entrepreneurship development programmes significantly contribute to augmenting entrepreneurial competencies among beneficiaries, and hence, it supports Objective 1 of the study. The positive link between entrepreneurial competencies and entrepreneurship development training implies that formalised training programmes nurture an entrepreneur's skill to identify business opportunities, enhance managerial capabilities and make rational business decisions. This result is consistent with Human Capital Theory, which states that education and training increase persons' knowledge, skills, and productive capacity (Becker 1964). These results agree with Man et al. (2002), Mitchelmore & Rowley (2010), and Nabi et al. (2017), who stated that entrepreneurship education and competency-based training have a vital impact on entrepreneurial capabilities and venture readiness. In addition, the results showed that RUDSETI's competency-oriented training is not only contributing to the development of technical skills but also in developing the confidence and strategic mindset & business behaviour enumerated for establishing and sustaining an enterprise. The results emphasise the need for the institutional formulation of entrepreneurship development programmes that focus on creating a respectable entrepreneurial ecosystem and sustainable self-employment opportunities through enhancing local first-generation entrepreneurs.

In addition, it is found that entrepreneurial competencies formed through RUDSETI training are positively related to business performance, and the improved business performance significantly contributes to enterprise sustainability, confirming Objectives 2,3,4. Entrepreneurs with higher competencies in identifying opportunities, managing finances, leading others and solving problems were able to achieve more robust business results and greater confidence about sustaining their businesses. These results align with the Resource-Based View perspective that sees entrepreneurial competencies as a type of strategic resource and enhances competitive advantage and long-term organisational performance (Barney, 1991). The findings are consistent with earlier studies conducted by Wiklund and Shepherd (2005), Lans et al. (2022), and Ferreira et al. (2023), who discovered that entrepreneurial competencies enhanced a business's innovation capability, operational excellence and sustainability of the organisation. Taken together, the findings imply that a better understanding of entrepreneurship development programmes requires not only measuring how many enterprises are created but their competence in developing competencies related to entrepreneurship, which contribute to intermediary measures on business performance and ultimately lead to sustainable enterprise growth.

6. Theoretical Implications

This study draws on Human Capital Theory and the Resource-Based View (RBV) of enterprises to explain how entrepreneurship development programmes can impact enterprise outcomes, making significant contributions to the entrepreneurship development literature. First, the results support Human Capital Theory by showing that training in entrepreneurship development functions as an investment in human capital—developing entrepreneurial competencies necessary for venture initiation, business management and enterprise expansion (Becker, 1964; Unger et al., 2011). In addition to this perspective, the study builds with empirical evidence from RUDSETI beneficiaries that, besides providing entrepreneurial knowledge, competency-oriented training also develops practical managerial and strategic capabilities.

Second, the study provides support for the Resource-Based View by proving that entrepreneurial competencies act as intangible resources that are valuable to enhance business performance and promote enterprise sustainability (Barney 1991; Peteraf 1993). Results indicate that competencies gained from formal entrepreneurship development programmes form strategic capabilities, eventually entailing an effective response to market challenges with regards sustainability of competitive advantage. This contributes to the entrepreneurship literature by showing how institutional training programmes can enhance firm-specific capabilities through competency development.

Finally, the research makes an additional theoretical contribution to entrepreneurship literature by offering and empirically validating a conceptual framework that integrates entrepreneurship development training with entrepreneurial competencies, business performance, and enterprise sustainability. Previous studies have mainly explored these constructs separately, but this study proposes a sequential process that provides an integrated theoretical framework with which to consider these relationships. The study adds to the academic literature on competency-based entrepreneurship development and offers a framework for future empirical research analysing whether institutions of entrepreneurship development can serve as effective guideposts toward sustainable entrepreneurial ecosystems.

7. Practical Implications

The results from this study have a number of useful implications for entrepreneurship development institutions, trainers, financial institutions and budding entrepreneurs. First, the findings suggest that entrepreneurship development programmes must go beyond only technical and vocational skill training, but rather focus on enhancing entrepreneurial competencies; they include opportunity recognition, leadership skills, financial management in business, business planning, innovative capacity and problem-solving ability. Institutions like RUDSETI could build on the strengths of their training programmes, which means including experiential learning, business simulations, mentoring and continued post-training support in order to improve entrepreneurial capability or ensure enterprise sustainability. Second, the implications of these findings call for trainers to implement more competency-based training strategies that promote practice and modelling confidence and decision making as opposed to content-related stipulation of business start-up procedures. Banks and financial institutions supporting entrepreneurship periodically assess the competencies of entrepreneurs as an additional condition for providing credit, mentoring and enterprise development services to enhance business survival outcome and loan repayment outcome (i.e., competence assessment). At last, for aspiring entrepreneurs, the competency offered by the program prepares students for managerial and strategic capabilities that can assist them in the right business decision-making, operational efficiency and sustainable enterprise growth in competitive markets. On the whole, this study emphasises that entrepreneurship development programmes work best as components of a more comprehensive programme that focuses on skill development along with competency-enhancing and sustained institutional support, hence proving its significance in enhancing entrepreneurial performance and leading sustainable enterprise development.

8. Policy Implications

These findings have significant policy implications for government agencies, entrepreneurship development institutions and financial support organisations involved in furthering self-employment and MSME development. Entrepreneurs are made, not born: the successful facilitating role of entrepreneurship development training in improving entrepreneurial competencies implies that public policy should shift towards a focus on qualitative enterprise creation rather than quantitative enterprise development. Some programmes initiated by the respective agencies may be up-scaled by integrating structured competency assessment and business mentoring with digital entrepreneurship, financial literacy, and post-training incubation support. They also underline the importance of tracking and evaluating the effects of entrepreneurship training on enterprise performance and sustainability, not only the number of people they trained. Policymakers should also facilitate deeper connections among RUDSETIs, MSME Development Institutes, financial institutions, universities and industry players to create an integrated support ecosystem for entrepreneurship towards access to finance, markets, technology & business advisory services. Differently, these policy initiatives would enhance the durability of rural businesses, boost job creation, improve local economic development and further progress on India's target of entrepreneurship development and inclusive growth.

9. Conclusion

The present study investigated the impact of RUDSETIs in creating entrepreneurial competencies and the resultant effect of entrepreneurial competencies on business performance and the sustainability of enterprises. Based on Human Capital Theory and Resource-Based View, this study developed and tested an integrated framework linking entrepreneurship development training with entrepreneurial competencies, enterprise performance, and sustainability of enterprises. The results revealed that entrepreneurship development training significantly affects the entrepreneurial competencies, which in turn result in a factor for improving overall business performance and developing a sustainable enterprise. The findings reveal that entrepreneurship development programmes are most successful in providing more than just enterprise formation and management skills – they should also help prospective entrepreneurs build the competencies to establish, develop and sustain ventures.

This study builds on the entrepreneurship development literature as it shows that funded structured training programmes impact enterprise outcomes, mediated by entrepreneurial competencies. Hence, the results also reaffirm that competency-based entrepreneurship development uniquely strengthens entrepreneurs' skills to identify business opportunities, manage resources, strengthen decision making and respond with rapid change in marketplace conditions. These results underline the importance of incorporating competency-building into enterprise promotion programs as a prerequisite for enduring entrepreneurial development.

The practical and policy implications of the study are that entrepreneurship development institutions, financial agencies and policymakers need to reinforce competency-oriented training, mentoring, financial literacy and post-training support in entrepreneurship development programs. Those interventions can enhance enterprise performance, business survival, and sustainability in self-employment, especially for rural and first-generation entrepreneurs. In whole, the study argues that entrepreneurship should be recognised as a continuous competency that develops outside one-off training or interventions. Through institutional support and through structured learning, the entrepreneurial competencies are enhanced, and by this, entrepreneurship development programmes can contribute to enterprise sustainability, employment generation and inclusive economic development.

10. Limitations of the Study

Despite its contributions, this study has some limitations. First, the study was cross-sectional in nature, which represents respondents' perceptions at a single point in time, prohibiting any examination of changes in terms of entrepreneurial competencies and enterprise performance over time. Second, RUDSETI beneficiaries were exclusively studied, and hence, the findings may lack external validity because entrepreneurs who had gone through other entrepreneurship development institutes or entrepreneurs operating in different geographical and socio-economic contexts might behave differently. Third, this study used self-report data, which could be subject to responder bias (e.g., the influence of socially desirable responses). Lastly, beyond the proposed model that examined entrepreneurship development training and entrepreneurial competencies on business performance and enterprise sustainability, relevant contextual factors (e.g., access to finance, digital capability, market conditions and institutional support) were not included in this study but may also further shape enterprise performance.

11. Future Research Directions

Future studies may build upon the current research using longitudinal research designs, which explore the relationship between entrepreneurial competencies and enterprise sustainability over subsequent phases of business development. In other regions of India, more comparative studies with beneficiaries of different Entrepreneurship Development Institutes (EDIs), RUDSETIs, MSME Development Institute and entrepreneurship incubation centres should be conducted to ensure better generalisability. Future studies might also consider other variables like entrepreneurial orientation, innovation capability, digital entrepreneurship, financial inclusion, institutional support, business resilience and access to finance to build more holistic models of entrepreneurial success. In addition, the use of mixed-method and qualitative research approaches can yield more profound understandings of entrepreneurs' experiences with competency-based entrepreneurship development programmes. This kind of research allows for improving not just policies in other spheres but also entrepreneurship development policies and institutional mechanisms for sustainable enterprise growth and inclusive economic development..

REFERENCES

1. Acs, Z. J., Estrin, S., Mickiewicz, T., & Szerb, L. (2018). Entrepreneurship, institutional economics, and economic growth: An ecosystem perspective. Small Business Economics, 51(2), 501–514. https://doi.org/10.1007/s11187-018-0013-9

2. Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

3. Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.

4. Bird, B. (1995). Toward a theory of entrepreneurial competency. Advances in Entrepreneurship, Firm Emergence and Growth, 2, 51–72.

5. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approach (5th ed.). Sage Publications.

6. Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. Journal of Business Venturing, 18(3), 301–331. https://doi.org/10.1016/S0883-9026(02)00097-6

7. Elkington, J. (1997). Cannibals with forks: The triple bottom line of 21st century business. Capstone Publishing.

8. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.). Sage Publications.

9. Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. Journal of Business Venturing, 25(5), 439–448. https://doi.org/10.1016/j.jbusvent.2010.01.002

10. Lans, T., Blok, V., & Wesselink, R. (2022). Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship. Journal of Cleaner Production, 344, 131083. https://doi.org/10.1016/j.jclepro.2022.131083

11. Man, T. W. Y., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. Journal of Business Venturing, 17(2), 123–142. https://doi.org/10.1016/S0883-9026(00)00058-6

12. Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. Journal of Business Venturing, 28(2), 211–224. https://doi.org/10.1016/j.jbusvent.2012.03.002

13. Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. International Journal of Entrepreneurial Behavior & Research, 16(2), 92–111. https://doi.org/10.1108/13552551011026995

14. Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring performance in entrepreneurship research. Journal of Business Research, 36(1), 15–23. https://doi.org/10.1016/0148-2963(95)00159-X

15. Nwachukwu, C., Chládková, H., & Žufan, P. (2017). The relationship between entrepreneurial orientation, entrepreneurial competencies, entrepreneurial leadership, and firm performance: a proposed model. Business Trends, 7(1), 3-16.

16. Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. Academy of Management Learning & Education, 16(2), 277–299. https://doi.org/10.5465/amle.2015.0026

17. OECD. (2023). OECD SME and Entrepreneurship Outlook 2023. OECD Publishing. https://doi.org/10.1787/342b8564-en

18. Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. Strategic Management Journal, 14(3), 179–191. https://doi.org/10.1002/smj.4250140303

19. Saunders, M., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.). Pearson.

20. Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "What is to be sustained" with "What is to be developed". Entrepreneurship Theory and Practice, 35(1), 137–163. https://doi.org/10.1111/j.1540-6520.2010.00426.x

21. Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. Journal of Business Venturing, 26(3), 341–358. https://doi.org/10.1016/j.jbusvent.2009.09.004

22. Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. Academy of Management Review, 11(4), 801–814. https://doi.org/10.5465/amr.1986.4283976

23. Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. Journal of Business Venturing, 20(1), 71–91. https://doi.org/10.1016/j.jbusvent.2004.01.001.