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Business development services training and entrepreneurial self-efficacy – A focus on necessity- and opportunity-driven entrepreneurs

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Background: Entrepreneurs have been galvanised by the worsened economic circumstances in South Africa, and small businesses struggle to become established. By providing skills training, business development services (BDS) improve the performance of firms, through the development of entrepreneurial self-efficacy.

Aim: The objective of this study was to determine the impact of BDS training on the entrepreneurial self-efficacy (ESE) of necessity- and opportunity-driven entrepreneurs and whether that impact would be more positive in opportunity-driven rather than necessity-driven entrepreneurs.

Setting: The study focused on 519 entrepreneurs in South Africa, of which 97 were necessity-driven and 422 were opportunity-driven.

Methods: Statistical analyses were conducted using correlation analysis and multiple linear regression to test the impact of training on the ESE of necessity- and opportunity-driven entrepreneurs while controlling for the impact of confounding variables: gender, education, management experience, industry experience and partnerships.

Results: The empirical evidence from this study showed that general entrepreneurial training is more effective in increasing the entrepreneurial self-efficacy of opportunity-driven entrepreneurs, whereas task-specific training was better suited for increasing the entrepreneurial self-efficacy of necessity-driven entrepreneurs.

Conclusion: The implications and recommendations of this study are that policymakers should design general entrepreneurial training programmes targeted at opportunity-driven entrepreneurs and task-specific training programmes targeted at necessity-driven entrepreneurs.

Contribution: This study enhances the understanding of the training needs of necessity-driven entrepreneurs and how they differ from opportunity-driven entrepreneurs concerning ESE and the growth of their businesses.

Keywords: business development services; BDS training; necessity-driven entrepreneurs; opportunity-driven entrepreneurs; entrepreneurial self-efficacy; SMMEs; small businesses; entrepreneurship training.

Introduction

Small, medium and micro enterprises (SMMEs) in South Africa have one of the worst sustainability rates (Bruwer & Smith 2018:48) and the largest failure rate in the world (Maduku & Kaseeram 2021; Mazanai & Fatoki 2012:31). The high failure rate can be attributed to liability of newness and other factors such as poor managerial skills, operational skills, inadequate training of staff, intense competition and the cost of doing business (Bruwer & Smith 2018:48; Fatoki & Garwe 2010:729). Small businesses face a multitude of challenges, which can be broadly categorised as environmental, financial or managerial (Maduku & Kaseeram 2021).

Push factors have become more prevalent thereby causing the predominance of necessity entrepreneurship (Gódány et al. 2021; Venter & Urban 2015). Necessity entrepreneurs are those who are pushed into entrepreneurship because of negative influences such as unemployment (Dencker et al. 2019:144); the focus has been on differentiating them from opportunity-driven entrepreneurs who are pulled into entrepreneurship by their attractiveness.

Entrepreneurial self-efficacy (ESE) is defined as the strength of an individual's belief in their capability to successfully execute the tasks and roles that are prevalent in entrepreneurship and has been identified as an influencer of an individual's intention to create a new venture (Chen, Greene & Crick 1998:295; McGee & Peterson 2019:720). As a result of the low sustainability rates of SMMEs in the country, the South African government has implemented a host of initiatives geared towards the needs of entrepreneurs (Aluko, Bayai & Enwereji 2023; Gherhes et al. 2016). Business development services (BDS) are one of those initiatives that offer non-financial support to entrepreneurs to improve their capabilities (Okeyo, Gathungu & K'Obonyo 2014:12; Shumba & Ebewo 2024). Skills training of entrepreneurs is one of the service categories of BDS (Shezi 2019); however, even with this support, SMME failure rates persist (Fatoki & Garwe 2010:729; Leboea 2017; Maduku & Kaseeram 2021; Singer, Herrington & Menipaz 2018).

Human capital is defined as the knowledge and skills that are acquired by an individual through investments in education, on-the-job training and other experiential exposure (Goldin 2024; Venter & Urban 2015). Entrepreneurship, as a process, is known to unfold because of the individual who pursues entrepreneurial opportunities (Venter & Urban 2015); entrepreneurs cause entrepreneurship, hence the human capital derivative.

The Global Entrepreneurship Monitor (GEM) report was the first to conceptualise necessity- and opportunity-driven entrepreneurs (Reynolds et al. 2001). Block and Wagner (2010:154) believe that the field of entrepreneurship could profit from understanding the differences between necessity- and opportunity-driven entrepreneurs. The authors deemed that distinguishing between the two types of entrepreneurs helps to further the understanding of the socioeconomic characteristics, the differences in the opportunities that are pursued and the profitability that is attained, as well as the determinants of success. Opportunity-driven entrepreneurs are typically perceived to achieve higher performance levels compared to necessity-driven entrepreneurs (Lingappa, Rodrigues & Shetty 2024).

Chen et al. (1998:295) believed that ESE can be diagnosed and treated in existing entrepreneurs. McGee et al. (2009:965) noted that there is a limited understanding of ESE once the business is operating. However, Mauer, Neergaard and Linstad (2017) suggested that ESE can still be enhanced through entrepreneurial training programmes, even while the business is already operative. As training is meant to be a catalyst of SMME performance (Maduku & Kaseeram 2021), the study by Botha, Van Vuuren and Kunene (2015:55) revealed that business and entrepreneurial skills are important in determining SMME performance. Their study recommended that entrepreneurial training focus on the skills that established business entrepreneurs find important, because, according to the GEM report (Singer et al. 2018), many small businesses in the nascent entrepreneurial stage struggle to make it to the established business phase.

This study's objective is to compare the impact of BDS training on the ESE of necessity- and opportunity-driven entrepreneurs and to determine whether BDS training (marketing, innovation, management, risk-taking and financial control) has a more positive impact on the ESE (marketing, innovation, management, risk-taking and financial control) of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

This study intended to answer the following research question: To what extent does training (in marketing, innovation, management, risk-taking and financial control) have a positive impact on the ESE (marketing, innovation, management, risk-taking and financial control) of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs? Additionally, the study sought to determine which dimension of ESE is more important for which type of entrepreneur. Accordingly, this study hoped to contribute to the extant literature on necessity-driven entrepreneurship, as it dominates the South African economy (Caliendo & Kritikos 2019), as well as to enhance an understanding of necessity-driven entrepreneurs and assist them in growing profitable businesses that can contribute to the South African economy.

McGee et al. (2009:965) recommended that future studies measure ESE as a multi-dimensional construct by focusing on the different dimensions of ESE and their impact individually, rather than focusing on total ESE as that 'dilutes the multi-dimensionality of the construct'. As a result, this study responded to the call by these authors and sought to determine the impact of the different ESE dimensions individually. This direction would simultaneously build on the study by Botha et al. (2015:55) by narrowing down the different business and entrepreneurial skills that are deemed the most important for entrepreneurs, by order of importance.

Extant literature on BDS has covered various dimensions of BDS. This study focused on the skills that established businesses regard as important (Botha et al. 2015:55). The desired result would be that if those businesses managed to make it to the established business phase, nascent businesses could learn from them and gain efficiency in the very skills that established businesses regard as most important. The results of this study would contribute empirically to BDS literature in terms of training and ESE and would contribute to the factors that affect or are affected by necessity-driven and opportunity-driven entrepreneurship.

This study also sought to provide practical solutions based on empirical evidence, which can contribute to the measurement of the impact that BDS training has on the ESE of necessity- and opportunity-driven entrepreneurs. This study could add value to BDS providers by informing them about the effectiveness of their skills training programmes on ESE. Taking into consideration the necessity versus opportunity motives would help to hone training based on entrepreneurs' cognitive dispositions.

Literature review

Necessity- and opportunity-driven entrepreneurs

The concept of necessity- and opportunity-driven entrepreneurship was uncovered when respondents participating in the GEM 2001 report (Reynolds et al. 2001) were asked to state the reason for starting and growing their businesses; they were given two options to choose from: 'to take advantage of a unique market opportunity' or 'because that was the best option available' (Reynolds et al. 2001). This was to form the differentiating factor that explains the motivations behind entrepreneurs pursuing entrepreneurship. Put simply, necessity-driven entrepreneurs have no other choice but to pursue entrepreneurship because it is their only means of survival, while opportunity-driven entrepreneurs take advantage of market opportunities that they have identified (Block, Sandner & Spiegel 2015:18; Lingappa et al. 2024).

Some studies have identified significant differences in the human capital found between necessity- and opportunity-driven entrepreneurs (Block & Wagner 2010:154; Calderon, Iacovone & Juarez 2017). Block and Wagner (2010) discovered that opportunity-driven entrepreneurs exploit opportunities that are more profitable than those of necessity entrepreneurs and that general human capital has higher explanatory power for opportunity-driven entrepreneurs than it does for necessity-driven entrepreneurs. Opportunity-driven entrepreneurs were also found to be more willing to take risks (Block et al. 2015:183). Baptista and Karaöz (2006:249) and Baptista, Karaöz and Mendonça (2014:831) found that although human capital contributes to entrepreneurial success, this only applies to opportunity-driven entrepreneurs.

Opportunity-driven entrepreneurs are found to be more willing to take risks, whereas necessity-driven entrepreneurs are found to have a lower risk appetite and are more characteristic of non-entrepreneurs (employees) than entrepreneurs because they never wanted to be entrepreneurs in the first place (Block et al. 2015:183).

Another unique characteristic that differentiates necessity- and opportunity-driven entrepreneurs is their state of unemployment, just before the launch of the new venture (Lim et al. 2024). Baptista and Karaöz (2006:249) explained that people who leave their jobs to start new businesses do so because they want to exploit an opportunity that they have discovered, and those who start their businesses because they are unemployed might not have the time to explore opportunities, develop business plans and get sound advice. This affects the propensity of the start-up to succeed or fail. It is this definition by Baptista and Karaöz (2006) of necessity- and opportunity-driven entrepreneurs that was adopted by this study – the state of employment, or unemployment, just before the launch of the new venture. If an individual was unemployed before starting a business, they were classified as a necessity-driven entrepreneur. Conversely, if an individual was employed when they pursued a business opportunity, they were classified as an opportunity-driven entrepreneur.

Human capital theory

The definition of human capital theory that was adopted for this study was one from Becker (1964): human capital is the combination of the inborn abilities and the knowledge, skills and motivations that have been acquired, which when used effectively lead to an increase in income and other benefits. The human capital theory has been linked to entrepreneurship regarding human capital attributes and their contribution to entrepreneurial success (Okeyo, Gathungu & K'Obonyo 2016:188). Human capital has also been found to have the ability to increase an individual's capabilities in creating new ventures and contributing to the performance of the new venture in its early stage (Davidsson & Honig 2003:301; Huggins, Prokop & Thompson 2017:357). Ladzani and Van Vuuren (2002:154) and Shetty, Baliga and Thomas Gil (2024) contended that high-quality entrepreneurship training is required to contribute to business performance. Similarly, Brahmana, Brahmana and Ho (2018:59) observed that training and development policies are important for enhancing business performance.

Entrepreneurs forced into self-employment are usually those that have few human capital resources, and they go into self-employment because they have no other option for survival (Baptista & Karaöz 2006:249; Lingappa et al. 2024). In contrast, those who pay the opportunity cost of leaving their current employment with the intention of starting new businesses do so because they discovered a promising business opportunity and want to exploit that market opportunity. Another relevant finding is that general human capital, such as education, has a high explanatory power for opportunity-driven entrepreneurs, whereas specific human capital, such as being educated in the field pursued by the entrepreneur, is more effective for necessity-driven entrepreneurs (Block & Wagner 2010:154).

Human capital training

Drawing from the human capital theory, this study argues that training as a human capital dimension enhances the entrepreneur's self-efficacy (Christensen et al. 2023; Davidsson & Honig 2003:301; Huggins et al 2017:357). Training is an essential tool that can contribute to the effectiveness of the entrepreneur and the success and efficiency of the organisation (Afolabi & Macheke 2012:236). According to Radipere and Van Scheers (2005:402), managerial skills can also be improved through training. Similarly, ESE is found to be a learned competence (McGee & Peterson 2019:720). As recommended by Wood and Bandura (1989), numerous studies have found that ESE can be raised through observations, mentorship, prior experience, training and education (Christensen et al. 2023; Florin, Karri & Rossiter 2007:17; Mueller & Goic 2002:399)

Several studies attributed the lack of management skills as one of the major reasons why businesses fail (Mudavanhu, Mubata & Mudavanhu 2014:576; Rogerson 2008:61). Researchers such as Baughn et al. (2006:57), Wilson, Kickul and Marlino (2007:387) and Wang et al. (2023) suggested that education and training be used as an intervention to increase an individual's ESE. The findings by McGee et al. (2009:965) suggested that entrepreneurship education and training programmes take the multidimensional nature of entrepreneurial tasks into account.

As a result of the view that entrepreneurs can be made, training is seen as the bridge that can assist managers in their objectives to grow their businesses (Bruwer & Smith 2018:48; Lucas & Cooper 2004; Peterman & Kennedy 2003:129). However, not all studies have found training to be effective. Citing the reason as the lack of proper entrepreneurship training programmes, Mudavanhu et al. (2014:576) concluded that entrepreneurship training programmes were ineffective. Similarly, Bohlayer and Gielnik (2023) found that participants who exhibited low mastery orientation with errors experienced a decline in their entrepreneurial self-efficacy during training when confronted with challenges.

Botha et al. (2015:55) conducted a synthesis of the different types of entrepreneurial performance models derived by various authors. The authors conducted a study on the key skills that should be included in training programmes. Two interdependent and complementary areas of skills, functional (business) skills and enterprising (entrepreneurial) skills, were identified as skills entrepreneurs needed to succeed; between the two skills, entrepreneurs running established businesses regarded business skills as more important than start-up businesses. Enterprising skills were defined as skills that helped with the development of a business and included motivational and entrepreneurial skills. Functional competencies are those that help the entrepreneur to function in the business and include business management, general management and technical skills. The authors recommended that training focus on the skills that established businesses found to be the most important to them. The top five key business and entrepreneurial skills that Botha et al. (2015:55) found to be the most important for entrepreneurs are summarised in Table 1.

In the next section, the study discusses BDS providers as the training that this study focused on is training provided by BDS.

Business development services

Business development services are defined as services that are targeted at improving the performance of firms, their access to markets and their ability to compete within both strategic and operational spheres (Pinto 2004). Business development services were previously known as non-financial services, and their scope has evolved to include a wide assortment of services intended for entrepreneurs to maximise the efficiencies of their businesses and to help them grow (Miehlbradt & McVay 2003).

TABLE 1: Key business and entrepreneurial skills.

Key business skills	Key entrepreneurial skills
Marketing management	Ability to gather and control resources
Financial management	Motivation and need for achievement
Operational	Creativity
Legal	Innovation
General management	Role model interpretation

Business development services are deemed an essential catalyst for entrepreneurs because of their core function of assisting them to reach common goals of contributing to economic growth, generating employment and reducing poverty (Miehlbradt & McVay 2003; Pinto 2004, Goyal, Sergi & Esposito 2018:312). Business development services were, however, not without their challenges: the value that they provide was yet to be empirically established as they inclined to be unsustainable as soon as donor funding was terminated (Pinto 2004). Thomas (2021) identified the primary challenges as a mismatch between demand and supply, limited access to finance, a shortage of aftercare programmes, a lack of trust in government services, and the poor quality and duration of services.

According to the Small Business Development of the International Labour Organization, there are seven BDS categories: market access, infrastructure, policy and/or advocacy, input supply, training and technical assistance, technology and product development, and alternative financing mechanisms (Goyal et al. 2018:312; Miehlbradt & McVay 2003). This study focused on only one dimension of BDS which is training. There is a gap in extant literature that focuses on BDS training and its impact on the entrepreneur; as the entrepreneur is the driver of entrepreneurship, this study focused on BDS training, from the demand side of the market development approach, specifically the impact and benefits that accrue to the entrepreneur.

Entrepreneurial self-efficacy

Entrepreneurial self-efficacy is the strength of an individual's belief in their capability to successfully execute the tasks and roles that are prevalent in entrepreneurship (Chen et al. 1998:295). McGee et al. (2009:965) stated that individuals with high ESE consider the environment as full of opportunities rather than as risky; they believe that they can achieve goals and perceive there to be very little probability of failure.

This research responded to the call by McGee et al. (2009:965) to focus on the multidimensionality of ESE. The study did so by determining the impact of the different dimensions of ESE individually and measuring the differences in effect between necessity- and opportunity-driven entrepreneurs. It has been proven in past research that an individual's ESE can be raised through education and training (Atmono et al. 2023; Mueller & Goic 2002:399), and according to Chen et al. (1998:295), ESE can be diagnosed in current entrepreneurs.

Some of the literature on ESE has been linked to positive business outcomes (Baum & Locke 2004:587; Caliendo et al. 2023; Forbes 2005:599; Hmieleski & Baron 2008:57;

Urban 2012:66). Businesses in South Africa struggle to make it to the established business phase, where they have been operational for 42 months and more (Singer et al. 2018); therefore, this study could be instrumental in further enlightening entrepreneurs on the necessary disposition needed to grow from the survival phase to the established phase.

Entrepreneurial self-efficacy was first defined by Chen et al. (1998:295) as a combination of a task-specific psychological concept and the tasks that form part of the entrepreneurial process (Mauer et al. 2017). The authors found that ESE was a distinctively entrepreneurial characteristic that differentiated entrepreneurs from non-entrepreneurs. The authors measured it according to five factors: marketing, innovation, management, risk-taking and financial control. Of the five factors, only innovation and risk-taking were found to be uniquely entrepreneurial. The remaining factors were more managerial but were found to be just as important, thereby highlighting the complex nature of entrepreneurship. Because of wide criticism of the ESE scale developed by Chen et al. (1998:295), various authors have used different constructs to measure ESE (Anna et al. 2000:279; Barbosa, Gerhardt & Kickul 2007:86; De Noble, Jung & Ehrlich 1999:73; Urban 2012:66; Sardeshmukh & Corbett 2008; Wilson et al. 2007:387).

Although Newman et al. (2019:403) made a recommendation that the ESE measurement scale by De Noble et al. (1999:73) or McGee et al. (2009:965) be used, as it is an improvement on the original ESE scale by Chen et al. (1998:295), the measurement scale by Chen et al. (1998:295) was used for this study, regardless of the criticism that it is not exclusively entrepreneurial as it measures business skills and entrepreneurial skills. The skills that the measurement scale is criticised for are the precise skills which Botha et al. (2015:55) identified as critical. Firstly, their study found that entrepreneurs running businesses that have reached the established business phase in South Africa regarded those skills as the most important, and secondly, a lack of management skills has been cited as one of the major reasons why businesses in South Africa fail (Mudavanhu et al. 2014:576; Rogerson 2008:61).

The measurement scale by Chen et al. (1998:295), which includes both entrepreneurial and management skills, seemed more appropriate for this study and the South African context within which it was based. Shifting the focus onto the entrepreneur, taking into consideration the theoretical background that was discussed, as well as the empirical connections on necessity- and opportunity-driven entrepreneurs, BDS training and the multi-dimensional nature of ESE, the following hypothesis and sub-hypotheses were formulated:

H1: Training has a more positive impact on the ESE of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

H1a: Marketing training has a more positive impact on the ESE marketing of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

H1b: Innovation training has a more positive impact on the ESE innovation of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

H1c: Management training has more of a positive impact on the ESE management of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

H1d: Risk-taking training has a more positive impact on the ESE risk-taking of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

H1e: Financial control training has a more positive impact on the ESE financial control of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

This study aimed to answer the research question: Which training provided by BDS providers impacts the ESE of necessity and opportunity-driven entrepreneurs the most?

Research methods and design

This research was quantitative and grounded in the positivist paradigm (Rahi 2017:1). Questionnaires made up of closed-ended questions were used to gather the data. The hypotheses tested included multiple variables, which were BDS training (referred to as training) as the independent variable (IV) and the ESE of necessity- and opportunity-driven entrepreneurs as the dependent variables (DV).

The research took on a cross-sectional design approach, as the objective was to capture the data at one moment in time. The study was not looking at causality, thus no need for a longitudinal design (Cooper & Schindler 2014). Measurement scales were adapted from previous studies to enable the instrument to collect primary data on the constructs that were pertinent to this study (Barreira 2004; Baptista & Karaöz 2006:249; Chen et al. 1998:295; Kimando, Sakwa & Njogu 2012:149; McGee et al. 2009:965; Urban & Naidoo 2012:146; Venter & Urban 2015). The DV was measured using the original scale by Chen et al. (1998:295). The formulation of the training scale drew inspiration from McGee et al. (2009:965), who suggested that training programmes take into consideration the multidimensional nature of entrepreneurial tasks. As a result, the training scale was adopted from the ESE scale and adapted to address training in those specific ESE dimensions.

The unit of analysis for this study was entrepreneurs. The population of this study was made up of entrepreneurs who operate their businesses in South Africa, with a particular focus on those who have received BDS training. The sampling frame included entrepreneurs whose BDS providers worked hand in hand with Catalyst for Growth (C4G) and amounted to approximately 3400 businesses from 24 BDS providers.

Probability sampling was used to sample within the C4G database. This was simple random sampling to give every entrepreneur a chance to respond to the questionnaire (Etikan, Musa & Alkassim 2016:1). Considering the population size within the sampling frame, a sample size of 333 respondents at a 95% confidence level was ideal (Bartlett, Kotrlik, & Higgins 2001). The required sample size depends on several factors, including the desired power, alpha level, number of predictor variables and expected effect sizes

(Tabachnick & Fidell 2013). The contractual agreement with C4G for the study provided the advantage of access to entrepreneurs who had received BDS training.

After data collection, the data were screened to ensure good quality data. This involved removing irrelevant data and managing missing values and incomplete questionnaires. Furthermore, convergent validity and discriminant validity along with internal consistency reliability tests were conducted as multi-item scales were used to measure constructs, thus necessitating the reduction of dimension of the data for ease of analysis. Convergent validity and discriminant validity were tested using exploratory factor analysis, and this ensured that there is construct validity too. The type of reliability that was applied to this study was internal consistency reliability because of the use of the Likert scale. Cronbach's alpha was used to measure reliability, and anything greater than or equal to 0.7 was deemed a reliable scale.

Once construct validity and scale reliability were attained, the data underwent more tests to ensure no regression assumptions were violated including normality, which is a requirement for parametric tests. Multiple linear regression analysis was then used to test the study hypotheses and the strength of the relationship between independent and dependent variables (Bhattacherjee 2012).

Data presentation and interpretation

Demographic profile of respondents

The demographic split between male and female was fairly even with 45.5% male, 44.5% female and 10% other. Most of the respondents had a post-matric qualification; 30% possessed a degree, 27% held an honours degree or equivalent, 12% obtained a diploma, 10% attained a master's degree and 2% achieved a PhD. Only 4% of the respondents did not matriculate, and 7% had only a matric certificate. In terms of race, the sample was largely skewed with 75% of the respondents being African.

Most of the respondents, 96%, operated their businesses in the Gauteng province. The bias towards the Gauteng province can be attributed to the fact that C4G operates in the Gauteng province and has a working relationship with BDS providers that are based mainly in that particular province. Most of the respondents, 71%, had no previous management experience, and 48% of respondents had 1–3 years of industry experience.

The respondents' state of unemployment or employment in the year that they started their business was used to determine whether the respondents were necessity- or opportunity-driven entrepreneurs (Baptista & Karaöz 2006:249); 81% were employed in the year that they started operating their business, with the assumption being that they were opportunity-driven entrepreneurs, and 19% were necessity-driven entrepreneurs.

Validity of constructs

Exploratory factor analysis was performed to reduce the dimension of the data and confirm construct validity. The variables included independent variables (marketing training, innovation training, management training, risk-taking training and financial control training) and dependent variables (ESE marketing, ESE innovation, ESE management, ESE risk-taking and ESE financial control).

Exploratory Factor Analysis – Training

Initially, training had five dimensions to measure the construct. However, marketing training, innovation training, management training and risk-taking training all converged into one factor which was renamed entrepreneurial training, thus converting it into a general training factor, and all the items for financial control training converged into the second factor which retained its name. This meant that the hypothesis was tested with one general and one task-specific training factor.

Exploratory Factor Analysis – Entrepreneurial self-efficacy

Similar to the training construct, ESE had five factors consisting of 27 items. The EFA resulted in the items converging into three factors: ESE marketing, ESE innovation and ESE financial control. Table 2 illustrates that the final factors converged into two independent variables and three dependent variables.

Reliability of measurement scale results

The overall reliability of all five factors was excellent, all with $\alpha > 0.9$. Only one item for ESE financial control was removed to improve reliability. The EFA results imposed a limit that resulted in the hypothesis and the relevant sub-hypotheses having to be amended. A new hypothesis therefore emerged, testing the impact of general entrepreneurial training on the ESE dimensions. As task-specific financial control was the only dimension that sustained both its training and ESE factors, that hypothesis was tested as initially planned. Entrepreneurial training and financial control training became the IVs and ESE marketing, and ESE innovation and ESE financial control became the DVs moving forward. Table 3 provides a summary of the five scales that emerged from the exploratory factor analysis, and these new factors were then tested for reliability. The Cronbach's alpha of ESE financial control was improved by removing one item, as suggested by the results.

Correlation analysis

Table 4 reports the Pearson correlation coefficients with levels of significance denoted. The correlation between

TABLE 2: Independent and dependent variables.

Independent variables	Dependent variables
Entrepreneurial training	ESE marketing
Financial control training	ESE innovation
-	ESE financial control

ESE, entrepreneurial self-efficacy.

TABLE 3: Summary of new construct reliability results.

Variables	Constructs	Latent factors	No. of items	α before adjustment	Items deleted	α after adjustment
Independent variables	Training	Entrepreneurial training	21	0.98	None	0.98
		Financial control training	6	0.94	None	0.94
Dependent variables	ESE	ESE marketing	5	0.92	None	0.92
		ESE innovation	11	0.94	None	0.94
		ESE financial control	7	0.93	1	0.93

ESE, entrepreneurial self-efficacy.

entrepreneurial training and all three ESE dimensions, namely, ESE innovation, ESE financial control and ESE marketing was strong, positive and significant at a 99% confidence level. The correlation between financial control training and all three ESE dimensions, ESE innovation, ESE financial control, and ESE marketing, was also strong, positive and significant at a 99% confidence level.

Statistical assumptions testing

The data underwent statistical assumptions testing which included dealing with outliers, testing the linearity, homoscedasticity, normality, independence of errors and multicollinearity. The data passed the statistical assumptions testing as was found fit enough to run for regressions.

Ethical considerations

Ethical clearance to conduct this study was obtained from the University of the Witwatersrand Wits Business School Ethics Committee (No. WBS/BA2173987/378).

Results of Hypothesis 1

The hypothesis of this study pertained to how training might have a more positive impact on the ESE of opportunity-driven entrepreneurs than it does on the ESE of necessity-driven entrepreneurs. The research by Baptista and Karaöz (2006:249) motivated this study to run multiple linear regression to the data set while controlling for the confounding variables gender, education, management, industry experience and partnerships, to single out the unique contribution of the independent variables after the control variables had been removed. Table 5 is a summary of the different training types and their effect on the different ESE dimensions of necessity- and opportunity-driven entrepreneurs.

Hypothesis 1a

H1a: Entrepreneurial training has a more positive impact on the ESE marketing of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

To determine whether entrepreneurial training had a more positive impact on opportunity-driven entrepreneurs than it did on necessity-driven entrepreneurs, the standardised coefficients beta values obtained in the regression analysis were used to deduce statistical inferences. A unit change in entrepreneurial training for necessity-driven entrepreneurs resulted in a significant positive 34.7% change in the ESE marketing of necessity-driven entrepreneurs, while it was a significant positive, moderate 51.7% change in the ESE marketing of opportunity-driven entrepreneurs. The hypothesis was therefore accepted that entrepreneurial training had a more positive significant impact on the ESE marketing of opportunity-driven entrepreneurs than it did on necessity-driven entrepreneurs.

TABLE 4: Pearson's correlations.

Variable	Entrepreneurial training	Financial control training	ESE innovation	ESE financial control	ESE marketing
Entrepreneurial training	1.00	-	-	-	-
Financial control training	0.75**	1.00	-	-	-
ESE innovation	0.61**	0.58**	1.00	-	-
ESE financial control	0.59**	0.58**	0.77**	1.00	-
ESE marketing	0.64**	0.55**	0.77**	0.70**	1.00

ESE, entrepreneurial self-efficacy.
**, Correlation is significant at the 0.01 level (2-tailed).

TABLE 5: Summary of the impact of training on entrepreneurial self-efficacy.

Hypotheses	Training type	ESE	Necessity	Opportunity
H1a	Entrepreneurial training	ESE marketing	0.35*	0.52*
H1b	Entrepreneurial training	ESE innovation	0.31*	0.40*
H1c	Entrepreneurial training	ESE management	XX	XX
H1d	Entrepreneurial training	ESE risk-taking	XX	XX
H1e	Financial control training	ESE financial control	0.42*	0.25*

ESE, entrepreneurial self-efficacy.
*, Significant at a 95% confidence level.
XX, Hypothesis could not be tested.

Hypothesis 1b

H1b: Entrepreneurial training has a more positive impact on the ESE innovation of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

The impact of entrepreneurial training on the ESE innovation of necessity- and opportunity-driven entrepreneurs indicated that a unit change in entrepreneurial training for necessity-driven entrepreneurs resulted in a significant positive, modest 31% change in the ESE innovation of necessity-driven entrepreneurs, and the change in opportunity-driven entrepreneurs was a significant positive, moderate 40.2%. Hypothesis 1b was therefore also supported; entrepreneurial training had a more positive impact on the ESE innovation of opportunity-driven entrepreneurs than it did on necessity-driven entrepreneurs and that impact was significant.

Hypothesis 1c

H1c: Financial control training has a more positive impact on the ESE financial control of opportunity-driven entrepreneurs than it does on necessity-driven entrepreneurs.

Entrepreneurial training had a higher impact on the variance of the ESE financial control of opportunity-driven entrepreneurs; however, comparing the impact of financial control training on the ESE financial control of necessity- and opportunity-driven entrepreneurs, a unit change in financial control training for necessity-driven entrepreneurs resulted in a significant, positive, moderate 41.7% change in the ESE financial control of necessity-driven entrepreneurs, while the change for opportunity-driven entrepreneurs was a significant positive, modest 25.8%. As the impact of financial control training had a stronger influence on necessity-driven entrepreneurs, H1c was not supported.

Discussion

One of the factors that motivated the study to determine the impact of training on the ESE of necessity- and opportunity-driven entrepreneurs was to identify which dimension of ESE was more important for which type of entrepreneur. Because of the limiting results of the EFA, where the final factors converged into two independent variables (general entrepreneurial training and task-specific financial control training) and three dependent variables (ESE marketing, ESE innovation and ESE financial control), H1a and H1b were the only two sub-hypotheses that could test for general entrepreneurial training, H1c and H1d could not be tested, while H1e was the only initial hypothesis that was upheld. Hypothesis 1e was the only hypothesis that tested for the impact of task-specific financial control training; therefore, the initial aim of the study could not be determined: which ESE dimension (marketing, innovation, management, risk-taking or financial control) is more important for which entrepreneur.

According to the results, H1a and H1b were supported, whereas H1e was not supported; entrepreneurial training had a more positive impact on the ESE of opportunity-driven entrepreneurs than it did on necessity-driven entrepreneurs, and task-specific financial control training had a more positive impact on necessity-driven entrepreneurs than it did on opportunity-driven entrepreneurs. The results, therefore, indicate that general entrepreneurial training has more impact on opportunity-driven entrepreneurs, while task-specific training has a higher impact on necessity-driven entrepreneurs.

These empirical results are similar to those found in the study by Block and Wagner (2010:154); the authors found that general human capital has high explanatory power in opportunity-driven entrepreneurs and that specific human capital is more effective in necessity-driven entrepreneurs. The study initially hypothesised that training would have a higher impact on opportunity-driven entrepreneurs; in the initial hypothesis, this would have been task-specific training; however, the results of the initial hypothesis which was upheld (H1e) show that the hypothesis would have not been supported; task-specific training has a higher impact on necessity-driven entrepreneurs, rather than opportunity-driven entrepreneurs.

As financial control training was the only task-specific training dimension that was upheld, it would have been enlightening to see what the impact of the other training dimensions towards the related ESE dimensions would have been. If financial control training has a greater impact on ESE - financial control for necessity-driven entrepreneurs compared to opportunity-driven entrepreneurs, would this trend be similar across other ESE dimensions? Could task-specific training have more impact on necessity-driven entrepreneurs than on opportunity-driven entrepreneurs? The ability to test the initial hypothesis would allow the study to make conclusive recommendations on which type of training would be more effective and ascertain whether it would be better suited for necessity- or opportunity-driven entrepreneurs.

The inference from the empirical results is that general entrepreneurial training is better suited for opportunity-driven entrepreneurs, and task-specific training is better suited for necessity-driven entrepreneurs. It would be interesting to see if this can be attributed to the education levels of the two groups of entrepreneurs, and therefore, this study encourages future studies to investigate the reasons this is the case. Maybe opportunity-driven entrepreneurs could prefer general entrepreneurial training, which they use to brush up on the skills that they already have, whereas necessity-driven entrepreneurs might need task-specific training because they lack many entrepreneurial and business skills and would have a preference and need for task-specific training (Block & Wagner 2010:154).

The control variables also made a statistically significant contribution to this study; the impact of training was tested after the effect of the confounding variables, gender, education, management experience, industry experience and number of owners at inception was removed (Baptista & Karaöz 2006:249). The study found that the control variables had a significant impact on the variance of the ESE of opportunity-driven entrepreneurs in particular.

Management experience had the most explanatory power in the variance of the ESE of opportunity-driven entrepreneurs; for all three hypotheses that could be tested, this impact was found to be significant. The finding was that the more management experience opportunity-driven entrepreneurs had, the higher the impact of entrepreneurial training on those entrepreneurs. Industry experience also made a significant contribution, indicating that the more industry experience opportunity-driven entrepreneurs had, the more effective entrepreneurial training was for them. Gender had a statistically significant and negative effect on the impact of

entrepreneurial training on ESE - innovation among opportunity-driven entrepreneurs. Determining whether being male or female has a negative influence on the impact of ESE was beyond the scope of the study, and this could be a recommendation for other studies to determine.

Theoretical and practical implications and recommendations

This research made an empirical contribution to the study of necessity- and opportunity-driven entrepreneurs in the South African entrepreneurial landscape. This study exhibited that general entrepreneurial training is more effective for opportunity-driven entrepreneurs and that task-specific training is more effective for necessity-driven entrepreneurship. This finding contributes to the existing literature on BDS training and its impact on ESE, supporting previous research that shows training can enhance ESE levels. The unique contribution of this study is that it extends these findings to both necessity-driven and opportunity-driven entrepreneurs.

The practical implications of the study are that BDS providers can now be informed on the impact of general entrepreneurial training and task-specific training, which can assist them in the design of their training programmes. This study's initial objective was to determine the impact of training on the ESE of necessity- and opportunity-driven entrepreneurs. The results of the EFA posed severe limitations on the study; however, the results were also interesting because of the consequential amendment of the hypothesis which redirected the argument of the study. It could not be determined which ESE dimension was important for which type of entrepreneur; therefore, a future study where all the training and ESE dimensions are tested would be beneficial in validating which specific entrepreneurial training is better suited for necessity- or opportunity-driven entrepreneurs.

Although this study's objective was intended to juxtapose necessity- and opportunity-driven entrepreneurs, having most opportunity-driven entrepreneurs limited the study's ability to make sound recommendations for necessity-driven entrepreneurs. As South Africa is plagued with necessity-driven entrepreneurs, a study that focuses on the impact of the different types of training on necessity-driven entrepreneurs would be beneficial.

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Data availability

The data that support the findings of this study are available from the corresponding author, J.M.-G., upon reasonable request.

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