


Article

The Effects of Entrepreneurship Leadership on Youth Entrepreneurial Intentions Post-COVID-19: The Case of Gauteng

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Abstract: The purpose of this research was to assess the effects of entrepreneurship leadership on youth's entrepreneurial intentions in Gauteng province, South Africa. To test this relationship and attempt to answer the research question, "To what extent does entrepreneurship leadership influence youth entrepreneurial intentions post-COVID-19?" a conceptual model supported by the theory of Planned Behaviour was adopted. Data were collected from 825 youths in Gauteng province, South Africa, through a self-administered questionnaire. The Likert scale was applied to the questionnaire. Entrepreneurship leadership was observed to directly relate to attitude towards entrepreneurship and perceived environmental support and entrepreneurial intentions and entrepreneurial action. Furthermore, the results provide evidence that the three antecedents of entrepreneurial intention: attitude towards entrepreneurship, perceived entrepreneurial abilities and perceived COVID-19 environment influence entrepreneurial intention. Participation in entrepreneurship leadership was observed to positively influence youth intentions to become entrepreneurs. Furthermore, policy-makers are encouraged to ensure the implementation of regulations that are conducive to business operations and stimulate youth participation in entrepreneurial activities. The obtained results suggest that attitude towards entrepreneurship and perceived environmental support are observed to completely and partially mediate (respectively) the relationship between three independent variables (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) and entrepreneurship intention. Leadership in entrepreneurship is crucial as it creates direction for the business in the post-COVID-19 era. This study attempts to address the gap in the literature concerning the effects of entrepreneurial factors on entrepreneurial intentions through the use of Ajzen's Theory of Planned Behaviour.

Keywords: entrepreneurial intentions; entrepreneurship; entrepreneurial abilities; youth; entrepreneurship leadership; Gauteng



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1. Introduction

South Africa is in urgent need of a dynamic and job-creating growth path, particularly due to the aftermath of the COVID-19 pandemic [1,2]. Unemployment in South Africa has escalated over the past few years owing to the large downsizing of numerous industries, such as the manufacturing, mining and building sectors, including the banking sector [3,4]. Entrepreneurial intention is highly impacted by the state of the business environment that prevails at a particular period, whether positive or otherwise [5]. Although the economic policies introduced by the government in an attempt to restore South Africa's macroeconomic stability have been somewhat impactful on South Africa's productive capacity, market structure, competitiveness and economic growth trajectory, it is job creation that has been at the core of the government's strategic economic planning as well as policymaking [6].

In today's post-modern era, entrepreneurship is acknowledged as a vehicle for economic growth, prosperity, as well as success [7–11]. During his State of the Nation (SONA)

address in 2021, South African President Cyril Ramaphosa stated that in response to the enormous challenges of youth unemployment facing the country, the National Youth Development Agency (NYDA) and the Department of Small Business Development would provide grant funding including business support to 1000 young entrepreneurs within 100 days. South Africa is among the leading countries with the worst youth unemployment rates globally [4,12–15]. According to the *South African's* June 2014 labour force survey, 36 per cent of youth (between the ages of 15 and 35 years) are without work [16].

To a certain degree, the low levels of growth and employment witnessed in South Africa for many years reflect a significant skills mismatch in the economy [6]. High skills are a required prerequisite for youth employment, considering the high productivity and technology-led economy in South Africa [14]. Business has a critical role to play in the development and transformation of South Africa [17]. Self-employment intention often commences before starting a business [18,19]. The COVID-19 pandemic in South Africa has led to extensive adversity for numerous businesses in the country [20–23]. Research suggests that the number of young entrepreneurs at the tertiary level has increased significantly during the COVID-19 pandemic [24]. The South African economy is among the largest in Africa, with a large degree of its entrepreneurial activity attributed to the informal sector [25,26].

Should alternative employment options not be explored, the number of unemployed and underemployed youth will continue to exert pressure on their respective states [27]. An entrepreneurial-driven strategic framework for effective and efficient job creation aimed at addressing unemployment challenges in South Africa is a proposed solution [28,29]. The high unemployment rate among South African young people implies that entrepreneurship education must be implemented more effectively and broadly in educational institutions to benefit more youth [30,31]. The COVID-19 pandemic has led to the collapse of many businesses, which has exacerbated the challenge of youth unemployment in South Africa [21,32–37]. The underestimation of the extent of the COVID-19 pandemic by the South African government has led to a delay in responding to the pandemic [38].

Entrepreneurial intention is the desire of individuals to venture into entrepreneurship [39–41]. The entrepreneurial intention may be studied in two variables, namely, internally captured by perceived desirability and perceived behavioural control, and the other is externally captured by the perceived social norm [42]. Perceived behavioural control and control beliefs are interlinked [43]. The study of entrepreneurial intentions is closely linked to the intention to become self-employed [31,44–49]. Entrepreneurial intention is a state of mind including a desire to create a new enterprise [41,50,51]. The majority of the models attempting to explain the relationship between an individual's characteristics and their entrepreneurial intention are mostly based on two models, namely the Entrepreneurial Event Model and the Theory of Planned Behaviour [51,52]. According to the Theory of Planned Behaviour (TPB) proposed by [53], entrepreneurial intention is an individual's self-acknowledged conviction that he or she intends to start a new business venture and consciously plans to proceed in the future [37,54]. Favourable attitudes toward an entrepreneurial career choice are influenced by the individual's perception of the desirability and feasibility of venturing into an entrepreneurial career [5]. The sections herein include the literature review, methodology, as well as findings and conclusion.

2. Literature Review

Young people participating in entrepreneurship activities in South Africa are of paramount importance [54,55]. COVID-19 has catalysed the urgency with which a youth-centred structural change across African institutions is required [56]. Leadership is possibly an essential element in numerous success factors for start-ups and their continuous growth [57]. Entrepreneurial leadership has been identified as the driver toward a more prosperous economic future [58,59]. Entrepreneurial leadership can be defined as a leader who possesses entrepreneurship skills in addition to others [60]. The analysis of the profile of the entrepreneur and the role in organisations as entrepreneurial leaders reveals that

there is a close correlation between entrepreneurship and the exploration of opportunities, which the entrepreneurial leader bases on adaptability to change, innovation and risk-taking [59,61]. Entrepreneurial learning has been affected by COVID-19 as it created a physical gap between the learner and the educator [62]. According to [63], the creation of a model of entrepreneurship education for the post-COVID-19 era should have already started. Entrepreneurial skill acquisition cannot result in self-employment practice without the consideration of the entrepreneur's characteristics or attitudes, such as attitude and motivation [64].

2.1. Entrepreneurship Leadership and Entrepreneurial Intention

Entrepreneurial leadership comprises organising and motivating a group of people to accomplish a common objective by way of innovation, risk optimization, taking advantage of opportunities, and managing an organisational environment that is dynamic in nature [65,66]. Entrepreneurial intentions are defined as the reason for encouraging entrepreneurial behaviour and the reflection of the organisational leader's vision and organisational culture [67]. An organisation led by an entrepreneurial leader is more likely to be involved in stimulating and encouraging employees' entrepreneurial intentions [58,67].

The effectiveness of a leader is directly determined by the situational context [65]. The SMEs that are properly managed and led gain superior business performance as well as a sustainable competitive advantage [65]. Entrepreneurial leadership has been defined as the extent to which leaders portray entrepreneurial attributes [62]. According to [68], organisational effectiveness is dependent on entrepreneurial attributes inherent in the workforce. An entrepreneurial leadership style does not necessarily result at the expense of societal goals, in essence, the efficiency orientation of modern schools [69].

Motivation sessions led by successful entrepreneurs can help to alter the attitude of people about entrepreneurship, which will stimulate more entrepreneurial intentions during COVID-19 in the youth [45,69,70]. The majority of COVID-19 cases in sub-Saharan Africa are located in South Africa, where a third of the youth are not employed, educated, or trained [71]. Providing improved healthcare, secondary education, housing and generally enhancing the dignity of impoverished South Africans could encourage youth to consider furthering their studies and improving their future earning potential [72]. Realistically, the entrepreneurial intention may not always result in one starting and managing his/her own business—many who start their businesses may become unsuccessful due to internal or external factors [72,73]. The negative economic implications of COVID-19 have not been evenly felt across South Africa's population [70].

2.2. COVID-19 and Entrepreneurial Intentions

The authors of [74] posit that youth entrepreneurial intentions to become entrepreneurs are strongly influenced by their internal factors, particularly during the COVID-19 pandemic. The current COVID-19 pandemic condition or uncertainty is responded to by trainees as conditions that have a similar opportunity; this is demonstrated by the response to uncertainty at about 50 per cent [5]. The process of starting a business has become easier due to technological advancements, including ease of access to information—this is particularly the case when the pandemic is spreading and negatively affecting people [75]. COVID-19 has prompted traditional businesses, including SMEs and traditional markets, to convert their ventures online [71,76]. Youth entrepreneurship has become the subject of study for numerous researchers [64].

According to [64], the analysis of youth entrepreneurship directions indicates that, depending on the main motive for starting a business, they are compelled to conduct business in order to get a livelihood; entrepreneurs focused on seizing new opportunities and driven by the desire to become independent and to increase their income. The mediating role of entrepreneurial education during COVID-19 has been attained through independent variables, including self-efficacy, entrepreneurial attitude and, as a dependent variable, entrepreneurial intention during COVID-19 [71]. Grants are instrumental in keeping busi-

nesses operational following an aggregate crisis whilst sustaining satisfaction levels as well as entrepreneurial confidence [77].

The entrepreneurial environment is complex when compared to the natural environment, and numerous aspects need to be taken into account to ensure entrepreneurial success [78,79]. The business environment is defined as the collection of factors that influence the evolution of entrepreneurship [80]. Enterprises tend to interact with their entrepreneurial environment in defined action situations, which occur in the subareas and may influence each other [81].

It is important to analyse the influence of diversity in contextual factors at each entrepreneurial stage and the specific barriers and drivers in the transition from one stage to the next [82]. Numerous factors lead to entrepreneurial intention; these include personal, psychological, environmental, cognitive and demographic factors [83]. Researchers believe that entrepreneurship is a process that involves social, cultural and economic contexts; therefore, a special topic has arisen in the entrepreneurship field of study that focuses on the contextual factors that affect one's entrepreneurship cognition to launch a venture [84]. Environmental values are positively related to a sustainable entrepreneurial intention, and the relationship between environmental values and sustainable entrepreneurial intention gains moderation through experience and personal attitude, social norms and self-efficacy [85].

Entrepreneurial activities have become a focal point of academic research; as such, many experts and scholars have identified and studied environmental factors that have a significant influence on entrepreneurship [86]. Entrepreneurship is influenced by a range of external environmental factors, namely economic conditions and government laws and regulations [86]. In the literature, few studies have focused on perceptions derived from the dangerous, unsafe, or risky environment and their impact on the intentions of starting a business [33].

The prospects for the future remain generally uncertain, considering that the duration of the COVID-19 pandemic is still unclear [87]. Figure 1 below illustrates the number of adults per country who intend to start a business in the next three years. Level A includes economies from Northern Europe, East Asia and North America, plus three Gulf states, while a majority of Level B economies are from Southern or Eastern Europe. Level C mainly comprises economies from Latin America, the Caribbean and Africa. South Africa had only 20 per cent of adults expecting to start a business in the next three years. Although the total early-stage entrepreneurial activity has risen in South Africa, it is notable that youth entrepreneurial intentions remain low [88,89].

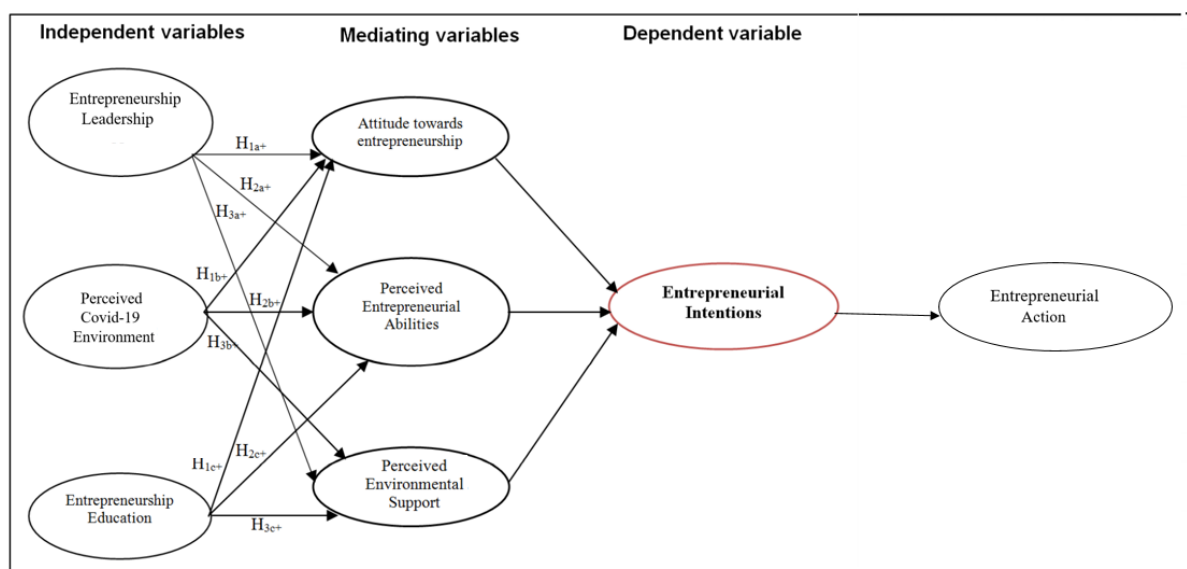


Figure 1. Conceptual model of antecedents of entrepreneurial intention on entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education.

The conceptual model and research question have aided the development of the hypotheses. A summary of the hypotheses is illustrated in Figure 1.

There is limited literature on the impact of this problem on youth entrepreneurial intentions in South Africa. Based on the above background and literature, the research problem for the study is expressed as: A determination is required of the effect of entrepreneurship leadership on youth entrepreneurial intentions in Gauteng Province's post-COVID-19 environment. In order to address the research problem above, the following research question was formulated: What is the effect of entrepreneurship leadership on youth entrepreneurial intentions in Gauteng Province's post-COVID-19 environment?

The data analysis in this study employed Structural Equation Modelling (SEM) the research objectives, hypotheses and the model were tested therein. The following are the study hypotheses, as well as the conceptual model's fitness, were tested with the primary data:

Hypotheses

The above-stated question is investigated using the following hypotheses:

H1: *Youth's attitude towards entrepreneurship as a career option mediates the relationship between:*

H1a: *Entrepreneurship leadership, entrepreneurial intentions and entrepreneurial action.*

H1b: *Perceived COVID-19 environment, entrepreneurial intentions and entrepreneurial action.*

H1c: *Entrepreneurship education, entrepreneurial intentions and entrepreneurial action.*

H2: *Youth's perceived entrepreneurial abilities mediate the relationship between:*

H2a: *Entrepreneurship leadership, entrepreneurial intentions and entrepreneurial action.*

H2b: *Perceived COVID-19 environment, entrepreneurial intentions and entrepreneurial action.*

H2c: *Entrepreneurship education, entrepreneurial intentions and entrepreneurial action.*

H3: *Youth's perceived environmental support positively mediates the relationship between:*

H3a: *Entrepreneurship leadership, entrepreneurial intentions and entrepreneurial action.*

H3b: *Perceived COVID-19 environment, entrepreneurial intentions and entrepreneurial action.*

H3c: *Entrepreneurship education, entrepreneurial intentions and entrepreneurial action.*

To test the research hypotheses, path analysis was employed. Among the paths being investigated were entrepreneurship leadership to attitude towards entrepreneurship to entrepreneurial intentions to entrepreneurial action; entrepreneurship leadership to perceived entrepreneurial abilities to entrepreneurial intention to entrepreneurial action; perceived post-COVID-19 environment to perceived entrepreneurial abilities to entrepreneurial intention to entrepreneurial action; perceived post-COVID-19 environment to perceived environmental support to entrepreneurial intentions to entrepreneurial action; entrepreneurship education to perceived environmental support to entrepreneurial intentions to entrepreneurial action; entrepreneurship education to attitude towards entrepreneurship to entrepreneurial intentions to entrepreneurial action. While traditional regression analysis may effectively do this, it does not explicate the relationship (how and why) of the linked variables.

3. Methodology

The research construction was based on the theoretical concept of the “research onion” [90]. In the adoption of stratified sampling, there was a population of 825 young people, and each of the five strata consisted of 165 people. The size of the sample from each stratum is proportional to the stratum’s size [87]. Gauteng province consists of five districts; therefore, to increase the prospects of a representative sample, respondents were collected from all the districts using stratified sampling. This large sample was also a means to overcome the limitation of using a small sample. The study only focused on the ages of 18 to 34 years. A self-administered survey instrument was used for data collection. A self-administered questionnaire was discovered to yield reliable information [91]. The questionnaire was limited to the English language. The Likert scale was adopted for the questionnaire. This study adopted the quantitative research approach. Positivism is identified as suitable for the present research for two main reasons. Positivism assumes that an objective reality exists that has no dependence on human behaviour [92]. The items used in each of the variables are outlined in Supplementary Materials, which entails the research instrument.

The objectivity of positivism makes it possible that studies undertaken within this paradigm are regarded as value-free; therefore, the elements of the world are simple to explain, as well as reducing them to objective facts. The data analysis in this study employed Statistical Package for the Social Sciences (SPSS) version 28. Descriptive statistics and several multivariate statistical tests were carried out, including tests for reliability and regression analysis for testing hypotheses [93]. Data analysis was undertaken in order to explain the characteristics of the sample as well as primarily to test the proposed conceptual model.

The instrument was pilot-tested in two phases. The first stage involved a discussion of the contents of the questionnaire with a panel of experts that included entrepreneurs, academics and statisticians. The main objective was to establish whether the questionnaire adequately assessed the youth entrepreneurship intentions associated with starting a new business. In order to improve the quality of a study, researchers are inclined to rely on reliability and validity. Validity is defined as the extent to which a concept is measured accurately in a quantitative study [93]. In order to ensure the content validity of the research questionnaire, questions that included the information that related to the study were prepared on the basis of the literature study and the questionnaire that has been validated in the previous entrepreneurial intention studies. Reliability is the second measure of quality in a quantitative study, which is the accuracy of an instrument [94].

4. Results

Descriptive statistics were used to describe the samples’ demography. Chi-square tests were used to determine associations among variables. Factor analysis was applied to split variables into reduced sets of latent variables. Data for this thesis were collected from youth in Gauteng province, South Africa. There were 844 questionnaires distributed, and 825 responses were received, of which 19 were unusable. Therefore, there was a response rate of 98.21%, the details are illustrated in Table 1. The total sample is 825, comprising both male and female respondents, represented as originating from the City of Tshwane, City of Johannesburg, Ekurhuleni Metropolitan Municipality, West Rand District Municipality and Sedibeng District Municipality. Some 49.82% (411) of the respondents are male and 50.18% (414) are female. The majority of respondents (78.30%) are below 26 years, 15% are 27–29 years, 3.7% are 30–32 years and 2.4% are 33–35 years. The quantitative data collected were subjected to various statistical analyses, including Chi-squares, validity and reliability tests, factor analysis and structural equation modelling.

Table 1. Demographic profile of the sample.

Demographic Characteristics		Frequency	Percentage
Gender	Male	411	49.82
	Female	414	50.18
Age	18–20 years	116	14.06
	21–23 years	280	33.94
	24–26 years	250	30.3
	27–29 years	128	15.52
	30–32 years	31	3.76
	33–35 years	20	2.42
Youth Self-employed Status	Yes	339	41.09
	No	486	58.91
Highest qualification	NQF Level 4 (Grade 12 or Matric level) or less	166	20.12
	NQF Level 5 (N6 Level Certificate)	167	13.58
	NQF Level 6 (National Diploma)	321	38.91
	NQF Level 7 (Bachelor’s degree, BTech degree)	137	16.61
	NQF Level 8 (Honours degree)	27	3.27
	NQF Level 9 (Master’s degree)	7	0.85
	NQF Level 10 (Doctoral degree)	0	0

A total of 21% of the respondents agreed that among the various career options, they would do anything to be an entrepreneur, versus only 10% who disagreed. However, it is noteworthy that 29% agreed that their goal was to become an entrepreneur versus only 16% who agreed. Considering that 36% of respondents agreed that COVID-19 leads to the closure of the business, only 14.9% of respondents disagreed with this statement. There was 30% of respondents who agreed with the statement that government COVID-19 measures benefit business, while only 16% disagreed. A total of 24.8% of respondents indicated that they could identify potential new venture funding, and only 12% disagreed.

Only 21.8% of respondents have seriously considered becoming an entrepreneur, and only 14.7% disagreed. However, 23.5% of respondents agreed that they will establish a business in the next 12 months, and only 16.7% disagreed. There were 23.4% of respondents who were determined to create a business venture within the next 5 years and only 12.7% who disagreed.

A four-step mediation analysis that included Baron and Kenny’s three-step technique and MacKinnon’s fourth step was subsequently carried out. Mediation analysis was conducted on each of the three endogenous variables (attitude towards entrepreneurship, perceived entrepreneurial abilities and perceived environmental support) for the predictors (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education). To test whether AEI variables satisfied the conditions of mediation, a series of multiple and logistic regression tests were performed as prescribed in the four-step mediation analysis [95]:

1. Regressing the outcome variable on the mediating variable (AEI). Logistic regression was used because the criterion, Entrepreneurial Intentions, is a categorical variable with a binary outcome;
2. Regressing dependent variable (DV) on independent variable (IV), using multiple regression, since variables were continuous variables;
3. Regressing mediating variable (MV) on the independent variable, using multiple regression.

The following are the possibilities for mediation failure:

1. Mediation fails in Step 1 if the mediator does not cause a significant effect on the outcome variable;
2. Failure in Step 2 results when the independent variable does not have an effect on the criterion;

3. Failure in Step 3 is observed when predictors have no effect on the mediator;
4. Failure in Step 4 occurs when either the p -value of independent values decreases, or the coefficient increases contrary to conditions (b) or (c) above.

These are the steps taken in this study's mediation test.

- Step 1

In Step 1, hypotheses 1, 2 and 3 were tested. The researcher regressed the dependent variable (entrepreneurial intentions) on the independent variables (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) to confirm that the independent variable is a significant predictor of the dependent variable [96]. Of the three independent variables, only perceived entrepreneurial abilities had a non-significant p -value at 0.969, and attitude towards entrepreneurship and perceived environmental support were significant at 0.000.

- Step 2

Step two was used to test the relationship between entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education: In Step 2, the researcher regressed dependent variable (DV)—(entrepreneurship intentions) on the predictor variables (PV) (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) using multiple regression. This was done to confirm that the predictor variable is a significant predictor of the dependent variable [95]. The p -value was significant at 0.000 as shown in Table 2.

Table 2. Part of the mediation analysis.

EI <-	EA	4.949	1	0.03	0.557129	0.3848842
	EE	16.824	1	0.00	0.1466937	0.140707
EA <-	ATE	14.85	1	0.00	0.0641719	0.1327311
	EL	10.698	1	0.00	0.0911636	0.1116451
	PCE	7.401	1	0.01	0.0350277	0.092962
	EE	19.455	1	0.00	0.1108957	0.1505417

- Step 3

In Step 3, the researcher regressed the predictor variables (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) on the mediating variables (attitude towards entrepreneurship, perceived entrepreneurial abilities and perceived environmental support) to confirm that the predictor variable is a significant predictor of the mediating variables [95]. Attitude towards entrepreneurship (mediating variable) produced a significant p -value at 0.000 for entrepreneurship leadership and perceived post-COVID-19 environment; however, for entrepreneurship education, it produced a non-significant p -value at 0.445. Perceived entrepreneurial abilities produced a non-significant p -value for entrepreneurship leadership (0.226), perceived post-COVID-19 (0.226) and entrepreneurship education (0.019). Perceived environmental support produced a significant p -value at 0.000 only for the perceived post-COVID-19 environment. Entrepreneurship leadership and entrepreneurship education produced 0.015 and 0.007, respectively.

- Step 4—Test of the Conceptual Model

The research hypotheses were derived from the assumptions of the antecedents of entrepreneurial intentions, being the independent variables (Entrepreneurship Leadership, Perceived post-COVID-19 Environment and Entrepreneurship Education), the mediating variables (Attitude Towards Entrepreneurship (ATE), Perceived Entrepreneurial Abilities (PEA) and Perceived Environmental Support (PES)) and the dependent variables (entrepreneurial intentions and entrepreneurial action).

In Step 4, the researcher regressed the dependent variable on both the mediating and independent variables with logistic regression. This was done to ensure that the mediator is a significant predictor of the dependent variable and that the strength of the previously significant (in Step 1) independent variable's coefficient has been considerably lowered. Otherwise, the independent variable would be considered non-significant ($p > 0.05$). Of the three independent variables, both attitudes towards entrepreneurship and perceived environment support had a significant p -value at 0.000; perceived entrepreneurial abilities were not significant at 0.969.

For entrepreneurial intentions, complete, partial and failed mediated effects were observed between all independent variables as reflected in part in Figure 2. For instance, the composite variable of perceived entrepreneurial abilities had a non-significant direct effect on the dependent variable (coefficient = 0.0004; $p = 0.969$). Additionally, its relationship with attitude towards entrepreneurship was also highly significant at $p < 0.000$. Perceived environmental support has a significant direct effect on the dependent variable (coefficient = 0.084; $p = 0.000$). Its relationship with attitude towards entrepreneurship was also highly significant ($p < 0.000$).

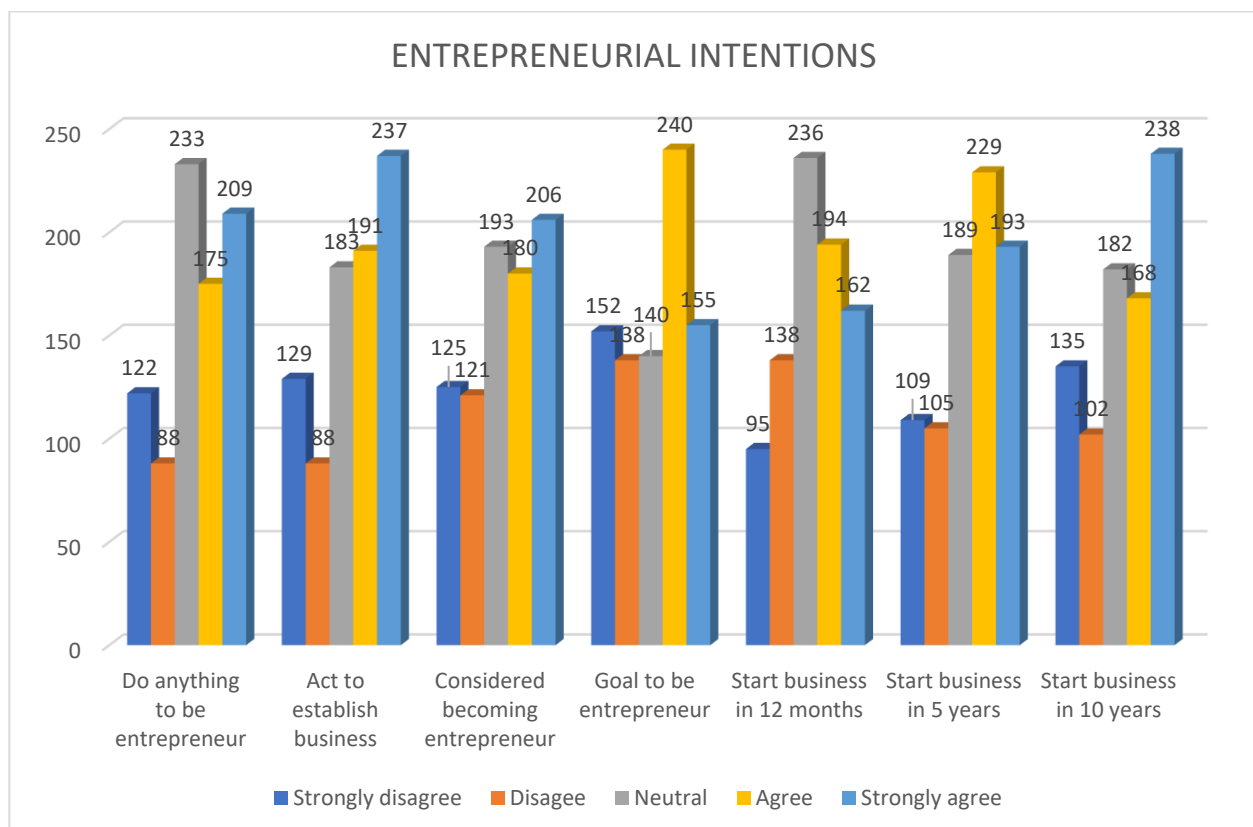


Figure 2. Entrepreneurial intentions.

Considering attitude towards entrepreneurship (ATE), perceived entrepreneurial abilities (PEA) and perceived environmental support (PES) mediate the association between entrepreneurial intention and entrepreneurial action, and the antecedent predictor (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education), it follows that ATE has a positive relationship ($p > 0.05$) with the former (Step 1) of the mediation test. Complete mediation occurs if the p -value in Step 4 is non-significant ($p > 0.05$) and all other requirements are met [96]. Previous research has found that AEI is a solid determinant of entrepreneurial intentions. ATE, PEA and PES's role as mediators made it possible to investigate the links between independent and dependent variables in a meaningful way.

There is an indication that a p -value of less than 0.05 is considered to be non-significant. Hypotheses 1 and 3 are generally supported. Entrepreneurship leadership results in attitude towards entrepreneurship, perceived environmental support and entrepreneurial action, with the exception of perceived entrepreneurial abilities, which yielded non-significant results ($p < 0.018$). Hypotheses 1 and 3 can be accepted at $p \ 0.000 \leq p < 0.002$ significance levels.

Following the evidence provided above, attitude towards entrepreneurship:

Hypothesis H1a, which reads: “Attitude towards entrepreneurship as a career option mediates the positive relationship between entrepreneurship leadership and entrepreneurial intention and entrepreneurial action” is supported.

Hypothesis H1b, which reads: “Attitude towards entrepreneurship as a career option mediates the positive relationship between perceived post-COVID-19 environment and entrepreneurial intention and entrepreneurial action” is supported.

Hypothesis H1c, which reads: “Attitude towards entrepreneurship as a career option mediates the positive relationship between entrepreneurship education and entrepreneurial intention and entrepreneurial action” is not supported.

Furthermore, attitude towards entrepreneurship produced significant results ($p = 0.000$) when regressed on entrepreneurship leadership and perceived post-COVID-19 environment (respectively) and entrepreneurial intention and entrepreneurial action. Therefore, this study finds that there is a direct relationship between attitude towards entrepreneurship, entrepreneurship leadership and entrepreneurial intention.

Following the data provided above with regard to perceived entrepreneurial abilities:

Hypothesis H2a, which reads: “Youth’s perceived entrepreneurial abilities mediates the relationship between entrepreneurship leadership and entrepreneurial intention and entrepreneurial action” is not supported.

Hypothesis H2b, which reads: “Youth’s perceived entrepreneurial abilities mediate the positive relationship between perceived post-COVID-19 environment and entrepreneurial intention and entrepreneurial action” is not supported.

Hypothesis H2c, which reads: “Youth’s perceived entrepreneurial abilities mediate the positive relationship between entrepreneurship education and entrepreneurial intention and entrepreneurial action” is not supported.

Hypothesis H3a, which reads: “Youth’s perceived environmental support mediates the positive relationship between entrepreneurship leadership and entrepreneurial intention and entrepreneurial action” is supported.

Hypothesis H3b, which reads: “Youth’s perceived environmental support mediates the positive relationship between perceived post-COVID-19 environment and entrepreneurial intention and entrepreneurial action” is supported.

Hypothesis H3c, which reads: “Youth’s perceived environmental support mediates the positive relationship between entrepreneurship education and entrepreneurial intention and entrepreneurial action” is supported.

Perceived entrepreneurial abilities yielded non-significant results ($p = 0.969$; $p = 0.905$) when regressed on entrepreneurship leadership and entrepreneurial intention, respectively. Hence, this study finds that there is no direct relationship between perceived entrepreneurial abilities and entrepreneurial intention. This is aligned with the Theory of Planned Behaviour, which states that when the behaviour is rational, the best predictor of action is intention. Nonetheless, the revised model reveals that attitude towards entrepreneurship is a mediator between entrepreneurship leadership, entrepreneurial intention and entrepreneurial action.

According to [64], the potential of youth entrepreneurship in solving economic challenges arising from a pandemic is quite high as youth initiatives can lead to the opening of promising businesses, owing to numerous reasons, such as digital, technological, marketing and economic organising, including a strong desire to succeed in life. The study results showed that entrepreneurship education was observed to directly relate to perceived entrepreneurial abilities, with a p -value of 0.001 and that there is a direct relationship between entrepreneurship education and entrepreneurial intentions with a p -value of 0.000.

Therefore, entrepreneurial intentions are heavily influenced by entrepreneurial mindset, entrepreneurial education, including creativity, which have a positive and important influence on entrepreneurial intention [93,94,97].

Although the initial conceptual model and revised conceptual model in Figure 3 accounted for sizeable covariation, the revised model is significantly different in terms of its ability to account for covariation when compared to the conceptual model. The Chi-square test of difference and the reported fit indices demonstrate convincingly that the revised model is superior. The revised model resulted in Chi-square: 300.211, $p < 0.05$. With TLI of 1.032, RMSEA = 0.000 and CD (R2): 0.184. The CFI was 1.000, which indicates that 100% of the covariation in the data could be reproduced by the hypothesised model.

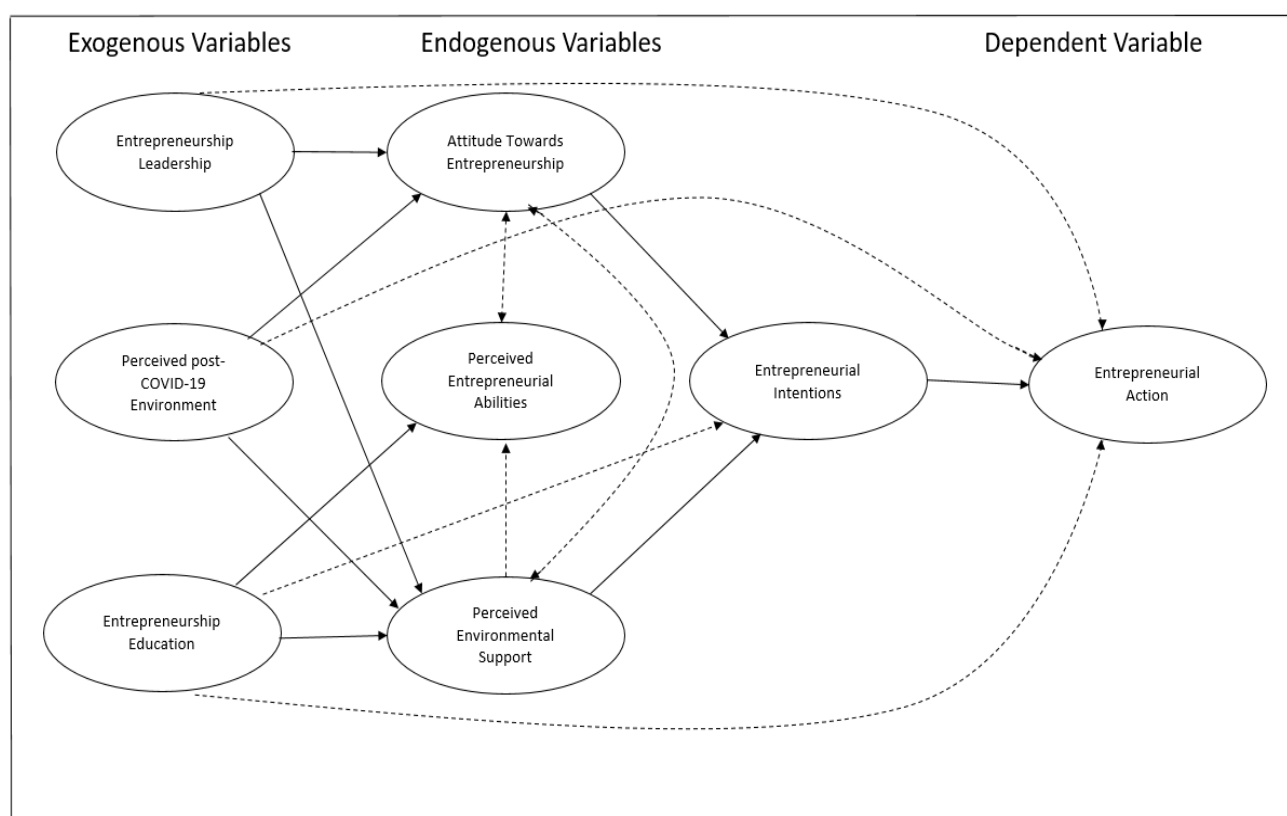


Figure 3. Revised conceptual model. Dotted arrows are for correlation and direct arrows are for direct relation.

5. Discussion

The purpose of this research was to assess the effects of entrepreneurship leadership on youth's entrepreneurial intention in Gauteng province, South Africa. A literature review revealed a gap in the body of knowledge regarding the testing of the mediating effects of the antecedents of entrepreneurial intention on entrepreneurship leadership, post-COVID-19 environment and entrepreneurship education, and entrepreneurial intention, with a particular focus on the youth in Gauteng, South Africa. This study contributes academically to the current literature on the Theory of Planned Behaviour and entrepreneurial intentions, specifically the entrepreneurial environment in South Africa, by providing insight into the extent to which entrepreneurship leadership influences youth's attitude towards entrepreneurship as a career choice. Furthermore, the research attempts to address the gap in the literature concerning the entrepreneurial environment during COVID-19 and youth's entrepreneurial intentions and actions. Attitude toward entrepreneurship and perceived environmental support were observed to mediate the relationship between four independent variables (perceived entrepreneurial abilities, perceived post-COVID-19 environment,

entrepreneurship leadership and entrepreneurship education) and entrepreneurial intention. Entrepreneurship education as an emerging antecedent of entrepreneurial intentions is vital to the success of young entrepreneurs. Leadership in entrepreneurship is crucial as it provides direction for the business.

Overall, the results obtained suggest that attitude towards entrepreneurship and perceived environmental support are observed to completely and partially mediate (respectively) the relationship between three independent variables (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) and entrepreneurial intention and action. The above findings seem to suggest the direct impact of entrepreneurship leadership on intentions through perceived environment support and on entrepreneurial action through perceived environment support and attitude towards entrepreneurship. Thus, any increase in entrepreneurship leadership might influence youth to become entrepreneurs. Entrepreneurship leadership was observed to directly relate to attitude towards entrepreneurship and perceived environmental support and entrepreneurial intentions and entrepreneurial action. However, when mediation tests were conducted, attitude towards entrepreneurship did not mediate the relationship between entrepreneurship education and entrepreneurial intentions and entrepreneurial action.

Attitude towards entrepreneurship did mediate the relationship between the perceived post-COVID-19 environment and entrepreneurial intentions and entrepreneurial action. Furthermore, perceived entrepreneurial abilities did not mediate the relationship between entrepreneurship leadership and entrepreneurial intentions and entrepreneurial action. When mediation tests were conducted, perceived environmental support did mediate the relationship between entrepreneurship leadership and entrepreneurial intentions and entrepreneurial action. This is supported by the revised conceptual model of goodness of fit.

Attitude towards entrepreneurship was observed to have a correlation with perceived environmental support. The variable, Perceived entrepreneurial abilities, was observed to create a correlation for the relationship between attitude towards entrepreneurship and entrepreneurship education. Perceived environmental support did mediate the relationship between the perceived post-COVID-19 environment and entrepreneurial intentions and entrepreneurial action. Perceived environmental support did mediate the relationship between entrepreneurship education and entrepreneurial intentions and entrepreneurial action. All the endogenous variables (entrepreneurship leadership, perceived post-COVID-19 environment and entrepreneurship education) are directly related to entrepreneurial action. Entrepreneurial leaders possess a special ability to alter young people's attitudes to adopt an entrepreneurial mindset [98].

6. Limitations and Direction for Future Research

Future research is recommended to entirely evaluate the effectiveness of entrepreneurship education module components regarding their impact on youth attitudes towards entrepreneurship, perceived entrepreneurial abilities and entrepreneurial intention. Further studies should investigate the flaws in the entrepreneurial competency of youth in South Africa and recommend suitable solutions for addressing them. The research is limited to youth in Gauteng, South Africa. As a result, findings and results may not necessarily be generalizable to the effects of youth post-COVID-19 entrepreneurial intention outside of Gauteng province. The study was based on cross-sectional data that reflect a snapshot of the views of contemporary youth, thereby limiting the ability to process causal effects between the variables. It is challenging to imply any causality as to how the global constructs are causing a change in the differentiated constructs due to the cross-sectional nature of the study.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/businesses3040035/s1>.

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