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## TESTING THE APPLICATION OF THE INTEGRAL AQAL MODEL IN ENTREPRENEURIAL COACHING IN SOUTH AFRICAN BUSINESS INCUBATORS

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### ABSTRACT

**Objective:** Despite significant investment in entrepreneurial coaching in South Africa, the failure rate of small businesses remains high. This empirical study addresses this issue by creating an effective entrepreneurial coaching framework with the help of business incubators, entrepreneurs, coaches, and industry experts. **Research Design & Methods:** The study used a quantitative cross-sectional design, with a questionnaire distributed to 296 entrepreneurs and statistical analysis performed using SPSS and STATA software. **Findings:** The findings support the AQAL model of Ken Wilber in how the entrepreneurial outcomes relate to each other. The findings also align with the literature's emphasis on relationship building as a key factor for business growth, with relationship building emerging as the only statistically significant predictor of business growth. **Implications and Recommendations:** Relationship building should be prioritised over other coaching outcomes, such as self-efficacy, entrepreneurial resilience, and visionary skills, by entrepreneur development practitioners. **Contribution & Value Added:** These findings have implications for entrepreneurial coaches, policymakers, and professional bodies, urging them to understand entrepreneurs' contexts, take a systemic approach to entrepreneurial coaching, and provide guidance on industry developments and best practices. It is expected that by implementing these recommendations, the proposed entrepreneurial coaching framework will contribute to better outcomes for entrepreneurs and their incubated businesses.

**Keywords:** business growth; business incubators; entrepreneurial coaching; entrepreneur development; SMME.

**JEL codes:** M13, L26, L22

**Article type:** research paper

### INTRODUCTION

The high rate of unemployment in South Africa has driven individuals to pursue self-employment to alleviate poverty (Tengeh & Choto, 2015). SMMEs are critical in job creation and economic growth, aligning with the National Development Plan's objective of creating 11 million jobs (Msimango-Galawe & Hlatshwayo, 2021). However, the start-up failure rate of SMMEs in South Africa remains alarming, ranging from 70% to 90% (Van der Spuy, 2019). Limited access to finance, market challenges, lack of support, inadequate skills training, and limited infrastructure and technology access are identified as primary factors contributing to SMME failures (Lose, et al., 2017). SMMEs are crucial in combating unemployment and poverty in South Africa (Msimango-Galawe & Hlatshwayo, 2021). However, they face limited skills, crime, funding constraints, and technology access. Business incubators, including coaching support, contribute to SMME success (Amamou & Ali, 2019; Schutte & Direng, 2019). To

ensure sustainable growth, diverse Business Development Support Providers (BDSPs) offer entrepreneurial coaching in South Africa (Van der Spuy, 2019).

While entrepreneurial coaching is critical in the development of business owners around the world (Ben Salem & Lakhali, 2018; Saadaoui & Affess, 2015), there is inconsistency in the implementation by BDSPs, particularly because there are no guidelines, frameworks, or regulations on coaching practice in South Africa (Schutte & Direng, 2019). According to Schutte & Direng (2019), the profession faces a challenge because little is known about the approaches and methodologies of entrepreneurial coaching. Furthermore, the delivery of entrepreneurial coaching is still inconsistent. In the South African context, no entrepreneurial coaching framework guides BDSP implementation. As a result, different coaches take different approaches to measurement, resulting in replication issues for incubators and ineffective trial-and-error delivery (Schutte & Direng, 2019). Despite limited research, coaching consistently contributes to entrepreneurial success and business growth (Schutte & Direng, 2019). A specific focus on entrepreneurial coaching in the business incubator environment fills the gap in coaching literature. Therefore, this study aims to identify entrepreneurial coaching outcomes through self-reporting by entrepreneurs, focusing on four outcomes from the integral AQAL model: entrepreneurial self-efficacy, entrepreneurial resilience, visionary mindset, and stakeholder relationship building.

To resolve the above-stated research gap, the research questions are formulated as follows: 1) to what extent does entrepreneurial coaching mediate relationships between entrepreneurial self-efficacy, entrepreneurial resilience, being visionary, building relationships and business growth?; 2) how does entrepreneurial self-efficacy influence the relationship between entrepreneurial resilience and business growth?; 3) how does entrepreneurial resilience influence the relationship between being visionary and business growth?; 4) how does being visionary influence the relationship between building relationships and business growth?; and 5) what is the influence of building relationships on business growth?

## LITERATURE REVIEW

### Entrepreneurial Ecosystem in South Africa

Small business support policies in South Africa date back to 1994 (Tengeh & Choto, 2015). The Small Business Development Corporation (SBDC) pioneered the concept of business incubation in 1995, initially providing infrastructure and facilitating market access for entrepreneurs (Lose et al., 2017). Various types of Business Development Service Providers (DSPs) have emerged over time, such as virtual and physical incubators, as well as workshop and office space providers, each tailored to the specific needs of entrepreneurs and sponsors (Lose et al., 2017; Small Enterprise Development Agency (SEDA), 2019). This research focuses on business support organisations, specifically business incubators.

### Business Incubators

Business incubators are both a process and a physical space for nurturing businesses in a secure environment (Schutte & Direng, 2019; Van der Spuy, 2019). They provide a supportive ecosystem where entrepreneurs can connect with business support services (Lose et al., 2017). Business incubation encourages entrepreneurship by providing different formats tailored to the needs of entrepreneurs, such as virtual and traditional incubators with physical infrastructure (Schutte & Direng, 2019). Finance, technology, workspace, skills, and networks are among the challenges that businesses face at various stages (Mamabolo & Myres, 2020). Incubators provide interventions, such as skills training, coaching, mentoring, advisory services, market access, and networking opportunities to entrepreneurs (Schutte & Direng, 2019). However, reducing small business failure rates remains a significant challenge for incubators (Msimango-Galawe & Hlatshwayo, 2021). Funding, external partnerships, and target markets all influence the format of an incubator (Mrkajic, 2017).

Figure 1 depicts the evolution of business incubation models, classified into three generations with a growing range of offerings (Bruneel et al., 2012). The first-generation model focuses on physical infrastructure, such as office space, while subsequent generations include intangible business services (Bruneel et al., 2012; Mrkajic, 2017). There is a mix of all three generations of business incubators in

South Africa, with some limited to infrastructure provision and others embracing the third-generation model and beyond (Van der Spuy, 2019). However, not all incubators meet best practice standards because some do not provide comprehensive business development services or market reach development (Lose et al., 2017). The COVID-19 pandemic reinforced the importance of technological knowledge, innovation, and e-delivery during incubation, rendering the first-generation model obsolete (Lose & Kapondoro, 2020). In response to the pandemic, business incubators should modify their strategies, including using modern technology to facilitate small business model changes (Lose et al., 2020). This research focuses on second and third-generation business incubators that offer business development services, particularly coaching, intending to increase the success rate of SMMEs by developing an entrepreneurial coaching framework.

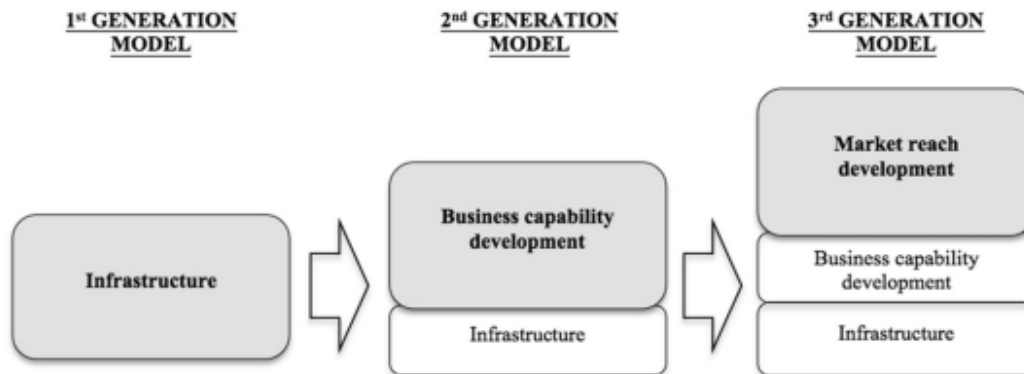


Figure 1. The Evolution of Business Incubation Models

Source: Adapted by Mrkajic (2017) from Bruneel et al. (2012)

### Entrepreneurial Coaching and Entrepreneurial Outcomes

Entrepreneurial coaching is personalised support for entrepreneurs seeking to improve their entrepreneurial skills (Saadaoui & Affess, 2015). Entrepreneurial coaching is defined in this study as individualised assistance provided by a professional entrepreneurial coach who uses their own entrepreneurial experience and skills to facilitate the entrepreneur's business development and soft skills, resulting in business growth (Ben Salem & Lakhali, 2018; Coller-Peter & Cronjé, 2020; Kotte et al., 2021). This distinguishes entrepreneurial coaching from other coaching domains in which the coach's experience or skills may or may not be required (Mmaditla & Ndlovu-Hlatshwayo, 2022). The individual coachee and the entity experience these entrepreneurial coaching outcomes (Wiginton & Cartwright, 2020). Establishing the coaching outcomes reported by coachees can help to understand and refine coaching interventions for other stakeholders.

### Theoretical Foundation

This study drew from multiple theories in gaining deeper insights into the entrepreneurial coaching ecosystem and testing the AQAL model. Systems theory provides a theoretical framework for understanding organisations and their environments as complex systems with interconnected parts (Lynch et al., 2021). It implies that changes in one part of the system can impact other parts and that the system can adapt and evolve to maintain stability and functionality (Soltanzadeh & Mooney, 2016). In the context of this study, systems theory is relevant for investigating the entrepreneurial ecosystem of small enterprise development in South Africa to develop the entrepreneurial coaching framework. For integrative and systemic coaching, several authors (Louis & Diochon, 2018) argue that entrepreneurial coaching is a systemic approach that integrates individuals with their entities. Wilber's Integral theory, specifically the AQAL model, provides a holistic perspective by considering both observable and non-observable aspects of individuals and their operating context (Landrum & Gardner, 2012; Wilber, 2000). The AQAL model was critical in achieving the objectives of this study. Isenberg (2010) developed the entrepreneurship ecosystem theory, consisting of six domains co-existing in the entrepreneurial environment. When considering the key components of an entrepreneurial ecosystem that enables entrepreneurship development, Fredin & Lidén (2020) emphasise the importance of a systemic

perspective. To better understand the ecosystem in South Africa and achieve the study's objectives, this study focuses on the support domain within the entrepreneurship ecosystem, specifically business development support and incubators. The development of the entrepreneurial coaching framework used systemic coaching models to boost business growth through entrepreneurial coaching.

Against the above background, the following hypothesis is stated:

Hypothesis 1: Entrepreneurial coaching moderates the relationship between:

Hypothesis 1a: entrepreneurial self-efficacy and business growth.

Hypothesis 1b: entrepreneurial resilience and business growth.

Hypothesis 1c: being visionary and business growth.

Hypothesis 1d: building relationships and business growth.

### **Entrepreneurial Self-Efficacy and Business Growth**

The interior quadrant of the individual focuses on unobservable aspects of the individual, such as self-motivation and intuition, which are important for entrepreneurs (Kerrin et al., 2017; Landrum & Gardner, 2012). Coaching interventions have increased entrepreneurial self-efficacy, or confidence in one's ability to complete tasks (Saadaoui & Affess, 2015). Entrepreneurial self-efficacy influences entrepreneurial outcomes as a foundation for behaviour and cognition (Gielnik et al., 2020). However, because entrepreneurs may overlook risks and limitations, it is important to consider the potential risks associated with excessively high entrepreneurial self-efficacy. Nonetheless, research has consistently identified entrepreneurial self-efficacy as a critical factor in business success (Saadaoui & Affess, 2015). Therefore, the following hypothesis is stated:

Hypothesis 2: Entrepreneurial self-efficacy:

Hypothesis 2a: as an individual interior entrepreneurial coaching outcome is positively related to business growth.

Hypothesis 2b: mediates the positive relationship between entrepreneurial resilience and business growth.

### **Entrepreneurial Resilience and Business Growth**

The individual exterior quadrant focuses on observable and measurable aspects of the individual, such as behaviour, time management, resilience, emotional coping, passion, and assertiveness, all of which are important skills for South African entrepreneurs (Kerrin et al., 2017; Volckmann, 2002; Wilber, 2000). Resilience is an active state of dealing with challenges and has been found to positively impact business growth, including profits and sales, among South African entrepreneurs (Santoro et al., 2020). Therefore, the following hypothesis is stated:

Hypothesis 3: Entrepreneurial resilience:

Hypothesis 3a: as an individual exterior entrepreneurial coaching outcome is positively related to business growth.

Hypothesis 3b: mediates the positive relationship between being visionary and business growth.

### **Being Visionary and Business Growth**

The collective interior quadrant includes unobservable aspects of the collective, such as collective thoughts, culture, norms, shared vision, and values, all of which are necessary skills for South African entrepreneurs (Kerrin et al., 2017; Volckmann, 2002; Wilber, 2000). Being visionary, defined as having a vision for the future of the business, is a collective interior quadrant characteristic because it extends beyond the individual and is not always externally observable (Kerrin et al., 2017). According to research, visionary characteristics are important for leaders and entrepreneurs, as successful entrepreneurs influence others to achieve desired goals or visions (Nimbodiya & Totala, 2019). Therefore, the following hypothesis is stated:

Hypothesis 4: Being visionary:

Hypothesis 4a: as a collective interior entrepreneurial coaching outcome is positively related to business growth.

Hypothesis 4b: mediates the positive relationship between building relationships and business growth.

### Building Relationships and Business Growth

The collective exterior quadrant includes observable and externally measurable aspects of the collective, such as collective behaviours, communication, stakeholder relationship building, and responsible leadership, all of which are essential skills for South African entrepreneurs (Kerrin et al., 2017; Landrum & Gardner, 2012; Volckmann, 2002; Wilber, 2000). This research focuses on relationship building, extending beyond clients to other stakeholders. Poor relationship management has been linked to business failure (Xesha et al., 2014), so developing good stakeholder relationships is critical for business success. Coaching entrepreneurs can help them become more self-aware and understand their personalities, allowing them to effectively network and build relationships with key stakeholders. Therefore, the following hypothesis is stated:

Hypothesis 5: Building relationships as a collective interior entrepreneurial coaching outcome is positively related to business growth.

### METHODS

The positivism paradigm was used in the study, known for its value-free and objective approach to explaining phenomena through objective facts (Creswell & Creswell, 2018). Adopting an explanatory research design, which uses quantitative data to test hypotheses, resulted in improved comprehension, explanation, and prediction of the research topic (Creswell & Creswell, 2018). The target population included entrepreneurs who had worked with an entrepreneurial coach within the previous 36 months and owned a business that was less than five years old, which corresponded to provincial contributions to the national economy in South Africa (Statistics South Africa (STATSSA), 2021, 2022). Despite the estimated population of 2,400,000 SMMEs in South Africa (SEDA, 2021), no database for coached SMMEs exists, implying that the proportion of SMMEs receiving coaching and mentoring may be lower than reported (SEDA, 2021).

The research sample was drawn up using convenience and snowball sampling to achieve a sample size that meets the assumptions of multivariate statistical techniques (Field, 2018). The recruitment of the entrepreneurs was largely from the Business Development Support Providers (BDSPs) programme managers sending the link to their alums. In addition, the entrepreneurs were asked to share the survey link with other entrepreneurs who had been in an incubation programme within the stipulated period and had a coach in the programme. Based on the population stated above, regarding a minimum acceptable sample size, the current study aimed to acquire a sample size that generated a 95% confidence interval (Field, 2018; Lakens, 2022). Further, to estimate the proportion with plus or minus 5% precision, the resultant target sample size statistically was  $n=385$  (Field, 2018; Filho et al., 2013; Lakens, 2022). However, the sample size was  $n=296$  (indicating a 77% response rate), surpassing the recommended 250 participants.

Table 1. Cronbach's Alpha for the Sub-scales

Variable	Cronbach's Alpha	Number of Items
Entrepreneurial Coaching	.925	13
Self-Efficacy	.942	11
Resilience	.920	10
Being Visionary	.952	7
Building Relationships	.935	9
Business Growth	.895	6

Source: Processed by Author

For this study, data was gathered using an online self-administered questionnaire, adapted from validated measurement scales in the literature, investigated the outcomes of entrepreneurial coaching, their impact on business growth specifically in the South African business incubator environment (Kerrin et al., 2017). A pilot study was conducted to ensure content validity and clarity of instruction (Creswell & Creswell, 2018). The survey aimed to determine the relationship between entrepreneurial coaching, reported outcomes, and business growth.

SPSS version 27 and STATA version 13 were used to analyse quantitative data collected through Qualtrics. To analyse the responses from entrepreneurs, descriptive statistics, correlation tests, reliability tests, and regression analysis were used (Field, 2018). The conceptual framework and relationships between variables were tested using Structural Equation Modelling (SEM) with path analysis (Mehmetoglu & Venturini, 2021). Cronbach's alpha was used to measure the overall reliability of the questionnaire to ensure rigour, with values greater than 0.7 considered acceptable (Field, 2018; George & Mallery, 2019). The reliability of the instrument used in this study ranged from acceptable to excellent, providing greater confidence in its validity (see Table 1)

## FINDINGS

Data was gathered from 312 respondent entrepreneurs who had received entrepreneurial coaching for their businesses, representing a wide range of business sizes and from all provinces in South Africa. From May to December 2021, the self-administered survey was distributed through Qualtrics. The final sample size was 296 after excluding incomplete surveys.

### Demographic Characteristics of the Sample

Of the 296 respondents, 121 (41%) were male and 175 (59%) were female. The racial breakdown was as follows: Black, 227 (76.7%), White, 27 (9.1%), Coloured 29 (9.8%), Indian, 11 (3.7%), and Other 2 (0.7%). The provincial distribution of entrepreneurs was Gauteng, 114 (38.5%), Mpumalanga, 16 (5.4%), Northwest, 49 (16.6%), Limpopo, 13 (4.4%), Free State, 8 (2.7%), Eastern Cape, 21 (7.1%), Northern Cape, 1 (0.3%), Western Cape, 47 (15.9%), and KwaZulu Natal, 27 (9.1%). In terms of business size, the breakdown was: Micro <6 employees, 231 (78%), Small <50 employees, 58 (19.6%), Medium - <200 employees, 2 (0.7%), and Large >200 employees, 5 (1.7%).

Table 2. Demographics and Sample Characteristics

Demographic Characteristic	Response	Frequency	Percentage
Gender	Male	121	40.9
	Female	175	59.1
Race	Black	227	76.7
	White	27	9.1
	Coloured	29	9.8
	Indian	11	3.7
	Other	2	0.7
Province	Gauteng	114	38.5
	Mpumalanga	16	5.4
	Northwest	49	16.6
	Limpopo	13	4.4
	Free State	8	2.7
	Eastern Cape	21	7.1
	Northern Cape	1	0.3
	Western Cape	47	15.9
	KwaZulu-Natal	27	9.1
Business Size	Micro Enterprise (<6 employees)	231	78.0
	Small Enterprise (<50 employees)	58	19.6
	Medium Enterprise (<200 employees)	2	0.7
	Large Enterprise (> 200 employees)	5	1.7

Source: Computed by Author

### Tests of Mediating Effects of Variables on Business Growth

This study sought to investigate the mediating effects of entrepreneurial coaching on self-efficacy, entrepreneurial resilience, visionary thinking, relationship building, and business growth in South Africa. Path analysis, a type of multiple regression, was used to test the research hypotheses and causal

relationships. The study looked at several pathways, including the impact of entrepreneurial coaching on self-efficacy, entrepreneurial resilience, vision, and relationship building, as well as the impact of these factors on business growth. A four-step approach was used to conduct mediation analysis to assess the conditions of mediation. The conceptual model (Figure 2) depicted the relationships between the independent variable (entrepreneurial coaching), the mediating variables (self-efficacy, resilience, visionary thinking, and relationship building), and the dependent variable (business growth).

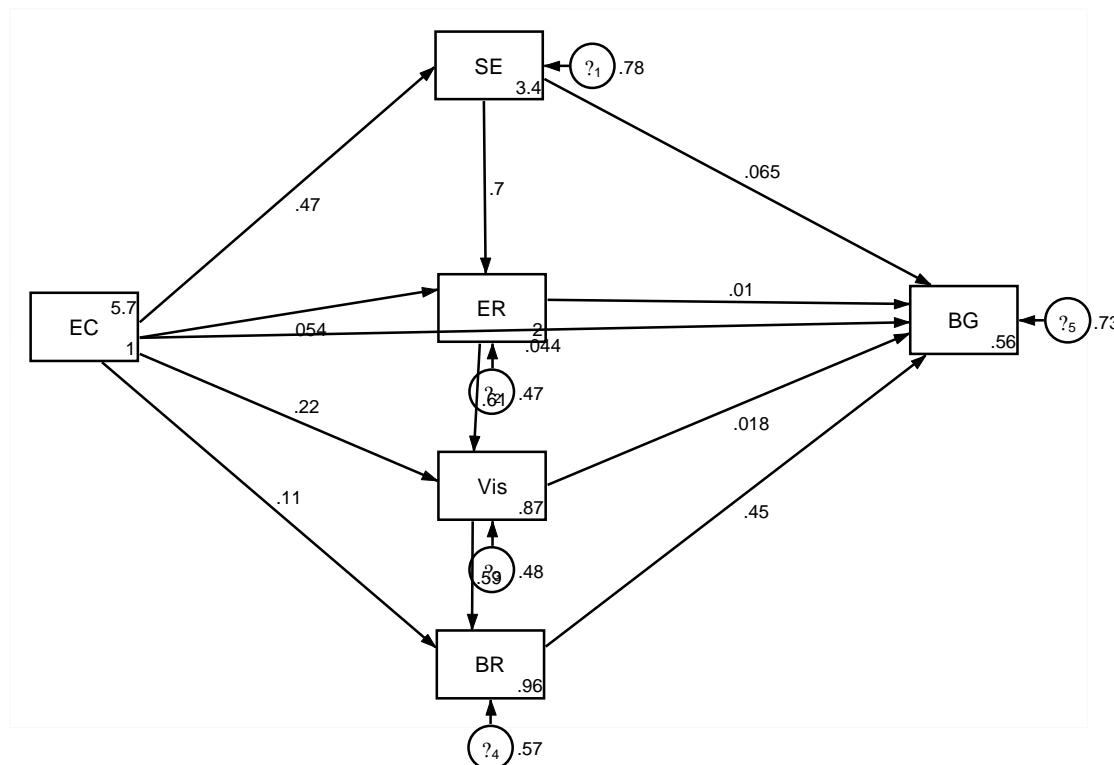


Figure 2. Step Four of Mediation Tests: Conceptual Model

EC – Entrepreneurial coaching, SE – Entrepreneurial Self-Efficacy, ER- Entrepreneurial resilience, Vis – Being Visionary, BR – Building relationships, BG- Business Growth.

Source: Processed by Author

The relationship between the dependent variable and both the mediating and independent variables was examined using structural equation modelling (SEM). This step aimed to see if the mediator predicts the dependent variable significantly and if the previously significant co-efficient of the independent variable is significantly reduced. The independent variable's non-significance indicates its lack of influence (MacKinnon et al., 2007; Mehmetoglu & Venturini, 2021). Only building relationships had a significant p-value of 0.000 among the four independent variables. On the other hand, entrepreneurial resilience, vision, and self-efficacy were not statistically significant, with p-values of 0.905, 0.824, and 0.445, respectively. Across all independent variables, there were complete, partial, and failed mediated effects for business growth. Table 3 shows that the self-efficacy abilities composite variable had a non-significant direct effect on the dependent variable [coefficient = .081; (p = .372)]. However, it had a highly significant relationship with entrepreneurial resilience (p 0.000). Entrepreneurial resilience, in turn, had a significant direct effect on the dependent variable [coefficient = .726; (p = .000)] and a highly significant relationship with being visionary (p 0.000).

Certain mediation tests failed at various stages of the investigation. For example, the regression of self-efficacy on business development produced non-significant results (p = .372), indicating failure at Step 1. Similarly, the relationship between visionary leadership and business success was insignificant (p = 0.735), failing at Step 1. As a result, using ECO as a mediator enables a systematic investigation of the relationships between independent and dependent variables. Overall, the mediation tests revealed that self-efficacy and entrepreneurial resilience, entrepreneurial resilience and being visionary, being visionary and building relationships, building relationships and business growth partially mediate. The

outcomes of entrepreneurial coaching act as a bridge between entrepreneurial coaching and business growth.

Table 3. Results of Tests of Mediation: Conceptual Model

Description of test	Significance of mediator Step 1 B (p-value)	Change in effects of independent variables (predictors) with the introduction of mediating variables (Steps 1-4)			Conclusion
		Dependent Variable	Step 2-3 B (p value)	Step 4 B (p value)	
Entrepreneurial self-efficacy as a mediator between Entrepreneurial coaching and business growth.	SE: .081 (0.372)	Business Growth	0.281 (0.000)	.469 (0.000)	No mediation Failed at Step 1
	SE: .726 (0.000)	Entrepreneurial resilience	0.431 (0.000)	.700 (0.000)	Partial mediation
Entrepreneurial resilience as a mediator between Entrepreneurial coaching and business growth.	ER: .726 (0.000)	Business Growth	0.281 (0.000)	.054 (0.258)	No mediation fails at Step 4
	ER: .693 (0.000)	Being visionary	0.490 (0.000)	.061 (0.000)	Partial Mediation
Being visionary as a mediator between Entrepreneurial coaching and business growth.	BV: .277 (0.735)	Business Growth	0.281 (0.000)	.215 (0.000)	No Mediation Failed at Step 1
	BV: .650 (0.000)	Building relationships	0.419 (0.000)	0.59 (0.000)	Partial Mediation
Building relationships as a mediator between Entrepreneurial coaching and business growth.	BR: .461 (0.000)	Business Growth	0.281 (0.000)	0.453 (0.000)	Partial Mediation

Source: Processed by Author

### Tests of the Conceptual Model

Model fit was evaluated using Chi-square, Normed  $\chi^2/df$  values, and model fit indices (CFI, TLI, RMSEA). Previous research informed the recommended cut-off values for these indices. Values greater than 0.90 for CFI and TLI and less than 0.08 for RMSEA indicate an acceptable model fit. A cut-off value 0.95 for TLI, CFI, and 0.06 for RMSEA is required for a reasonably good fit. The initial conceptual model fit poorly and was modified based on modification indices, resulting in the deletion of ten indicators. To maintain concept validity, cross-loadings were not allowed to be freed. Compared to the conceptual model, the revised model had better-fit indices. The chi-square test and fit indices confirmed the revised model's superiority. The revised model had a chi-square value of 0.000, a TLI of 1.006, an RMSEA of 0.000, and a CFI of 1.000, all indicating a good fit for the data.

## DISCUSSION

In the mediation test (Step 1), ECO serves as a mediator between business growth and entrepreneurial coaching, indicating a positive relationship ( $p < 0.05$ ). Previous research backs up ECO's role in influencing business growth (Kerrin et al., 2017; Mele et al., 2010; Wiklund et al., 2009; Wilber, 2000; Xesha et al., 2014). The structural model, moderation and mediation test results support Hypotheses 1 and 2, indicating that entrepreneurial coaching leads to self-efficacy, vision, and relationship building (except for entrepreneurial resilience, which yielded non-significant results). Hypotheses 1, 2, 3, 4, and 5 can be accepted at  $p = 0.002$  significance levels.

Entrepreneurial coaching is directly related to self-efficacy, vision, relationship building, and business growth, emphasising its effectiveness in developing critical entrepreneurial skills for South African entrepreneurs. The revised model's moderation, mediation analysis, and goodness of fit confirm that entrepreneurial coaching mediates the positive relationship between business growth and relationship



building. This finding is consistent with previous research, such as [Kerrin et al. \(2017\)](#); [Xesha et al. \(2014\)](#); [Galvão & Pinheiro \(2019\)](#). In the mediation tests, however, entrepreneurial coaching does not mediate the relationship between self-efficacy, entrepreneurial resilience, vision, and business growth.

The statistical analysis of the primary quantitative data aligns with previous studies, particularly Wilber's Integral theory and AQAL model ([Wilber, 2000](#)). The findings highlight the interconnectedness of the four quadrants representing entrepreneurial coaching outcomes: entrepreneurial self-efficacy, entrepreneurial resilience, being visionary, and building relationships.

Following the evidence provided above, entrepreneurial coaching:

Hypothesis 1a, which reads: "Entrepreneurial coaching moderates the positive relationship between entrepreneurial self-efficacy and business growth", is not supported.

Hypothesis 1b reads: "Entrepreneurial coaching moderates the positive relationship between entrepreneurial resilience and business growth" is not supported.

Hypothesis 1c, which reads: "Entrepreneurial coaching moderates the positive relationship between being visionary and business growth", is not supported.

Hypothesis 1d, which reads: "Entrepreneurial coaching moderates the positive relationship between building relationships and business growth", is supported.

In its relationship with entrepreneurial coaching, self-efficacy produces significant results [ $p = 0.000$ ] ([Volckmann, 2002](#); [Wilber, 2000](#)). Furthermore, when regressed on entrepreneurial resilience, self-efficacy shows significant results ( $p = 0.000$ ), confirming its direct relationship with both variables and mediation of the relationship between entrepreneurial resilience and business growth ([Volckmann, 2002](#); [Wilber, 2000](#)). This emphasises the significance of entrepreneurial self-efficacy because of entrepreneurial coaching and its significance for the development of entrepreneurs ([Saadaoui & Affess, 2015](#)).

Following the data provided above concerning entrepreneurial self-efficacy:

Hypothesis 2a, which reads: "Entrepreneurial self-efficacy as an individual interior entrepreneurial coaching outcome is positively related to business growth", is not supported.

Hypothesis 2b reads: "Entrepreneurial self-efficacy mediates the positive relationship between being entrepreneurial resilience and business growth" is supported.

Entrepreneurial resilience had no direct relationship with entrepreneurial coaching ( $p = .258$ ) or business growth [ $p = .905$ ] ([Corner et al., 2017](#)). These findings may be influenced by differences in measuring entrepreneurial resilience across studies ([Fisher et al., 2016](#)). The revised model, on the other hand, indicates that self-efficacy mediates the relationship between entrepreneurial resilience and business growth, emphasising the interdependence of entrepreneurial coaching outcomes ([Volckmann, 2002](#); [Wilber, 2000](#)). Furthermore, being visionary mediates the relationship between building relationships and business growth, which aligns with the AQAL model's concept of interconnected quadrants ([Volckmann, 2002](#); [Wilber, 2000](#)).

Following the data provided above with regard to entrepreneurial resilience:

Hypothesis 3a, which reads: "Entrepreneurial resilience as an individual exterior entrepreneurial coaching outcome is positively related to business growth", is not supported.

Hypothesis 3b reads: "Entrepreneurial resilience mediates the positive relationship between being visionary and business growth" is supported.

Previous research has identified vision as an attribute associated with successful business growth ([Kerrin et al., 2017](#); [Mamabolo & Myres, 2020](#)). The current study also discovered that being visionary is an outcome of entrepreneurial coaching ( $p = 0.000$ ), supporting the notion that visionary skills benefit entrepreneurs ([Nimbodiya & Totala, 2019](#)). The study, however, did not find a significant relationship between being visionary and business growth ( $p = 0.735$ ), contrary to previous findings.

Following the data provided above with regards to being visionary:

Hypothesis 4a, which reads: "Being visionary as a collective interior entrepreneurial coaching outcome is positively related to business growth", is not supported.

Hypothesis 4b reads: "Being visionary mediates the positive relationship between building relationships and business growth" and is supported.

Building relationships is an essential skill for business growth (Galvão & Pinheiro, 2019). According to the study findings, entrepreneurial coaching leads to developing relationship-building skills ( $p = 0.000$ ), and there is a direct relationship between building relationships and business growth ( $p = 0.000$ ). These findings are consistent with previous research indicating that individuals with building relationship skills are likelier to experience business growth than those without (Kerrin et al., 2017; Mamabolo & Myres, 2020; Xesha et al., 2014). As a result, the ability to build relationships has a significant impact on business growth (Galvão & Pinheiro, 2019).

Following the data provided above with regard to building relationships:

Hypothesis 5, "Building relationships as a collective exterior entrepreneurial coaching outcome is an antecedent for business growth," is supported.

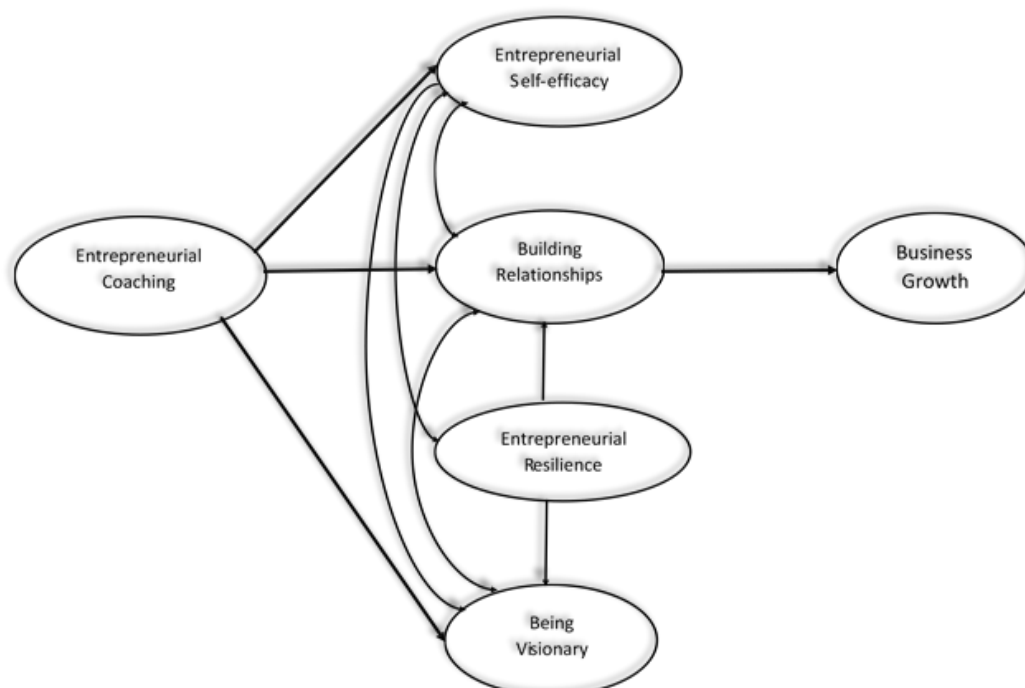


Figure 3. Revised Conceptual Model

Source: Created by Author

As pictured in the revised conceptual model in Figure 3, the statistical analysis of the primary quantitative data aligns with previous studies, particularly Wilber's Integral theory and AQAL model (Wilber, 2000). The findings highlight the interconnectedness of the four quadrants representing entrepreneurial coaching outcomes: entrepreneurial self-efficacy, entrepreneurial resilience, being visionary, and building relationships. Figure 3 depicts partial mediation effects in the revised conceptual model. The findings show that self-efficacy, along with entrepreneurial resilience, contribute to business growth, while entrepreneurial resilience combined with vision and vision combined with relationship building also contribute to business growth. These findings are consistent with Wilber's (2000) AQAL model, which emphasises the influence of individual thoughts (entrepreneurial self-efficacy) on individual behaviour (entrepreneurial resilience), which in turn, influences collective thoughts and culture (being visionary), ultimately influencing collective behaviour (building relationships). Addressing the individual interior, such as an entrepreneur's thoughts and beliefs about themselves and their entrepreneurial abilities (e.g., self-efficacy), is critical for stimulating business growth in the South African context. However, concentrating solely on individual factors may not produce the desired results. Gielnik et al. (2020) emphasise the importance of self-efficacy in influencing behaviour and cognition.

Furthermore, while important, [Kerrin et al. \(2017\)](#), entrepreneurial resilience has no direct impact on business growth. According to the study findings, a systemic approach is required, and self-efficacy mediates entrepreneurial resilience and business growth. This finding supports the AQAL model, which emphasises the interconnectedness of the individual interior and exterior quadrants. Isolating entrepreneurial resilience or visionary leadership may not result in the desired business growth outcomes. However, as supported by the revised conceptual model and aligned with integral and systems theory, being visionary plays an important role in business growth ([Volckmann, 2002](#); [Wilber, 2000](#)). The study's findings support Wilber's (2000) AQAL model, indicating that entrepreneurial resilience in the individual exterior quadrant influences the visionary collective interior quadrant. Empirical studies show that building relationships positively impacts business growth in the South African context ([Kerrin et al., 2017](#); [Mamabolo & Myres, 2020](#); [Xesha et al., 2014](#)). These findings are consistent with the systemic approach, in which changes in one element affect other elements ([Bhatnagar, 2021](#)).

This study's findings support the argument that entrepreneurial coaching outcomes mediate the relationship between coaching and business growth, emphasising the importance of coaching in achieving greater success in business development. The study emphasises the importance of increased entrepreneurial coaching to boost business growth in South Africa, as coaching is directly related to self-efficacy, entrepreneurial resilience, vision, relationship building, and business growth. These findings confirm that entrepreneurial coaching is a dependable intervention for developing critical entrepreneurial skills required for business growth among South African entrepreneurs. According to the study findings, entrepreneurial coaching indirectly impacts business growth due to its influence on entrepreneurial coaching outcomes. Increasing the availability of entrepreneurial coaching in small business development programmes can improve coaching outcomes for entrepreneurs. The study tested the outcomes of entrepreneurial self-efficacy, entrepreneurial resilience, vision, and relationship building. Incorporating entrepreneurial coaching into business incubator programmes can greatly benefit the entrepreneurial ecosystem by providing adequate resources and physical infrastructure for entrepreneurship. This supports the recommendation that more South African business incubators implement business coaching interventions.

According to the revised model, entrepreneurial resilience mediates the relationship between visionary and business growth, whereas visionary mediates the relationship between relationship building and business growth. The findings emphasise the interdependence of entrepreneurial coaching outcomes, emphasising the systemic coaching approach, which recognises the importance of addressing multiple factors for improved business growth. Increasing entrepreneurs' self-efficacy improves their entrepreneurial resilience, improving their visionary mindset and ability to build business relationships. Relationship building has been shown to have a positive impact on business growth. The systemic coaching approach and the AQAL model place a premium on the interdependence and interconnectedness of sub-factors in the coaching process. Changes in one factor cause changes in others, affecting the entire system.

Furthermore, the study discovered that entrepreneurial coaching moderates the relationship between relationship building and business growth, emphasising the importance of this skill for entrepreneurs. On the other hand, entrepreneurial coaching had no effect on the relationship between self-efficacy, entrepreneurial resilience, vision, and business growth. These findings highlight the importance of entrepreneurial coaching and its various outcomes in driving business growth, highlighting the importance of a comprehensive and integrated approach to coaching interventions. The revised conceptual framework is justified by its alignment with the AQAL model, which provides a novel and comprehensive perspective on the entrepreneurial coaching sector that has not previously been applied. The systemic approach of the AQAL model emphasises the interconnectedness and interdependence of various factors that influence human experience and outcomes. The AQAL model promotes a holistic approach in the context of entrepreneurial coaching. It emphasises that coaching should not focus on a single factor to achieve success because human experience is multifaceted and influenced by multiple dimensions. This integral approach is central to the philosophy of the AQAL model.

By incorporating the AQAL model, the revised conceptual model recognises that entrepreneurial coaching should consider not only individual factors such as mindset or self-efficacy, but also external

factors such as social and cultural influences, observable behaviours, and the broader socioeconomic context. This comprehensive viewpoint aligns with the core principles of the AQAL model, emphasising the need for a holistic understanding of the complex dynamics at work in entrepreneurial coaching. In summary, the revised conceptual model is justified by its adherence to the AQAL model's holistic approach, which encourages a more thorough and inclusive examination of the diverse elements that contribute to entrepreneurial coaching success. This alignment ensures that the model captures the integral nature of coaching and provides a more comprehensive analysis framework.

## CONCLUSION

This study aimed to fill a knowledge gap regarding the mediating effects of business growth antecedents on entrepreneurial outcomes. The research questions, conceptual model, methodology, quantitative findings, and revised conceptual model were discussed. The study discovered that entrepreneurial coaching is directly related to entrepreneurial self-efficacy, entrepreneurial resilience, vision, and relationship building. It also modifies the link between relationship-building abilities and business growth. Relationship building was the only significant direct predictor of business growth, emphasising the importance of coaching interventions. Policymakers are urged to use the proposed framework to professionalise and differentiate entrepreneurial coaching from other types of coaching.

Some limitations were observed in the study. The study relied on cross-sectional data to provide a view of current entrepreneurs, coaches, programme managers and opinions of industry experts. This limited the study's ability to identify causal links across factors. The findings and conclusions may not be universal in understanding the significance of entrepreneurial coaching concerning business entities that have passed the important three-year mark at which the small business failure rate is reported to decrease. The findings indicate that undertaking a longer-term Integral theory AQAL model study will allow for further validation of findings through the model's practical implementation, which time and budget restrictions prevented in this study.

More studies are needed to holistically examine the effectiveness of entrepreneurial coaching, its outcomes and business growth. Future studies should focus on the shortcomings and challenges in the competency of entrepreneurial coaches in South Africa to identify effective strategies for addressing them. This can help to design an appropriate competency framework for entrepreneurial coaching programmes that can be comprehensively integrated into a broad range of curricula and agendas within the existing entrepreneurial coaching field in South Africa. This can assist in standardising practice and supporting entrepreneurial coaches' procurers in BIs by monitoring and evaluating entrepreneurial coaching services. There is limited research on the influence of entrepreneurial coaching on small enterprises in the post-incubation period. Longitudinal studies should examine entrepreneurs who have been coached while incubated and are in the post-incubation stage, comparing them with those who have not received entrepreneurial coaching in BIs. This study might benefit from researching the question: "To what extent does entrepreneurial coaching impact post-incubation business growth?" Future research could benefit from using qualitative approaches to gain a more in-depth understanding of the experiences of entrepreneurs with the entrepreneurial coaching process. Quantitative research with a larger sample of entrepreneurial coaches, BI programme managers and industry experts would be valuable in determining success and growth trends and continually testing and updating entrepreneurial coaching frameworks so they remain relevant.

## CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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