

What makes an Entrepreneur:

14 Behavioural Competencies



From the time the Allan Gray Orbis Foundation was established in 2005,

our aim has been simple: to nurture high impact, responsible entrepreneurs. However, it's one thing to implement a programme with a clear objective, and quite another to prove – scientifically and empirically – that the programme is achieving its intended goals.

That's why the Foundation embarked on a formal validation study in 2017. By this time, the success profile methodology used to select participants for our programme had been in place for five years. We wanted to be sure, beyond doubt, that our tools were optimally accurate and effective in terms of assessing candidates. We also wanted to determine whether our selection and development framework was the right one. Could we be certain that the competencies we selected for were, indeed, indicators of academic performance and entrepreneurial potential?

Our validation study was informed and underscored by our understanding that, when establishing a business, success is largely determined by three critical elements: the Person (their skills, competencies, mindset and values) the Context (political and socio-economic) and the Process (the steps taken to start the business). The Foundation's work is unique in that we select young people at pre-ideation stage; in other words, we select for individual entrepreneurial potential, rather than the business idea. This means that an individual's mindset and competencies are of paramount importance, because they are indicative of the ability to develop into a responsible, high impact entrepreneur.



THE PROCESS

Our journey to greater effectiveness began with testing all the selection tools employed in our Scholarship and Fellowship programmes. We followed this with a qualitative review of our success profile framework and methodology.

Our initial findings revealed three critical insights. For a start, we learned that there was limited insight into our theory and rationale. For instance, we might select for resilience, but the theoretical link to this construct was weak. In fact, if you asked two different people to link resilience to high impact entrepreneurship, you'd receive two different responses.

Our second finding related to the lack of outcomes domains. We hadn't provided an unambiguous definition of our outcomes, which meant that even though we were doing great work around entrepreneurial development, the impact of our initiatives couldn't be measured in terms of predictive validity towards entrepreneurial performance and/or development. We therefore had to formalise the links between outcomes and constructs.

Finally, we found that the success profile competency framework lacked discriminant validity between our various constructs, and, in many cases, they overlapped.

The reasons for these areas of improvement were manifold; the relativeness newness and complexity of the field of entrepreneurialism being one of the most significant. There is, consequently, limited research available on the topic, especially pertaining to what makes an entrepreneur. This is particularly true of the age group targeted by the Foundation. Thus, our selection process was the most rigorous in place when it was first formulated, in spite of its shortcomings. Nonetheless, as a learning organisation, we were eager to address these and enhance the process wherever possible – as we will continue to do in the future.

Our quest for improvement meant that we had to return to the beginning, to take a fresh look at our theoretical and empirical roots and, in so doing, establish more clearly defined entrepreneurial competencies with a South African-centric focus.

THE NEXT STEPS

The first phase of the project centred around generating a literature review and developing our entrepreneurial research survey. Using desktop research, we conducted an empirical analysis of both local and global data to identify 17 models of high impact entrepreneurship.

Next, we hosted a workshop with our reference group – which comprised external experts, internal stakeholders, and established entrepreneurs – to extract key competencies from these models.

We had now identified 19 key competencies, all of which had been shown to lead to entrepreneurial action. More than this, we also gleaned an understanding of where to pitch our entrepreneurial outcomes: where previously we had concentrated on CEO or conductor levels, we realised the need to establish a greater degree of involvement, earlier on in the entrepreneur’s journey. We therefore shifted our emphasis to start-up entrepreneurs, whose abilities may then be nurtured, allowing them to follow different paths.

We concluded this phase with a literature review, drafted by the University of Pretoria, which created conceptual and operational definitions of each competency and assessed the developability of each construct, also noting whether each could be measured. We now had a conceptual and operational definition for each construct, and a clear path on how to take each forward.

This led us to the second phase of the project: finalising our research survey on the 19 competencies. This included a survey on entrepreneurial action, so that we were better equipped to measure such action.

The entrepreneurial action scale (McMullen and Shepherd, 2006) consists of 17 items to measure the business start-up activities on a five-point Likert-type scale where respondents were asked to what extent they have engaged in the listed activities toward venture creation in the last three years, ranging from 1 (never) to 5 (always) (see Table 1). Entrepreneurial action was split into three constructs using the Exploratory Factor Analysis. The entrepreneurial outcomes for each entrepreneurial action phase are listed below.

Table 1

FACTOR 1: Pre-action activities	FACTOR 2: Actual action activities	FACTOR 2: Action planning activities
I have spent a lot of time thinking about starting a business before I actually started my business	I have purchased or leased major items, like equipment, facilities or property	I have selected a business name
I have organised a start-up team	I have purchased raw materials, inventory, or other supply	I have created a legal entity
I have identified market opportunities	I have developed models or procedures for a product/service	I have registered with the tax authorities
I have prepared a business plan	I have started marketing or promotional activities I am devoted full time to the business I have appointed employees	I have invested some of my own money in a business

BEFORE SETTING UP OUR SAMPLE GROUP,

we piloted the study among Allan Gray Fellows, then incorporated their feedback and refined our questionnaires before distributing them among our sample of 1 200 start-up and established entrepreneurs – noteworthy for being the third largest entrepreneur sample in South Africa. The hybrid nature of the sample is noteworthy, too, as accessing start-up entrepreneurs is difficult. We were aided in the data collection process by a company that enjoys relationships with a number of entrepreneurial agencies and institutions.

Once we had collected the data, it was time for analysis, a phase that took place between December 2018 and February 2019. One of our aims here was to refine the 19 competencies identified during the previous phase, narrowing them down to those which had been shown to be most closely aligned to entrepreneurial action.

We were now set up for Phase Three: moving data analysis from our respondents, using a structural equation modelling process. We also undertook statistical analysis to examine the strength of each construct compared to the entrepreneurial action outcomes, allowing us to target the constructs with the most significant relationships to entrepreneurial action.

The ultimate result? A scientific, empirical model that shows a good fit between 13 constructs. Further, the reference group who assisted throughout the research project, believed that as a precursor to opportunity assessment is opportunity recognition, which did not fall into the 13-competency model and subsequently decided to add Opportunity recognition as a competency.

Expanding on this, The Foundation research team also maintained that it was necessary to add as particularly on a Scholarship level we could not select a scholar on opportunity assessment but could in fact, select them with opportunity recognition. The latter was more relatable and appropriate for a scholar level.

This is important, because we now know beyond any doubt that if we select for certain constructs, and develop them, entrepreneurial action of some sort is guaranteed. Empirically tested and proven, these constructs now form the basis of the Foundation's selection and development initiatives of its candidates and beneficiaries. Consequently, our already carefully formulated selection process has been enhanced by our increased knowledge of entrepreneurship, which has allowed for our more scientific approach.

Our scrutiny of all constructs and their relationship with entrepreneurial action was significant in another way, too: it confirmed findings from a previous study we conducted in partnership with the Entrepreneurial Learning Institute (ELI), where we had attempted to establish a growth mindset model. During this study, five competencies had emerged as key: a growth mindset, self-efficacy, locus of control, resilience and attribution theory. Interestingly, four of these (resilience, locus of control, growth mindset and self-efficacy) were once more revealed as statistically significant, reaffirming the model developed in collaboration with ELI and ensuring that we have now validated, and empirically tested, the constructs leading to entrepreneurial action.

WHERE TO FROM HERE

Having defined scientifically and empirically tested competencies required for successful entrepreneurship and entrepreneurial action at a startup level, we're now poised to apply our research at high school and university level. This will enable us to develop candidates at these levels with optimal efficiency, so that they are able to kickstart their entrepreneurial careers as soon as they graduate from our programmes or best case, during.

Our way forward lies in using the research and customising the competencies to enhance the selection processes for our Scholarship and Fellowship programmes, and to ensure that we are developing each competency, for each individual, optimally.

WHY THIS MATTERS

Our final task lay in aligning our new entrepreneurial competency and mindset framework throughout the Foundation's pipeline – and, moreover, ensuring that the results are available to our ecosystem partners.

This is, perhaps, one of the most important steps in the process, because the ramifications of our competency review are tremendous. Obviously, the outcomes hold clear advantages for the Foundation itself, enabling us to select candidates with far greater efficiency. What's more, because we have established which competencies are trait-based and which are developable, we are able to nurture our candidates at different levels – and, if a certain competency is not greatly developed, candidates can learn which they can strengthen in order to become a more well-rounded entrepreneur. This insight is particularly heartening when it comes to the mindset constructs, as each of these can be developed. This gives credence to our belief that entrepreneurship is not an innate quality but can, in fact, be taught.

This study could help the entrepreneurship community understand why entrepreneurial intention does not always translate into action, because we know which specific mindsets and competencies are predictors of entrepreneurial action. These competencies can be measured using validated tools in various programmes for baseline data, which can then be used to tailor or customise development programmes for future entrepreneurs.

Moreover, helping entrepreneurs become aware of their entrepreneurial potential can allow them to enter the space with greater confidence, as the findings emphasise the role of personal development and self-mastery.

The implications for organisations and business owners are interesting, too, especially in terms of team recruitment, allowing companies to identify the complementary traits required to build an entrepreneurial, cohesive and effective team. These measures could also assist in profiling various types of entrepreneurs going forward.

Finally, entrepreneurship accelerators and incubators stand to benefit from our findings by applying the knowledge of which competencies to use when selecting participants. This affords accelerators greater clarity in terms of the traits they are looking for, as well as the traits that need to be developed.



THE 14 COMPETENCIES

Our research showed the following competencies to be crucial:

1

OPPORTUNITY ASSESSMENT:

The ability to evaluate an opportunity and make a decision around it.

Conceptual definition:

The process of evaluating an idea, concept, or opportunity to determine whether there is sufficient strategic, market, and financial merit for continued consideration and possible development into a product. (Moris, et al. 2013)

Operational definition:

The ability of the entrepreneur to evaluate the opportunity before them and to make a decision regarding the opportunity. Testing a gut feeling of good versus not-so-good opportunities. (Baron, 2006; Haynie, Shepherd & McMullen, 2009)

Link between opportunity assessment and entrepreneurship:

Opportunity assessment increases the probability of entrepreneurial success, as the opportunity is analysed to ensure the performance of an identified opportunity. This can be developed by encouraging entrepreneurs to meet with the customer, review internal resources, develop a strategy, conduct a risk assessment and plan (OBrochta, 2001).

The developability of opportunity assessment:

Measuring elements in the window of opportunity and the viability of an opportunity can increase a person's chances of becoming an entrepreneur. This is done by the opportunity assessment process that evaluates the viability and of profitability of the window of opportunity, an assessment of the opportunity over time and its long term viability (Lévesque & Maillart, 2008).

Can opportunity assessment be measured?

Yes. We used a scale developed by Moris et al. (2013) and obtained a Cronbach alpha value of 0.94.

2

PROBLEM SOLVING:

The ability to identify problems, redefine them and create opportunities out of them.

Conceptual definition:

Creative problem solving is a skill that is based on the accumulation of effort, imagination, knowledge and evaluation of the problem (Turker & Sonmez Selçuk, 2009) (McMullen & Kier, 2017:2).

Operational definition:

Creative problem solving is described as the ability to identify problems, redefine the problems and create opportunities out of the problems by developing new and innovative solutions to problems (McMullen & Kier, 2017:2), (Morris et al., 2013:357).

Link between creative problem solving and entrepreneurship:

Creative problem solving (CPS) builds entrepreneurial mindset. CPS is defined as seeking original ways to reach goals when the means to do so are not readily apparent. Entrepreneurship involves recognising a business opportunity, mobilising resources and persisting to exploit that opportunity. Esomonu (1998) defined entrepreneurship as the effective manipulation of human intelligence as demonstrated in a creative performance. This singular risk-taking act leads an individual to create something of value from practically nothing.

The developability of creative problem solving

Creativity and CPS can be developed by stimulating creative thinking and the ability to tap into one's inventive side. This can be measured by determining how creative one is, how inventive, how often one comes up with novel ideas and the ability to identify opportunities (Hmieleski & Corbett, 2006).

Can creative problem solving be measured?

Yes. Creative problem solving (creativity) scales have been developed and tested by (Kristiansen & Indarti, 2004), and obtained a Cronbach alpha of 0.85.

INNOVATION:

The ability to be creative and turn ideas into reality.

Conceptual definition:

Innovation can be described as the development of a new idea, method or device (Dahlander & Jeppesen, 2014).

Operational definition:

The ability to turn imaginative and creative ideas into reality (Jain, 2011:130-139), Boyles (2012)

Link between innovation and entrepreneurship:

Innovation is the mechanism by which organisations produce the new products, processes and systems required for adapting to changing markets, technologies and modes of competition. Innovation represents today's competitive advantage, supported by strong mainstream capabilities in quality, efficiency, speed and flexibility. Innovation can help firms play a dominant role in shaping the future of their industries. High performing innovators are able to maintain a giant juggling act of capabilities, and consistently bring new high-quality products to the market faster, more frequently and at a lower cost than competitors. Moreover, these firms use process and systems innovation as a way of further improving their products and adding value to customers. This combination creates a dynamic and sustainable strategic position, making the organisation a constantly moving target to competitors (Lawson & Samson, 2001).

The developability of innovation:

Innovation capability is proposed as a higher-order integration capability; that is, the ability to mould and manage multiple capabilities.

Can innovation be measured?

Yes. Innovation scales developed and tested by (Lukas & Ferrell, 2000; Mitchelmore & Rowley, 2010), obtained a Cronbach alpha of 0.78. Innovation scales developed and tested by (Higgins, 1995), obtained a Cronbach alpha of 0.70.



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RESILIENCE:

The ability to work through challenges.

Conceptual definition:

Resilience can be described as an entrepreneurs' ability to face challenges and still persist (Ayala & Manzano, 2014:128).

Operational definition:

Resilience is measured through the capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development (Fisher, Maritz & Lobo, 2016:40).

Link between resilience and entrepreneurship:

Resilience, according to Tedeschi and Calhoun (2004:4), is an entrepreneur's ability to continue living a resolute life, no matter the adversity or difficulties that are faced.

The developability of resilience:

Operational flexibility enables resilience through allowing the organisation to respond quickly and effectively to disruptions (Sheffi 2007). As such, the organisational capabilities offer the potential for adjustment under conditions of uncertainty and encompass the notion of innovation within organisational systems.

Can resilience be measured?

Yes. Resilience scales developed and tested by (Sinclair & Wallston, 2004) obtained a Cronbach alpha value of 0.69

AUTONOMY:

The belief that, as an individual, you have control over your outcomes.

Conceptual definition:

Locus of control is the degree to which people believe that they have control over the outcome of events in their lives, as opposed to external forces beyond their control (Lefcourt, 1991).

Operational definition:

To measure whether a person enjoys being in control of every aspect of their business (Spector, 1988).

Link between locus of control and entrepreneurship:

Entrepreneurs tend to have a strong internal locus of control. Locus of control is a concept defining whether a person believes he/she is in control of his/her future, or someone else is in control of it. For example, we all know people who believe they have no control over their lives. They believe that what happens to them is dictated by outside forces. People who feel they are victims of outside forces have an external locus of control – "it's not my fault this happened to me." By contrast, entrepreneurs have a very strong internal locus of control. They believe their future is determined by the choices they make (Hansemark, 1998).

The developability of locus of control:

Rotter (1966) made a significant contribution to this tradition with the development of a “locus of control” construct. According to Rotter, an individual perceives the outcome of an event as being either within or beyond his or her personal control and understanding. In individualistic cultures we found an increased likelihood of an internal locus of control orientation. There was also support for the hypothesis that an entrepreneurial orientation, defined as internal locus of control combined with innovativeness, is more likely in individualistic, low uncertainty avoidance cultures than in collectivistic, high uncertainty avoidance cultures (Mueller & Thomas, 2001).

Can locus of control be measured?

Yes. Locus of control scales developed and tested by (Spector, 1988) obtained a Cronbach alpha of a range from 0.91 to 0.94.

6

CURIOSITY:

A drive to find out information without being prompted.

Conceptual definition:

Curiosity is the catalyst ingredient, which leads entrepreneurs to pry into status quo products and services to find new solutions to better solve customers' problems. A sense of curiosity means you look at even the smallest problems and seek a better solution (Steyaert, Hjorth & Gartner, 2011).

Operational definition:

Curiosity arises when an entrepreneur is bored or interested in gaining additional information that is specifically linked to entrepreneurship. It is measured when a person is no longer comforted by the novel stimulus surrounding them and wants to find new opportunities or information necessary in business (Fletcher, 2011).

Link between curiosity and entrepreneurship:

There is a link between entrepreneurial curiosity and entrepreneurship results in learning tasks related to entrepreneurship and the ability to incorporate new experiences to improve or develop a business. Curiosity can further be described as finding answers which enable a person to improve decision making. An entrepreneur who has a high level of curiosity will be interested in understanding how the economy works, how to improve results and how business works (Fletcher, 2011).

The Developability of Curiosity:

Curiosity is made up of perceptual curiosity (intellectual information), epistemic curiosity (experience) and operationalised international curiosity (new information of people). Entrepreneurial curiosity is the desire that drives the individual to learn how to perform specific tasks which are directly related to entrepreneurship, such as how to conduct market research, the development of new ideas, financial analysis, how to achieve and set goals and the use of marketing.

Can curiosity be measured?

Yes. Curiosity scale developed and tested by (Fletcher, 2011) obtained a Cronbach alpha value of 0.94.

VALUES DRIVEN:

The extent to which an individual is committed to their personal or organisational values.

Conceptual definition:

This is a type of leadership that puts values into practice, where they act as guiding principles with regards to business and personal lives (Mussig, 2003).

Operational definition:

Examines the extent to which a person has values and how committed they are to follow those values (De Bruin & Buchner, 2010).

Link between values driven and entrepreneurship:

Generally, there is agreement that a vision is a pattern for a future; having elements of time and scope, it is values driven, has a purpose, and often evokes a mental image or picture that can be communicated (Bird & Brush, 2003). People with protean career attitudes are values-driven as they shape their careers according to their own internal values and beliefs (Uy, Chan, Sam, Ho & Chernyshenko, 2015). Entrepreneurship is the driving force in economic development throughout the world. Yet, some have argued that entrepreneurship is fundamentally a values-driven activity (Berger 1991; Lipset 2000).

Kilby (1993) notes that values are instrumental in advancing a constructive understanding of human behaviour and consequent change. Thus, it would seem that personal values should have important implications not only for the decision to pursue entrepreneurship, but the way in which the entrepreneur approaches a venture. Values reflect the entrepreneur's conscious view of himself or herself (Feather 1990). In addition to this, the view (or belief) that one has about himself or herself directly shapes movement toward action, or one's motives (McClelland 1961).

The developability of values driven:

What values will drive the company? And what will your role be in this organisation? The vision of your venture should be a short statement that can be easily communicated, or presented in an image (Brush, 2008). The values that the Foundation drives, can be developed.

Can values driven be measured?

Yes. Value driven scales developed and tested by (De Bruin & Buchner, 2010) obtained a Cronbach alpha of 0.654.



ACTION ORIENTATION:

The extent to which a person is willing to take action to solve a problem without being prompted.

Conceptual definition:

Action orientated is when a person is willing or likely to take practical action to deal with a problem or situation (Low, 2001).

Operational definition:

Measures the extent to which a person is willing to pursue development and hopefully a business (Frese, Kring, Soose & Zempel, 1996).

Link between action orientation and entrepreneurship:

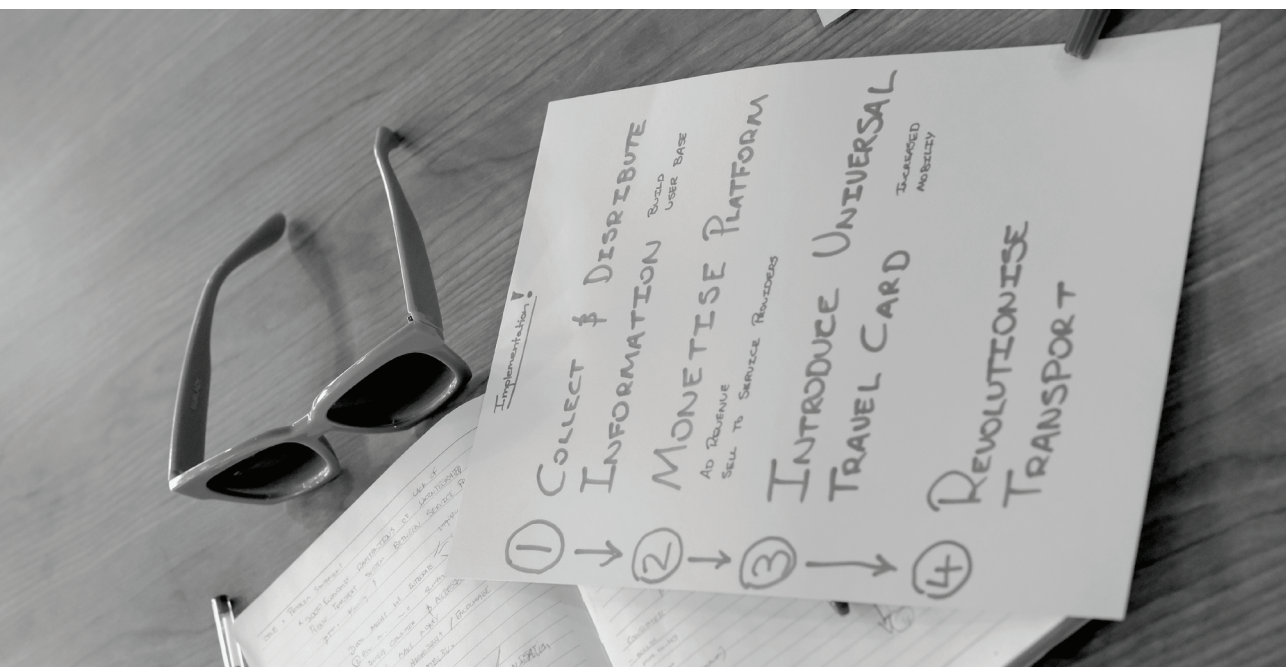
Action orientation or personal initiative is a proactive, self-starting, and persistent long-term orientation that attempts to shape environmental conditions (Frese, Kring, Soose, & Zempel, 1996); extending proactiveness to personal initiative which, over and above proactiveness, entails approaching business issues in a persistent and self-starting manner which forms the basis of entrepreneurship (Krauss, Frese, Friedrich & Unger, 2005).

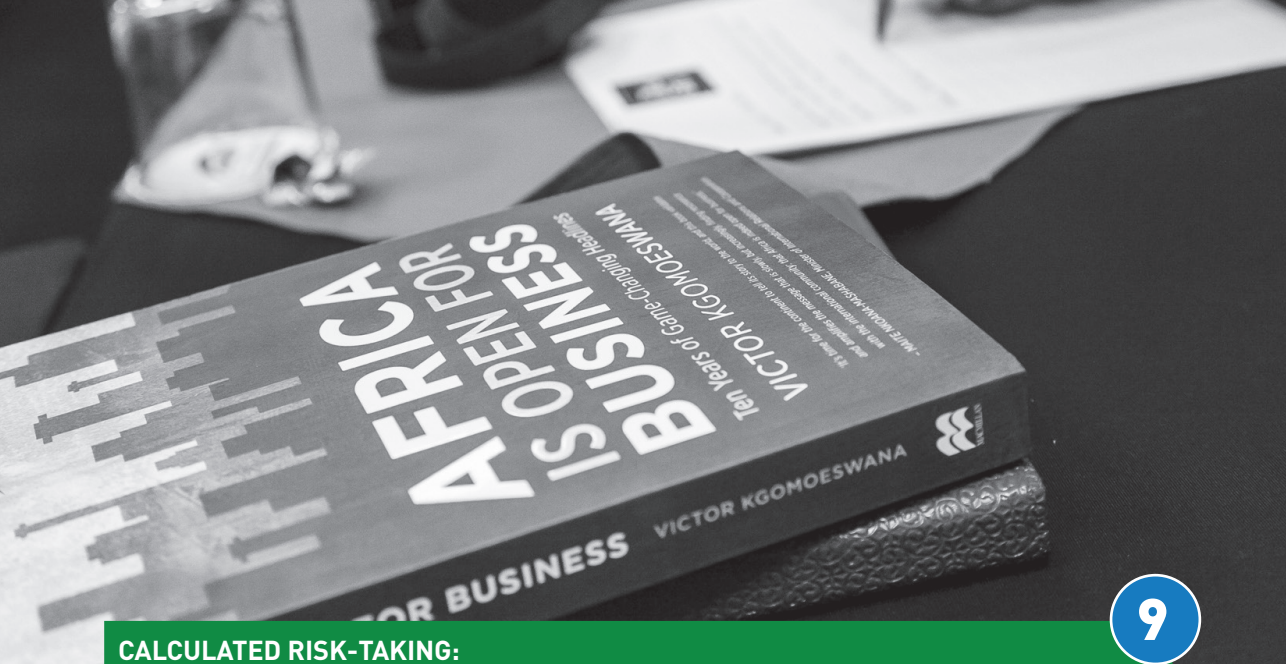
The developability of action orientation:

Action orientation can be measured by enquiring about attitudes and values concerning change and initiative, as well as about entrepreneurial intentions (Johannisson, Landstrom & Rosenberg, 1998).

Can action orientation be measured?

Yes. Action orientation scales developed and tested by (Frese et al., 1996) obtained a Cronbach alpha between 0.67 and 0.87



**CALCULATED RISK-TAKING:**

The ability to identify, manage and take risks to improve the ultimate chance of success.

Conceptual definition:

Risk management/mitigation involves the systematic monitoring, assessing, hedging, transferring, and/or exploiting of multifaceted risks encountered as an innovation initiative unfolds (Baum et al., 1998) (Pillay & Morris, 2016), (Thekdi & Aven, 2016:278)

Operational Definition:

The successful identification and management of risks leading to a reduction in potential losses but still enabling the small business to pursue opportunities (Brustbauer, 2016:70; Murmann & Sardana, 2013:192).

Link between calculated risk taking and entrepreneurship:

Risk taking propensity makes it easier for the firm and the entrepreneur to adapt to environmental changes, consumer preferences, technological developments and competitor moves (Kellermanns, Eddleston, Barnett & Pearson, 2008:5). Risk taking management (Miller & Friesen, 1978:926; Park, Min & Min, 2016:122).

The developability of calculated risk taking:

Calculated risk taking involves a successful identification, coordinated valuation and prioritisation of risks in order to reduce, monitor and control the likelihood of an unforeseen event (Vonortas & Kim, 2015:122).

Can calculated risk taking be measured?

Yes. Calculated risk-taking scales developed and tested by (Morris et al., 2013) obtained a Cronbach alpha of 0.826.

VALUE CREATION:

The ability to evaluate the potential to create new value for a client or organisation.

Conceptual definition:

Value creation is an integral part of the business model, as it is the process of pursuing new markets, new revenue streams and new business opportunities, while determining how the business products or services will create sufficient value for the customers (Bocken, Short, Rana & Evans, 2014:43; Teece, 2010:172).

Operational definition:

Evaluates the extent to which new value can be created by the entrepreneur in his business, products or services (Dyer et al., 2008).

Link between value creation and entrepreneurship:

At a societal level, the process of value creation can be conceived in terms of programmes and incentives for entrepreneurship and innovation intended to encourage existing organisations and new entrepreneurial ventures to innovate and expand (Lepak, Smith & Taylor, 2007).

The developability of value creation:

Business begins with value creation. It is the purpose of the institution: to create and deliver value in a way that is sufficiently efficient to ensure it generates profit after cost.





GROWTH MINDSET:

The ability to evaluate the potential to create new value for a client or organisation.

Conceptual definition:

The belief that intelligence is not fixed but can be developed is a comparably strong predictor of achievement, and exhibits a positive relationship with achievement (Dweck, 2015)

Operational definition:

The growth of business activities is evident if entrepreneurs consider this a priority in their businesses (Gundry and Welsch, 2001).

Link between growth mindset and entrepreneurship:

The literature existing on entrepreneurship implicitly assumes that entrepreneurial orientation (EO) and growth orientation are positively related with each other.

The developability of growth mindset:

Some research has identified factors that enhance or reduce the willingness of the entrepreneur to grow the business. Factors include the strategic origin of the business (i.e., the methods and paths through which the firm was founded); previous experience of the founder/owner; and the ability of the entrepreneur to set realistic, measurable goals and to manage conflict effectively (Gundry and Welsch, 2001).

Can growth mindset be measured?

Yes. Growth mindset scales developed and tested by Dweck (2015) and Gundry and Welsch (2001), obtained a Cronbach alpha of 0.86.

LEADERSHIP:

The ability to lead a group of people towards the attainment of a specific goal.

Conceptual definition:

The action of leading a group of people or an organisation (Yıldız et al., 2014).

Operational definition:

Leadership involves establishing a clear vision, sharing that vision with others so that they will follow willingly, providing the information, knowledge and methods to realise that vision, and coordinating and balancing the conflicting interests of all members and stakeholders. A leader steps up in times of crisis and is able to think and act creatively in difficult situations (Daft, 1999).

Link between leadership and entrepreneurship:

Entrepreneurship is a special case of leadership (social leadership) and is distinguished from other forms of leadership because in this instance, the leader is one who created a company rather than manages an existing one. The underlying premise in entrepreneurship research is that it is the entrepreneur (that is, the leader) who makes the difference in new venture success, often through risk-taking propensity. (Cogliser & Brigham, 2004).

The developability of leadership:

No one is a born leader but everyone can develop leadership skills, and everyone can benefit from using them. The following steps may help to develop leadership:

1. Communicate effectively.
2. Keep everyone working toward agreed upon goals: ·
3. Get to know the people around you
4. Treat others as individuals
5. Accept responsibility for getting things done
6. Problem solves in a step-by-step way

Can Leadership be measured?

Yes. Leadership scales developed and tested by (Rush, Thomas & Lord, 1977) obtained a Cronbach alpha of 0.74



SELF-EFFICACY:

An individual's belief in her own ability to solve problems and achieve goals.

Conceptual definition:

Self-efficacy is a motivational construct that has been shown to influence an individual's choice of activities, goal levels, persistence, and performance in a range of contexts (Zhao, Seibert & Hills, 2005).

Operational definition:

Self-efficacy appears to be similar to self-esteem, expectancy, locus of control, and attribution concepts of personality and motivation; however, self-efficacy beliefs emphasise an assessment capability (can I do this?) as opposed to a concern with outcome expectations (if I do this, what will happen?) (Urban, 2006).

Link between self-efficacy and entrepreneurship:

Self-efficacy is an individual's belief in his or her innate ability to achieve goals. Self-efficacy is a construct first devised by Bandura (1977) in the psychological field, and is understood as the strength of people's convictions of their own effectiveness in executing the behaviour required to achieve certain outcomes. People with a high level of self-efficacy tend to set challenging goals, persist even in the face of failure and approach difficult tasks as challenges to be mastered rather than issues to be avoided (Botha & Bignotti, 2016). Entrepreneurs are known for having high levels of self-efficacy. Self-efficacy also has a very strong relationship with entrepreneurial intention (Thompson, 2009).

The developability of self-efficacy:

Self-efficacy is a motivational construct that has been shown to influence an individual's choice of activities, goal levels, persistence, and performance in a range of contexts.

Can self-efficacy be measured?

Yes. Self-efficacy scales developed and tested by (Spector, 1988) obtained a Cronbach alpha value of 0.91

OPPORTUNITY RECOGNITION:

The ability to understand information and identify the potential of something to be of value.

Conceptual definition:

The capacity to perceive changed or overlooked possibilities in the environment that represent potential sources of profit or return to a venture (Morris, et al. 2013).

Operational definition:

This is based on the development of patterns that recognise the link between an identification of a business opportunity, measuring the ability to discern information and whether a person can identify the potential of something to be of value (Baron, 2006).

Link between opportunity recognition/identification and entrepreneurship:

In earlier studies, opportunity recognition or identification was referred to as entrepreneurial intention. For example, Shaver and Scott (1991) state that entrepreneurs have the type of motivation to make the entrepreneurial process result in opportunity realisation, which is known as entrepreneurial intention or intent. Likewise, Krueger et al. (2000) found that the opportunity identification process is an intentional process and therefore also offers a means to better explain and predict entrepreneurship. The role of the entrepreneur in opportunity search and identification is controversial, because intention models posit that entrepreneurs intend to be entrepreneurs before they locate opportunities (Krueger 1993). In later studies, it is proposed that individuals with a stronger desire to be an entrepreneur will have the ability and competency to identify opportunities (Volery, Müller, Oser, Naepflin & Rey, 2013). Krueger (1993) associated self-efficacy with opportunity recognition, and Short, Ketchen, Shook, and Ireland (2010) later proved that self-efficacy is directly related to entrepreneurship, thus deducing that opportunity recognition and entrepreneurship have a bidirectional relationship.

The developability of opportunity recognition/identification:

The pattern recognition of opportunity recognition is used as it integrates three factors into a basic framework that is comprised of assessing a person's alertness to opportunities, prior knowledge of the industry and actively looking for opportunities. Pattern recognition helps explain why one person is able to identify certain opportunities and while others do not. Pattern recognition suggests specific ways in which an entrepreneur can be trained to identify opportunities (Baron, 2006).

Can opportunity recognition/identification be measured?

Yes. Opportunity recognition scale developed and tested by Morris et al. (2013) obtained a Cronbach alpha value of 0.71 and 0.90.

