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Growth intentions of individual microentrepreneurs: Proposal of measurement

Intenções de crescimento para microempreendedores individuais: Proposta de mensuração

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Abstract

Purpose: This research aims to validate two scales to measure growth intentions and respective inhibiting factors for individual microentrepreneurs (MEI).

Originality/value: The study proposes scales to measure the growth intentions of MEI. It brings an instrument to analyze growth intentions and barriers to growth in a specific context that has not yet been explored.

Design/methodology/approach: Two scales were constructed following Hair et al. (2019). They were validated with 134 MEI. Then, exploratory factor and reliability analyses were performed.

Findings: The scales were validated and characterized as a multidimensional growth intentions scale consisting of the following dimensions: personal interest, social status, and family background. The growth intentions inhibiting factors scale is composed of the items: personal interest, market assessment, and financial resources. Both scales can be used in education programs and policies for MEI training. Further studies may explore the longitudinal character of growth intentions and focus on measuring growth intentions in segments of high growth potential.

Keywords: individual microentrepreneur, business growth intentions, growth, micro-businesses, barriers to intentions for business growth

Resumo

Objetivo: Esta pesquisa visa validar duas escalas para mensurar intenções de crescimento e fatores inibidores de intenções de crescimento para microempreendedores individuais (MEI).

Originalidade/valor: O estudo apresenta proposta de duas escalas para mensurar intenções de crescimento de MEI e barreiras para crescimento em um contexto específico e não explorado dos MEI.

Design/metodologia/abordagem: As escalas foram construídas a partir de Hair et al. (2019) e foram validadas junto a 134 MEI. Foram realizadas a análise fatorial exploratória e a análise de confiabilidade.

Resultados: As escalas foram validadas e caracterizam-se como multidimensionais. A escala para intenções de crescimento é composta pelas dimensões: interesse pessoal, *status* social e família. A escala de fatores inibidores de intenções de crescimento é composta pelos itens: interesse pessoal, avaliação de mercado e recursos financeiros. Essas escalas poderão ser utilizadas em programas de educação e em políticas para formação de MEI. Estudos futuros podem explorar o caráter longitudinal das intenções de crescimento e focar intenções de crescimento em segmentos de empreendedores que atuam em setores de elevado crescimento.

Palavras-chave: microempreendedor individual, intenções de crescimento, crescimento, pequenos negócios, barreiras para intenções de crescimento

INTRODUCTION

The individual microentrepreneur (MEI) is a special type of enterprise regulated in Brazil in 2008, with some tax benefits (Telles et al., 2016). Since its creation, the number of accessions has grown, on average, by almost one million per year. For example, Brazil had about 11 million people registered in 2020 (Brasil, 2020) and 13,341,903 in February 2022 (Brasil, 2022). However, one survey found that only 52% of MEI individuals aspired to grow beyond the ceiling set for the category according to the Brazilian Service of Support to micro and small companies (Sebrae, 2017); therefore, strategies for growth and impact of these enterprises on economic growth are needed (Fontenele et al., 2011).

Using growth intentions as predictors (Rasmussen et al., 2018) is crucial for the growth of MEI enterprises. They are necessary so that this type of entrepreneurship does not generate a fiscal imbalance in the coming years (Perrin, 2018). Therefore, adherence to the MEI legal regime should be characterized as provisional, becoming other regimes as the enterprise consolidates and grows.

Economic growth is a measure of company success, but it must be desired, *i.e.*, intentionality must exist (Rennemo et al., 2017; Stenholm, 2011). Growth can be observed as an intentionally planned behavior (Ajzen, 1991). The desire to grow is linked to the perception that there are resources and opportunities to perform a behavior and anticipate or prevent obstacles. Therefore, for growth to occur, the intention must be present, and barriers must be overcome or managed (Doern, 2011).

Previous studies with MEI have addressed aspects other than growth. For example, some have focused on the relevance of these enterprises for local development and business formalization (Benatti et al., 2021; Souza et al., 2016; Telles et al., 2016) or even on entrepreneurial skills and strategic behavior (Behling & Lenzi, 2019). However, these studies analyzed economic or managerial aspects, not based on antecedents of growth, such as intentions.

Past research on growth intentions explored other aspects, such as gender or culture issues (Bulanova et al., 2016; Davis & Shaver, 2012; Neneh, 2021, 2022), the influence of entrepreneurial groups in family businesses (Muñoz-Bullón et al., 2019) or even partially exploited growth intentions (Zampetakis et al., 2016). Given the modality specificities, several variables should be addressed, also covering the perception of barriers (Doern, 2011). Therefore, this research is guided by the following research question:

- What indicators explain MEI's growth intentions?

Given the above, this study aimed to validate scales for measuring growth intentions and respective barriers for MEI. Two scales were proposed and constructed based on a literature review; both were tested with a group of MEIs. The scale used to measure growth intentions had the following dimensions: personal interest, social status, and family. Yet the scale to measure barriers to growth intentions was composed of the following dimensions: personal interest, market evaluation, and financial resources.

The results provided support for discussion on growth-motivating strategies for MEI. This is because scales can be used to compare different regions or entrepreneurs' categories. The comparisons highlight the need for intention-motivating and inhibiting factors, which can be provided, among others, by entrepreneurial education programs. In addition, a longitudinal application of scales may generate data from MEI activities, which can be used to evaluate and reformulate policies for the segment. As a theoretical contribution, this study proposes a comprehensive analysis of growth intentions, combining intentions and perceptions of barriers.

Besides this introduction, the article has four additional sections. The following section discusses the theoretical foundations supporting the scales proposed, which, in turn, are presented in the third section. This part also details the procedures followed for the application and analysis of the data obtained. The fourth section shows the results obtained and respective analyses. The article ends with final considerations, highlighting research limitations and contributions.

LITERATURE REVIEW

Intentions of business growth

Business growth can occur if growth is intended since it needs to be desired (Muñoz-Bullón et al., 2019). Growth intention represents the “difference between the current size and the ideal size of the business five years ahead” (Hermans et al., 2012, p. 9) or “the intention that individuals have to start a business that will be substantially larger in subsequent periods” (Douglas, 2013, p. 1). Intentions are “entrepreneur's aspirations for the growth trajectory associated with the risk the entrepreneur would like to take” (Dutta & Thornill, 2008, p. 208). They relate to personal characteristics and motivation (Kauko-Valli & Haapanen, 2018).

Growth intention studies have been based on the planned behavior theory of Ajzen (1991), which advocates that, when a behavior is perceived as attractive and desirable, individuals tend to act in this direction (Bulanova et al., 2016; Venugopal, 2016). Edelman et al. (2010) considered that growth intention would occur when individuals believe that their efforts will lead to successful performance and that this will bring some results with direct positive value. Behavior is associated with three relationship types: 1. expectation when efforts will lead to results or performance; 2. valence, importance, or desire; and 3. instrumentality, the perceived relationship between a specific behavior and outcomes.

Thus, a situation perceived as attractive and desirable would guide a planned behavior toward growth, initially configured by growth intentions (Stenholm, 2011; Venugopal, 2016). However, a situation should be assessed by combining desire/opportunity and feasibility/skills (Stenholm, 2011). Doern (2011) emphasized that growth intention is perceived when individuals evaluate growth as a potential, presenting viability and opportunity. However, if individuals envision growth-inhibiting factors, growth intention will be absent. Moreover, entrepreneurial behavior will be planned to grow to the extent that it is associated with personal desire and self-efficacy perception (Davis & Shaver, 2012; Douglas, 2013; Venugopal, 2016).

Studies have proposed the measurement of growth intentions. For example, Zampetakis et al. (2016) measured growth intentions using two indicators: 1. I want my business to be as big as possible; 2. I want a size I can manage alone or with a few employees. Davis and Shaver (2012) used two measures to assess growth intentions dimensions (larger than possible or with a few employees) associated with the perception of personal benefits and for others. Table 1 shows the criteria used in Davis and Shaver’s model (2012).

Table 1
Growth intentions: Davis and Shaver’s model (2012)

Dimensions	Indicator
1. As big as possible	a) To have a chance to build wealth;
2. A size I can manage alone or with the help of a few employees	b) to have and give the spouse and children financial security;
	c) to conquer a personal desire;
	d) to earn a high personal income;
	e) to have more time flexibility for me;

(continues)

Table 1 (conclusion)
Growth intentions: Davis and Shaver's model (2012)

Dimensions	Indicator
1. As big as possible	f) to have more time for my family;
2. A size I can manage alone or with the help of a few employees	g) to achieve something and be recognized for it;
	h) freedom in the work I do;
	i) to have a high position in society;
	j) to build businesses that my children can inherit;
	k) to have the power to influence the enterprise;
	l) to be respected by friends;
	m) to follow the example of a person I admire;
	n) to develop a product idea;
	o) to continue a family tradition.

Source: Davis and Shaver (2012, p. 509).

With a focus on desirability and feasibility but with a broader scope on growth benefits, Bulanova et al. (2016) classified growth intentions as earnings expectations for companies, employees, entrepreneurs, and society. They used a Likert scale to measure growth intentions towards 1. doubling the number of employees over the next five years, with benefits for the company; 2. doubling the number of employees over the next five years, with benefits for employees; 3. doubling the number of employees over the next five years, with benefits for company owners; 4. doubling the number of employees over the next five years, with benefits for the local community.

Another approach was proposed by Doern (2011), who sought to identify levels and modes of growth in intentions. The levels covered were substantial growth, moderate growth, and lack of growth or company size reduction; the modes were associated with management type (Table 2).

Table 2
Growth intentions: Doern's model (2011)

Dimensions	Indicator
1. Growth intentions	a) Grow substantially; b) grow moderately; c) remain the same size; d) become smaller.

(continues)

Table 2 (conclusion)
Growth intentions: Doern's model (2011)

Dimensions	Indicator
2. Growth claim	a) Expand the line of products or services; b) open a new store; c) increase sales; d) hire more employees; e) expand the distribution.

Source: Doern (2011, p. 494).

The presence of growth intentions is conditional on desire and feasibility assessment (Ajzen, 1991). The desire covers personal and other levels. As for personal desire, Douglas (2013) mentioned higher income to travel, achieve a greater social position or status, and accomplish the activity performed. Growth intention may represent a personal desire of an entrepreneur (Davis & Shaver, 2012; Stenholm, 2011) to have more free time (Davis & Shaver, 2012) or greater flexibility in working hours (Davis & Shaver, 2012; Douglas, 2013). They may also be associated with the desire for respectability and recognition or to follow someone's lead (Davis & Shaver, 2012).

Growth intentions associated with the well-being of others can be represented by financial security for spouses and children or the desire to transfer the enterprise to children as an inheritance (Davis & Shaver, 2012). Growth motivation and intentions can also be driven by a social desire, such as creating jobs for others (Doern, 2011; Bulanova et al., 2016) or offering better products and services to customers (Bulanova et al., 2016).

In addition to desire, feasibility assessment influences growth intentions. When entrepreneurs analyze the macroenvironment and perceive favorable economic conditions for development, they tend to have growth intentions (Hermans et al., 2012; Lau & Busenitz, 2001). Market expansion opportunities and invested capital return help determine growth intentions (Ali, 2018; Hermans et al., 2012) and competition perceptions (Dutta & Thornhill, 2008; Stenholm, 2011).

Based on the literature review, a scale was proposed to measure MEI growth intentions. It covered factors associated with individual, social, and market aspects from three dimensions: 1. personal desire, composed of ten items; 2. desire for others, composed of three items; and 3. feasibility, opportunities, and perspectives, composed of six items (Table 3).

Table 3
Items for MEI growth intent scale

Personal desire	Authors
I like what I do	Douglas (2013)
I want to have money to travel	Douglas (2013)
I have a personal wish	Davis and Shaver (2012); Stenholm (2011)
I want to have a high personal income	Douglas (2013)
I want to have more free time for myself	Davis and Shaver (2012)
I want to have more flexibility in working hours	Davis and Shaver (2012); Douglas (2013)
I want to conquer something and be recognized for it	Davis and Shaver (2012)
I want to have a higher social position	Douglas (2013)
I want to be respected by my friends	Davis and Shaver (2012)
I want to follow the example of a person I admire	Davis and Shaver (2012)
Desire for others	
I want to build a business for my children	Davis and Shaver (2012)
I want to give greater financial security to my family	Davis and Shaver (2012)
I want to provide jobs to other people	Doern (2011); Bulanova et al. (2016)
Feasibility - opportunities and prospects	
I want to get a return on the capital I invested	Hermans et al. (2012)
I want to take the opportunity	Ali (2018); Hermans et al. (2012)
The economic moment is favorable	Hermans et al. (2012); Lau and Busenitz (2001)
I want to export my products	Hermans et al. (2012)
I want to improve the quality of the products or services I offer	Bulanova et al. (2016); Davis and Shaver (2012)
I intend to sell my products in other cities, regions	Hermans et al. (2012)

Given the limited resources to which MEIs are subjected, growth intentions-inhibiting factors must be evaluated because intentions are influenced by the perception of barriers (Doern, 2011), as commented below.

INHIBITING FACTORS OF GROWTH INTENTIONS

The perception of inhibitory factors influences growth intentions. According to Doern (2011), the perception of barriers can inhibit, minimize, slow down, or reduce the pace of growth intentions. Studies have identified inhibitors of growth intentions associated with individuals, the market, and the environment, as commented below.

Among the factors associated with individuals are fear of failure (Hermans et al., 2012), perception of inability (Bulanova et al., 2016), and risk intolerance (Douglas, 2013). Still, other factors also show influence, such as not wanting to increase work pace (Bulanova et al., 2016) and not wanting to grow to maintain a balance between work and family (Davis & Shaver, 2012; Douglas, 2013).

Regarding market and environmental perceptions, some growth inhibitors are the perceptions of distressed sales (Lau & Busenitz, 2001), competitiveness (Doern, 2011; Dutta & Thornhill, 2008), and lack of skilled labor (Doern, 2011). Moreover, when entrepreneurs have no financial resources and no qualified people to be hired and are unwilling to pay more taxes and face inspections, their growth intentions are inhibited (Doern, 2011).

Based on the aspects above, a scale was proposed to measure growth inhibitors for MEI (Table 4). It had two dimensions: one factor associated with resources and market evaluations and the other with the self-perception of entrepreneurs.

Table 4
Items for scale for growth inhibitors

Resource and market valuation	Authors
I do not have access to financial resources	Doern (2011)
I do not want to pay any more taxes	Doern (2011)
I cannot find trained employees	Doern (2011)
The competition is too high	Doern (2011); Dutta and Thornhill (2008); Lau and Busenitz (2001)
Self-perception	
I do not have the technical capacity	Bulanova et al. (2016)
I do not want to give up my free time	Bulanova et al. (2016)

(continues)

Table 4 (conclusion)
Items for scale for growth inhibitors

Self-perception	Authors
I do not want to give up my time with my family	Davis and Shaver (2012); Douglas (2013)
I do not want to work any more than I already do	Bulanova et al. (2016)
I am afraid of failure	Hermans et al. (2012)
I do not want to take any risk	Douglas (2013)

METHODOLOGY

The scales development and validation study followed a method outlined by Hair et al. (2019), who propose four stages: literature review or expert interviews, theoretical validation, semantic validation with possible respondents, and statistical validation. Initially, through a literature review of entrepreneurship journals, we identified items to compose the two scales. Then, theoretical and semantic validations were performed with a group of 20 MEIs. Finally, both scales were tested for empirical and statistical validations.

The research was conducted in the state of Santa Catarina due to its greater growth in the number of records between 2013 and 2018 (56.2%). In addition, the state has the third largest number of MEIs proportional to the country’s population (Sebrae, 2019).

The questionnaire was applied to MEIs active in the municipality of Chapecó, in the west of the state, with about 225,000 inhabitants and 16,079 MEIs as of December 31, 2021 (Brasil, 2022). The municipality has economic relevance in the state’s west and is the fifth-largest economy.

Construction of measurement scales

As inhibiting factors, we considered those associated with perceptions that negatively influence growth intentions (Doern, 2011). Scales were built by inserting factors associated with subjective, social, and economic aspects, as these are related to the scope of MEI’s performance. These indicators were obtained from the literature review (tables 3 and 4). For the growth intentions scale, we proposed three dimensions, one with ten, one with three, and another with six items, respectively (Table 5). Both scales were 5-point Likert-type, evaluating (1) as not at all important and (5) as very important.

Table 5
Scale for MEI growth intentions

Factors
Personal desire
I like what I do
I want to have money to travel
I have a personal wish
I want to have a high personal income
I want to have more free time for myself
I want to have more flexibility in working hours
I want to conquer something and be recognized for it
I want to have a greater social position
I want to be respected by friends
I want to follow the example of a person I admire
Desire for others
I want to build a business for my children
I want to give greater financial security to my family
I want to give jobs to other people
Feasibility - opportunities and prospects
I want to get a return on the capital I invested
I want to take the opportunity
The economic moment is favorable
I want to export my products
I want to improve the quality of the product or service I offer
I intend to sell my products in other cities and regions

The scale of factors that inhibit growth intentions was composed of two dimensions, with four items in the first and six items in the second (Table 6).

Table 6
Scale for growth inhibitors

Factors
Resource and market valuation
I do not have access to financial resources
I do not want to pay any more taxes
I cannot find trained employees
The competition is too high
Self-perception
I do not have the technical capacity
I do not want to give up my free time
I do not want to give up my time with my family
I do not want to work any more than I already do
I am afraid of failure
I do not want to take any risk

The contents were validated by assessing the scales proposed by four specialists (PhD professors) who teach entrepreneurship and strategy subjects at the graduate level.

Statistical instrument, application, and validation

The questionnaire consisted of one block of general data on entrepreneurs (age, sex, level of education) and enterprises (activity branch and age) and another containing the scales. Data were collected through a survey (Floyd, 2011) carried out in 2019, with MEIs being identified in a database provided by the City Hall. This database was chosen because it contained detailed and updated information about telephone contacts. It was done to ensure that only the MEI contacts that were effective in the activity participated. A simple random sample was sent to 350 MEIs through an electronic questionnaire on Google Docs. Initially, a pre-test was performed with 20 MEIs, which did not require substantial adjustments. With this, we proceeded to the next step, randomly sending questionnaires to those in

activity, as confirmed by telephone contact. A total of 134 questionnaires were returned.

The collected data were entered into the SPSS 22 software for descriptive statistics and dispersion measures. After data normality was verified by kurtosis and asymmetry coefficients, analyses were performed to validate the scales. Exploratory factor analysis was performed to verify the adequacy of the items and dimensions proposed, following the procedure proposed by Hair et al. (2009). Such analysis is used to understand and clarify new scales and allow researchers to identify consistent constructs (Hair et al., 2019).

The varimax method was used for analysis, as it is the most used (Hair et al., 2019). The values were observed by the Barlett and Kaiser-Meyer-Olkin sphericity tests (KMO). Then, commonality was evaluated by excluding items with commonalities below 0.500 (Hair et al., 2019). Five items were excluded from the growth intention scale. The initial scale contained 19 items distributed into three dimensions. After analysis, it had 14 items distributed in three dimensions as well. For the growth intention inhibiting factors, the initial scale contained two dimensions and nine items, and, after analysis, there was seven items distributed in three dimensions. Following the guidelines of Hair et al. (2009) to perform factor analysis, Bartlett's sphericity test, sample adequacy measurement (MAA), and total variance extracted were evaluated.

After those procedures, reliability analysis was performed using Cronbach's alpha assessment for each scale. Minimal inter-item and item-total correlations were assessed. Then, Alpha values above 0.700, minimum inter-item correlations of 0.300, and minimum total item of 0.500 were validated. For exploratory factor analysis, the restrictions suggested by Hair et al. (2009) were considered (Table 7).

Table 7
Procedures and criteria for evaluating factor analysis

Item	Criterion	Values
The commonality of each variable	> 0.500	> 0.516
Significant factor load	> 0.550	> 0.508
Bartlett test	p-value < 0.05	< 0.001
The number of factors to be extracted	With self-value above 1	
Sample suitability measure	> 0.500 acceptable	> 0.703
Extraction method used	Main components	

(continues)

Table 7 (conclusion)
Procedures and criteria for evaluating factor analysis

Item	Criterion	Values
Rotation of factors performed	Varimax	
Cronbach's alpha	> 0.700	> 0.771
Correlation between items	> 0.300	> 0.414
Total item correlation	> 0.500	> 0.463

Source: Hair et al. (2009).

RESULTS AND DISCUSSION

The sample characteristics reflect the diversity of existing MEIs. Regarding age, the average was 34, with the youngest being 20 and the oldest 60 years old. This profile coincides with another national survey (Sebrae, 2017). Of the sample, 54.5% are male. As for education, 35.8% have at least higher education, higher than the national average of 33% in 2019 (Sebrae, 2019). As for the segment, 30.6% work in trade, 2.2% in industry, 61.9% in services, and 5.2% in construction. On average, the microentrepreneurs in this survey have been working for 3.67 years.

Scales of growth intentions and respective inhibiting factors

Tables 8 and 9 display the descriptive statistics results and data normality values of the two scales, growth intentions-inhibiting and growth intention factors, respectively. The scale of growth intentions-inhibiting factors covered ten indicators, and the one with the highest average was the perception of not having access to financial resources, followed by not wanting to pay more taxes.

Table 8
Scale of growth intentions-inhibiting factors

Factors	Average	SD	Asymmetry		Kurtosis	
	Value	Value	Value	Stand error	Value	Stand error
I do not have access to financial resources	3.37	1.379	-.387	.209	-1.017	.416

(continues)

Table 8 (conclusion)
Scale of growth intentions-inhibiting factors

Factors	Average	SD	Asymmetry		Kurtosis	
	Value	Value	Value	Stand error	Value	Stand error
I do not want to pay any more taxes	3.16	1.481	-.161	.209	-1.370	.416
I cannot find trained employees	2.98	1.406	-.108	.209	-1.268	.416
The competition is too high	2.81	1.355	.161	.209	-1.230	.416
I do not have the technical capacity	2.34	1.393	.600	.209	-1.012	.416
I do not want to give up my free time	2.51	1.423	.509	.209	-1.060	.416
I do not want to give up my time with my family	2.99	1.354	.101	.209	-1.148	.416
I do not want to work any more than I already do	.66	1.441	.270	.209	-1.296	.416
I am afraid of failure	2.31	1.416	.685	.209	-.924	.416
I do not want to take any risk	2.53	1.480	.358	.209	-1.362	.416

Kurtosis and asymmetry values demonstrate that inhibitory factors and growth intentions are within the range considered by Finney and Di Stefano (2006) as quasi-normal data, among which absolute values of up to seven for kurtosis and up to two for asymmetry are susceptible to parametric analysis (Table 7). Table 9 shows the original items of the growth intentions scale. On average, the items representing the desire to grow were: I like what I do (4.62), I want to improve the quality of the product or service I offer (4.25), I want to give greater financial security to my family (4.25), and I want to have a high personal income (4.24).

Table 9
Scale of growth intentions factors

Factors	Average	SD	Asymmetry		Kurtosis	
			Value	Error	Value	Error
I like what I do	4.62	.702	-2.220	.209	5.982	.48
I want to have money to travel	4.17	1.06	-1.371	.209	1.184	.48
I have a personal desire	4.20	1.122	-1.508	.209	1.555	.48

(continues)

Table 9 (conclusion)
Scale of growth intentions factors

Factors	Average	SD	Asymmetry		Kurtosis	
			Value	Error	Value	Error
I want to have a high personal income	4.24	1.013	-1.335	.209	1.199	.48
I want to have more free time for myself	3.98	1.134	-.930	.209	.010	.48
I want to have greater flexibility in working hours	4.04	1.043	-.962	.209	.256	.48
I want to conquer something and be recognized for it	4.07	1.184	-1.291	.209	.845	.48
I want to have a bigger social position	3.34	1.44	-.363	.209	-1.216	.48
I want to be respected by my friends	2.89	1.407	.021	.209	-1.294	.48
I want to follow the example of a person I admire	3.14	1.420	-.143	.209	-1.273	.48
I want to build a business that my children can inherit	3.47	1.510	-.480	.209	-1.279	.48
I want to give greater financial security to my family	4.25	1.093	-1.557	.209	1.755	.48
I want to give jobs to other people	3.65	1.317	-.591	.209	-.851	.48
I want to get a return on the capital I invested	3.99	1.160	-1.129	.209	.545	.48
I want to take the opportunity	4.17	1.073	-1.351	.209	1.373	.48
The economic moment is favorable	3.03	1.466	-.096	.209	-1.371	.48
I want to export my products	2.34	1.561	.675	.209	-1.170	.48
I want to improve the quality of the products or services I offer	4.25	1.074	-1.559	.209	1.893	.48
I intend to sell my products in other cities or regions	3.20	1.574	-.233	.209	-1.528	.48

Since the data are suitable for parametric analysis, the scales were validated using exploratory factor and reliability analyses. First, for validation of the growth intentions scale, exploratory factor analysis was performed with all original scale items, excluding four for having commonalities below 0.500, namely: “I like what I do”, “The economic moment is favorable”, “I want to export my products”, and “I want to improve the quality of the product or service I offer”. Therefore, these factors did not determine the growth inten-

tions of entrepreneurs in this research. As for not wanting to export products, MEI entrepreneurs must structure themselves before exporting products.

Factorial analysis by orthogonal rotation Varimax generated three components, which together explained 63% of the data variance. According to Hair et al. (2009), for samples above 120 cases, loads above 0.500 are suitable. The first of these dimensions was called “personal interest”, which included the items: “I want to have more free time for myself”, “I want to have more flexibility in working hours”, “I want to have money to travel”, “I have a personal desire”, “I want to have a high personal income”, “I want to conquer something and be recognized for it”. This dimension had a Cronbach’s alpha of 0.871 and correlation measures between items and minimum total items of 0.421 and 0.625, respectively.

As an “entrepreneur of himself/herself” or with only one employee, MEI has to perform all operational and managerial duties in addition to planning the future of their enterprise. It can explain the desire for more free time and increased flexibility at work. Moreover, other factors associated with desires and increased personal income were expected for MEI. As a previous study identified, about 30% of them earn less than five minimum wages (Sebrae, 2019). Thus, the desire for recognition, a determining factor of growth intentions, should be highlighted, showing the need to focus studies in this direction, which is also observed in the next dimension, social status.

The second dimension, called “social status”, consisted of three indicators: “I want to have a greater social position”, “I want to be respected by friends”, and “I want to follow the example of a person I admire”. Reliability analysis identified a Cronbach’s alpha of 0.771, with the lowest inter-item correlation of 0.436 and the highest of 0.526.

The third dimension, “family/social/economic”, covers the indicators: “I want to build a business that my children can inherit”, “I want to give greater financial security to my family”, “I want to give jobs to other people”, “I want to get a return from the capital I invested”, and “I want to take the opportunity”. The scale formed by these items had a Cronbach’s alpha of 0.800, minimum inter-item correlation of 0.316, and total item of 0.545. It should be noted that the desire to transfer the enterprise to another generation demonstrates that MEI has a project to consolidate the enterprise not only for one person but for the coming generations. In addition, they envision growth associated with market opportunities.

The final scale was validated by including 14 items distributed in three dimensions, which explained 63% of the data variance. The MAA of KMO

was 0.761, with a significant Bartlett sphericity test at a p-value of 0.000. Table 10 shows the final dimensions. For the three parts of this scale, minimum inter-item correlations were all above 0.300, and item-total correlations were above 0.500. Lastly, Cronbach's alpha values were 0.871, 0.771, and 0.800, respectively, demonstrating the scale's reliability.

Table 10
Dimensions of the scale of growth intentions and its reliability measures

Factors	Personal interest	Social status	Family
I want to have money to travel	0.765		
I have a personal desire	0.824		
I want to have a high personal income	0.764		
I want to have more free time for myself	0.647		
I want to have greater flexibility in working hours	0.647		
I want to conquer something and be recognized for it	0.667		
I want to have a more prominent social position		0.739	
I want to be respected by my friends		0.844	
I want to follow the example of a person I admire		0.711	
I want to build a business that my children can inherit			0.805
I want to give greater financial security to my family			0.801
I want to give jobs to other people			0.656
I want to return the capital I invested			0.625
I want to take the opportunity			0.508
Cronbach's alpha	0.871	0.771	0.800
Minimum inter-item correlation	0.421	0.436	0.316
Minimum total item correlation	0.625	0.526	0.545
Variance explained	27.4%	19.4%	16.2%

Subsequently, statistical validation was performed for growth intentions-inhibiting factors. After exploratory factor analysis with the original



ten items of the scale, two items were excluded because they had commonalities below 0.500: “I do not find trained employees” and “I do not have the technical capacity”. Then, three dimensions associated with growth intention inhibitors were identified. The first of them, called “personal interest”, covers the indicators: “I do not want to give up my time with my family”, “I do not want to give up my free time”, and “I do not want to work more than I already work”. This result highlights the role of excessive workload for MEIs. The item “I do not want to pay more taxes” showed an item-total correlation below 0.500 and was removed from the scale, improving Cronbach’s alpha. The second dimension, “market evaluation”, covers the indicators: “I am afraid of failing”, “I do not want to take risks”, and “Competition is very high”. Finally, the third dimension was called “financial resources” and included the item “I do not have access to financial resources.”

Then, we performed the reliability analysis of these dimensions. The dimension “market evaluation” was formed by the items: “Competition is very high”, “I am afraid of failing”, and “I do not want to take risks”. It had a Cronbach’s alpha value of 0.771, a minimum inter-item correlation of 0.414, and a minimum total-item correlation of 0.463, slightly below the recommended value of 0.500.

In the dimension “personal interest”, the item “I do not want to pay more taxes” showed a total correlation below the minimum value, impairing Cronbach’s alpha. However, the tax increase is directly associated with company size. After growth, respondents disregarded this as a determining factor to inhibit growth intentions. Therefore, it was excluded from the dimension. After the exclusion, the scale comprised three items: a Cronbach’s alpha value of 0.855, a minimum inter-item correlation of 0.635, and a minimum total item of 0.694.

The third dimension associated with growth intentions-inhibiting factors was called “financial resources”, composed of only the indicator: “I do not have access to financial resources”. The entrepreneur’s perception of not having financial resources to expand the business can be understood as an external determinant constraint, so it was decided to keep it on the scale as a single item.

The final validation of the scale of inhibiting factors had seven items distributed in three dimensions, which explained 73% of the data variance. The MAA of KMO was 0.703, with a significant Bartlett sphericity test at a p-value of 0.000. The final dimensions are shown in Table 11.



Table 11***Dimensions of the scale of growth intentions-inhibiting factors***

Factors	Personal interest	Market assessment	Financial resources
I have no access to financial resources			0.956
I do not want to give up my free time	0.882		
I do not want to give up my time with my family	0.841		
I do not want to work more than I already work	0.796		
The competition is very high		0.697	
I am afraid of failing		0.812	
I do not want to take risk		0.872	
Cronbach's alpha	0.855	0.771	Not calculated
Minimum inter-item correlation	0.635	0.414	Not calculated
Minimum total item correlation	0.694	0.463	Not calculated
Variance explained	32.3%	29.6%	11.1%

Scale for MEI growth intentions

The initial scale to measure growth intentions was based on a set of indicators found in the literature. It was composed of three dimensions: personal desire, desire for others, and feasibility of opportunities and perspectives. After validation, the final model had the following dimensions: personal interest, social status, and family/social/economic. The indicators “I like what I do” (Douglas, 2013), “The economic moment is favorable” (Hermans et al., 2012; Lau & Busenitz, 2001), and “I want to export my products” (Hermans et al., 2012) were not validated and excluded from the final scale, as their commonalities were below 0.50. In addition, the indicators “I want to improve the quality of the product or service I offer” (Bulanova et al., 2016; Davis & Shaver, 2012) and “I intend to sell my product in other cities or regions” (Hermans et al., 2012) were excluded because they did not have significant loads in any of the three validated dimensions. These findings may be associated with the limited capacity of the MEIs since, in this type of enterprise, only the entrepreneur works with one more employee.

In short, for MEI, the growth of intentions (Table 12) is constituted by the dimensions: desires of their own (income, free time, and status) and for their family and society, as well as expectations associated with the economic

situation. Respectability, social position, and mirroring someone else are growth drivers for microentrepreneurs, corroborating the indicators of the models by Douglas (2013) and Davis and Shaver (2012). Growth intentions were also motivated by the desire to transfer the enterprise to heirs and offer jobs, as mentioned by Davis and Shaver (2012), Doern (2011), and Bulanova et al. (2016). Finally, intention growth for MEI is associated with expected return on invested capital and market opportunities, such as reported by Ali (2018) and Hermans et al. (2012). On the other hand, growth intentions are not motivated by the expectation of improving products or services or by the conclusion of a favorable economic moment, as stated by Bulanova et al. (2016), Hermans et al. (2012), and Lau and Busenitz (2001). Plans to expand product sales or service offerings elsewhere (Hermans et al. 2012) were also not validated in this research.

Table 12
Scale to measure MEI growth intentions

Personal interest
I want to have money to travel
I have a personal desire
I want to have a high personal income
I want to have more free time for myself
I want to have greater flexibility in working hours
I want to conquer something and be recognized for it
Social status
I want to have a more prominent social position
I want to be respected by my friends
I want to follow the example of a person I admire
Family/economic/society
I want to build a business that my children can inherit
I want to give greater financial security to my family
I want to give jobs to other people
I want to return the capital I invested
I want to take the opportunity

Scale for inhibitors of MEI growth intentions

The scale for growth intentions-inhibiting factors had three dimensions: personal interest, negative market valuation, and perception of lack of financial resources. As for personal interest, the item with the highest value was: “not wanting to give up free time”, followed by “intention not to give up time with the family”. Remarkably, the condition of MEI, as “entrepreneurs of themselves”, requires the businesspeople to plan, execute, and control their activities by themselves or with the support of, at most, one employee, which may increase workload. Added to this, about half of the sample studied was composed of women, which may have contributed to the results, corroborating previous studies on growth intentions-inhibiting factors by women (Ali, 2018; Dutta & Thornhill, 2008; Davis & Shaver, 2012; Zampetakis et al., 2016).

Other factors inhibiting growth intentions were: negative market valuation and lack of financial resources. The latter is a common condition of MEI entrepreneurs, who start their venture with scarce resources. The former also represented an inhibiting factor, as also found by Heinrichs and Walter (2013), with high competition perception, not being prone to take risks, and fear of failure. Such an outcome may be associated with MEIs being created out of need or as a source of self-employment (Magno & Barbosa, 2011). Table 13 shows the dimensions of the final scale to measure factors inhibiting growth intentions.

Table 13
Scale for inhibitors of MEI growth intentions

Personal interest
I do not want to give up my free time
I do not want to give up my time with my family
I do not want to work more than I already work
Market assessment
The competition is very high
I am afraid of failing
I do not want to take risk
Financial resources
I have no access to financial resources

CONCLUSIONS

This research aimed to validate a proposal to measure growth intentions from MEI entrepreneurs. The explanatory indicators validated for growth intentions comprise two groups: one associated with growth intentions that corresponds to desire and viability evaluations (Bulanova et al., 2016; Douglas, 2013) and another with the perception of barriers (Doern, 2011). In the first group, 14 indicators were identified and divided into three dimensions:

1. *Personal interest*: “I want to have money to travel”, “I have a personal desire”, “I want to have a high personal income”, “I want to have more free time for myself”, “I want to have greater flexibility in working hours”, and “I want to conquer something and be recognized for it”.
2. *Social status*: “I want to have a greater social position”, “I want to be respected by friends”, and “I want to follow the example of a person I admire”.
3. *Social and economical*: “I want to build a business that my children can inherit”, “I want to give greater financial security to my family”, “I want to give jobs to other people”, “I want to return the capital I invested”, and “I want to seize the opportunity”.

The second group has seven indicators that act as barriers to growth intentions and are distributed into three dimensions:

1. *Personal interest*: “I do not want to give up my free time”, “I do not want to give up my time with my family”, and “I do not want to work more than I already work”.
2. *Market evaluation*: “Competition is very high”, “I am afraid of failing”, and “I do not want to take risks”.
3. *Financial resources*: “I do not have access to financial resources”.

These growth intentions demonstrate that for the MEI condition, growth involves benefits for entrepreneurs and society, in addition to being economically viable. However, to grow, they are unwilling to give up free time and family, remembering that such an enterprise is limited and that the sample studied had a large percentage of women.

The validated scales provide a comprehensive understanding of growth intentions, showing new dimensions of analysis when compared to previous studies, such as those of Doern (2011), Davis and Shaver (2012), Bulanova et al. (2016), and Douglas (2013). Differences may be associated with contextual and cultural variables, which, according to Lau and Busenitz (2001), influence growth intentions and the nature of the enterprise, the MEI.

Growth intentions may vary between entrepreneurs and by gender (Muñoz-Bullón et al., 2019). The validated scales can be applied to MEI operating in different segments and with men and women to understand possible differences in MEI growth intentions associated with other factors, such as the sectors of activity and gender.

As practical recommendations, growth intentions indicate entrepreneurs' predisposition to promote their enterprises' growth (Douglas, 2013). However, they represent only the beginning of a venture, not its results (Stenholm, 2011), and can change over time (Dutta & Thornhill, 2008). Therefore, measurements should be repeated over time.

The proposed scales can be used in educational programs for entrepreneurs, inserting the thematic "growth intentions" as they do in other locations (Kariv et al., 2019). For the Brazilian context, the scales can measure MEI enterprises' growth intentions and respective inhibiting factors. These measurements, in turn, can contribute to defining actions aimed at the transitoriness, growth, and strengthening of this legal regime, thus contributing to economic and social growth through job creation.

The main limitation of this study is that data were cross-sectionally collected, which does not allow identifying changes over time. Future studies may explore a longitudinal character of growth intentions and use the scales in other Brazilian states. Additional studies should also measure growth intentions in other segments of entrepreneurs aimed at high growth, such as technology-based, which may enable comparisons of growth intentions between different business modalities.

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