

RISK PROPENSITY IN DECISION MAKING IN SMALL BUSINESSES IN TIMES OF PANDEMIC. A LOOK AT DEVELOPING COUNTRIES

Ledy Gómez-Bayona, Universidad de San Buenaventura-Medellín
Elizabeth Emperatriz García-Salirrosas, Universidad Privada del Norte
Gustavo Adolfo Moreno-López, Institución Universitaria Marco Fidel Suarez
Jorge Alberto Esponda Pérez, Universidad de Ciencias y Arte de Chiapas
Julia María Marroquín Figueroa, Universidad Autónoma de Chiapas
Iván Javier Rivarola Ganoza, Universidad Autónoma del Perú

ABSTRACT

Entrepreneurs in the normal development of the strategies they manage daily are immersed in making decisions to be sustainable, which is why the objective of this article was to identify the risk propensity in micro and small companies (Mipymes) in Colombia, Peru and Mexico. An instrumental study was developed and as a result it was achieved to know that entrepreneurs risk establishing strategies that allow sustainability in the market, likewise, companies try to be competitive in changing environments by venturing with innovation and development in their products and services. It is concluded that entrepreneurs have high levels of risk propensity for decision-making and more and better alternatives of government support are recommended so that entrepreneurs can develop greater skills in decision-making and thus survive in times of pandemic.

Keywords: Entrepreneurs, Mipymes, Risk Propensity

INTRODUCTION

In the competitive environment of international markets, it is necessary to structure business alternatives in the midst of risk and that generate sustainability (Tajudin et al., 2021). Entrepreneurs in the constant effort to stay productive in the market, have been filled with other important requirements, such as business prospects, planning and consolidation of strategies that minimize business risks Valverde (2009). Despite the aforementioned, this sector has certain advantages such as the tendency to be more innovative compared to large companies, since by being aware of changes in its consumers, they also make alliances and partnerships, giving satisfaction to their employees (Grimaldo Patarroyo et al., 2011). The contribution made by the microenterprise to the development of the countries is representative, because the consolidation and projection of these productive groups generate employment, marketing dynamics and quality of service to society (González Alvarado, 2005).

Risk propensity is important to analyze in MSMEs to understand the way in which entrepreneurs are willing to face risks to receive better returns and profits for their businesses. In times of pandemic, it is not so easy to analyze but it is necessary to identify and prospect markets Yusoff, et al., (2021). Approximately 93 micro businesses were created daily at the beginning of 2021, thus explaining the growth in their number (Asmar Soto, 2021; DANE, 2020). In Mexico, it was revealed that 86% of the companies were affected in their income and that only 79.19% survived this stage; specifically, micro-enterprises reduced their income by 80.3%, due to low

demand and scarcity of resources (INEGI, 2020). Mexican micro companies in 2015 represented 97.6% of the total, having a high participation in GDP (INEGI, 2016). Meanwhile, in Peru until 2018, 96.04% are micro and 3.44% are small companies (PRODUCE, 2019).

In the third and fourth quarters of 2020, there was an increase in the number of companies that were registered, obtaining 72423 and 75701 of net variation respectively; being the highest values since 2019 (INEI, 2017, 2020). Micro-enterprises are one of the most affected during the Covid-19 pandemic, being reflected in the economy, being those that generate approximately 40% of the gross domestic product (GDP). This can be observed in the GDP, Colombia, Mexico and Peru obtained during 2020 the values of -6.8%, -8.2% and -11.1% respectively (World Bank, 2021). According to a recent study, the aforementioned countries are considered in the list of countries with the greatest entrepreneurial spirit in times of pandemic, placing Colombia in first place; Peru, third; and Mexico in fifth place on the world scale (IPSOS, 2021).

Thus, taking into account the importance that the consolidation of small and medium-sized companies has brought to the economic sector, it is representative to identify, analyze and propose new alternatives that adequately manage risk and allow companies in the midst of uncertainty to build strategies To be sustainable in the markets Danso, et al., (2016), some tools such as the integral risk management cycle have marked stages such as the identification, evaluation, management, monitoring, consolidation and communication of risks, which greatly help to entrepreneurs (Taran, Boer & Lindgren, 2013).

LITERATURE REVIEW

Risk Propensity: It is a business decision that is assumed by taking risks or not in the decisions of organizational management Yusoff, et al., (2021), risks are presented in any of the administrative, marketing, financial and negotiation strategies (Zhang et al., 2020). For Mundaca Guerra (2018) there is a large number of risks that can threaten enterprises in terms of their survival. In order to measure risk propensity, some authors have used different evaluation questions or only one, as for example, in the case of Spicka (2020) who used the following question from Lago, et al., (2018): Would the fear of failure prevent you from starting a business? The aforementioned author affirmed in the study about this variable and sought if risk propensity is in any way associated with the gender of entrepreneurs and those who are not, as a result, it was that both culture and gender influence the propensity to risk Lago, et al., (2018).

A study by Danso, et al., (2016), which measured the propensity to take risks in entrepreneurs, using a scale by Saura Diaz & Gomez Mejia (1997), which was developed by these entrepreneurs, resulted in a fairly reliable reliability. High through Cronbach's Alpha. In order to identify these risks, businesses must investigate the obligations and requirements that negatively affect them, for this they must answer some questions such as what? How? When? And because? Must comply with these (United Nations Development Program, 2018). In the same way, some authors declare that: the biggest crack in the corporate armor is the risk management (Soler-González, 2018).

The evolution of man brought progress in managing the risks he faced and produced very significant theoretical contributions such as the concept of probability. Among the first scholars of the subject are Girolamo Cardano, Galileo, Blas Pascal, Pierre de Fermat and Chavalier de Mére.

His invaluable contributions in algebra and differential calculus "led to multiple applications in probability theory, from risk measurement in insurance and investments, to topics related to

physical medicine and weather forecasting" (Londoño Gómez & Núñez Patiño, 2010), therefore, the gap on the importance of risk is given by the existence of prejudices and not enough research related to the entrepreneur and the authors express it as follows:

METHODOLOGY

An instrumental study was developed, which analyzed the psychometric properties of a test (Montero & León, 2007). The participants were 394 entrepreneurs of the three study nationalities: Peru (31.2%), Mexico (43.1%) and Colombia (25.6%). The age was between 16 to 76 years (Mean=37.49 years, SD=11,927, Mode 45 years). Of which 175 men (44.4%) and 219 women (55.6%). Most of them single (42.9%) and married (37.8%), 13.2% in common law, 4.6% divorced and 1.5% widowed. The majority stated that they started their business out of necessity (47.2%), 32.5% started the business because of an opportunity, 12.4% was a family business and 7.9% for various personal reasons. Regarding the business sector, 52.8% are dedicated to commerce, 28.7% to service, 10.9% to production and 7.6% have not yet decided in which sector to undertake. Regarding the monthly earnings generated by the business, 46.7% indicated that it generates up to 2 minimum wages, 22.3% from 3 to 4 minimum wages, 21.3% from 5 to 10 minimum wages.

Instrument

The risk propensity scale (5 items) from (Cui et al., 2021) was used, for which a translation process was passed by the researchers, and semantically validated by 4 entrepreneurs of the population profile, to confirm the understanding of the items in the three countries where the study was carried out. The instrument was presented on a 5-point Likert scale, where 1 was in complete disagreement and 5 in complete agreement.

The data collection was carried out through a virtual questionnaire hosted on Google, which was shared through WhatsApp, therefore, a non-probability sampling was carried out for convenience. Before answering the questionnaire, the participants were informed about the objective of the research, obtaining their voluntary participation and confirmed their participation in the same form. Data analysis was performed using the SPSS-22 and AMOS-24 statistical software. With which it was possible to validate the measurement model and contrast the respective hypotheses.

RESULTS AND DISCUSSION

The results show that the perception of risk for the analyzed entrepreneurs is largely an opportunity in times of crisis, because to achieve indicators of business sustainability, there is no more risk in decision-making and expect positive results that benefit development economic of the organizations. Table 1 shows the descriptive statistics of the items: mean (M), standard deviation (SD), skewness (g1) and kurtosis (g2) of the scale. It is observed that items 1 (M=3,825; SD=1,046) and (M=3,868; SD=1,277) present the highest mean; while item 2 (M=3,277; SD=1,437) the lowest mean and variability. Regarding asymmetry and kurtosis, all the values are less than +/- 1.5 (Ferrando & Anguiano- Carrasco, 2010), thus allowing the normality assumption to be fulfilled, so it is not necessary to attenuate the data (Rodríguez & Ruiz, 2008).

Items	M	DE	g1	g2
1. I like to take risks, even if it may fail.	3.825	1.253	-0.844	-0.279
2. I like to wait until things have been tried before trying.	3.279	1.437	-0.292	-1.22
3. I am willing to take greater risks to obtain greater profits.	3.868	1.277	-0.959	-0.11
4. I only like to implement a business if its result is very safe.	3.437	1.369	-0.368	-1.082
5. I seek new business even if its results may be risky.	3.624	1.333	-0.57	-0.836

Note: M=Average; SD=standard deviation; g1=Asymmetry; g2=Kurtosis.

Confirmatory Factor Analysis

To verify the internal structure, previous evidence was taken into consideration. Thus, the CFA was performed with a one-dimensional structure where the 5 items explained a single factor (Model 1). However, the goodness of the fit was low, so the model was re-specified, through content validity, in its convergent perspective, where it was evaluated by verifying that all standardized factorial loads (λ) were significant and greater than 0.5 (Gerbing & Anderson, 1988), in this sense the factorial loads (λ) of items 2 ($\lambda=0.22$) and 4 ($\lambda=0.21$) were not significant. In this way, a one-dimensional structure was analyzed in the absence of items 2 and 4 (Model 2), obtaining adequate fit index, where the standardized factorial loads (λ) for Model 2 were significant and in the expected direction (item 1=0.70; item 3=0.88 and item 5=0.68); which allows us to have empirical evidence of convergent internal validity.

	χ^2 (gl)*	χ^2 /gl	SRMR	CFI	RMSEA (IC90%)
Model 1 (original)	105.195 (5.00)	21.039	0.146	0.798	0.226
Model 2 (Sin items 2 y 4)	6.656 (2.00)	3.328	0.037	0.988	0.077

Note: χ^2 =Chi square, gl=Degrees of freedom, SRMR=standardized mean square residual root, RMSEA=Mean Square Error of Approximation, CFI=comparative fit index.

Reliability

The reliability for the latent variables was the composite reliability index (IFC=.730,) which indicates an adequate reliability of the one-dimensional model of the scale (Hair, Black, Babin & Anderson, 1998).

Gender		N	M	DE	Test t p value
Risk propensity	Feminine	219	11.187	3.378	0.371
	Male	175	11.48	3.09	

M=Average; SD=standard deviation

Table 3 shows the mean score recorded for risk propensity, where it is shown that the mean for men is slightly higher, however, this difference is not significant (p value=0.371). This result differs from that indicated by Lago, et al., (2018), who pointed out that gender influences risk appetite.

		Nationality	Gender	Marital status	Profits	Age	Experience as an entrepreneur
Risk propensity	Pearson's correlation	0.071	0.045	0.074	-0.029	0.022	-0.045
	p value	0.157	0.375	0.172	0.572	0.664	0.373
	N	394	394	342	394	394	394

Table 4 shows the correlations between risk prospecting and sociodemographic characteristics and some characteristics as entrepreneurs, it is concluded that risk propensity is not related to any of the characteristics.

Risk propensity	N		Mean	Median	Mode	Minimum	Maximum
	Valid	Lost					
		394	0	11.32	12	15	3

Table 5 shows the level of risk propensity of the microentrepreneurs under study, showing that it is at a "high" level, since 50% is above 12.00 points, where the minimum is 3 and the maximum is fifteen.

CONCLUSIONS AND RECOMMENDATIONS

Entrepreneurs need to make decisions in each of their management schemes and that is why from the risk capacity the positive or negative development of it is achieved, in times of crisis it has been evidenced that the implemented strategies are diverse and even They articulate with other business models such as the inclusion of strategies that generate greater security and confidence, however, entrepreneurs always take risks and see in this the only option to survive. In the countries where the analysis was carried out, Peru, Colombia and Mexico, a high-risk propensity is evidenced in the achievement and strengthening of companies that allow generating resources and stability in the markets, having the premise that only in the capacity of the Decision making is where you find a positive or negative outcome that will affect your business.

Although much remains to be done, this research contributes to the literature by adopting an instrument to measure the risk propensity of microentrepreneurs in developing countries and in the construction of business strategies. The possible positive and negative effects when managing organizations and the way in which human talent assumes the risks that arise. In times of crisis, it is not easy for businessmen to make decisions and for all these to be winners, due to scarce resources and little support from different government entities, they are not flexible in the business bet.

Likewise, markets are changing, customers are more demanding every day and consumer behavior is affected by a large amount of information on different digital platforms, from where entrepreneurs intend to publicize their products or services.

It is recommended that entrepreneurs identify, plan and properly analyze their businesses so that decision making is assertive and minimizes the negative impacts that occur in times of crisis, it is also suggested to incorporate strategies that incorporate the human talent of organizations so that they can enter all build the organizational fabric and can excel with optimal management models relevant to the contexts of each region and country.

REFERENCES

- Asmar, S.S. (2021). *A total of 93 micro-businesses are created daily in the beginning of 2021*. La República.
- Banco, M. (2021). *GDP growth*. World Bank.
- Cui, J., Sun, J., & Bell, R. (2021). The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes. *International Journal of Management Education*, 19(1).
- DANE. (2020). Microbusiness Survey Technical Bulletin. *Emicron*, 7, 1–62.
- Danso, A., Adomako, S., Damoah, J.O., & Uddin, M. (2016). Risk-taking propensity, managerial network ties and firm performance in an emerging economy. *Journal of Entrepreneurship*, 25(2), 155–183.
- Ferrando, P.J., & Anguiano-Carrasco, C. (2010). Factor analysis as a research technique in psychology. *Roles of the Psychologist*, 31(1), 18-33.
- Gerbing, D.W., & Anderson, J.C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(2), 186–192.
- González, A.T. (2005). Problems in the definition of microenterprise. *Venezuelan Management Magazine*, 10, 408–423.
- Grimaldo Patarroyo, J.H., Agudelo Velásquez, L.J., & Hernández Alba, L.D. (2011). Financial structural analysis of micro and small business, program: My business-bancolombia segment in bogotá d.c., "Critical Development Factors."
- Hair, J., Black, W., Babin, B., & Anderson, R. (1998). *Multivariate data analysis: A global perspective*. New Jersey: Pearson.
- INEGI. (2016). *National Survey on Productivity and Competitiveness of Micro*. Small and Medium Enterprises (ENAPROCE) 2015.
- INEGI. (2020). INEGI presents results of the second edition of Covid-19 and the study on business demography 2020.
- INEI. (2017). *Peru: Economic and financial characteristics of the companies 2017*. IPSOS In the Time of the Pandemic.
- Lago, M., Delgado, C., & Castelo Branco, M. (2018). Gender and propensity to risk in advanced countries. *PSU Research Review*, 2(1), 24–34.
- Londoño Gómez, L.P., & Núñez Patiño, M.A. (2010). Development of risk management in large companies in the Metropolitan area of Valle de. *Aburrá Eafit Magazine*, 46(158), 39
- Montero, O., & León, I. (2007). A guide for naming research studies in Psychology. *International Journal of Clinical and Health Psychology*, 7(3), 847-862.
- Mundaca Guerra, J.A. (2018). *Conceptual model of business development for SMEs in the Lambayeque region: Business development center case*. Santo Toribio de Mogrovejo Catholic University.
- Produce. (2019). Ministry of Production.
- United Nations Development Program. (2018). *Risk analysis protocol*. United Nations Development Program in Mexico (UNDP).
- Rodríguez, M., & Ruiz, M. (2008). Attenuation of the asymmetry and kurtosis of the scores observed through variable transformations: Impact on the factorial structure. *Psychological*, 29(2), 205-227.
- Saura Diaz, M., & Gomez Mejia, L. (1997). The effectiveness of compensation strategies in international technology intensive firms. *International Journal of Technology Management*, 8, 301–315.
- Soler-González, R.V.L.A.S. (2018). A risk management: The recurrent absentee from business administration. *Unemi Science Magazine*, 11(26), 551-61.
- Spicka, J. (2020). Socio-demographic drivers of the risk-taking propensity of micro farmers: Evidence from the Czech Republic. *Journal of Entrepreneurship in Emerging Economies*, 12(4), 569–590.

- Taran, Y., Boer, H., & Lindgren, P. (2013). Incorporating enterprise risk management in the business model innovation process. *Journal of Business Models*, 1(1).
- Tajudin, P.N.M., Rahim, N.A.A., Idris, K., & Arshad, M.M. (2021). Weathering the economic impact of COVID- 19: Challenges faced by microentrepreneurs and their coping strategies during Movement Control Order (MCO) in Malaysia. *Pertanika Journal of Social Sciences and Humanities*, 29, 271–290.
- Valverde, Z. (2009). *Idea guide and business plan*. Ministry of Education.
- Yusoff, M.N.H., Bin, Zainol, F.A., Ismail, M., Redzuan, R.H., Abdul, R.M., Razik, M.A., & Afthanorhan, A. (2021). The role of government financial support programmes, risk-taking propensity, and self-confidence on propensity in business ventures. *Sustainability (Switzerland)*, 13(1), 1–16.
- Zhang, S.N., Li, Y.Q., Liu, C.H., & Ruan, W.Q. (2020). Critical factors identification and prediction of tourism and hospitality students' entrepreneurial intention. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 26, 100234.