


Article

The Role of Loan-Related Risk Appetite in the Relationship between Financial Risk Considerations and MSME Growth Decision: A Mediation Analysis

Ralph Stephen Leyeza, Mikka Marielle Boado, Obed Butacan, Donn Enrique Moreno *  and Lourdes Deocariza

E.T. Yuchengco College of Business, Mapúa Malayan Colleges Laguna, Cabuyao, Laguna 4025, Philippines; rsleyeza@live.mcl.edu.ph (R.S.L.); mmboado@live.mcl.edu.ph (M.M.B.); obutacan@live.mcl.edu.ph (O.B.); ladeocariza@mcl.edu.ph (L.D.)

* Correspondence: delmoreno@mcl.edu.ph

Abstract: While many studies have focused on assessing performance, studies that pivot on growth itself are limited. To contribute in this area, this study used the Stimulus–Organism–Response (SOR) Model as its foundation in order to explore how inflation and access to finance affected loan-related risk appetite, also known as their willingness to bear either debt-related or opportunity-related risks arising from loan acceptance or avoidance, respectively. Subsequently, the mediating effect of loan-related risk appetite between inflation and access to finance and growth decision was also investigated. The analysis of links between variables under scrutiny was premised on the utilization of partial least squares-structural equation modeling (PLS-SEM), with the data resulting from a purposive sampling method comprising 80 respondents who are owners and/or managers of their MSME business operating for at least two (2) years. The findings present that access to finance, as well as loan-related risk appetite, has direct links to growth decision. Access to finance was also found to have direct effects to loan-related risk appetite. On the other hand, it was found that loan-related risk appetite functions as a partial mediator between access to finance and growth decision. Contrarily, the aforementioned circumstances cannot be observed for inflation.

Keywords: financial risk; loan-related risk appetite; MSME growth decision; stimulus-organism-response (SOR) model; partial least squares-structural equation modeling (PLS-SEM); mediation



Citation: Leyeza, Ralph Stephen, Mikka Marielle Boado, Obed Butacan, Donn Enrique Moreno, and Lourdes Deocariza. 2023. The Role of Loan-Related Risk Appetite in the Relationship between Financial Risk Considerations and MSME Growth Decision: A Mediation Analysis.

Journal of Risk and Financial Management 16: 261. <https://doi.org/10.3390/jrfm16050261>

Academic Editor: Ștefan Cristian Gherghina

Received: 9 March 2023
Revised: 4 April 2023
Accepted: 7 April 2023
Published: 3 May 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

1.1. Background of the Study

Risks are virtually present in every circumstance. They are defined as an element of a situation in which they carry uncertainties or unfavorable consequences (Ennouri 2013). Risks do not only emanate from one's choices, but also from one's environment even with the absence of direct relationships (MacCrimmon et al. 1988). In other words, risks may be external or internal, and the existence of these types depend on a situation (Noor and Abdalla 2014). Contextualizing it in the business landscape, there are various risks that organizations face, and one of them is financial risk. Woods and Dowd (2008) relate financial risk to the financial operations of a business which essentially boils down to the possibilities of experiencing financial gains or losses. Wani and Ahmad (2015) also stipulate that the aforementioned risk is also concerned with the likelihood of an organization collapsing due to the failure of payment commitment associated with loan acceptance. Furthermore, inflation is one of the considerations in financial risks as it influences borrowing costs (Valverde and Fernández 2022). Noor and Abdalla (2014) also place emphasis on this, reporting that financial risks have a role in a firm's performance.

It then becomes imperative for business owners to manage risks as it increases and reduces the likelihood of success and failure, respectively (Susanto and Meiryani 2018). However, approaches in managing risks anchors on one's risk appetite (Brockman et al.

2006). Wang et al. (2015) define risk appetite as a situational-specific variable where it refers to one's current disposition towards taking or avoiding risks depending on the abundance of information. Relating this to one's disposition towards loans, it is influenced by a multitude of factors, such as collateral requirements, interest rates, and the availability of different loan systems (Pozzolo 2002). Such risk dispositions also vary across countries. In a study conducted by Vieider et al. (2012), risk attitudes were examined in 30 different countries and results provided that risk tolerance is found to be higher and lower in developed and developing countries, respectively. This was confirmed by Hung et al. (2012) that general risk propensities of business professionals from U.S. (developed) and China (developing) were different, citing cultural differences particularly when referring to avoidance from uncertainties. Lastly, in another perspective, the individual's capacity to take risk is influenced by demographic factors. The financial risk appetite is not constant and is subject to change. Therefore, financial risk tolerance will change as the demographic factors do (Thanki and Baser 2019).

Focusing the lens on Micro, Small, and Medium Enterprises (MSMEs), formal global discussions about the same only started to coalesce in 2015 when the Philippines presented it to the World Trade Organization (WTO) as a call to start discourse with regards to its involvement in global trade, as well as to put it in the global spotlight. Furthermore, the term SME sans the 'Micro' component was previously and commonly used. However, with recent developments towards this field, it became the norm to pursue discussions using the term MSME instead of SME. These terms are often interchangeable and simply refer to the exclusion of large enterprises (Micro 2017).

Interestingly, while differences in risk behavior were found in terms of country development, differences were also found in the risk appetite of MSMEs and large enterprises. Carland et al. (1995) reported that MSMEs are more likely to be risk averse than larger ones. This was echoed by Danso et al. (2016), wherein they stated that MSMEs in developing countries have lower risk appetites due to less developed markets and lower access to resources. As such, they had to rely on political, business, and community ties to positively moderate their risk propensities; ultimately, this goes back to the challenges due to financial risks. Since finance barriers have been identified to be the most deterring factor towards MSME growth (The MSME Sector at Glance 2012), most of the existing works have only delved into the factors that affect how MSMEs can access finance, but did not link it to the growth and development of MSMEs (Chowdhury and Alam 2017). Studies around it are limited and, if there are any, the works have only provided qualitative studies on how growth-driven factors influence growth decisions (Angeles 2022).

Despite the Philippines being dominated by the MSME sector, Hampel-Milagrosa (2014) provided that they are still yet to exceed their larger counterparts in terms of economic contribution as MSMEs have only provided around 25% of the country's total gross value added (GVA). In the same vein, empirical evidence has provided that only a minuscule amount of MSMEs were able to upgrade to a better level of profitability (Berner et al. 2008, as cited in Hampel-Milagrosa 2014). The multitude of challenges surrounding financial risks would then mean that these affect MSME growth decision, since perceptions towards such challenges and/or opportunities influence the owner's degree of motivation (Angeles 2022).

Considering most of the literature focused solely on access to finance and how it affects financial performance, the proponents intend to contribute in this study by shifting the perspective to the determination of the relationship of financial risk considerations, specifically inflation and access to finance, and growth decision in the context of MSMEs, and then analyzing whether loan-related risk appetite may mediate such a relationship instead of relating it to financial performance.

1.2. Statement of the Problem

Extant literature has frequently delved into factors that affect access to finance, given that it is a recurring problem for MSMEs. However, further studies that relate finance

risks to growth decision are lacking. [Asah et al. \(2015\)](#) provided that motivations and perceptions of MSME owners towards loan taking may be explored, aside from determining the linkage of access to finance and firm performance. [Chowdhury and Alam \(2017\)](#) cited that studies in determining the link of access to finance to MSME growth should be made. While there are some works that have explored this direction, it is scant at best. [Sibanda et al. \(2018\)](#) reported in their study and laid out an interesting point that there is a weak positive relationship between access to finance and firm performance that can be attributed to various factors. Hence, they pointed out that future studies may also contemplate other effects. Lastly, [Levie and Autio \(2013\)](#) concluded that there is suggestive evidence that intentions to grow have complex interactions with other variables, and they provided an example that one may pursue strategies that are riskier or innovative because of the intention to grow.

Considering these, most of available works have only revolved around factors that affect access to finance, and only few studies have taken this further to determine its relation to performance, more so in the context of MSME growth decision. It is through this cycle, found in both global and local studies, that the researchers have identified a gap, that is, existing literature has barely explained the link of financial risk considerations, particularly inflation and access to finance, to growth decision, especially in the context of MSMEs. From this point, the researchers argue that what should be assessed and isolated first is whether such financial risk considerations give rise to MSME growth decision, since such motivation fundamentally talks about what forces make people act and why they do the things that they do ([Eccles et al. 1998](#)) and whether loan-related risk appetite mediates this relationship. Thus, the researchers aim to explore this within the Philippine context by reflecting the gaps that previous works have pointed out. Consequently, the following research questions are raised:

1. What is the profile of the respondent as well as their business?
 - (a) Age;
 - (b) Sex;
 - (c) Category in terms of total assets excluding Land;
 - (d) Number of years in operation;
 - (e) Nature of business;
 - (f) Industry/Business sector.
2. Do financial risk considerations, particularly inflation and access to finance, play a role in loan-related risk appetite?
3. What degree does loan-related risk appetite influence MSME growth decision?
4. What percentage of respondents are risk takers or risk averse?
5. How does loan-related risk appetite mediate the relationship between financial risk considerations, particularly inflation and access to finance, and MSME growth decision?

1.3. Objectives of the Study

This serves as a form of criteria for the researchers to determine whether the research endeavor is on the proper track by matching the objectives to the stated problems in order to accurately present and explain what it intends to achieve. For specificity, this study aims to satisfy the following objectives: (1) To determine and analyze the profile of the respondents and their business by collecting information about them such as the age and sex of the respondent, and the category of their business in terms of total assets excluding Land, number of years in operation, nature of business, and the industry or business sector where the entity operates in; (2) to determine the degree of influence of financial risk considerations, particularly inflation and access to finance, towards loan-related risk appetite, including analyzing which factor has the highest influence; (3) to determine the impact of financial risk considerations, specifically inflation and access to finance, towards MSME growth decision; (4) to determine the percentage of respondents who are risk takers or risk averse; and (5) to determine the role of loan-related risk appetite as a mediator

between the relationship of financial risk considerations, namely inflation and access to finance, and MSME growth decision.

1.4. Theoretical Framework

In order to understand how inflation and access to finance influence MSME growth decision, the researchers used the Stimulus-Organism-Response (SOR) Model by [Mehrabian and Russell \(1974\)](#).

The SOR Model, as presented in Figure 1, is simple and generalizable, thus allowing it to be extended on research issues that relate to various states and factors such as intentions and behaviors, among others ([Tan 2020](#); [Nagoya et al. 2021](#)). Despite its flexibility, most of its applications revolve around consumer behaviors ([Guo et al. 2022](#)) but are yet to address MSME behavior in terms of growth decision. It posits that environmental cues (stimulus) elicit human judgment (organism), consequently triggering positive or negative behavior (response) ([Nagoya et al. 2021](#)).

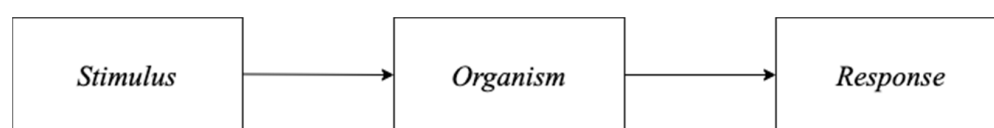


Figure 1. Theoretical Framework: Stimulus-Organism-Response Model ([Mehrabian and Russell 1974](#)).

Stimulus is a factor that prompts an individual by affecting its internal state ([Eroglu et al. 2001](#)), and such factors may be internal or external ([Tan et al. 2019](#)). The latter further adds that internal factors relate to personal perceptions while external factors relate to either tangible or intangible aspects, both of which help facilitate analysis. On the other hand, the organism can be thought of as a bridge that connects stimulus and response. [Buxbaum \(2016\)](#) stipulates that organisms are composed of different structures. One of them is psychological structure, being guided by numerous concepts such as learning, thinking, and judgment, among others. In another perspective, the organism is the internal state relating to various thinking and feeling systems, such as perception, experience, and evaluation ([Jayadi et al. 2022](#)). Lastly, the response is the completing factor linked by the organism. [Nunthiphatprueksa \(2017\)](#) provides that the former largely influences the latter, and such responses are perceived to either be leading to approach or avoidance. Furthermore, the same researcher describes that positive environments facilitate approach behaviors. These manifest by the willingness to stay, explore, or return to a contemplated environment. Conversely, avoidance behaviors are those opposite to what the approach behaviors evoke, and this may be through the desire to leave the environment or by even having a feeling of restlessness.

It is through this wide applicability that the SOR Model has been frequently used to integrate in numerous research endeavors while including their chosen factors that will be placed under scrutiny ([Jeong et al. 2020](#)). For instance, [Mkedder et al. \(2021\)](#) utilized the SOR Model to probe purchase intention towards local dairy products. On the other hand, [Chen et al. \(2019\)](#) have used the same approach to understand mobile payment usage intention. [Moe and Tan \(2016\)](#) sought to understand consumer behavior in a tourism context by utilizing the same model. Lastly, [Moreno et al. \(2021\)](#) also used the SOR Model to investigate the role of atmospheric cues, namely: e-Content, e-Design, e-Reviews, and e-Promotion in impulse buying behavior. In line with this, the researchers used the SOR Model as its foundation in understanding the growth decision of MSMEs. Moreover, it also incorporated specific financial risks, particularly inflation and access to finance, to investigate its influence towards MSME growth decision, including loan-related risk appetite as a mediating variable between the relationship.

1.5. Conceptual Framework

As for the descriptors of the variables presented in Figure 2, Table 1 provides the operational definition of the aforementioned.

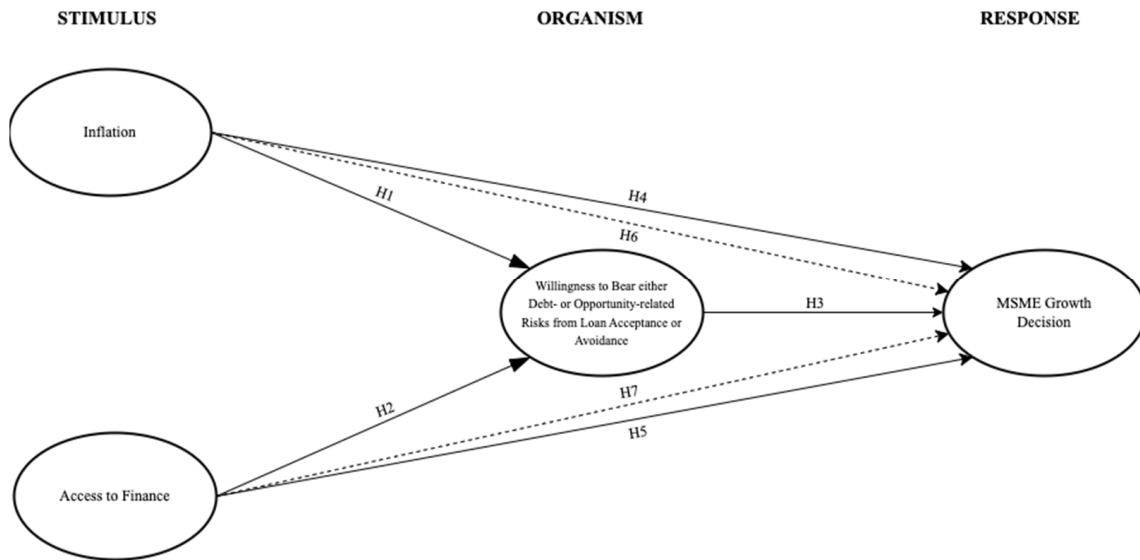


Figure 2. Conceptual Framework.

Table 1. Variables and Operational Definition.

Variables	Operational Definition
Inflation	A type of financial risk referring to the extent to which the financial capability of MSMEs is influenced due to the increases in commodity prices and interest rates in commercial banks.
Access to Finance	A type of financial risk referring the extent to which either formal or informal loans can be accessed by MSMEs, which ultimately influences their financial capacity.
Willingness to Bear either Debt- or Opportunity-related Risks from Loan Acceptance or Avoidance	Also referred to as loan-related risk appetite, it is the extent to which an owner’s inclination either gears towards the willingness to bear the risks involved either in taking loans or in saving up funds or reinvesting profits.
MSME Growth Decision	It refers to the MSME owner’s motivation, intention, or decision to grow or expand their business.

After considering the factors intended to be scrutinized, Figure 2 depicts the conceptual framework with the SOR Model as its foundation. Aside from access to finance, inflation was also incorporated, both of which fall under the Stimulus category. Access to finance refers to an MSME’s capability to avail loans either from formal or informal systems of lending. Such formal systems pertain to either state-owned or private commercial banks; on the other hand, informal systems refer to individuals who privately lend their money, revolving credit associations, or even relatives who extend loan agreements (Pham and Lensink 2007). Laidler and Parkin (1977) defines inflation in two ways: (1) continuous process of rising prices or (2) continuous process of money value deterioration. The researchers placed the aforementioned variables under such category to test whether these external intangible factors affect one’s internal state, especially in the context of MSME growth decision.

On the other hand, the willingness to bear debt-related risks from loan acceptance and willingness to bear opportunity-related risks from loan avoidance fall under the Organism

category. It refers to the costs of leaving someone with less resources for present acquisitions due to saving for a future endeavor ([Financial Fitness for Life n.d.](#)). As the factor elicits thinking and judgment, the researchers hypothesized this as the Organism that the Stimuli affects.

Lastly, thorough consideration of Stimuli and Organisms would either lead to a certain behavior or thinking, which is depicted by the MSME Growth Decision variable. Given all the considerations, the researchers will also investigate the mediating role of loan-related risk appetite between the relationship of financial risk considerations, specifically inflation and access to finance, and MSME growth decision.

One of the distinctions between this endeavor and existing studies is its approach. In the study of [Adeyori and Agbadudu \(2018\)](#), they focused on the interactions between environmental factors (i.e., economic, political, socio-cultural, and technological factors) and MSME survival under the theory of system approach. It assumed that entities do not operate independently but rather interact with the aforementioned factors. In terms of assessing MSME growth motivation through growth-driven factors, a similar study was made in the Philippines by [Angeles \(2022\)](#). Some of the similarities include the investigation of access to finance as an element to explain growth decision or motivation, as well as being able to pinpoint the problem of access to finance, particularly external financing, as an inhibitor to MSME growth due to information asymmetry. Lastly, [Idris et al. \(2022\)](#) similarly a mediation model through the consideration of factors namely: inflation, financial technology, and banking financing.

On the other hand, as compared to [Adeyori and Agbadudu's \(2018\)](#) study, this endeavor used the SOR model as its foundation as it emphasized on investigating growth itself, particularly the factors or stimulants, as is the case in such a model, that affect the response of MSMEs in which it was referred to as growth decision. Additionally, the study of [Angeles \(2022\)](#) was premised on a qualitative study while the researchers focused on a quantitative approach. Although [Idris et al. \(2022\)](#) used a mediation model and also investigated inflation and banking financing, the main difference lies on (1) their inclusion of financial technology and (2) the variable that acts as a mediator. In this study, it only focused on inflation and access to finance. Furthermore, their mediating element is MSME growth itself, with their independent variable being financial inclusion. Contrarily, as this study placed emphasis on growth itself, its independent variable is MSME growth decision while its mediating variable is the loan-related risk appetite, or willingness to bear either debt-related or opportunity-related risks arising from loan acceptance or avoidance, respectively. In another perspective, their study leans towards on the investigation of financial inclusion while this endeavor emphasized on growth itself, instead of using it only as a mediating variable between other variables.

Accordingly, the following hypotheses were developed:

H1: *There is no positive relationship between inflation and loan-related risk appetite.*

H2: *There is no positive relationship between access to finance and loan-related risk appetite.*

H3: *There is no positive relationship between loan-related risk appetite and MSME growth decision.*

H4: *There is no positive relationship between inflation and MSME growth decision.*

H5: *There is no positive relationship between access to finance and MSME growth decision.*

H6: *The willingness to bear either debt- or opportunity-related risks on loan acceptance and avoidance, respectively, has no mediating role between the relationship of inflation and MSME growth decision.*

H7: *The willingness to bear either debt- or opportunity-related risks on loan acceptance and avoidance, respectively, has no mediating role between the relationship of access to finance and MSME growth decision.*

1.6. Significance of the Study

While this endeavor is not the first to pursue discussions about MSME growth decision, much of the existing literature only places emphasis on the factors that affect access to finance, with some placing calls to bridge it to financial performance, but only few have tried to understand it in a growth decision context. The focus of this research is contextualized in a Philippine setting and is placed towards the determination of the influence of inflation, aside from financial inclusion or access to finance. Its relationship towards MSME growth decision along with the consideration of loan-related risk appetite as its mediator is also contemplated upon which places a new element in the usual dialogues around financial risks.

For clarity, the results of this endeavor may prove to be beneficial to the following:

Government. [2020 MSME Statistics \(2020\)](#) stated in their List of Establishments report that, out of 957,620 businesses operating in the country, 952,969 (99.51%) are classified as MSMEs with the remaining 4651 (0.49%) being large enterprises. It is clear that MSMEs dominate the country. By being familiar with what influences the growth decisions of MSMEs, with the help of this research, the knowledge gained from it may be used as a basis to offer various forms of assistance towards MSMEs which ultimately helps in the development of the economy.

Banking Institutions. Having an understanding of the risk appetites of MSMEs may enable it to determine why owners are more risk accepting than others which may resultingly help them to create less stringent loan packages towards the mentioned enterprises. Consequently, the knowledge gained from this research may also contribute in changing their perceptions towards MSMEs to a lighter note and guide them to think of better ways in serving MSMEs.

Current and Prospective Business Owners. The business owners that are leaning towards growth will help them be aware of the factors that may influence their decision to grow their business, thus giving them the proper knowledge to assess its advantages and disadvantages. Furthermore, having an understanding of the financial risks that may influence them will make it easier to accurately anticipate possible changes in the business. Lastly, this will aid prospective business owners by being aware of the issues that MSMEs consider, especially in the context of financial risks, and possessing this knowledge will make them more understanding and cautious towards the aforementioned issues.

Future Researchers. Since this endeavor of investigating growth decision is only the few of its kind, with only a handful being conducted within the context of Philippine MSMEs, this research will provide a new direction for them to explore in terms of the variables that affect MSME growth decision.

1.7. Scope and Limitations

The scope of this research mainly focused on financial risk considerations, particularly inflation and access to finance. Furthermore, the mediating variables, namely their willingness to bear either debt-related or opportunity-related risks arising from their risk appetite is also financial in nature. Thus, other factors that may influence MSME growth decision, such as political relationships and technological capabilities, are not explored but may serve as an opportunity for researchers to look upon.

Its delimitations are primarily premised on the lack of economic resources and temporal constraints. On the other hand, its limitations are attributable to the choice of using a non-probability sampling method, specifically purposive sampling, to gather respondents which may not be indicative of the population it intends to represent. Related to this, the quality of the answers derived from the questionnaires contains the possibility of it being compromised. Another limitation is the distribution of questionnaires was only limited in Laguna. Still, it is worth noting that, out of 81 provinces in the Philippines, Laguna has the third highest urbanization rate at 79.3% ([Urban Population of the Philippines 2022](#)). In line with this, the role of urbanization helps in the accumulation of both people and businesses and it is also viewed to be a key factor of entrepreneurship ([Arouri et al. 2014](#)).

Combining with the researchers' point of contacts of businesses in Laguna, this rationalizes the appropriateness of distributing questionnaires in such locations in spite of imposed limitations.

2. Materials and Methods

2.1. Research Design

Creswell (2009) defines quantitative research as a design that allows variables to be numerically measured and analyzed using statistical tools to facilitate the efficacy of producing results. Given this, quantitative research utilizing inferential statistics was used in order to determine the causal links between financial risk considerations, loan-related risk appetite, and MSME growth decision.

Furthermore, the nature of this research endeavor is a type of observational study design and is further classified as a cross-sectional study design. As per Setia (2016), such study simultaneously measures respondents' outcome and exposures, but only in a one-time measurement, which ultimately is faster and cheaper when compared to other study designs. However, they noted that there are difficulties deriving causal relationships from the aforementioned study design. Nevertheless, the researchers deem it appropriate to utilize a cross-sectional study design as the data collected is only representative of conditions existing during the period of time it was gathered. It also aligns with what the authors are attempting to investigate, as well as with the constraints that surrounded this study, particularly referring to economic and temporal constraints.

2.2. Sampling Technique

Cross-sectional study respondents are based on researcher-developed criteria (Setia 2016). In line with this, the proponents proceeded with purposive sampling, also known as judgment sampling, as the researcher aims to gather respondents based on a developed set of criteria. Tongco (2007) stated that such a non-probability sampling technique does not require underlying theories and is thus a well-informed choice made by the researchers in order to accurately provide the information they are seeking.

For the purpose of this endeavor, the researchers aimed to gather informants, particularly owners or managers of MSMEs belonging to any industry that have been operating for at least two years, in order to extract information about the variables that the researchers are attempting to investigate. The definition of what falls under MSMEs are described by Table 2 and is based on R.A. 9501, also known as the "Magna Carta for Micro, Small and Medium Enterprises".

Table 2. Category of Enterprises.

Category	Asset Size (in Philippine Peso)
Micro	Not more than 3,000,000
Small	3,000,001–15,000,000
Medium	15,000,001–100,000,000

(Source: Official Gazette 2008).

The researchers started the distribution of questionnaires in November 2022 and concluded the collection in January 2023. In light of COVID-19 concerns, the distribution was generally self-administered for precautionary measures. As for the quantity of informants, it was determined in accordance with the requirements of data characteristics of Partial Least Squares-Structural Equation Modeling (PLS-SEM). PLS-SEM dictates that the minimum sample size must meet either two of the following: (1) the amount must be ten times larger than the quantity of formative indicators that are utilized to measure a construct; or (2) the amount must be ten times larger than the quantity of structural paths connected to the structural mode's specific latent construct (Hair et al. 2011). The use of PLS-SEM was also justified as the data analyzed were non-normal due to the use of purposive sampling, and the study contemplates a complex model arising from the

analysis of numerous variables. Thus, the minimum respondents via priori analysis were determined to be 40, but were raised by the proponents to 80 in order to provide more robustness to the results.

To quell any privacy concerns that respondents may have in mind, the researchers appropriately informed the aforementioned with regards to how their data will be treated upon moment of collection and analysis until its eventual disposal, as well as the scope and its purpose. Lastly, appropriate disclosures were also made on the questionnaire to further assure them of confidentiality, such as the disclosure of compliance with R.A. 10173, commonly known as the Data Privacy Act of 2012.

2.3. Research Instruments

The researchers provided questionnaires to acquire primary data by administering surveys to the select respondents. Provided that the researchers are bound by temporal constraints, the use of online surveys via Google Forms is employed to efficiently reach the targeted respondents within a short period of time, as [Evans and Mathur \(2018\)](#) stated that online surveys are well known for reaching a wider group of audience because of its convenience, speed and timeliness, and flexibility. For convenience, the survey questionnaires will be self-administered as one of its purposes is also to maintain compliance with COVID-19 health protocols. Furthermore, the questionnaires used are adapted from various reliable studies. The structure of the research instruments is as follows:

Section A. Profile of the Respondents and Background of Micro, Small, and Medium Sized Enterprises—This section includes the age (A1), sex (A2), category in terms of total assets excluding Land (A3), nature of business (A4), number of years the MSME is in operation (A5), and the industry or business sector (A6).

Section B. Financial Risk Considerations—The questions included were adapted from [Adeyori and Agbadudu \(2018\)](#) and [Oshora et al. \(2021\)](#). This section aims to determine the degree in which inflation and access to finance play a role in loan-related risk appetite, and which among the two contributes the most. There are four (4) questions concerning inflation and four (4) questions concerning access to finance. The responses of the informant are limited on a range from 1 (Strongly Disagree) to 5 (Strongly Agree), which will represent the degree of correspondence of inflation and access to finance to financial risk considerations.

Section C. Loan-Related Risk Appetite—The survey questions included are adapted from [Dynamic Planner Risk Profiler \(2018\)](#). The purpose of this section is to ascertain the degree of risk appetite of MSMEs particularly in considering taking loans as part of their business decisions. The respondents were to choose from ranges 1–5, 1 being strongly disagree and 5 being strongly agree, that will determine their choices upon consideration of financial risks. To ensure the consistency of answers, questions with negative coding are placed where subsequent analyses were performed by the researchers. Interpretations of their scores were also made in order to determine whether they are risk takers or risk averse, with 0.00–2.49 being risk averse and 2.50–5.00 exhibiting risk-taking behavior.

Section D. MSME Growth Decision—The questions were adapted from [Wu \(2009\)](#) and [Clement \(2019\)](#). The purpose of this section is to determine the respondent's consideration of financial risks, namely inflation and access to finance, towards MSME growth decision. The respondents were to choose from ranges 1–5, with 1 being strongly disagree and 5 being strongly agree.

2.4. Statistical Treatment

In order to evaluate structural relationships between variables, the study used a quantitative design, specifically PLS-SEM. The use of the aforementioned is justified as the model of the study uses reflective constructs. Furthermore, [Hair et al. \(2017\)](#) discussed that the use of PLS-SEM is appropriate even when the data possesses non-normal or small sample size characteristics. Since the research focuses on complex cause-effect structural models with small sample size, numerous endogenous and exogenous constructs, and has a non-normal distribution, the use of PLS-SEM is considered the most applicable statistical

tool for this research (Hair et al. 2017). Moreover, the proponents used WarpPLS version 8.0 software to quantify each construct and determine the validity and reliability of the research instruments.

As part of the examination of the measurement model, the proponents examined the validity and reliability of the constructs. To determine the reliability of each construct, the researchers used Cronbach Alpha (CA) and Composite Reliability (CR). Furthermore, the researchers assessed the quality of the research instruments through determination of convergent validity and discriminant validity. Lastly, in order to avoid biased estimates, the researchers also evaluated the structural model by analyzing potential collinearity problems subsequent to establishing the validity and reliability of the constructs.

3. Results

This chapter presents the validity and reliability of the research instruments together with the causal links among latent variables. Furthermore, the proponents provided interpretations for each of the statistical findings to carefully present the relationships between the tested variables. This chapter also presents the risk appetite of the respondents gathered to determine the loan-related risk behavior of MSMEs towards growth decision. Lastly, the proponents used WarpPLS version 8.0 software to assess the relationships between the latent variables and to identify the internal consistency of the research instruments.

3.1. Demographic Profile of MSME Business Owners

The respondents were owners or managers of MSMEs in Laguna belonging to any industry that have been operating for at least two years. A total of 84 questionnaires were used, and 80 of them completed the online survey, which yielded a response rate of 95.24%. Table 3 provides the full composition of the demographic characteristics of the respondents.

The researchers have also determined whether the respondents exhibit risk aversion or risk-taking behavior. After gathering the results, the proponents calculated the average of the survey results and determined if it classified as “risk averse” or “risk taker.” For that reason, the researchers provided a set of qualification criteria in order to determine the risk appetite of the respondents. The risk-aversion threshold is 0.00–2.49, and the risk-taking threshold is 2.50–5.00. The results concluded that the respondents’ average risk appetite was 3.25, which qualified as risk-taking behavior. In another perspective, 18.75% of the respondents are risk averse while 81.25% are risk takers. In a similar manner, this study correlates with the study of [Veider and Schneider \(2013\)](#) wherein people in emerging nations are more willing to take risks.

Focusing on individuals’ sex, the results showed that the male respondents are, on average, 15% risk averse and 85% risk takers. Female respondents, on the other hand, showed a total of 21% risk aversion and 79% risk taking behavior. If we compare the risk appetite of both genders, considering that men have a higher degree of risk appetite, the results are consistent with the study of [Robb and Watson \(2012\)](#), where the authors argued that men are more risk takers than women. Moreover, this also supports the findings that women have a higher risk aversion and a lower appetite for risk. Finally, the results clarified that women can still be considered risk takers, although the number of those who exhibit such behavior is comparatively lower than those of men. Nevertheless, the general affinity towards risk taking behavior can be attributed to the age group of respondents as [Azizah et al. \(2021\)](#) stated that MSMEs with younger owners have a higher risk tolerance than MSMEs with older owners.

Table 3. Demographic Characteristics of the Respondents.

Demographic Profile	Frequency	Percentage
<i>Age (Years)</i>		
25 and below	32	40.00%
26–30	5	6.25%
31–35	1	1.25%
36–40	2	2.50%
41–45	9	11.25%
46–50	5	6.25%
51–55	14	17.50%
56 and above	12	15.00%
<i>Sex</i>		
Male	33	41.25%
Female	47	58.75%
<i>Category (Total Assets, Excluding Land)</i>		
Not more than P3,000,000 (Micro)	49	61.25%
P3,001,000 to P15,000,000 (Small)	22	27.50%
P15,000,001 to 100,000,000 (Medium)	9	11.25%
<i>Years in Operation</i>		
2–5 years	48	60.00%
5–10 years	11	13.75%
More than 10 years	21	26.25%
<i>Nature of Business</i>		
Sole Proprietorship	66	82.50%
Partnership	6	7.50%
Corporation	8	10.00%
<i>Industry/Business Sector</i>		
Construction	5	6.25%
Direct Selling	5	6.25%
Food Service Activities	24	30.00%
Logistics	3	3.75%
Online Selling	16	20.00%
Wholesale and Retail Trade	10	12.50%
Others Combined	17	21.25%

Note: Frequency (N = 80).

3.2. Reliability and Validity Measurements

Part of the examination of the measurement mode is the analysis of the constructs' reliability and validity. Reliability evaluates the quality of the research instrument by determining if each latent construct is understood by different respondents correspondingly. Thus, the instrument is reliable if the respondents were able to understand it in the same manner (Kock 2017). To determine the reliability of each construct, the researchers used CA and CR. Furthermore, the coefficients of the aforementioned must be equal to or greater than 0.7 to remain at the acceptable level (Kock and Lynn 2012).

Convergent validity measures if the respondents interpret each latent variable in accordance with the understanding of the proponents. On the other hand, discriminant validity measures whether each latent variable is understood clearly by the respondents and is not confused in terms of meaning. In evaluating the convergent validity of the instruments, the use of criteria is employed to ascertain the value of the loadings to remain at the acceptable level. Thus, the P-values of each loading must be equal to or less than 0.05, and the loadings must be greater than or equal to 0.5 (Kock 2017).

Table 4 shows the convergent validity and reliability measures for each research instrument, which were determined using CR, CA, and factor loadings for convergent validity. The table also shows the previous amounts of factor loadings before the removal of item loadings that do not qualify at the 0.5 level of acceptance. Based on the results provided by WarpPLS version 8.0, the constructs yielded a value of greater than 0.70 for

both Cronbach’s alpha and composite reliability, which show the internal consistency of each construct.

Table 4. Convergent Validity and Reliability Measures.

Constructs	Indicators	Factor Loadings		AVE	CR	CA
		Initial Model	Final Model			
FRC-INF	INF1	0.703	0.703	0.633	0.873	0.805
	INF2	0.779	0.779			
	INF3	0.862	0.862			
	INF4	0.830	0.830			
FRC-ATF	ATF1	0.842	0.842	0.789	0.937	0.911
	ATF2	0.921	0.921			
	ATF3	0.901	0.901			
	ATF4	0.888	0.888			
LRRRA	RA1	0.471	-	0.653	0.881	0.815
	RA2	0.720	0.834			
	RA3	0.617	-			
	RA4	0.416	-			
	RA5	0.756	0.870			
	RA6	0.659	0.603			
	RA7	0.444	-			
	RA8	0.752	0.892			
GD	GD1	0.906	0.906	0.820	0.932	0.890
	GD2	0.930	0.930			
	GD3	0.880	0.880			
	GD4	-	-			

Note: The item loadings of each latent constructs are significant at 0.001 ($p < 0.001$).

As for the average variance extracted, all the constructs met the minimum required level of 0.5, and this provides support for the discriminant validity using Fornell and Larcker criterion. Lastly, all of the factor loadings qualified for the minimum threshold for acceptance of convergent validity. This indicates that the questionnaires were understood by the respondents in the same way as the preparers of the research instruments.

Table 5 exhibits the reliability statistics for determination of item reduction. The researchers also used item reduction to raise the internal consistency of the variable above an acceptable level. Since the initial results for the reliability of the growth decision variable showed a value that was less than the required amount, in order to further ascertain the consistency of the data gathered, the researchers tested if there were any redundancies on the research instruments. Fonseca et al. (2010) performed the same process of item reduction to remove statistical redundancy to maintain a good reliability and validity. Thus, the researchers conducted a scale reliability analysis through the use of the Statistical Package for the Social Sciences (SPSS) program to determine the item that is redundant and would therefore have weak internal consistency. Upon analysis, the findings indicated that the GD4 item under the Growth Decision variable has a weak internal consistency, which causes the decline of the CA for the aforementioned construct. The removal of the item raises the reliability for the growth decision from 0.632 to 0.889, which is greater than the acceptable value of 0.70.

Table 5. Reliability Statistics for Determination of Item Reduction.

	Item Total Statistics			
	Scale Mean If Item Is Deleted	Scale Variance If Item Is Deleted	Corrected-Item Total Correlation	Cronbach’s Alpha If Item Is Deleted
GD1	12.0250	4.354	0.661	0.364
GD2	11.8750	4.313	0.737	0.313
GD3	11.8250	4.399	0.620	0.395
GD4	12.0125	8.240	−0.148	0.889

Given the results of the statistical analysis, it can be concluded that the removal was necessary to draw out redundancy and improve internal consistency, and failure to do so will affect the reliability and validity of the questionnaires. More importantly, it may affect the results of the study. The researchers have also determined that items GD1, GD2, and GD3 are already enough to measure the growth decision of the respondents, and that the addition of GD4 to the questionnaire would just repeat the points indicated by the previous items. Furthermore, factor loadings that are below 0.5 are considered a violation of the assumption of convergent validity. Thus, items that are below 0.5 shall be removed from the scale (Fornell and Larcker 1981; Hair et al. 2009). Granted that four of the factor loadings under LRRRA are below the minimum threshold, the researchers have decided to remove them from the scale in order to achieve a higher degree of convergent validity.

Discriminant validity also follows a criterion to remain at the acceptable level. The average variance retrieved should have a square root higher than any correlations affecting each latent variable (Fornell and Larcker 1981). Thus, the square roots of the average variances retrieved for each latent variable should be higher than any of the values above or below them in the same column. Alternatively, the values in the diagonal should be higher than any of the values in the rows to their left or right (Kock 2017). Furthermore, the assessment of the average variance is also part of the measurement of discriminant validity. Thus, the value must be greater than or equal to 0.5.

Table 6 shows the square roots of the average variance extracted for each latent variable, as well as the elements under the diagonal of the square roots of the Average Variance Extracted (AVE), which represent the correlation between the constructs. Upon analyzing the results, the square roots of the AVE on the diagonal of the table are greater than the values above and below them. Moreover, it is also higher than the values on its left and right. Given these points, the researchers have determined that the respondents were able to understand the survey questionnaires clearly and without confusion.

Table 6. Discriminant Validity Using Fornell and Larcker Criterion.

	FRC-INF	FRC-ATF	LRRRA	GD
FRC–Inflation	0.796			
FRC–Access to Finance	0.451	0.888		
LR–Risk Appetite	0.011	0.454	0.808	
Growth Decision	0.314	0.637	0.584	0.906

Legend: FRC-INF–FRC–Inflation; FRC–ATF–FRC–Access to Finance; LRRRA–LR–Risk Appetite; and GD–Growth Decision.

In order to avoid biased estimates that entail high degrees of collinearity among predictor constructs, the researchers evaluated the structural model by detecting potential collinearity problems after establishing the validity and reliability of the assessment of constructs. According to Kock (2015), the value must be equal to or less than 3.3 in the Variance Inflation Factor (VIF) for full collinearity. The importance and relevance of structural model interactions were assessed subsequent to the determination whether collinearity presented a problem. The coefficient of determination or R-squared was

also determined, and the result demonstrated the predictive accuracy of the exogenous variables on endogenous variables. Lastly, the Stone-Geisser test was utilized to evaluate the predictive relevance of the model (Geisser 1974; Stone 1974). In order to test the predictive validity of the measurement model, Q-squared must be greater than 0 to be considered predictively valid (Kock 2015).

Table 7 shows the VIF for full collinearity of inflation, access to finance, loan-related risk appetite, and growth decisions. It is also worth noting that a value of Q² greater than 0 represents the predictive relevance of the exogenous variables over the endogenous variables. That being said, the following constructs are within the acceptable range of 3.3 in the VIF. To put it simply, the results conclude the absence of multicollinearity and common method bias in the model. The R² coefficients of 0.230 for Loan-Related Risk Appetite and 0.555 for Growth Decision reflect the predictive accuracy of the exogenous variables over the endogenous variables. Cohen (1988) also suggests that, for social sciences research, a coefficient of determination or R² of 0.02 is considered to be small, 0.13 for medium, and 0.26 for large. Using this as a basis, the R² for loan-related risk appetite reflects a medium amount of predictive accuracy while the Growth Decision variable reflects a large amount of predictive accuracy. Finally, the Stone-Geisser test, or Q², for both loan-related risk appetite and growth decisions showed a value greater than zero, indicating that the exogenous constructs will attain predictive relevance towards the endogenous constructs.

Table 7. Collinearity Assessment, Coefficient of Determination, and Predictive Relevance.

Constructs	Full Collinearity	R ²	Q ²
FRC–Inflation	1.370		
FRC–Access to Finance	2.010		
LR–Risk Appetite	1.683	0.230	0.281
Growth Decision	2.120	0.555	0.553

4. Discussion

As provided in Table 8, it depicts a comprehensive analysis of an illustrated initial mediation model with parameter estimates. According to Cohen (1988), r-squared values between 0.13 and 0.25 indicate a medium effect size, while values between 0.26 and above indicate a high effect size when reflecting the exogenous variable’s ability to predict endogenous variables. Therefore, the financial risks considered, inflation and access to finance, explained 23% of the variances observed in risk appetite, which indicates a medium effect size. On the other hand, the same variables explained 56% of the variances observed in MSME growth decision, which is considered as high.

Table 8. Evaluation of Structural Model.

Path Coefficient	B	SE	p-Value	f ²	Hypothesis
FR Consideration					
H1. FRC-INF → RA	0.10	0.108	0.175	0.019	Accept Ho
H2. FRC-ATF → RA	0.49 **	0.096	<0.01	0.249	Reject Ho
Direct Effects					
H3. RA → GD	0.39 **	0.099	<0.01	0.232	Reject Ho
H4. FRC-INF → GD	0.19 *	0.106	0.042	0.071	Accept Ho
H5. FRC-ATF → GD	0.39 **	0.099	<0.01	0.253	Reject Ho
Indirect Effects					
H6. FRC-INF → RA → GD	−0.040	0.078	0.307	0.015	Accept Ho
H7. FRC-ATF → RA → GD	0.190 **	0.075	<0.01	0.124	Reject Ho

Legend: β—Path Coefficients; SE—Standard Error for Path Coefficient; Cohen’s F²—Effect Sizes for Path Coefficient. Note: * correlation is significant at the 0.05, ** correlation is significant at the 0.01.

Table 8 reveals that the three hypotheses, Access to Finance to Risk Appetite (β = 0.49, p < 0.01), Risk Appetite to Growth Decision (β = 0.39, p < 0.01), and Access to Finance to

Growth Decision ($\beta = 0.39, p < 0.01$) indicates a relationship. Therefore, H2, H3, and H5 are rejected. This can be supported by the study of [Elston and Audretsch \(2010\)](#) that, in the process of choosing financing sources, risk attitudes and the degree of personal wealth are proven to have a significant impact. [Guariglia et al. \(2011\)](#) also provided that internal funds of MSMEs, despite generally being discriminated against by the banking sector, presented itself as to have fostered MSME growth instead of constraining it. Furthermore, the financial access to credit enables account holders to start and expand business, which can improve the overall quality of their well-being ([Vo et al. 2019](#)).

The correlations become weaker as estimated coefficients approach zero, and for a relationship to be considered significant, the matching p-value must be lower than 0.01 ([Hair et al. 2017](#)). With that being said, the hypotheses Inflation to Risk Appetite ($\beta = 0.10, p = 0.175$) and Inflation to Growth Decision ($\beta = 0.19, p = 0.071$) do not demonstrate a relationship and, therefore, there is a failure to reject H1 and H4. This can be associated with the study of [Lynch \(2022\)](#) that sellers of essential products and services and those who have little competition typically experience fewer problems even as prices climb. This is due to the fact that consumers are frequently prepared to pay more for goods and services they require but cannot easily obtain elsewhere and that inflation may not affect the business growth as much as others.

Mediation Model Result

The estimates of the mediation model parameters are shown in Table 8. The p-value represents the likelihood of incorrectly rejecting a true null hypothesis. For a relationship to be considered significant, the matching p-value must be lower than 0.01 ([Hair et al. 2017](#)). The mediating hypothesis, Inflation to Risk Appetite to Growth Decision ($\beta = -0.040, p = 0.027$), does not establish a relationship. The effect size (Cohen’s $f^2 = 0.015$) indicates a small effect and is therefore not significant ([Cohen 1988](#)). The finding suggests not to reject H6. On the other hand, Access to Finance to Risk Appetite to Growth Decision ($\beta = 0.190, p \leq 0.01$) establishes a relationship. The effect size (Cohen’s $f^2 = 0.124$) indicates a small effect and is therefore significant ([Cohen 1988](#)). The finding suggests rejecting H7. The results can be justified that external financing fosters growth in MSMEs ([Vo et al. 2019](#)), while internal funding also significantly affects MSME growth ([Guariglia et al. 2011](#)). Although financial risk is said to be unavoidable for MSMEs’ operating process, the prevention and control of such risk plays a vital role in its growth by establishing an effective financial management ([Zhao and Zeng 2014](#)). Thus, subsequent to analysis, Figure 3 provides a model that excludes variables with statistically insignificant results (i.e., the final mediation model).

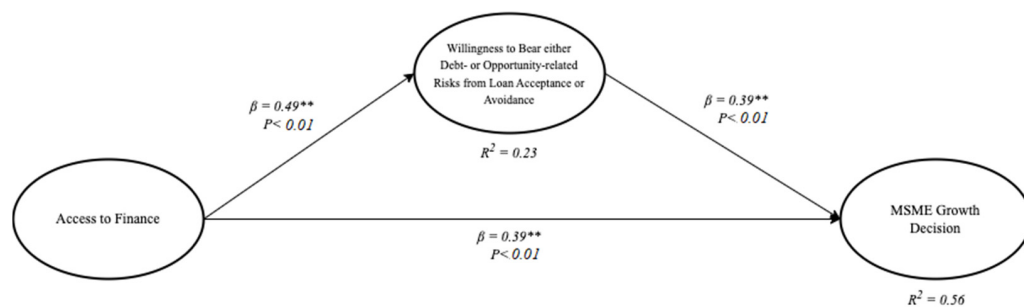


Figure 3. The Final Mediation Model with Parameter Estimates. Note: ** correlation is significant at the 0.01.

5. Conclusions

This endeavor aims to determine the influence of inflation and access to finance in the growth decision of MSMEs which is placed in the lens of the SOR model. It assumes the idea that loan-related risk appetite is stimulated by inflation and access to finance and is ultimately led to the decision of growing the business. This follows the suggestion of

previously examined literature by [Chowdhury and Alam \(2017\)](#) that the link between access to finance and MSME growth must be studied, and it is also grounded on the idea that growth intentions have complex interactions with other variables ([Levie and Autio 2013](#)) which led the proponents to incorporate inflation and loan-related risk appetite in this undertaking.

The findings present that, in terms of direct effects, access to finance has a positive impact towards loan-related risk appetite while the same circumstance cannot be observed for inflation. It was also found that loan-related risk appetite has an impact and influence towards growth decision. Interestingly, inflation as a direct effect to growth decision was not found to be significant while the contrary can be said when it comes to access to finance as a direct effect to growth decision. This would then mean that access to finance, being a financial risk, has a role in loan-related risk appetite. In an indirect context, loan-related risk appetite does not mediate the positive link between inflation and growth decision, but it does so between access to finance and growth decision.

The significance of access to finance and growth decision suggests that having the former incentivizes the business when it comes to growth decision. This means that, between inflation or access to finance, only the latter is considered when it comes to risk behaviors of the respondents, since the latter provided statistically insignificant results. Adding the fact that the respondents have an affinity for risk-taking behavior, it can be interpreted that debt financing carries with it the expectations of benefit through tax shields or deductions from taxable income which ultimately result to lower tax liabilities. Still, due care must be made as there are also numerous factors that may affect the impact of such benefit (e.g., comprehensiveness of tax legislations and business performance). On the other hand, a feasible interpretation for the statistical insignificance of inflation is that it is an all-encompassing concept; it suggests that it cannot be contextualized merely to growth decision. Furthermore, it can also be attributed to the idea that businesses have varied responses towards inflation depending on the nature of their products (i.e., essential or non-essential items). While access to finance can also be thought of as a broad concept, it can still be contextualized in the perspective of MSME growth decision, but it cannot be done so to inflation as it is a macroeconomic phenomenon that seeps through each aspect of the economy where it is not selective of its targets. Contrarily, loan-related risk appetite can be looked only at the perspective of taking or avoiding loans when it comes to growth decision.

While it has been established that access to finance has a direct effect towards growth decision, the found indirect influence confirms that, indicating a small effect, access to finance is positively related to loan-related risk appetite which consequently affects their decision to grow the business. In line with this, the significance found between direct and indirect effects provides a case of partial mediation. The proponents recommend that banking or financing institutions should consider developing more MSME-friendly agreements since having access to finance leads them to the decision of growing the business. On the other hand, MSMEs, particularly the owners or managers, must further understand how their risk appetite drives the management of their business as it is important that they should only make decisions that they are willing to bear once its outcome arrives. Thus, factoring in the results, this study proved that, not only are there links between access to finance and the decision to grow the business, it also proved the existence of loan-related risk appetite as a mediator between the aforementioned variables.

However, as is the case in every study, this undertaking is also subject to certain limitations. In terms of measuring risk appetite, it is only restricted to the dimension of loan-related risk appetite and has only two incorporated factors, namely inflation and access to finance. Lastly, the lack of significance of the relationship the direct and indirect effects related to inflation may be attributed to the high amount of food service-related MSME business owners and/or managers. Lastly, the risks investigated in this study mainly refer to the considerations that influence in acquiring loans, considering that the investigation is focused on what prompts the response of growing the business instead of

determining how risks become justified after its acquisition and is already in use. Bearing all these in mind, it is worth noting to exercise care and caution in generalizing and applying these results to different environments.

5.1. Implications for Practice

The findings that were revealed in this undertaking offer several perspectives that will provide guidance for various players in the business landscape. It has been echoed by reviewed literature that the Philippines is primarily dominated by MSMEs. In line with this, starting from a macro perspective, the government will obtain better insights on what drives MSME growth which is a precursor to economic growth as it has been affirmed in this study that having access to finance is positively related to MSME growth decision. In the same vein, this knowledge also provides better assistance for banking or financial institutions in order to develop more MSME-friendly loan agreements, considering that the study presented that the majority of the respondents are leaning towards risk-taking behavior. More than being able to secure such link, the results also provide avenues for establishing better safeguards.

The global health crisis has significantly impacted economies. In line with this, more stringent policies are being employed both by financing institutions and regulators to protect themselves from greater risk. Relating this to the existing information asymmetry between MSMEs and financial institutions, this poses further constraints in the relationship. However, sustaining stringent policies may do more harm than good as it inhibits economic growth, considering MSME owners, as provided by results in this study, are incentivized to grow their business when they have access to finance. It then presents a complex relationship in terms of being able to support MSMEs while balancing risks so as to avoid a ripple effect. Understandably, the risk in the act of providing financing to MSMEs is not only exclusive to the parties involved in the same. Rather, the economy also bears a portion of the risk. Given the existing methods of assessing creditworthiness, much of the criteria is not really applicable to the nature of MSMEs. Thus, our result implicates a shift to more non-traditional methods in order to have the same level of protection from risk while also giving flexibility for MSMEs to grow, considering that, aside from being incentivized, MSMEs also constitute a major portion of economies around the world. In another perspective, the necessity of debt financing becomes further emphasized as a business grows, particularly because solely using earnings from the business may no longer be sufficient to cover the costs of growth. Nevertheless, thorough analysis must still be made as the risk also grows along with the growing need for larger financing. Lastly, the possession of such knowledge also allows current and prospective business owners to understand how their risk propensities affect how they manage or operate their business. In another sense, this also implicates the need for more comprehensive financial literacy among MSMEs. This will ultimately reflect on how they can better anticipate upcoming challenges given the constantly changing nature of the competitive business landscape.

5.2. Future Research Direction

The aforementioned limitations would entail supplementation of further studies to strengthen knowledge regarding MSME growth decision. First, the authors recommend expanding to other cities in order to confirm whether cross-city differences exist, and this may ultimately be expanded to a cross-regional scale. Second, in terms of risk profiles in demographics, future researchers may also consider exploring the differences in risk behaviors of people across various age groups and as well as investigating the differences between sexes. Third, since growth decision was suggestively found by studies to have complex interactions with other variables, it is also recommended to include more variables. In line with this, future researchers may also consider introducing non-financial risks such as political and social factors as a moderating variable. As previously mentioned, while it has been interpreted that there are expectations of benefits arising from debt financing in the form of tax shields, its magnitude still differs depending on various circumstances. A feasible direction for this is the

deeper investigation of perceived benefits arising from relevant tax legislations or even laws that provide subsidies, which ultimately is a political factor, so as to allow for a multifaceted approach when it comes to understanding the growth decision of MSMEs. Meanwhile, social factors may further investigate the applicability of the availability of connections with key people in a particular industry to boost one's presence and possibly facilitate risk behaviors. Lastly, it is also suggested to investigate trust gaps between financial institutions and MSMEs to enable having broader access to finance.

Author Contributions: Conceptualization, R.S.L.; methodology, R.S.L., M.M.B., O.B. and D.E.M.; formal analysis, R.S.L., M.M.B. and O.B.; data curation, M.M.B. and O.B.; writing—original draft preparation, R.S.L., M.M.B. and O.B.; writing—review and editing, R.S.L., M.M.B., O.B. and L.D.; supervision, D.E.M. and L.D. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Acknowledgments: The researchers would like to thank the Mapua Malayan Colleges Laguna for the support of this research.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 2020 MSME Statistics. 2020. Department of Trade and Industry of the Philippines. Available online: <https://www.dti.gov.ph/resources/msme-statistics/> (accessed on 26 September 2022).
- Adeyori, Rotimi, and Joseph Edewor Agbadudu. 2018. Influence of Business Environmental Factors on Micro, Small and Medium Enterprise Survival in Ondo City Metropolis, Nigeria. *International Journal of Economics, Commerce and Management, Rochester, United Kingdom* 6: 442–64.
- Angeles, Imelda T. 2022. A Qualitative Study on The Effect of Access to Finance on The Growth Motivation of Micro-And Small Enterprise Owners in the Philippines. Available online: <https://doi.org/10.54660/anfo.2022.3.1.16> (accessed on 2 October 2022).
- Aroui, Mohamed El Hedi, Adel Ben Youssef, Cuong Nguyen-Viet, and Agnès Soucat. 2014. Effects of Urbanization on Economic Growth and Human Capital Formation in Africa. PGDA Working Paper No. 119. Available online: <https://shs.hal.science/halshs-01068271/> (accessed on 1 March 2023).
- Asah, Francis, Olawale Olufunso Fatoki, and Ellen Rungani. 2015. The impact of motivations, personal values and management skills on the performance of SMEs in South Africa. *African Journal of Economic and Management Studies* 6: 308–22. [CrossRef]
- Azizah, Devi Farah, Sandy Wibisono, Hardono Hardono, and Rita Sari. 2021. The Level of Expected Returns, the Level of Risk and the Relationship between Return and Risk in MSME Investment Decisions. *Turkish Online Journal of Qualitative Inquiry* 12: 487–98.
- Berner, Erhard, Georgina Gomez, and Peter Knorringa. 2008. Helping a large number of people become a little less poor: The logic of survival entrepreneurs. *The European Journal of Development Research* 24: 382–396. [CrossRef]
- Brockman, Beverly K., Richard C. Becherer, and J. Howard Finch. 2006. Influences on an entrepreneur's perceived risk: The role of magnitude, likelihood, and risk propensity. *Academy of Entrepreneurship Journal* 12: 107–26.
- Buxbaum, Otto. 2016. The sor-model. In *Key Insights into Basic Mechanisms of Mental Activity*. Cham: Springer, pp. 7–9. [CrossRef]
- Carland, James W., III, James W. Carland Jr., Jo Ann C. Carland, and James W. Pearce. 1995. Risk taking propensity among entrepreneurs, small business owners and managers. *Journal of Business and Entrepreneurship* 7: 15.
- Chen, Su-Chang, Kuo Cheng Chung, and Ming Yueh Tsai. 2019. How to achieve sustainable development of mobile payment through customer satisfaction—The SOR model. *Sustainability* 11: 6314. [CrossRef]
- Chowdhury, Mohammed, and Zahurul Alam. 2017. Factors affecting access to finance of small and medium enterprises (SMEs) of Bangladesh. *USV Annals of Economics and Public Administration* 2: 55.
- Clement, Seyafar. 2019. SME Decision Making in Using Bank Loans: Applying an Adapted Model with Attitudinal Variables of the Theory of Planned Behaviour in Nigeria. Ph.D. thesis, Philosophy-University of Bedfordshire, Luton, UK.
- Cohen, Jacob. 1988. *Statistical Power Analysis for Behavioral Sciences*. Hillsdale: Lawrence Erlbaum.
- Creswell, John W. 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, CA: Sage Publications.
- Danso, Albert, Samuel Adomako, John Ofori Damoah, and Moshfique Uddin. 2016. Risk-taking propensity, managerial network ties and firm performance in an emerging economy. *The Journal of Entrepreneurship* 25: 155–83. [CrossRef]
- Dynamic Planner Risk Profiler. 2018. Available online: <http://adaurum.com/wp-content/uploads/2018/07/Risk-Questionnaire-June-2018-2019.pdf> (accessed on 29 August 2022).

- Eccles, Jacquelynne S., Allan Wigfield, and Ulrich Schiefele. 1998. Motivation to Succeed. In *Handbook of Child Psychology: Social, Emotional, and Personality Development*. Hoboken: John Wiley & Sons, Inc., pp. 1017–95.
- Elston, Julie Ann, and David B. Audretsch. 2010. Risk attitudes, wealth and sources of entrepreneurial start-up capital. *Journal of Economic Behavior & Organization* 76: 82–89.
- Ennouri, Wissem. 2013. Risks management: New literature review. *Polish Journal of Management Studies* 8: 288–97.
- Eroglu, Sevgin A., Karen A. Machleit, and Lenita M. Davis. 2001. Atmospheric qualities of online retailing: A conceptual model and implications. *Journal of Business Research* 54: 177–84. [CrossRef]
- Evans, Joel R., and Anil Mathur. 2018. The value of online surveys: A look back and a look ahead. *Internet Research* 28: 854–57. [CrossRef]
- Financial Fitness for Life. n.d. Council for Economic Education. Available online: <https://fffl.councilforeconed.org/book-overview.php?gradeLevel=9-12> (accessed on 8 September 2022).
- Fonseca, Joao A., L. Nogueira-Silva, M. Morais-Almeida, L. Azevedo, A. Sa-Sousa, M. Branco-Ferreira, and J. Bousquet. 2010. Validation of a questionnaire (CARAT10) to assess rhinitis and asthma in patients with asthma. *Allergy* 65: 1042–48. [CrossRef] [PubMed]
- Fornell, Claes, and David F. Larcker. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18: 39–50. [CrossRef]
- Geisser, Seymour. 1974. A Predictive Approach to the Random Effect Model. *Biometrika* 61: 101–7. [CrossRef]
- Guariglia, Alessandra, Xiaoxuan Liu, and Lina Song. 2011. Internal finance and growth: Microeconomic evidence on Chinese firms. *Journal of Development Economics* 96: 79–94. [CrossRef]
- Guo, Zhengyan, Yao Yao, and Yuan-Cheng Chang. 2022. Research on customer behavioral intention of hot spring resorts based on SOR model: The multiple mediation effects of service climate and employee engagement. *Sustainability* 14: 8869. [CrossRef]
- Hair, Joseph F., William C. Black, Barry J. Babin, and Rolph E. Anderson. 2009. *Multivariate Data Analysis*, 7th ed. Upper Saddle River: Pearson Prentice Hall.
- Hair, Joe F., Christian M. Ringle, and Marko Sarstedt. 2011. PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice* 19: 139–52. [CrossRef]
- Hair, Joe F., Jr., Lucy M. Matthews, Ryan L. Matthews, and Marko Sarstedt. 2017. PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis* 1: 107–23. [CrossRef]
- Hampel-Milagrosa, A. 2014. *Micro and Small Enterprise Upgrading in the Philippines: The Role of the Entrepreneur, Enterprise, Networks and Business Environment* (No. 86). Studies. Available online: <https://www.econstor.eu/handle/10419/199211> (accessed on 1 March 2023).
- Hung, Kuo-Ting, Chanchai Tangpong, Jin Li, and Yue Li. 2012. Robustness of general risk propensity scale in cross-cultural settings. *Journal of Managerial Issues* 24: 78–96.
- Idris, Idris, DP Irene Rini, and Endang Tri Widyarti. 2022. The mediating role of MSME's Growth on Financial Inclusion. *Academy of Entrepreneurship Journal* 27: 1–11.
- Jayadi, Emir Indra Putra, and Ina Agustini Murwani. 2022. The Implementation of SOR Framework (Stimulus, Organism, and Response) in User Behavior Analysis of Instagram Shop Features on Purchase Intention. *Scholars Journal of Engineering and Technology* 4: 42–53. [CrossRef]
- Jeong, Yunduk, Euisoo Kim, and Suk-Kyu Kim. 2020. Understanding active sport tourist behaviors in small-scale sports events: Stimulus-organism-response approach. *Sustainability* 12: 8192. [CrossRef]
- Kock, Ned. 2015. Common Method Bias in PLS-SEM: A Full Collinearity Assessment Approach. *International Journal of e-Collaboration (IJeC)* 11: 1–10. [CrossRef]
- Kock, Ned. 2017. *WarpPLS 6.0 User Manual: Version 6.0*. Laredo, TX: Script Warp Systems, vol. 141, pp. 47–60.
- Kock, Ned, and Gary Lynn. 2012. Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems* 13: 546–80. [CrossRef]
- Laidler, David E., and J. Michael Parkin. 1977. Inflation: A survey. In *Surveys of Applied Economics*. London: Palgrave Macmillan, pp. 169–237. [CrossRef]
- Levie, Jonathan, and Erkko Autio. 2013. Growth and Growth Intentions. *White Paper* 1: 159–83.
- Lynch, Ryan. 2022. How Inflation Affects Small Businesses. Available online: <https://www.americanexpress.com/en-us/business/trends-and-insights/articles/how-inflation-affects-small-businesses/> (accessed on 27 January 2023).
- MacCrimmon, Kenneth R., Donald Wehrung, and William Thomas Stanbury. 1988. *Taking Risks*, Simon and Schuster.
- Mehrabian, Albert, and James A. Russell. 1974. The basic emotional impact of environments. *Perceptual and Motor Skills* 38: 283–301. [CrossRef]
- Micro, Small and Medium-sized Enterprises (MSMEs). 2017. Available online: https://www.southcentre.int/wp-content/uploads/2017/08/AN_TDP_2017_4_Micro-Small-and-Medium-sized-Enterprises-MSMEs_EN.pdf (accessed on 1 March 2023).
- Mkedder, Nadjim, Mahmut Bakır, and Abdelheq Lachachi. 2021. Investigating the Antecedents of Purchase Intention Toward Local Dairy Products: An Empirical Study Based on the SOR Model. *Central European Management Journal* 29: 124–48. [CrossRef]
- Moe, Aung Zaw, and Chai Ching Tan. 2016. Using the business model concept as a broad-based SOR (stimulating-organism-response) consumer behavior model for tourism industry: The case of Bagan, Myanmar. *Journal of Mekong Societies* 12: 21–44.
- Moreno, Donn Enrique, Erika Fabre, and Michael Pasco. 2021. Atmospheric Cues Roles: Customer's Online Trust, Perceived Enjoyment, and Impulse Buying Behavior. *Open Journal of Business and Management* 10: 223–44. [CrossRef]
- Nagoya, Rocky, Innocentius Bernarto, Ferdi Antonio, Rudy Pramono, Albert Surya Wanasida, and Agus Purwanto. 2021. Exploring Intention to Enroll University Using an Extended Stimulus-organism-response Model. *Academy of Strategic Management Journal* 20: 1–12.

- Noor, Jamal A. Mohamed, and Ali I. Abdalla. 2014. The Impact of financial risks on the firms' performance. *European Journal of Business and Management* 6: 97–101.
- Nunthiphatprueksa, Ariyaporn. 2017. The Application of Stimulus-Organism-Response Paradigm: The Role of Social Media in Thailand's Destination Image and Behavioral Intentions. Available online: <https://repository.nida.ac.th/handle/662723737/3806#45.62> (accessed on 8 September 2022).
- Official Gazette. 2008. Available online: <https://www.officialgazette.gov.ph/2008/05/23/republic-act-no-9501/> (accessed on 23 January 2023).
- Oshora, Betgili, Goshu Desalegn, Eva Gorgenyi-Hegy, Maria Fekete-Farkas, and Zoltan Zeman. 2021. Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. *Journal of Risk and Financial Management* 14: 286. [CrossRef]
- Pham, Thi Thu Tra, and Robert Lensink. 2007. Lending policies of informal, formal and semiformal lenders: Evidence from Vietnam. *Economics of Transition* 15: 181–209. [CrossRef]
- Pozzolo, Alberto Franco. 2002. Secured lending and borrowers' riskiness. Available at SSRN, 302124. [CrossRef]
- Robb, Alicia M., and John Watson. 2012. Gender differences in firm performance: Evidence from new ventures in the United States. *Journal of Business Venturing* 27: 544–58. [CrossRef]
- Setia, M. S. 2016. Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology* 61: 261. [CrossRef]
- Sibanda, Kin, Progress Hove-Sibanda, and Herring Shava. 2018. The impact of SME access to finance and performance on exporting behaviour at firm level: A case of furniture manufacturing SMEs in Zimbabwe. *Acta Commercii* 18: 1–13. [CrossRef]
- Stone, Mervyn. 1974. Cross-Validatory Choice and Assessment of Statistical Predictions. *Journal of the Royal Statistical Society: Series B (Methodological)* 36: 111–33. [CrossRef]
- Susanto, Azhar, and Meiryani. 2018. The importance of risk management in an organization. *International Journal of Scientific and Technology Research* 7: 103–7.
- Tan, Chai Ching. 2020. Brand management through stimulus-organism-response (sor) integrative efforts. *Nimitmai Review Journal* 3: 8–17.
- Tan, Chai Ching, Wanwisa Praditmon, Arpakorn Pattanadeekul, and Sakolwan Chimwan. 2019. Intercepting stimulus-organism-response model, theory of planned behavior and theory of expectancy confirmation in the study of smartphone consumer behavior: A Thai university student perspective. *Asia Pacific Journal of Religions and Cultures* 3: 27–48.
- Thanki, Heena, and Narayan Baser. 2019. Interactive impact of demographic variables and personality type on risk tolerance. *Emerging Economy Studies* 5: 42–54. [CrossRef]
- The MSME Sector at Glance. 2012. Available online: <https://legacy.senate.gov.ph/publications/AG%202012-03%20-%20MSME.pdf> (accessed on 23 August 2022).
- Tongco, Maria Dolores C. 2007. *Purposive Sampling as a Tool for Informant Selection*. Available online: <https://scholarspace.manoa.hawaii.edu/handle/10125/227> (accessed on 1 March 2023).
- Urban Population of the Philippines. 2022. Philippine Statistics Authority. Available online: https://psa.gov.ph/sites/default/files/attachments/hsd/pressrelease/1_PR_Urban%20Population_RML_063022_ONS-signed.pdf (accessed on 27 September 2022).
- Valverde, Santiago Carbò, and Francisco Rodriguez Fernández. 2022. *The financial risks posed by inflation*. Granada: Universidad de Granada and Funcas.
- Veider, Ferdinand, and Kerstin Schneider. 2013. People in Poorer Countries Show Higher Tolerance for Risk. Available online: <https://www.wzb.eu/en/press-release/people-in-poorer-countries-show-higher-tolerance-for-risk> (accessed on 3 January 2023).
- Veider, Ferdinand M., Thorsten Chmura, and Peter Martinsson. 2012. *Risk Attitudes, Development, and Growth: Macroeconomic Evidence from Experiments in 30 Countries*. Discussion Papers, WZB Junior Research Group Risk and Development No. SP II 2012-401. Berlin: WZB Berlin Social Science Center.
- Vo, Anh The, Loan Thi Hong Van, Duc Hong Vo, and Michael McAleer. 2019. Financial inclusion and macroeconomic stability in emerging and frontier markets. *Annals of Financial Economics* 14: 1950008. [CrossRef]
- Wang, Wenqian, Junqi Zhao, Wenjing Zhang, and Yu Wang. 2015. Conceptual framework for risk propensity, risk perception, and risk behaviour of construction project managers. Paper presented at the 31st Annual ARCOM Conference, Lincoln, UK, 7–9 September 2015; pp. 165–74.
- Wani, Arif Ahmad, and Dar Showket Ahmad. 2015. Relationship Between Financial Risk and Financial Performance: An Insight of Indian Insurance Industry. *International Journal of Science and Research (IJSR)* 4: 1424–33.
- Woods, Margaret, and Kevin Dowd. 2008. Financial risk management for management accountants. In *Management Accounting Guideline*. London: CIMA.
- Wu, Donglin. 2009. *Measuring Performance in Small and Medium Enterprises in the Information and Communication Technology Industries*. Doctoral dissertation, RMIT University Melbourne, Melbourne, Australia.
- Zhao, Shuying, and Mei Zeng. 2014. Theory of SMEs financial risk prevention and control. Paper presented at the 2014 International Conference on Education, Management and Computing Technology (ICEMCT-14), Tianjin, China, 14–15 June 2014; Zhengzhou, China: Atlantis Press, pp. 514–17. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.