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Managerial accounting tools and national culture: a study addressing small and medium Chinese entrepreneurs established in Brazil

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Abstract

Objective: This paper's objective was to identify whether the frequency managerial accounting practices are implemented by Chinese small and medium entrepreneurs established in Brazil and the importance they assign to these practices is similar or different from Brazilian entrepreneurs. Additionally, the influence of national culture on Chinese entrepreneurs is verified through questions addressing national culture dimensions.

Method: A questionnaire was applied in 131 firms, 68 of which owned by Chinese entrepreneurs established in Brazil and 63 firms owned by Brazilian entrepreneurs.

Results: Brazilian entrepreneurs use more frequently and assign greater importance to managerial accounting tools. The test of hypotheses showed that the importance given to managerial accounting tools was significant in all four groups: budget, performance evaluation, decision-making information, and financial control and evaluation. Regarding the frequency of use, the test of hypotheses was significant for three groups: budget, decision-making information, and financial evaluation; no significant differences were found for performance evaluation.

Contributions: This study contributes to clarifying how the national culture of immigrant entrepreneurs, in the specific case of small Chinese entrepreneurs, is related to the use and importance given to managerial accounting tools. Chinese entrepreneurs working in an environment different from their national environment maintain their cultural traits. Hence, their original national culture may influence how managerial accounting tools are used.

Keywords: Management accounting; National culture; Immigration; Small and medium firms.

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1. Introduction

Management accounting research indicates a connection between national culture and management accounting practices (Malmi et al., 2020). Furthermore, Baskerville-Morley (2005) highlights that managerial researchers must understand that behavioral variables change according to the origin of those involved. In this context, one must be aware that different principles and values are held in different cultures. Hence, researchers can continue investigating and developing managerial accounting actions taking the cultural aspect into account (Chan & Cheung, 2012).

There are many situations to be explored in terms of cultural aspects within an organization. Harrison & Mckinnon (1999) considers that the way the culture of a country influences the behaviors of employees is quite complicated, considering that a group of managerial actions may not be applied in the same way in different cultures. So there is an understanding that culture plays a vital role in the dilemmas organizations face in all countries.

Traditionally, after developing multinational operations in many organizations, national culture was identified as a contextual element. The relationship between the design and use of managerial accounting tools and national culture represents an extension of contingency-based research of its organizational foundations to more sociological issues (Chenhall, 2006). The basic assumption is that different countries have specific cultural characteristics that predispose individuals in these cultures to respond differently to the managerial accounting system (Merchant, et al., 2011). Culture became essential to understand the design and use of managerial accounting practices in the last 30 years, as many companies started developing multinational operations. These companies face the problem of transferring their domestic managerial accounting practices abroad or redesign their systems to adapt to the cultural characteristics of the entities outside their jurisdictions. Therefore, comparing to studies addressing other contextual variables, research on national culture has been limited to the context of large multinational organizations (Jarsen, et al., 2009). Thus, few studies address small and medium-sized firms (PMEs), particularly considering immigration and relating its impact on management accounting practices to clarify how cultural characteristics and differences reflect on the importance and use of management accounting tools.

Therefore, even though many studies address managerial accounting and small and medium-sized firms (López & Hiebl, 2015), there is a gap concerning the connection between the impact of national culture on the use and importance assigned to management accounting tools. Therefore, studies addressing national culture aspects and their impact on small and medium-sized firms are relevant because they can support understanding of how managerial practices evolve in these organizations (Davila & Foster, 2007). In this sense, Mitchell and Reid (2000) note that even though studies addressing small firms are not in evidence, these have great potential to clarify how managerial accounting tools are developed in these companies. Therefore, considering the growing immigration of Asian individuals, especially Chinese, to various countries, including Brazil, this study's objective is to analyze whether the managerial accounting practices adopted by small and medium Chinese entrepreneurs established in Brazil and the importance assigned to these practices differ from the perspective of Brazilian entrepreneurs. Therefore, this study contributes to understanding the influence of these on the development of managerial accounting practices by Chinese businesspeople, who may adapt to the national culture to conduct their businesses, and also supports researchers to understand better the use of managerial accounting on the part of small and medium entrepreneurs and the importance they assign to these practices in the context of immigration.

Finally, as the literature has not consistently addressed the connection between national culture in the context of small and medium-sized firms to investigate differences in terms of managerial accounting practices, we suggest that many institutional conditions in our local environment and single survey sampling (Chinese established in Brazil) can contribute to theorization and future research addressing the use and importance of managerial accounting tools in various environments and jurisdictions. As noted by Scott (1995), it would be difficult, if not impossible, to discern the effects of institutions (set of beliefs and values) on social structures (e.g., national culture) and behaviors if all studies were conducted in the same or very similar contexts.

2. National Culture and Research Hypotheses

Studies addressing the association between managerial accounting practices and culture have more frequently focused on national culture (Malmi et al., 2020). It is argued that national culture is acquired and becomes deeply rooted during childhood, so that cultural values and preferences are relatively resistant to change (Jarsen, et al., 2009). Hence, culture can be described by inherent traits such as knowledge, beliefs, art, morals, laws, customs, and other abilities and habits acquired by people that belong to a given society (Chenhall, 2006). However, to meet the research community's methodological and scientific needs, culture is often conceptualized as a set of isolated characteristics. Hofstede (2001) developed the characteristics most frequently used, with six dimensions known as *power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, long-term orientation, and indulgence versus restraint.*

The power distance index expresses the degree to which less powerful people within a group are conformed to inequality. The higher the degree, the higher their level of acceptance and no justification is required. Groups with a lower level of acceptance demand inequality to be justified and strive for power to be equivalently distributed (Hofstede, 2001). Hence, low power distance within companies may indicate a decentralizing profile in which people at all levels participate in decision-making. The opposite occurs when there is a high level of power distance, a profile that tends to centralize the decision-making process.

According to Hofstede (2001), the individualism *versus* collectivism dimension refers to people having a more significant concern with themselves and their families, which is characterized as individualism. However, when people can count on the other group members in exchange for unquestioning loyalty, it is characterized as collectivism.

Concerning the masculinity *versus* femininity dimension, a preference for achievements, feats, being assertive and having tangible results are characteristics considered to be masculine. However, a preference for cooperation, unpretentiousness, concern for the less fortunate, and wellbeing are considered feminine characteristics (Hofstede, 2001).

Regarding the uncertainty avoidance index, a high level of this dimension indicates a society with rigid codes of beliefs and behaviors, intolerance to less rigid principles and behaviors. In contrast, a more relaxed attitude in which practice is more important than rules denotes a low level of this dimension (Hofstede, 2001).

According to Hofstede (2001), a society presenting a low level of the long-term orientation *versus* short-term orientation index is characterized by a behavior focused on following protocols, encouraging the economy, and efforts are focused on education as a way to prepare individuals for the future. Low levels of this dimension indicate a preference for continuing customs and norms, whereas societal changes are seen with caution.

In the indulgence *versus* restriction dimension, indulgence is characterized by valuing basic gratification such as enjoying life and having fun, whereas restraint refers to heavy regulations to restrict basic gratification (Hofstede, 2001).

According to Chenhall (2006), virtually all studies addressing managerial accounting adopted these cultural dimensions and values from Hofstede's model to study the influence of national culture on managerial accounting practices. In general, the literature on managerial accounting examines associations between cultural dimensions and structural elements such as standardization, decentralization, and characteristics of the managerial control system such as formality of controls, dependence on financial measures of performance, and budgetary participation. In most cases, these studies provided mixed results regarding the effects of national culture on aspects linked to managerial accounting practices (Chenhal, 2006; Malmi et al., 2020). There are few areas in which consensus is identified. It happens because the studies examine different combinations of cultural dimensions and consider distinct aspects of the managerial accounting system.

Consequently, there is little overlap between studies that enable knowledge to be consolidated or make comparisons and generalizations. The following studies are examples of investigations that examined the relationship between culture and managerial accounting. O'Conner (1995) argued that the low level of power distance found among the headquarters of Western corporations would control the high power distance inherent in their local subsidiaries in Singapore, improving the subsidiaries' efficacy of the managerial control system. Using these arguments, the author found that the relationship between role ambiguity and superior-subordinate relationships (perceptions of competence and trustworthiness) and budgetary participation and performance evaluation was stronger in international subsidiaries than in the local entities in Singapore. Merchant et al. (1995) addressed Taiwanese and American companies and found that culture was not important to explain the use or effectiveness of the degree of subjectivity in the profit of the result centers in the performance evaluation process. However, they found that the use of long-term incentives was more important in Taiwanese firms.

More recently, Merchant et al. (2011) sought to identify whether Chinese car dealerships' reward and incentive practices compared to those in the USA and the Netherlands. The study's results showed that Chinese firms are much more likely to provide incentives than Dutch companies and even more likely than American firms. However, Chinese bonus plans were more subjective rather than based on pre-established formulas and standards. Malmi et al. (2020) examined the influence of cultural regions (Anglo-Saxon, Germanic, and Nordic) on the interdependence between authority delegation and other managerial control practices. The results showed that interdependence between delegation and contractual incentive is restricted to Anglo-Saxon firms. Participation in strategic planning and actions, identified in the Nordic and Germanic regions, works as a complement to the delegation process, whereas delegation is also complemented by selecting managers in Nordic firms. In general, the study showed that cultural values and preferences significantly influence the interdependence of managerial control systems.

According to Kanagaretnam, Lim and Lobo (2013), various studies considered broader aspects of managerial accounting. The authors analyzed the influence of national culture, such as the use of accounting systems and information (Gray, 1988; Salter & Niswander 1995; Radebaugh, Gray & Black, 2006). Other studies (Nabar & Thai, 2007; Doupnik, 2008) addressed the relationship between national culture and performance management.

The relationship between culture and managerial accounting was also explored in Brazil (Tarifa & Lauro, 2018; Carmona et al., 2018; Heinzmann & Lavarda, 2011). However, Brazilian studies tend to focus on the more specific concept of organizational culture. Guerreiro, Frezatti and Casado (2006) highlight involuntary elements in the firms responsible for structuring management accounting. These elements are explained by being habits unconsciously formed by the national and organizational cultural dimensions. Tarifa & Lauro (2018) studied the effects of organizational culture on managerial accounting practices adopted by agribusiness cooperatives. The results report three cooperative groups with common characteristics between managerial accounting practices and organizational culture. In turn, Carmona et. al (2018) focused on the relationship between organizational culture, innovation, and performance in the context of Brazilian accounting offices. The authors identified that organizational culture influence innovation and positively affect the performance of accounting offices. Finally, Klein & Almeida (2017, p. 110) conclude, "cultural aspects cannot be neglected, because they influence acceptance and rejection of agents in adopting and using new practices, regardless of what these practices are."

While previous studies revealed that the type and use of certain managerial accounting practices vary between nations, other studies report insignificant and inconsistent results or suggest that there is a convergence toward global best practices (Jansen et al., 2009). Thus, the literature is still incipient to improve understanding of whether and how culture influences specific managerial accounting practices (Jansen et al., 2009). These prescriptions and conflicting predictions suggest that the association between national culture and the importance and use of managerial accounting practices is essentially an empirical issue. Therefore, this study's objective is to identify this potential association in the context of immigration in which small Chinese entrepreneurs settled and started operating in Brazil—comparing two groups of entrepreneurs working in the same business environment and having their national cultures as the differential can lead to relevant empirical data to clarify how national culture is associated with the use and importance of managerial accounting tools.

The national culture dimensions developed by Hofstede were adopted. His website enables comparisons between nations (as shown in Figure 1), and differences between China and Brazil were found in all six dimensions.

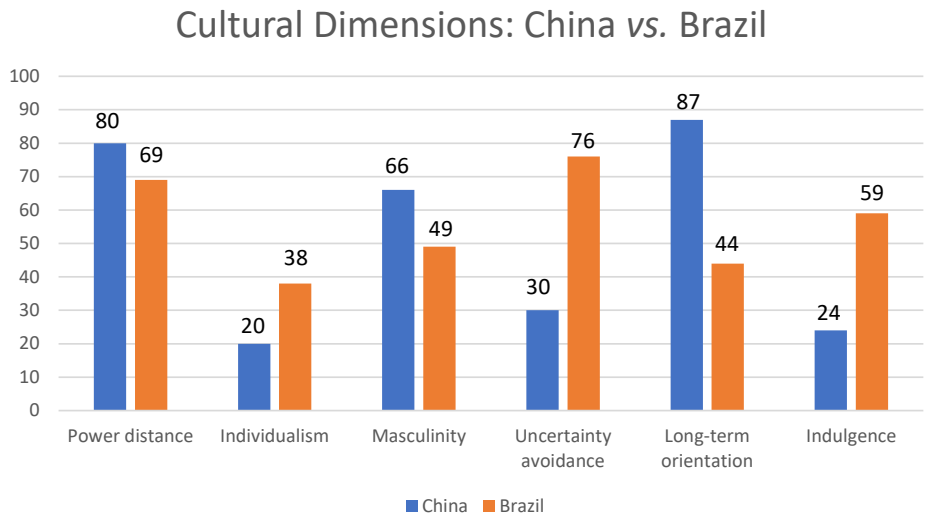

Figure 1. Cultural Dimensions: Comparison between China and Brazil

Source: adapted from Geert Hofstede's webpage (Available at: https://geert-hofstede.com/brazil.html retrieved on May 2017).

Because this study is focused on the managerial accounting of small and medium-sized firms, long-term orientation *versus* short-term normative orientation and indulgence *versus* restriction were not used because they are irrelevant in studies addressing small and medium-sized firms. Additionally, the four remaining dimensions already provide elements to differentiate aspects of the national culture between the Chinese and Brazilian entrepreneurs. Previous studies (Harrison, 1993; O'connor, 1995) treated the power distance, uncertainty avoidance, and individualism dimensions related to budgetary practices, performance evaluation, and measurement. Considering that there are significant differences in the four dimensions addressed in this study and the literature review on the relationship between national culture and managerial accounting practices, two hypotheses were established to analyze the influence of national culture in the immigration context and the use and importance given to managerial accounting by Brazilian and Chinese entrepreneurs established in Brazil. Hence two hypotheses are proposed:

H1: There are differences between Chinese entrepreneurs working in Brazil and Brazilian entrepreneurs regarding the use of managerial accounting tools.
H2: There are differences between Chinese entrepreneurs working in Brazil and Brazilian entrepreneurs regarding the importance assigned to managerial accounting tools.

3. Method

A survey was the investigation technique adopted in this study. Even though there are some associations of small Chinese entrepreneurs in Brazil, the total population is unknown. Therefore, this study adopted a convenience sample and used contact networks developed by this study's authors. To gain access to the respondents of both groups (Brazilian and Chinese entrepreneurs working in Brazil), the small and medium-sized firms were visited in person, while some firms in the group of Brazilian entrepreneurs were contacted by telephone. Because of the strategy previously described, 397 firms were contacted, and 131 companies established in Brazil agreed to participate.

Personal contact was established with entrepreneurs born in China. They received clarifications regarding the study and a printed questionnaire written in Mandarin. They were also asked to nominate other potential participants, and some nominated other entrepreneurs and contributed to the study. Chinese entrepreneurs located in São Paulo and Pernambuco, in the cities of São Paulo, Recife, and Caruaru were approached. The Chinese Chamber of Commerce located in Recife (PE) facilitated access to Chinese businesspeople and nominated some of them to participate in the study. A total of 274 Chinese firms were addressed, and 68 agreed to participate.

Most of the Brazilian participant firms are located in the state of São Paulo and Pernambuco. This group received a printed questionnaire, or a link was sent via e-mail with an electronic form developed on Google Form to be answered online. A total of 123 firms owned by Brazilian individuals were approached, and 63 agreed to complete the questionnaire.

The questionnaire was developed in two languages: Portuguese and Mandarin. All variables were measured with pre-established and validated scales. All variables originally written in English were translated into Portuguese and Mandarin and back-translated. Responses were measured on a 5-point Likert scale, except for questions that addressed the characteristics of the respondents and their firms.

The questionnaire was subdivided into three parts (labelled "A", "B", and "C"). The first page included a brief introduction explaining the question problem that motivated the study and ensuring the confidentiality of information. Additionally, e-mail was provided for the participants to clarify any potential doubts.

The questionnaire was composed as detailed in Table 1:

Table 1
Composition of the questionnaire

Part	Objective
A1 – A4	Identification of practices and the importance given to managerial accounting tools.
B1 – B2	Analysis of cultural aspects.
C	Identification of the respondents' and organizations' characteristics.

A thematic foundation was adopted to better understand the questions the authors used as references, as presented in Table 2.

Table 2
Studies and references for the questionnaire

Topic	Questions	References
Budget	Part A1	Abdel-Kader & Luther (2006)
Performance evaluation	Part A2	Abdel-Kader & Luther (2006)
Decision-making information	Part A3	Abdel-Kader & Luther (2006) and Armitage, Webb, & Glynn (2016)
Financial Control and Evaluation	Part A4	Davila & Foster (2007)
National Culture	Part B1 and B2	Yoo, Donthu, & Lenartowicz (2011) based on Hofstede (2001).

Part A1 to A4 addressed the practices and importance assigned to managerial accounting tools divided as budget (A1), performance evaluation (A2), decision-making information (A3), and financial control and evaluation (A4). The items used for the variables concerning the use and importance given to managerial accounting tools (i.e., budget, performance evaluation, decision-making information, and financial control and evaluation) are presented in Table 3. To identify these practices, the respondents were asked: "To what extent do you agree with the following statements about their importance and the frequency with which the company uses them? How important are they? (1. Not important; 2. Not very important; 3. Moderately important; 4. Important; 5. Very important). How often are they used? (1. Never; 2. Rarely; 3. Sometimes; 4. Often; 5. Very often).

Table 3
Use and importance of managerial accounting tools

Practice	Items
Budget	1. Budget for planning (projecting the company's revenues and costs in the short and medium terms). 2. Use of budgeting for cost control (comparisons between actual cost and budgeted cost). 3. Budget projected for different scenarios. 4. Long-term budget plans (using a budget to design ad implement long-term strategic actions)
Performance evaluation	1. Financial measure(s) (e.g., sales, profit margin). 2. Non-financial measure(s) related to customers (e.g., customer satisfaction, number of returns). 3. Non-financial measure(s) related to operations and innovation (e.g., the average time to service a customer, number of daily sales). 4. Non-financial measure(s) related to employees (e.g., employee satisfaction, absenteeism). 5. Added economic value (Comparing the company's profitability to the profitability of financial investment). 6. Benchmarks (Comparing the company's performance to the performance of other companies).
Decision-making information	1. Cost-volume-profit for the main products (Analyzing how fluctuation in the cost and sales volume impacts the products and the company's profitability) 2. Product profitability analysis (Identifying the company's most profitable products) 3. Customer profitability analysis (Identifying the company's most profitable types of customers) 4. Inventory control information. 5. Analysis of capital expenditures (e.g., purchase of expensive equipment and long-term investments) through financial techniques (e.g., discounted cash flow, internal rate of return, payback time.
Financial control and evaluation	1. Cash flow projections. 2. Sales projections. 3. Operating budget (Used for income and expenses related to the company's operation). 4. Analysis of costs by type of customer. 5. Analysis of financial performance against a pre-established goal. 6. Capital investment approval procedures (e.g., purchase of expensive equipment and long-term investments). 7. Procedures for approving operating expenses.

The questions involving national culture were placed on parts B1 and B2 and comprised the following dimensions: Part B1 addresses power distance and uncertainty avoidance while Part B2 addresses individualism *versus* collectivism and masculinity *versus* femininity. The items used for national culture (power distance, uncertainty avoidance, individualism *versus* collectivism and masculinity *versus* femininity) are presented in Table 4:

Table 4

National Culture

Dimension	Items
Power distance	1. People in higher positions should make most decisions without consulting people in lower positions. 2. People in higher positions should not ask the opinion of people in lower positions too frequently.. 3. People in lower positions should not disagree with decisions by people in higher positions. . 4. People in higher positions should not delegate important tasks to people in lower positions.
Uncertainty avoidance	1. It is important to have instructions spelled out in detail so that I always know what I'm expected to do. 2. It is important to closely follow instructions and procedures. 3. Rules and regulations are important because they inform me of what is expected of me. 4. Instructions for operations are important.
Individualism *versus* collectivism	1. Individuals should sacrifice self-interest for the group. 2. Group welfare is more important than individual rewards. 3. Individuals should only pursue their goals after considering the welfare of the group. 4. Individuals should stick with the group even through difficulties.
Masculinity *versus* femininity	1. It is more important for men to have a professional career than it is for women. 2 Men usually solve problems with logical analysis; women usually solve problems with intuition. 3. Solving difficult problems usually requires and active, forcible approach, which is typical of men. 4. There are some jobs that a man can always do better than a woman.

Part C included demographic questions to identify the profile of the companies, such as the 'age' of the firms, number of employees, whether they imported goods and the state where they were located. To identify the participants' profiles, questions addressed gender, age, country of birth (for the Chinese participants, how long they were in Brazil), education, and position in the company.

Afterwards, data were typed into an electronic spreadsheet to structure and organize the order of questions and their respective answers. After checking all raw data entries, data were treated using IBM SPSS Statistics for descriptive analysis and inferential analysis to validate hypothesis testing. Finally, Cronbach's alpha was performed to analyze the reliability of the variables. All the variables presented satisfactory Cronbach's alphas (between 0.75 and 0.89).

4. Results

4. 1 Descriptive analysis of the participants and companies

Analysis of part C initially identified the participants' country of origin. According to the inclusion criteria, participants should be Brazilian or Chinese. A total of 131 people participated and Table 5 describes their nationality.

Table 5
Participants' country of birth

	Frequency	Percentage
Brazil	63	48.1
China	68	51.9
Total	131	100.0

Of the 131 participants, 63 represent 48.10% of the participants born in Brazil, and the remaining 68 participants represent 51.90% of participants born in China. Table 6 presents an analysis of gender and a comparison of both groups.

Table 6
Participants' gender

Number		Brazil		China	
		%	Number	%	
Are you a woman or a man?	Men	39	61.9%	44	64.7%
	Women	24	38.1%	24	35.3%
	Total	63	100%	68	100%

A total of 61.90% of the Brazilian respondents were men, and 38.10% were women, whereas 64.70% of the Chinese participants were men and 35.30% were women, showing a predominance of men among both Brazilian and Chinese respondents.

Table 7 presents the average age of the Brazilian and Chinese respondents.

Table 7
Participants' average age

		Age (complete years)
Brazil	Average	40.27
	N	63
	Desvio Padrão	11.51
China	Average	32.37
	N	67
	Standard deviation	11.76
Total	Average	36.20
	N	130
	Standard deviation	12.26

Table 7 shows that, on average, the Chinese participants were younger than the Brazilians. The Chinese group was 32.37 years old on average, that is, with a younger profile than the Brazilian group, which was 40.27 years old on average. Table 8 presents the participants' educational level.

Table 8
Respondents' educational level

		Brazil	China
What is your educational level?	Did not answer	0.0%	1.5%
	Primary/Middle school	1.6%	4.4%
	High school	34.9%	58.8%
	College	39.7%	27.9%
	Specialization	20.6%	2.9%
	Master's/Ph.D.	1.6%	2.9%
	Other	1.6%	1.5%

The highest educational level among most of the Brazilian respondents was college, with 39.70%, whereas most of the Chinese respondents reported High school, with 58.8%. Table 9 presents the position the respondents occupied in the company.

Table 9
Participants' job position

		Brazil	China
What is your position in the company?	Owner/Partner	47.6%	97.1%
	Director	12.7%	2.9%
	Manager	33.3%	0.0%
	Supervisor	3.2%	0.0%
	Secretary	1.6%	0.0%
	Accountant	1.6%	0.0%

Most Chinese participants were the firms' owners, with 97.10%, while the remaining were directors, whereas 47.60% of the Brazilian respondents were the owners, followed by managers, with 33.30%.

Regarding how long the Chinese participants lived in Brazil, the 68 participants reported 8.32 years on average.

Most companies are located in Pernambuco, with 78.60%, and São Paulo, with 17.60%. On-site surveys were concentrated in these two states. Table 10 compares the average number of employees and the average duration of the companies in both groups.

Table 10
Number of employees and years since the foundation

		Nº. of employees	Years since its foundation
Brazil	Average	11.8	14.6
	N	63	63
	Standard deviation	26.1	15.9
China	Average	7.6	5.8
	N	68	68
	Standard deviation	5.8	5.8
Total	Average	9.6	10.0
	N	131	131
	Standard deviation	18.6	12.6

The number of employees in Brazilian-owned firms was 11.84 on average and 7.6 among Chinese-owned firms. Regarding years since foundation, the firms of Brazilian owners were 14.6 years old on average, while Chinese firms were 5.8 years old.

4.2 National Culture Dimensions

Initially, the variables' means (T-test) were tested, involving the national culture of both groups (Brazilian and Chinese entrepreneurs) to identify potential statistically significant differences between the two groups and the national culture dimensions. The results are presented in Table 11.

Table 11
National Culture

National culture dimensions		N	Mean	Standard deviation	Level of significance
Power distance	Brazil	63	**2.405**	0.824	0.897
	China	68	2.125	0.867	
Risk avoidance index	Brazil	63	**3.976**	0.675	**0.000**
	China	68	3.316	1.144	
Individualism *versus* Collectivism	Brazil	63	**3.198**	2.707	**0.003**
	China	68	2.702	1.024	
Masculinity *versus* Femininity	Brazil	63	2.270	0.930	0.595
	China	68	**2.588**	0.969	

Regarding the national culture dimensions, the Brazilian participants presented a higher level of agreement than the Chinese in the questions involving power distance, uncertainty avoidance index, and individualism *versus* collectivism. On the other hand, the Chinese participants obtained a greater level of agreement regarding masculinity *versus* femininity.

The power distance index was not significant, with 0.897 not validating the means obtained in the questionnaire. The uncertainty avoidance index was significant in the T-test. The significance value was well below 0.05, validating the mean in which the uncertainty avoidance index was higher among the Brazilian respondents. The T-test was significant for the dimension concerning individualism *versus* collectivism, validating the mean in which Brazilians, more frequently than the Chinese, value the collective. Analyzing the dimension masculinity *versus* femininity, the T-test result was not significant, not validating the mean in which this index found a greater level of agreement among Chinese participants.

According to this study's data and analysis obtained from Hofstede's website (https://www.hofstede-insights.com/country-comparison/brazil,china/), Brazilians present a higher level of uncertainty avoidance, revealing a difference between these two cultures, in which Brazilians more frequently tend to follow laws and rules. In contrast, China is characterized by being a more flexible nation.

4.3 The Use and Importance granted to Managerial Accounting – Hypothesis Testing

The test of Hypothesis H_1 (*There are differences between Chinese entrepreneurs working in Brazil and Brazilian entrepreneurs regarding the use of managerial accounting tool)* was conducted in this study using regression analysis, in which the origin of the respondent (Chinese origin) was a dummy independent variable, controlling for the company's size according to the number of employees. Table 12 presents the results according to managerial accounting practices.

Table 12
Managerial accounting usage frequency

Managerial accounting practices		N	Mean	Standard deviation	Regression results
Budget usage frequency	Brazil	63	**3.349**	0.872	β = -0.346 p = 0.069†
	China	68	3.140	1.235	
Performance evaluation usage frequency	Brazil	63	**3.225**	0.942	β = -0.248 p = 0.144
	China	68	3.029	1.002	
Decision-making information usage frequency	Brazil	63	**3.514**	0.845	β = -0.384 p = 0.026*
	China	68	3.018	1.274	
Financial Control and Evaluation usage frequency	Brazil	63	**3.204**	0.910	β = -0.315 p = 0.072†
	China	68	2.733	1.174	

† Significant at $p < 0.10$; * Significant at $p < 0.05$

The Brazilian respondents obtained higher means in all the questions involving how frequently managerial accounting tools were used were higher than the means the Chinese entrepreneurs obtained, showing that Brazilian entrepreneurs use managerial accounting tools more frequently.

Regarding the questions addressing the use of budget, the Brazilian respondents obtained a higher mean than the Chinese for usage frequency, with marginally significant results (p<0.10). Therefore, the higher frequency in which Brazilians use a budget in their companies than Chinese was marginally validated. Regarding the questions addressing performance evaluation, in which the Brazilians also obtained a higher mean for usage frequency, no significant results were found, not validating the Brazilians' more frequent use of performance evaluation tools. Concerning questions addressing usage frequency of decision-making information, in which the Brazilian respondents also scored higher than the Chinese, significant results were found, validating that Brazilian more frequently than the Chinese use information to make decisions in their organizations. Analysis of the questions addressing financial control and evaluation, in which once more the Brazilian respondents scored higher in usage frequency than the Chinese, the results were marginally significant, validating that the Brazilians more frequently use financial control and evaluation tools.

The test of Hypothesis H_2 (*There are differences between Chinese entrepreneurs working in Brazil and Brazilian entrepreneurs regarding the importance given to managerial accounting)* was conducted using regression analysis, in which the entrepreneur's country of origin was the dummy independent variable, controlling for the size of the organization according to the number of employees. Table 13 presents the results according to managerial accounting practices.

Table 13
Importance of managerial accounting tools

Managerial accounting practices		N	Mean	Standard deviation	Regression results
Importance of budget	Brazil	63	**4,111**	0,771	β = -0,691 p < 0,01**
	China	68	3,456	1,259	
Importance of Performance Evaluation	Brazil	63	**3,910**	0,758	β = -0,647 p < 0,01**
	China	68	3,275	1,070	
Importance of Decision-making information	Brazil	63	**4,070**	0,753	β = -0,756 p < 0,01**
	China	68	3,274	1,129	
Importance of Financial Control and Evaluation	Brazil	63	**3,837**	0,786	β = -0,680 p < 0,01**
	China	68	3,061	1,073	

** Significant at p < 0.01

The means obtained by the Brazilian respondents in all the questions concerning the importance given to managerial accounting tools were higher than those obtained by the Chinese, showing that Brazilian entrepreneurs assign greater importance to managerial accounting tools.

Regarding issues addressing the importance of a budget, the Brazilian respondents obtained a mean equal to 4.111, higher than the Chinese, who obtained a mean equal of 3.456. The results were significant and validate that Brazilian entrepreneurs give more importance to a budget than the Chinese. Regarding the questions addressing performance evaluation, in which the Brazilian respondents also scored higher than the Chinese, the results were significant and validate that Brazilians, more frequently than the Chinese, value performance evaluation tools. Furthermore, the questions concerning the importance of information for decision-making, in which the Brazilian respondents also scored higher than the Chinese, the results were significant and validated that the Brazilian respondents value information to make decisions in their organizations. Finally, analysis of the questions addressing the importance given to financial control and evaluation, in which the Brazilian obtained higher means, the results were significant and validate that the Brazilians, more frequently than the Chinese, value financial control and evaluation tools.

5. Conclusions and Discussion

This study's general objective was to identify whether the frequency in which Chinese entrepreneurs use managerial accounting tools and the importance they assign to these tools are similar or different from Brazilian entrepreneurs and whether national culture influence Chinese entrepreneurs by using questions addressing national culture dimensions.

To obtain the questionnaires' results, the demographic questions were analyzed to identify the companies' and participants' profiles along with the questions addressing managerial accounting practices that revealed the importance and usage frequency of these practices and questions addressing national culture dimensions.

Regarding the participants' profiles, 68 respondents were from China, and 63 were born in Brazil. Most participants in both groups were men; the Chinese participants were 36 years old on average, that is, they were younger than the Brazilian participants; the respondents born in Brazil reported a higher educational level; and regarding their positions in the firms, most participants in both groups were entrepreneurs.

Regarding the companies' profiles, most of the companies were located in Pernambuco and São Paulo; the average number of employees was 11.84 among the Brazilian entrepreneurs and 7.5 among the Chinese; the companies owned by Brazilian were 14.58 years old whereas the ones owned by the Chinese were 5.82 years old on average. Regarding whether the companies imported goods, 75% of the Chinese imported goods compared to approximately 20% of the Brazilians.

Analysis of the national culture dimensions revealed greater agreement among the Brazilian respondents on power distance, uncertainty avoidance, and individualism *versus* collectivism, whereas the Chinese obtained a greater agreement on masculinity *versus* femininity. Uncertainty avoidance and individualism *versus* collectivism were statistically significant, validating differences between the two groups regarding these two dimensions.

Regarding the results of questions involving the importance given to managerial accounting tools, the Brazilian respondents more frequently than the Chinese valued managerial accounting represented in the four groups of tools analyzed: budget, performance evaluation, decision-making information, and financial control and evaluation. As a result, the Brazilians obtained higher means, and the test of hypothesis for the importance given to these tools was also significant for the four groups of questions analyzed.

Regarding the analyses involving managerial accounting practices, the Brazilian respondents also reported more frequent use of the tools addressed in the four groups of questions. The hypothesis test was significant for three groups: budget, decision-making information, and financial control and evaluation. No statistical significance was found for the group of questions addressing performance evaluation.

The fact that the Brazilian respondents presented a high level of uncertainty avoidance is an element that suggests they need more controls and assign greater importance to managerial accounting tools. On the other hand, the Chinese present a lower level of uncertainty avoidance and, for this reason, are more flexible. Hence, it may explain why the Chinese entrepreneurs do not assign the same level of importance and do not use these tools as frequently as the Brazilians.

One of this study's limitations is that we do not have the exact information of the entire population of companies owned by people born in China and established in Brazil. Chinese entrepreneurs are expanding their businesses in Brazil, and we verified that, in the initial stages, these small and medium-sized companies do not immediately formalize and constitute the National Register of Legal Entities (CNPJ), which makes it difficult to validate this population. This issue concerning informal businesses raises the question of whether it reflects on the study's results. Hence, this issue may be addressed in future studies, which can investigate the effect of informal businesses established by migrants and how they relate to the use and importance of managerial accounting tools.

Another limitation concerns the questionnaire's scope. The instrument used in this study did not include traditionally contingency variables related to managerial accounting tools, such as the type of strategy adopted and a measure of the competitive environment. Therefore, these variables could not be used to control the effect of the entrepreneurs' country of origin (Brazilian or Chinese) on the use and importance given to managerial accounting tools. Hence, we suggest that future studies include these measures to strengthen their analyses.

This study adopted a quantitative approach, comparing two groups of entrepreneurs established in Brazil. A suggestion for future studies is that a third group be included: Chinese entrepreneurs working in their country of origin, comparing the three groups of entrepreneurs and the influence of national culture on the managerial accounting practices of these firms.

Finally, this study contributes to clarifying how the national culture of immigrant entrepreneurs, in the specific case of small Chinese entrepreneurs, is related to the use and importance assigned to managerial accounting tools. We found that Chinese entrepreneurs working in a national environment different from their own keep their cultural traits. Hence, their original national culture can influence how managerial accounting tools are used. However, we believe that this line of research, particularly addressing small firms, is still incipient. Therefore, future studies have a great potential to contribute to the discussion concerning the relationship between national culture and managerial accounting practices.

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