

Determinants of Profitability in Micro-enterprises Incorporated by Migrants in “Mercado Artesanal”, Guayaquil-Ecuador

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Abstract

The main objective of the study was to examine the effects on profitability of socioeconomic factors and business management skills of migrant micro-entrepreneurs. Our results are based on 162 surveys conducted with migrant businesspeople at Mercado Artesanal, in Guayaquil-Ecuador, between February 18-22, 2020. We applied a modified composite index developed in 2016 by Bell for evaluating entrepreneurial skills of Otavaleño migrants, who own micro-enterprises at Mercado Artesanal. We found that over 81% of the microfirms operated by migrants in the examined marketplace are profitable. Differences in profitability between migrant and resident micro-entrepreneurs are also discussed. Like prior study findings our results suggest that migrant micro-entrepreneurs show greater business performance compared to local businessmen. In addition, a straightforward profitability index, SPI, was calculated for assessing the determinants of profitability of local and migrant micro-entrepreneurs. Authors believe that the proposed index should be useful mainly for micro-enterprises and market sellers, where the customary measurement methods cannot be applied.

Keywords: entrepreneurs, socio-economy, discriminant analysis, management skills, migrants and residents

1. Introduction

Over the past decades the effects of migration on global and local economy have been central to development and business-related studies (Murphy, 1999). Although continuously increasing scholar attention is paid to migration flows in European countries (Barnes and Cox, 2007; Vershinia *et al.*, 2007), studies that examine relations between business profitability and domestic migration in Latin American countries are available only in modest numbers. This is unfortunate, when considering that the micro-business sector provides income for millions of people in Latin American and Caribbean countries (Bárcena, 2019). Researchers in Mexico found links between migration and the "health" of a country's small business sector (Díz-Briquest and Weintraub, 2019). Moreover, literature indicates that ethnic diversity improves organizational performance (Becker, 1957; Cox, 1993; Richard, 2000; Richard *et al.*, 2003; Richard *et al.*, 2004; Herring, 2009; Ely *et al.*, 2012). Therefore, studies that analyze the skills and socioeconomic factors of migrant micro-entrepreneurs contribute to the better understanding of changes in local economy.

In their study published in 2020 Kone and coworkers (Kone *et al.*, 2020) examined links between self-employment and reasons of migration. Authors also addressed the question, whether migrants are more entrepreneurial as compared to local people. It was found that at the beginnings, migrated people are more engaged in self-employment than residents.

Our current study was inspired by a complex exploratory analysis carried out by Worku in 2019. The author reported a significant correlation between level of entrepreneurial skills, the ability to raise business loans, and profitability in micro-businesses operated by migrant women. Inspired by Kone and colleagues' findings, we felt it important to expand the survey designed by Worku toward exploring the causes of migration, and differences in profitability between migrant and resident micro-entrepreneurship. In addition, we present a self-designed simplified profitability index.

2. Materials and Methods

Research was conducted between February 18-22, 2020. A total of 30 questions were addressed with the purpose of

realizing an exploratory cross-sectional designed survey, according to Worku 2019. Survey questions were divided into three groups and distributed to 162 migrants ($n = 162$):

1. general characteristics of migrant micro-entrepreneurs ($n = 162$),
2. profitability of businesses ($n = 162$), and
3. experienced difficulties ($n = 162$).

We applied the composite index designed by Bell (2016) for evaluating entrepreneurial skills of Otavaleño migrants (coming from canton Otavalo, Province of Imbabura, Ecuador), who own micro-enterprises at Mercado Artesanal Guayaquil 20 de Julio (Mercado Artesanal), Guayaquil, Guayas province- Ecuador. To analyze marketing skills, we used a composite index according to Wedel and Kannan (2016). Discriminant analysis was done according to Tibshirani et al. (Tibshirani *et al.*, 2015) and ordered logit analysis developed by Faraway (2016) was applied to determine influential predictors of profitability in businesses.

Amendments of the study: Considering that prior studies were performed to examine local-economy related factors, to better understand the examined market, here we have made the following amendments in the questionnaire: (a) perception about the level of support from members of the local community; (b) cultural troubles between local registered members; and (c) previous experience in the application of loans from usurers. We added a new factor into the analysis: (d) loosening rate of foreign customers due to the lack of (English) language skills. This criterion was motivated by the significant presence of foreign customers (mainly U.S. tourists) in the examined marketplace.

Also, we compared profitability between migrant and resident micro-entrepreneurs. Human participant data: 162 migrants (representing 86% of the total number of registered micro-entrepreneurs), and 30 resident micro-entrepreneurs were selected from Mercado Artesanal. To examine differences in profitability between migrant and resident micro-entrepreneurships, 30 migrant surveys were randomly selected from 162. Simplified profitability index (SPI) was calculated by dividing the number of profitable businesses by the total number of businesses within the same group, as described in Equation 1:

$$SPI = \frac{NPB}{NTB} * 100 \quad (E1)$$

Where,

NPB is Number of Profitable Businesses within the group in focus, and

NTB is Number of Total Businesses within the group in focus.

Statistical analysis was performed with SPSS (version 22.0).

Ethical statement: The Committee of Mercado Artesanal Guayaquil 20 de Julio, Guayaquil approved this study. Participants provided informed oral consent to participate in the study prior to its start. Oral consent was obtained from participants instead of written consent because of time constraints and illiteracy of some participants. Surveys were filled on the spot on self-assessment basis, anonymized.

3. Results and Discussion

From survey results one can state that almost 70% of migrant entrepreneurs came to Guayaquil from other provinces, seeking more favorable socioeconomic conditions. All rented their local business place at the Mercado Artesanal. Over 65% of the sellers are running their business for 8 years or longer. Almost 60% of them earned a low educational level (grade 12 or less) (Table 1). About 45% of sellers are married. Table 2 reveals that over 80% of micro-enterprises are profitable. All sellers in Mercado Artesanal can rent local business places exclusively, when the market is owned by the municipality. Nearly 55% of the surveyed sellers have adequate business skills determined by Dell's standards (Dell, 2016). Less than 15% of the entrepreneurs possess excellent marketing skills, as determined by the standards developed by Wedel and Kannan (2016); and only 8% of surveyed sellers have appropriate level of networking skills, expressed by Bone's standards (2017). Surprisingly, over 80% of surveyed micro-entrepreneurs are capable of ordering products in bulk, on credit, from wholesale suppliers (Table 2)

Variable of study	Number of respondents and percentage
Motivation of migration	Better socioeconomic values (more profitable) 112; 69.14%
	Safety and security 29; 17.90%
	Better infrastructure (of the marketplace) 21; 12.96%
Ownership of the place	Own None; 0%
	Rent 162; 100%
Operation time	Three years or less None; 0%
	From 4 to 6 years 56; 34.57%
	8 or more years 106; 65.43%
Education level	Illiterate 10; 6.2%
	Primary school 47; 29.01%
	Secondary school 97; 59.87%
	College/University 8; 4.93%
Age	20 years old or less None; 0%
	Between 21-40 years 111; 68.52%
	41 or more 51; 31.48%
Marriage status	Single 17; 10.49%
	Married 73; 45.06%
	Divorced 25; 15.43%
	Dowager 9; 5.56%
	Companion 38; 23.46%

Our results evidenced that none of the sellers apply a business plan to organize and operate their activities. Almost 30% of participants used their own savings as the initial capital (Table 3). Around 20% benefit of family support, and only 8% of the initial capital comes from bank loans. All local sellers acquired previous experience in applying loans from usurers. 40% of surveyed micro-entrepreneurs are experienced with bank loans, and nearby 70% of them have applied at least once for loans from micro-finance agencies. 13% of sellers are experiencing customer debts. None of the respondents declared difficulties in opening a bank account. Although violence was not reported lately, cultural problems are present; according to our survey results, 43% of surveyed micro-entrepreneurs experienced cultural problems, mainly between locals (people from Guayas province) and migrants (people mostly from Highland, such as Otavalo). Neither security issues, nor violence or theft in the market was reported. 10% of sellers experienced rental problems (over 3 months debt per year). No trade license problems were disclosed. Discriminant analysis did not evidence any significant correlation between migration and social capital participation for fund raising. Logit analysis showed high Odds Ratio (4.34) in Ability to order products in bulk on credit as compared to Worku, Z. (2019). Figure 1 reveals the standardized mean scores of profitability predictors in all examined businesses (n = 162), grouped into three categories: profitable; not profitable, and all businesses (Figure 1).

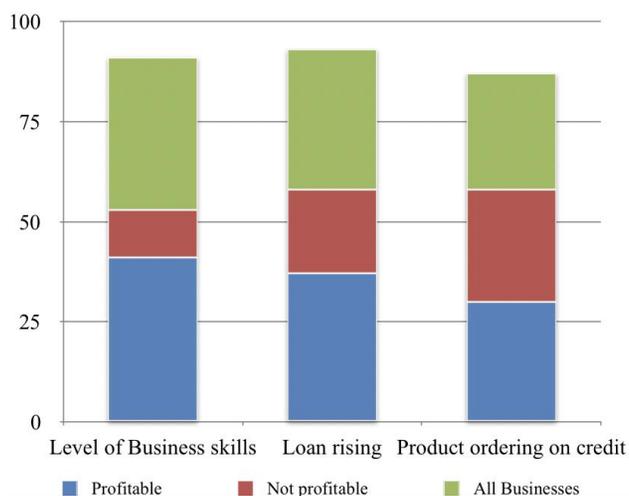


Figure 1. Standardized mean scores of profitability predictors (n = 162)

Table 2. Profitability assessment of entrepreneurs (n=162)

Variable of study	Number of respondents and percentage
Profitability	Profitable 131; 80.86%
	Not profitable 31; 19.14%
Ownership of the business	Owner 97; 59.88%
	Employee 65; 40.12%
Entrepreneurial skills based on Bell's method (2016)	Appropriate 89; 54.84%
	Inappropriate 73; 45.06%
Marketing skills according to Wedel and Kannan standards (2016)	Appropriate 23; 14.20%
	Inappropriate 139; 85.80%
Networking skills according to Bone standards (2017)	Appropriate 13; 8.02%
	Inappropriate 149; 91.98%
Possibility of buying merchandise in large quantities on credit from wholesale suppliers	Appropriate 136; 83.95%
	Inappropriate 26; 16.05%

Table 3. Business operation and difficulties experienced (n = 162)

Variable of study	Number of respondents and percentage
There is a business plan (seen by the data collector)	Yes
	No 162; 100%
Product inventory (viewed by data collector)	Yes 33; 20.37%
	No 129; 79.63%
Initial capital source	Own savings 48; 29.63%
	Family savings 34; 20.99%
	Social capital 26; 16.05%
	Bank Loan 13; 8.02%
Previous experience in bank loans	Donation None; 0%
	Yes 65; 40.12%
	No 97; 59.88
Previous experience in applying for loans from microfinance agencies	Yes 112; 69.14
	Yes 21; 12.96
Customer debt	141; 87.03%
	Yes None; 0%
Difficulty opening a bank account	No 162; 100%
	Yes 17; 10.49%
Rental problems	No 145; 89.51
	Yes 167; 100%
Storage for merchandise	No None; 0%
	Yes None; 0%
Theft of Merchandise	No 162; 100%
	Yes 70; 43.21%
Cultural problems	No 92; 56.79%
	Yes None; 0%
Transportation problems	No 162; 100%
	Yes None; 0%
Violent attacks by burglars	No 162; 100%
	Yes None; 0%
Security issues	Yes 71; 43.83%
	No 91; 56.17%

Finally, we observed 20% greater SPI values in micro-enterprises managed by migrants compared to locals, reflected in the ratio of number of profitable businesses within the group, and total number of businesses within the group, as shown on Figure 2.

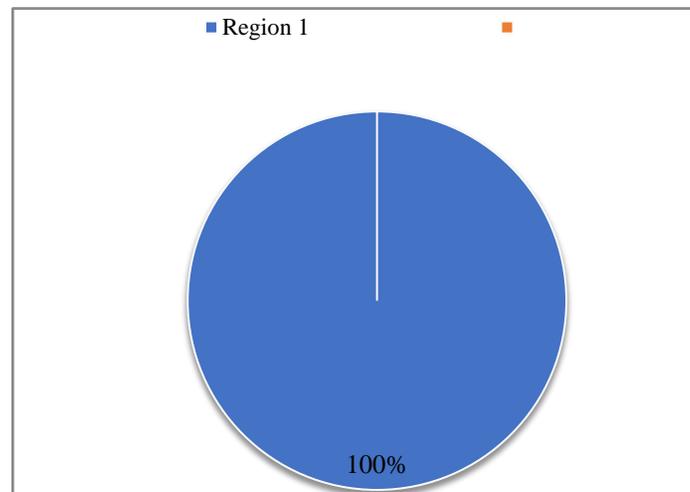


Figure 2. Difference in SPI index between migrant and local entrepreneurs

SPI_{migrant} value was 81 in migrant group, while SPI_{local} 54 value can be observed in the group of local entrepreneurs.

The majority (over 95%) of sellers, both migrant and local micro-entrepreneurs loose foreign (mainly U.S. tourists) customers because of the lack of English language skills.

4. Conclusions

Like prior study findings (Worku, 2019) our results suggest that migrant micro-entrepreneurs show greater business performance compared to local businessmen's achievements. Considering that Ecuador is among the main fruit (e.g., banana) (Melendez *et al.*, 2020) and rose producers and exporters worldwide (Hernández *et al.*, 2010), and the complete economic shutdown of the country, particularly Guayaquil is experiencing hardship caused by quarantine and traffic regulations (DRC, 2020), one can state that there is a great demand for analyzing determinants of profitability of local micro-entrepreneurs operated by migrants. This will enable them to be prepared for the economic recovery after quarantine.

In addition, a straightforward profitability index SPI was calculated for assessing determinants of profitability of local and migrant micro-entrepreneurs. Authors envisage that the proposed index should be useful primarily for micro-enterprises and sellers in markets, where the customary measurement methods cannot be applied. Furthermore, considering the high failure rate in selling to foreign customers and the location of the investigated marketplace (near the main touristic attractions in the city), authors recommend to micro-entrepreneurs to improve their language skills and/or hire fluent English speaking sellers in the marketplace.

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