

Capturing the Diversity of Manufacturing MSMEs for Equitable Regional Development: The Significance of an Inclusive Sample¹⁶

S. Herath¹, N. Ranabahu² and C. Harvie¹

¹*University of Wollongong, Australia*

²*University of Canterbury, New Zealand*

Keywords: MSMEs; Development; Manufacturing firms; Inclusive Sample

Introduction

Micro, Small and Medium Enterprises (MSMEs) play a critical role in economic development in the Asia-Pacific region specifically in countries such as Vietnam, Indonesia, Sri Lanka and Cambodia (Nguyen and Wolfe, 2016). Usually, businesses with 1 to 249 employees are categorised as MSMEs (Kushnir et al., 2010). However, the size of MSMEs varies across countries (ibid) and, even within a country, there are variations in terms of business size, type and distribution of industries. For example, to be classified as an MSME in Sri Lanka, there should be 1 to 199 employees (industry and construction sector), 1 to 74 employees (services sector), or 1 to 34 employees (trade sector) (Department of Census and Statistics, 2015).

Apart from the size differences, MSMEs are also clustered into different areas. For example, in Sri Lanka, apparel-based enterprises are concentrated in Colombo (ibid) and jewellery-making businesses are clustered in the Central and Southwest districts (Dasanayaka and Sardana, 2015). In addition, there are differences in the availability of services across districts. For example, the number of licenced commercial bank branches and outlets¹⁷

¹⁶ We thank Dr Amir Arjomandi, Dr Farzana Tanima and Dr Wasantha Athukorala for helpful discussions on an earlier draft. The project received funding from the Seed Grant Scheme at the Faculty of Business, University of Wollongong.

¹⁷Excludes student savings units and mobile units.

varies across districts with the highest located in Colombo (900 outlets) and the lowest in Mullaitivu (29 outlets) (Central Bank of Sri Lanka, 2018). Similarly, access to infrastructure such as road network, public transport, telephone, electricity and internet facilities, and proximity to commodity and raw material markets vary across districts and these disparities may influence MSME performance.

Moreover, provincial councils in Sri Lanka have legislative power over a variety of matters including agriculture, education, health, housing, local government, planning, road transport and social services (Parliament Secretariat, 2015). Some of the central government laws also permit provincial amendments – for example, the law on co-operative societies states that the councils of nine provinces are entitled to enact their own statutes (GTZ ProMis & LMFPA-Lanka Microfinance Association, 2010). These result in legislative differences across provinces which could influence the operation of SMEs. To sum up, some of the MSME performance differences are location-based and issues affecting MSMEs according to the location can only be captured in research by using spatially representative samples.

Objectives

This abstract explains a survey sampling strategy developed for a research project to select manufacturing MSMEs that are representative of location-based performance variations. The project focuses on efficiency performance of Sri Lankan manufacturing MSMEs, ascertaining key explanatory factors contributing to this, emphasising financial and locational aspects. An innovative conceptual framework is applied to measure firm efficiency and its determinants through integrating firm, entrepreneur, business environment, cultural and locational characteristics. The empirical analysis utilises the latest empirical techniques to measure technical efficiency.

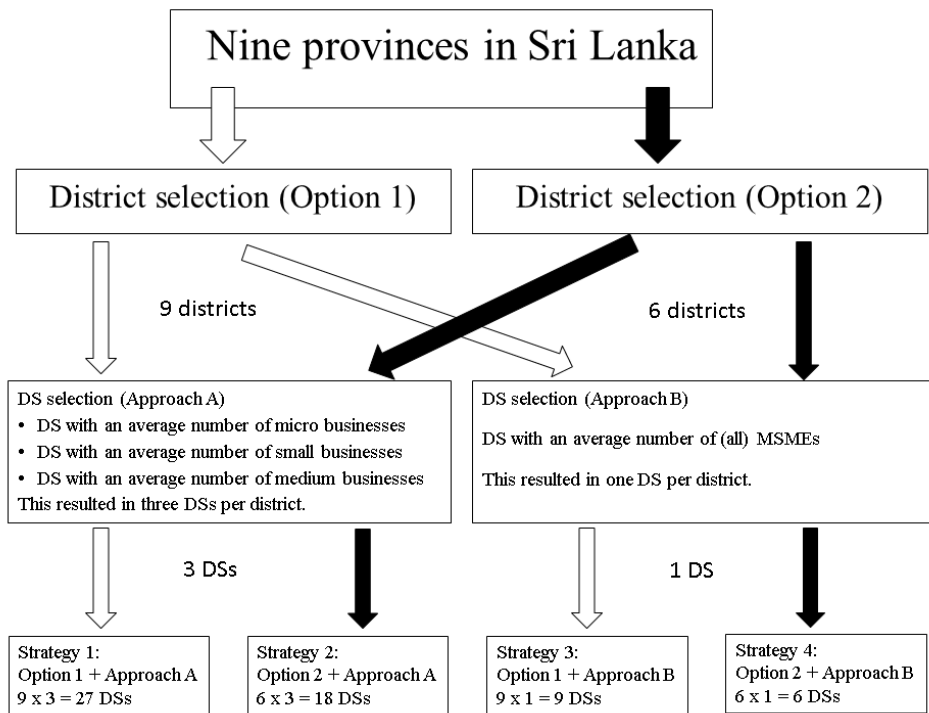
The sampling strategy is designed to achieve an inclusive sample of manufacturing MSMEs by considering distances from MSMEs to the capital city, province and district in which the MSMEs are located, and local

business conditions measured via *number of MSMEs in localities*. The survey targets a stratified sample of 500 manufacturing MSMEs.

Methodology

Below, we discuss two different methods that were considered to achieve a spatially representative survey sample to capture the diversities in regional MSMEs. The stepwise process reflects Sri Lanka’s administrative structure that includes provinces, districts, divisional secretariats, and Grama Niladari (GN) divisions (Figure 1).

Figure 1 – Sampling Strategy



The first step took into account provinces in which the firms are located as different provinces encapsulate the location in terms of proximity to the capital city Colombo. This is important not only because Colombo is the shipping hub of Sri Lanka but also it concentrates the best infrastructure and technology, and the largest commodity markets in the country. The latter is

particularly important given that 99.8% of products produced by small firms and 83% by medium firms are sold within the country compared to only 44.5% domestic sales by large firms (World Bank, 2011). Hence, we included all nine provinces in our sampling strategy.

In the second step, we used Department of Census and Statistics data on non-agriculture establishments to develop two options to select districts:

1) Option 1: One district within each province was selected taking into account the ratio of manufacturing MSMEs. The aim here was to select a district that is closely synonymous with the ratio of manufacturing MSMEs of each province. This resulted in nine districts.

2) Option 2: Districts were classified into inner, middle and outer districts depending on their proximity to Colombo (<75 kms, 75< and <150 kms, >150 kms). Then, districts were ranked based on their population density and MSME density, and the districts with largest differences in terms of 'population density > MSME density' and 'population density < MSME density' were identified for each region (i.e. inner, middle and outer regions). The aim here was to select districts with different business environments (i.e. 'low population – high MSMEs' versus 'high population – low MSMEs'). This resulted in six districts.

Then, we used the same ratio of manufacturing MSMEs to select the DS divisions. Approaches A and B ensure the business environments in those DSs represent the relevant district norms. As Fig. 1 illustrates, this sampling method generated four strategies to identify a representative sample. Finally, we considered practical aspects such as project timeline, budget and the availability of interviewers in finalising the DSs from which the MSMEs to be selected. Businesses registered with the DSs will be used as a guide to identify MSMEs.

Conclusion

The contribution of Micro, Small and Medium Enterprises (MSMEs) to the national economy is growing in many countries. These firms also provide livelihoods to many, particularly providing a springboard for upward

mobility to those in low-income groups and in rural areas. Whilst MSME growth has been identified as a solution to growing inequalities in many regions, there are significant challenges that constrain the development of these firms. A number of them are of locational/spatial nature – e.g. access to finance, markets and suppliers, infrastructure, technology, business networks, support services, skilled labour, legislation relevant to businesses and competition. A spatially inclusive sample of MSMEs is required to examine these diverse issues. Drawing on a recent project on SME performance in Sri Lanka, this abstract presents a method to populate a sample of MSMEs representing diversities associated with proximity to the capital city, administrative regions and the local business environment. This sampling strategy emphasises that a spatially representative sample of MSMEs is crucial for investigating a wide-range of issues associated with those firms in urban and rural settings.

The expected outcomes of the project include an assessment of the key challenges for manufacturing MSMEs in Sri Lanka, identification of empirically grounded MSME development policy measures of economic and social benefit to Sri Lanka, regionally tailored MSME development strategies and general lessons benefiting MSME sectors in other regional economies. Capturing the locational/spatial disparities is particularly useful within a policy agenda that aims to achieve inclusive growth because MSMEs in remote and lagging regions may require additional support to improve their businesses. A wide range of policy instruments will need to be considered taking into account different challenges experienced in different areas to help promote spatial equity and inclusivity in the MSME sector. Once the locations of interest are identified for the survey, we relied on business registries held at divisional secretariats to obtain contact details of MSMEs. This is perhaps the only available dataset that provides relatively complete information about individual MSMEs. As a limitation of this research however this approach only captures the formal sector (i.e. registered MSMEs). Considering the relatively large informal sector in developing countries, future research should consider sampling methods that incorporate informal MSMEs.

References

- Dasanayaka, S. W. S. B. and Sardana, G. D. (2015). Development of small and medium enterprises through clusters and networking: A comparative study of India, Pakistan and Sri Lanka *International Journal in Economics and Business Administration*, 3, 84-108.
- Department of Census and Statistics.(2015). Non-agriculture economic activities in Sri Lanka - Economic census 2013/2014: Listing Phase. Colombo; Sri Lanka.
- Kushnir, K., Mirmulstein, M. L. & Ramalho, R. (2010). Micro, Small, and Medium Enterprises Around the World: How Many Are There, and What Affects the Count? : World Bank / IFC.
- Nguyen, S. & Wolfe, S. (2016). Determinants of successful access to bank loans by Vietnamese SMEs: New evidence from the Red River delta. *Journal of Internet Banking and Commerce*, 21, 1-23.