Chapter 13

Spatiality, Clustering, and the Agglomeration Economies of Scale: A Spatial Statistical Approach to Informal Manufacturing in Harare, Zimbabwe

Simbarashe Show Mazongonda
University of Zimbabwe, Zimbabwe

Innocent Chirisa
University of Zimbabwe, Zimbabwe

ABSTRACT

This chapter is based on a study that tests the realities of agglomeration economies of scale due to clustering of small-scale manufacturing firms of the informal type in Zimbabwe. Little has been studied on how the informal sector thrives on agglomeration economies of scale in developing countries. Despite this lack of research, this chapter acknowledges the existence of strong networks among small-scale manufacturers in urban Zimbabwe. These linkages, contrary to practices within large-scale manufacturers, are cemented by strong ties of entrepreneurialism. With big manufacturers, the ties are usually worker-based and less defined along entrepreneurial lines. Using spatial statistical approach, the test revealed that tool sharing, output-input relationship, employment creation, and sharing of knowledge economies of scale are also evident in developing countries.

INTRODUCTION

Urban informality has been long part of economic discourse, urban sociology and study of urban management in human settlements. Essentially, the discourse on clustering of small manufacturing firms has received mass attention in countries such as India, Peru, Brazil, Mexico, Palestine, and Mexico (Furuya, Futakuchi and Sakurayi, 2006; and Muponda, 2012). It is, therefore, critical to note that literature on
characterisation, challenges, growth and prospects of small-firm clustering is vast (Sverrisson, 2006; Majumdar and Borbora, 2012; Ademola, 2012; and Muponda, 2012). Despite this growing literature, relatively little has been known about small firms in most developing countries, particularly those enterprises at the lower end of the size spectrum (Palacios, 2006). Most such firms elude the standard statistical nets and exist frequently unobserved in the underground economy (Miraftab, 2009; Kanbur, 2009; Dube and Chirisa, 2012; Shah, 2012; Keen and Kanbur, 2015). Consequently, government policy makers and donors have generally been forced, out of necessity, to make decisions in this area ‘unencumbered by information’. Insightful attempts to study small-firm clustering in Zimbabwe by Muponda (2012) explained the extent and significance of entrepreneurship among these firms could be nurtured further. Perhaps, providing hard data on this phenomenon will shed more light on the assumed positive correlation between clustering in space and economies of scale. This, therefore, urges further research to cover such a gap. The main of this is to examine those phenomenon by discussing some influential empirical accounts with an eye to test their applicability in developing countries. Notwithstanding this need for further research, this chapter acknowledges the existence of strong networks among small-scale manufacturers in urban Zimbabwe. These linkages, contrary to practices within large-scale manufacturers, are cemented by strong ties of entrepreneurialism. With big manufacturers, the ties are usually worker-based and less defined along entrepreneurial lines. Spatial agglomeration of economic activities has been discussed, debated and narrated, yet, very few studies have attempted to derive and quantify the economic benefit that may arise or induced because of this agglomeration. The key research hypotheses emanating from this study are that,

**THE SPATIALITY OF INFORMALITY AND MANUFACTURING IN ZIMBABWE: AN OVERVIEW**

Chirisa (2007; 2008; 2009a; 2009b; 2013) published extensively on informality in Zimbabwe and his works provide the basis for understanding the resilience, geography, behaviour, direction, and ethical dilemmas of urban informality in Harare. Inspired by the ground-breaking and follow-up work on classification of the informal sector in Harare by Dube and Chirisa (2012), this section focuses on the spatiality of informality and manufacturing in Zimbabwe. In an article entitled “The geography of informal sector operations (ISOs): A perspective of urban Zimbabwe”, Chirisa (2009: 68) provided spatial evidence on the three basic forms of informal operations identified as “the neighbourhood-based, those that take place in industrial sites or their vicinity and those that take place in the central business district (CBD)”. Most of these activities are carried out in undesignated sites, acting in violation of land-use zoning laws, and are subject to planning control.

The study on enforcement of planning control by Mazongonda and Muromo (2011) revealed the geographical distribution of illegal industrial activities in Harare. Empirical findings of this study high-

---

**Table 1. Research Hypotheses**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis Statement</th>
</tr>
</thead>
</table>
| First Hypothesis    | $H_0$: there is no relationship between the proximity of operators and sharing of toolkits  
                      $H_1$: there is a strong relationship between the spatial proximity of operators and sharing of toolkits |
| Second Hypothesis   | $H_0$: Spatial agglomeration creates local employment 
                      $H_1$: Spatial agglomeration does not lead to the creation of local employment |
Related Content

Just City, Spatial Justice and the Right to the City: What Role for E-Planning?
[www.igi-global.com/article/just-city-spatial-justice-right/66414?camid=4v1a](www.igi-global.com/article/just-city-spatial-justice-right/66414?camid=4v1a)

There's an App for That: Mobile Applications That Advance Urban Planning
[www.igi-global.com/chapter/theres-an-app-for-that/125696?camid=4v1a](www.igi-global.com/chapter/theres-an-app-for-that/125696?camid=4v1a)

E-Planning Through the Wisconsin Land Information Program: The Contexts of Power, Politics and Scale
[www.igi-global.com/article/planning-through-wisconsin-land-information/62041?camid=4v1a](www.igi-global.com/article/planning-through-wisconsin-land-information/62041?camid=4v1a)

Limits and Potential for eGov and Smart City in Local Government: A Cluster Analysis Concerning ICT Infrastructure and Use