Survival strategies of small firms located in a Marshallian Industrial District: A case study of Zimbabwe’s furniture manufacturing industry

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ABSTRACT
The growth and survival strategies of Zimbabwe’s small firms located in geographical clusters have been largely shaped by historical developments in the ‘informal sector’. In spite of the plethora of problems that they face, these firms make a significant contribution to employment creation and income generation. Four factors are responsible for the success of these firms: territorial specificity; competitive strategy; flexible specialization and co-operative competition. It is recommended that policy interventions be instituted to attract more capital into the clusters, eliminate “cluster isolation” (access to markets and new technology) and increase the technological capabilities of the firms in the clusters.

Key words: Marshallian Industrial District; Sectoral specificity; territorial specificity; Flexible specialization; co-operative competition

1. EMERGENCE OF SMALL-FIRM CLUSTERS IN ZIMBABWE
In recent years, clusters of small businesses have emerged in various parts of Zimbabwe as a coping mechanism for various challenges emanating from a decade-long economic meltdown that lasted until the middle of 2008.

Various studies on small-firm clusters in other countries have shown that small-scale enterprises operating in isolation may face a disadvantage in the form of limitations in scope and scale (Uzor, 2004). However, firms operating as part of a group in geographical proximity may compensate for these disadvantages through their interaction with each other and with other agencies, such as traders, or other organizations (McCormick, 1997; Nadvi, 2001; Van Dijk and Rabellotti, 1997; Visser, 2004). It has been observed that a relatively high density of similar activities in a geographical area translates into a relatively large local demand for certain goods and services thereby increasing supply (Bhalla, 2005; Visser, 2004 p 64).

The business clusters in other countries have evolved from mere clusters into Marshallian Industrial Districts (Pedersen, Sverrisson and van Dijk, 1994). These are clusters that are characterised by the sectoral specificity and spatial concentration of small firms (Kelley, 2004; Nadvi, 2001). Sectoral specificity or sectoral specialisation refers to the existence of firms engaged in a distinct industrial activity. Spatial concentration refers to the location of firms in the same geographic area in close proximity to each other (McCormick, 1997; Oyelaran-Oyeyinka and McCormick, 2003; Schmitz, 2002). The firms within the locality will be competing with one another and against other large and medium-scale enterprises outside the district (Rabellotti, 1997, p8).

In Africa, empirical evidence on the phenomenon of small firms operating as business clusters has been gathered in Kenya by McCormick (1998), where they are referred to as jua kali sites, a Swahili term for small businesses operating in the “hot sun”. Fuyuya, Futakuchi and Sakurayi (2006), in their study of rice miler clusters in Ghana, also make reference to the existence of such clusters in other parts of the world such as Brazil (Sinus Valley), India (Surupurna and Ludhiana), Kenya (Ziwani), Mexico (Guadalajara), Pakistan (Sialkot) and Italy (North-east and Central Italy). The small-firm clusters in Zimbabwe appear to have the same characteristics as those found in other countries.

In Zimbabwe, the growth and survival strategies of small firms located in geographical clusters have been largely shaped by the past developments in the ‘informal sector’ (Bell, 2002; Chirisa, 2009; Kapoor, 1997; Government of Zimbabwe, 2004; Pearson, and Hungwe, 1997). Though not much is known about the exact size of the ‘informal sector’ in Zimbabwe today, a study by the Confederation of Zimbabwe Industries (CZI)
found that in November 2000, at least 1.7 million people were making their living from the ‘informal sector’. Tibaijuka (2005) also reported that by 2004 the ‘informal sector’ was contributing 40% of total employment in Zimbabwe and by that year the ‘informal economy’ had effectively become the mainstay for the majority of Zimbabweans. The ILO also reported in June, 2005 that 3 to 4 million Zimbabweans earned their living through informal sector employment, supporting another 5 million people, while the formal sector employed about 1.3 million people.

Small firms in Zimbabwe have had to face a plethora of problems emanating from two challenges in the recent history of the country.

The first and foremost challenge is that the firms are operating in a sea of poverty and low-incomes (Mhone, 2002). This results in a low demand for products and intense competition for customers. The Confederation of Zimbabwe Industries (CZI) reported that from 2006 to 2009 more than thirteen thousand employees were formally retrenched in the manufacturing sector with the approval of the Ministry of Labour. The growth rate of unemployment during this three-year period alone was 130 per cent per year (Mpembia, 2010). In June 2007 (CZI) reported that 80 percent of the labour force in Zimbabwe was unemployed (CZI, 2007). CZI also reported that in 2008 the manufacturing sector was producing 30 per cent of what it used to produce in 2003 and more than 75 per cent of firms in the manufacturing sector were operating at less than 50 per cent capacity utilisation, with only 4 per cent operating above 75 per cent, indicating very high levels of unemployment for the whole economy (CZI, 2008).

The Labour Force Survey carried out by the Zimbabwe Central Statistical Office (CSO) in 2004 found that those between the age groups of 15 and 24 years were the most affected by unemployment, taking up to 57 per cent of the unemployed. It was also found that the largest single group of the ‘economically inactive’ population consisted of students (37 per cent) (Fashoyin, 2008:27).

The second challenge is that between 2006 and 2008 Zimbabwe experienced unprecedented inflation levels for a country not at war, as shown in the Table 1 below:

<table>
<thead>
<tr>
<th>Month / Year</th>
<th>Inflation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>April, 2006</td>
<td>1,000</td>
</tr>
<tr>
<td>October, 2007</td>
<td>10,000</td>
</tr>
<tr>
<td>January, 2008</td>
<td>100,000</td>
</tr>
<tr>
<td>June, 2008</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

Source: Fashoyin (2008:19)

By June, 2008 the Reserve Bank of Zimbabwe (RBZ) had lost control of the growth rate of the broad money supply and therefore control over the inflation rate and reported in its monthly bulletin that the money supply growth was way out of its targeted level of 500 per cent per year set in December 2007 and was now at the rate of 118 118 per cent (Fashoyin, 2008:19). These high inflation rates eroded the buying power of consumers for small firms and had long-lasting negative impacts on the firms, the most critical of which was the inability to capitalise their businesses (Kanji, 2005).

2. PURPOSE OF THE STUDY
The purpose of this study was to assess the size and significance of small-firm industrial districts in Zimbabwe and to determine the success factors and survival strategies of the firms in these districts. It is has been suggested that small firms operating in spatial proximity to each other or in ‘industrial districts’ have unique characteristics that differentiate them from other small firms operating in isolation (Morris and Barnes,
2003; Oyelaran-Oyeyinka and McCormick, 2006). The significance of this study is that it will contribute to our understanding of the characteristics of small-firm industrial districts in the context of a developing country.

3. PROPOSITION
The proposition behind the study was that the secret behind the apparent dynamism in the industrial districts is the competitive strategies that they follow, given the nature of their markets.

4. RESEARCH QUESTIONS
The study answers the following questions.
1. What is the size of the industry and what markets are the firms serving?
2. What products are the firms producing and selling and how are they producing and selling their products?
3. What competitive strategies are the firms in the district using and are these strategies working?

5. METHODOLOGY
5.1 Population and delimitation
The study commenced with a general survey of the small-firm furniture manufacturing industry in Zimbabwe, with the purpose of ascertaining the size and location of the industrial districts in which the firms are located. The areas covered in the survey are the seven major cities of Zimbabwe: Harare, Chitungwiza, Bulawayo, Mutare, Masvingo, Marondera and Gweru. The study then used the Glenview Industrial District which is located in Harare, and is commonly known as The Complex as the main study area since it is by far the largest district, with a population of over 1 300 firms.

5.2 Sample
A stratified random sample of firms engaged in either wood furniture or steel furniture manufacturing was taken from the main study area of Glenview Industrial District. The sample size was determined using Yamane’s (Yamane, 1967) formula which is the one that is recommended for stratified random samples (Israel, 2002; Ross, 2002):

\[ n = \frac{N}{1 + N(e)^2} \]

Where: \(e\) is the sampling error, precision level, and \(N\) is the population size.

Using a 95 per cent confidence level and a precision level of ±5 per cent, the sample used in the study consisted of 306 firms, obtained as shown below:

\[ n = \frac{1\,300}{1 + 1\,300(0.05)^2} \]

\[ = 306 \text{ firms.} \]

The firms that are engaged in wood furniture manufacturing make up about 70 per cent of the total population and the other 30 per cent consists of those involved in steel furniture making. The sample was therefore proportionally divided into two strata consisting of 214 wood furniture making firms (70 per cent) and 92 steel furniture making firms (30 per cent). The firms from these strata were selected using a simple random sampling method. A register of firms kept by the Management Committee responsible for the general management of the Glenview Industrial District was used as the sampling frame.
5.3 Data collection methods and instruments
The primary data collection instrument for this study was a questionnaire that was administered to the 306 firms from both strata. This was complemented with data collected through in-depth interviews with forty owner-managers, ten input suppliers, five service providers and officials from the local authority and the Ministry of Small and Medium Scale Enterprises Development. Personal observations were also used as a data collection method. Further, the study also used data from secondary sources, such as official data from the Central Statistical Office, City of Harare and the Ministry of Small and Medium Enterprises Development. The purpose of this data was to establish the nature of the institutional environment in which the firms are operating.

6. FINDINGS AND DISCUSSION
6.1 Size and significance of the small-firm furniture manufacturing industry
It was established that there were more than 2,500 small firms located in the various industrial districts in Zimbabwe whose main activity was the manufacturing of household furniture. The largest number of such firms by far was found in Harare. Table 2 below shows the location of the districts in each of the large urban areas around the country.

<table>
<thead>
<tr>
<th>City</th>
<th>Location</th>
<th>Number of firms</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harare</td>
<td>Glenview (The Complex)</td>
<td>1,300</td>
<td>6,500</td>
</tr>
<tr>
<td></td>
<td>Chitungwiza</td>
<td>220</td>
<td>1,100</td>
</tr>
<tr>
<td>Bulawayo</td>
<td>Mzilikazi</td>
<td>108</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>Kelvin North</td>
<td>190</td>
<td>950</td>
</tr>
<tr>
<td>Mutare</td>
<td>Chikanga</td>
<td>240</td>
<td>1,200</td>
</tr>
<tr>
<td></td>
<td>Sakubva</td>
<td>200</td>
<td>1,000</td>
</tr>
<tr>
<td>Masvingo</td>
<td>Mucheke</td>
<td>120</td>
<td>600</td>
</tr>
<tr>
<td>Maroondra</td>
<td>Nyameni</td>
<td>90</td>
<td>450</td>
</tr>
<tr>
<td>Gweru</td>
<td>Mkoba</td>
<td>74</td>
<td>370</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>2,542</td>
<td>12,700</td>
</tr>
</tbody>
</table>

On average, each firm employs about 5 people and the total number of people who are directly employed in this industry is about 12,700. Each employee, on average, has about eight dependents including a wife and children as well as the extended family. This means that more than 100,000 low-income people in Zimbabwe are directly dependent on these small furniture manufacturing firms for their livelihood. The Glenview Industrial District in Harare is by far the largest with about more than 6 500 people being directly involved in the manufacture of wood and steel furniture. The majority of these people reside in the immediate vicinity of the district in the low-income suburb of Glenview and others come from the other surrounding low-income suburbs of Glen Norah, Highfield, Mufakose, Kambuzuma and Budiriro. Others come from various parts of the city of Harare and its hinterlands such as Norton, which is fifty kilometers away from Harare and Epworth, which is thirty kilometers away.

In addition to those who are directly involved in furniture making, there are also thousands of people who are dependent on the other downstream activities such as timber merchants, suppliers of inputs like wood glue, nails, vanish, door handles and keys. More than 500 such firms were identified at Glenview. Each of these firms employ at least two people, thus another 1,000 jobs have also been created. Numerous others supply food and beverages to both producers and customers. Others provide transportation services for customers.
The industry also makes a significant contribution to National Income. The average income per each employee, including owner-managers is about $350 per month. Thus, at least $4.4 million of income is being generated annually directly from the industry.

6.2 Success factors and survival strategies.

The success and survival of small firms operating within the industrial district can be attributed to the following four factors: competitive strategy, territorial specificity, flexible specialization and co-operative competition.

6.2.1 Competitive strategy.

The first key to the success of the firms located in the industrial district is that the firms within the district have successfully combined both low-cost and product differentiation strategies, unlike the conventional wisdom which suggests that this is not possible (Strickland, 2003; Porter, 2004).

The market for the firms' products is divided into two distinct segments: low-income consumers and middle-income consumers. Harare's residential areas have historically been categorized into three types. There is the spatially populated (low-density) high-income areas, wherein reside the more affluent section of the population. There are the middle-income areas, wherein reside the not-so-affluent, but not necessarily poor residents. There are the densely populated (high-density) low-income areas, in which the small-firm industrial districts are located. The 'high-density' suburbs are the townships that were originally built in the pre-independence period to house the black population but after independence, the better-off families moved to the 'low-density' suburbs, previously the exclusive preserve of the white population. However, in recent years, a sizeable number of the middle-income people have also found their way into the 'high-density' low-income areas. Thus, the industrial district, being located in or close to the 'high-density' suburbs, has access to both the middle-income market and the low-income market.

Because of its geographical location, the industrial district is highly visible and accessible to its markets. Its location provides convenience to both the customers and the employees, with little or no transportation costs. For example, the cost of transporting goods to any destination from the district ranges from $10.00 to $20.00 per trip. The market is however, not limited to the immediate locality of the district but also spreads to other low-income suburbs in the city, far from the district itself. The market share of the Glenview Industrial District is about 60 percent of the total furniture market in Harare.

Though the district is dedicated to the industry of household furniture, the product range is very wide and includes the following products:

- Wardrobes
- Sofa sets
- Room dividers
- Kitchen table and chairs
- Dining room table and chairs
- Coffee table sets
- Base bed and mattresses
- Chest of drawers

Within each product type there is also a wide range of sub-types that are distinguished either by the number of pieces or the 'district brand name'. In the case of sofa sets, for example, at least five brand names can be identified, as shown in Table 4 below.
Table 3: Cost and price range for sofa sets at Glenview Industrial District

<table>
<thead>
<tr>
<th>Product Brand Name</th>
<th>Input Cost (USD)</th>
<th>Retail Price (USD)</th>
<th>Wholesale Price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couch</td>
<td>420,00</td>
<td>550,00</td>
<td>500,00</td>
</tr>
<tr>
<td>Madeira</td>
<td>300,00</td>
<td>380,00</td>
<td>350,00</td>
</tr>
<tr>
<td>Hamilcourt</td>
<td>250,00</td>
<td>320,00</td>
<td>290,00</td>
</tr>
<tr>
<td>Bubble Bee</td>
<td>250,00</td>
<td>300,00</td>
<td>280,00</td>
</tr>
<tr>
<td>St. James</td>
<td>230,00</td>
<td>280,00</td>
<td>260,00</td>
</tr>
</tbody>
</table>

To cater for the low-income market segment, the firms have successfully followed a low-cost strategy. This is evidenced by the profit margins and mark-up on cost, which are low compared to other large retail outlets in the central business district (CBD) of Harare.

Table 4: Comparison of average mark-up and profit margins

<table>
<thead>
<tr>
<th></th>
<th>Glenview Industrial District</th>
<th>CBD Retail Outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark-up percentage</td>
<td>25 per cent</td>
<td>54 per cent</td>
</tr>
<tr>
<td>Gross profit margin</td>
<td>20 per cent</td>
<td>44 per cent</td>
</tr>
</tbody>
</table>

The low-cost strategy has been successfully combined with a product differentiation strategy which is aimed at the middle-income market segment. This strategy calls for the production of higher-quality products on which higher margins are realized.

At the top of the range is the couch, which is targeted at the high-income market. The materials used on this product are more expensive and of higher quality than on other products. For example, the frame is made of A-grade pine timber; the cushions and seats are all foam rubber, whereas other products would have a mixture of cotton and foam rubber. The fabric used is also of high quality, usually tapestry. The couch has also been further differentiated into two markets with the product for the lower end of the market selling at an average price of $550, and the higher-end product selling for up to $1,000. The higher-end product is also branded as the ‘quantum couch’, a label that is generally applied to high-end products (for example, in the case of room dividers, you also find the ‘quantum room divider’). It is also covered in superior fabric referred to as ‘new tapestry’. The couch is usually sold to walk-in customers who are quality-conscious and is rarely sold to the wholesale customer. The Madeira is also the other high-end product, being more labor-intensive than the other products.

The other products are low-end products and are produced at the lowest possible cost in pursuit of the low-cost strategy. The St. James is the most common product and also the most affordable in terms of input cost. This is followed by the Hamilcourt, which is more or less similar in shape and size to the St. James, though it has a higher back and wings that are slightly longer. Table 5 below is a comparison of the cost structures for both competitive strategies using the St. James sofa set as an example.

Table 5: The costs of producing a sofa-set for two different market segments.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Low-cost</th>
<th>Cost</th>
<th>Quantity</th>
<th>High-cost</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>22 m @ $3.50</td>
<td>$77.00</td>
<td>27 m @ $3.50</td>
<td>$94.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Framing Timber</td>
<td>42 x 2.7 m 'Grade C' @ $0.60</td>
<td>$25.20</td>
<td>50 x 2.7 m 'Grade A' @ $0.80</td>
<td>$40.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Survival strategies of small firms located in a Marshallian Industrial District

Table 5 (cont)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Low-cost</th>
<th>Cost</th>
<th>Quantity</th>
<th>High-cost</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springs</td>
<td>$5.00 per set of 12</td>
<td>$60.00</td>
<td></td>
<td>$10.00 per set of 18</td>
<td>$180.00</td>
<td></td>
</tr>
<tr>
<td>Foam rubber - back rest</td>
<td>3 x 1-inch @ $6.00</td>
<td>$18.00</td>
<td>3 x 3-inch @ $17.00</td>
<td>$31.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foam rubber - arm rest and side wings</td>
<td>3 x 1-inch @ $6.00</td>
<td>$18.00</td>
<td>3 x 2-inch @ $12.00</td>
<td>$36.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foam rubber - platform</td>
<td>1 x 1-inch @ $6.00</td>
<td>$6.00</td>
<td>2 x 2-inch @ $12.00</td>
<td>$24.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foam rubber - cushions</td>
<td>4-inch light density</td>
<td>$22.00</td>
<td>4-inch high density</td>
<td>$35.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face Panels</td>
<td>$15.00 per set of 16</td>
<td>$15.00</td>
<td>$30.00 per set of 16</td>
<td>$30.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-inch nails</td>
<td>3kg @$2.50 per kg</td>
<td>$7.50</td>
<td>3kg @$2.50 per kg</td>
<td>$7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-inch nails</td>
<td>1.5kg @$3.50 per kg</td>
<td>$5.25</td>
<td>1.5kg @$3.50 per kg</td>
<td>$5.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL COST</td>
<td>$253.95</td>
<td></td>
<td></td>
<td>$508.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The cost of producing a product such as the St. James set of sofas in pursuit of the low-cost strategy is about $250, whereas for the product differentiation strategy the cost is about $500, which is one-hundred percent higher. Some firms have managed to reduce the cost even further to about $230. Using sofa sets as an example, some of the measures that are used to drive the low-cost strategy include the following:

- Reducing the amount and quality of timber used in making the frame.
- Reducing the number and quality of springs by using locally made iron springs instead of steel springs.
- Reducing the amount of foam rubber and using light-density foam rubber mixed with cotton, instead of high-density form rubber.
- Using cotton husks instead of actual cotton as stuffing for the seats, head rest and wings.
- Using pine timber on the side panels instead of hardwoods such as mukwa or teak.

6.2.2 Territorial specificity

The second key success factor is territorial specificity, which refers to the fact that all firms in the district are dedicated to the production and sale of a single product type household furniture.

This characteristic of the district is in contrast with other small-firm agglomerations that can be found elsewhere in which the firms are involved in a plethora of activities. Territorial specificity has enabled the emergence of a ‘general-purpose technology’ or tacit knowledge in furniture making, which is freely available ‘in the air’ to all firms located in the district. There is an elaborate system of apprenticeship training in which both start-up firms and newly-induced artisans are taken through the process of completing all types of products, after which they branch off to start their own manufacturing entities. Learning-by-doing is easily supported by the tacit knowledge which is floating around in the environment of the district. For example, it takes only six months for a newly-induced artisan to master the art of making a St. James sofa set.

6.2.3 Flexible specialization

Flexible specialization is the third key success factor for firms located within the industrial district. It is a critical survival strategy in the face of competition from large-scale manufacturers, capital scarcities, fluctuation and unpredictable demand patterns, and other vagaries of the operating environment. It refers to a production technique in which a firm specialises in the production and sale of a particular type of product, but is also able to quickly switch its production routines, machinery and staff in order to produce other product types.
when the need arises. The concept also applies at the level of the artisan employed by the firm. The artisan is multi-skilled and is capable of operating all types of plant and machinery within the production unit and can make all types of products when required to do so. However, the artisan usually specializes in one product or product type or one piece of plant or machinery. The concept can even be taken further to the product level, whereby you find artisans within the production entity specialising in certain parts of the product conversion process.

The district itself specialises in one product: household furniture, but at this level, there are two distinct areas of specialisation or clusters of firms, with some firms dedicated to the production of wood furniture whilst others are dedicated to the production of steel furniture. At the product type level, there is also further specialisation, with firms forming clusters based on product types. For example, firms dedicated to wood furniture are grouped into the following clusters:

- Clusters of cabinet makers.
- Clusters of sofa-set makers
- Clusters of base beds and mattress makers.

At this level, even though most firms can make all types of wood furniture, that is cabinets, sofa sets and beds and mattresses, each firm specializes in only one product type, for example cabinets. At the firm level, there are further clusters or areas of specialization. Cabinet makers, for example, are grouped onto two further clusters; clusters of wardrobe makers, clusters of room divider makers and clusters of kitchen unit makers, even though each firm can make all types of cabinet furniture.

Figure 1: Cascading of flexible specialization in the district

- Cluster of Wood Furniture makers
- Cluster of Steel Furniture makers
- Cluster of Cabinet makers
- Cluster of Sofa-set makers
- Cluster of Base beds and mattress makers
- Cluster of Wardrobe makers
- Cluster of Room divider makers
- Cluster of Kitchen unit makers
The district is arranged into a spiral of clusters and flexible specialisation is found at every level of activity, cascading downwards as shown in Figure 1 above. Throughout the whole spiral, at each cluster level, there are two distinct competitive strategies: low-cost and product differentiation, with firms within each cluster concentrating on either the high-end market or the low-end market of the cluster. In the sofa sets cluster, for example, some firms specialise in the high-end market (couch and Madeira sets) whilst others specialise in the low-end market (St. James and Hamilcourt). Whilst the firm has the skills and competencies to make all types of cabinets or sofa sets, it dedicates itself to only one or two types, honing its skills in that particular product type. The firm only deviates from its ‘normal’ activity say from cabinet making to sofa making, or from wardrobes to room dividers, on the specific request of a customer. Thus, the firms are highly flexible in their technological capabilities with regards to all product types and categories.

Within each production unit there is further flexible specialisation or division of labour. Though the artisans possess the skills and knowledge to make the whole product, each artisan only makes one or two parts of the whole. In the transformation process for a sofa set, for example, some artisans are dedicated to making the frames, others specialise in cutting, designing the fabric and staffing the frame. This production arrangement is used only when a large order has been received and lead times for delivery are short. In slack periods such as when there is low demand for the product or a shortage of inputs, the artisans revert back to making the whole product, such as a set of St. James sofas, or a whole room divider, charging a commission of about ten percent to the firm.

The artisans in each production entity assume different roles and relationships with the entity, depending on the business environment at a particular that time. During times of slack demand or shortage of materials, they become independent commission workers. During these times they may even hire out their labour to other ‘competing firms’. At other times, for example when the firm receives a large order with a short lead time, or when demand is generally high (for example during the tobacco selling season, when tobacco farmers bring their tobacco to the auction floors), they become full-time employees, receiving a wage. Some artisans within the district do not in fact have any permanent relationships with any particular production entity, but they roam within the district offering their services to all the entities. They are a distinct pool of skilled artisans, with technological capabilities for all product types and categories. This flexibility in the employment relationship results in a cross-pollination of innovation and technological capabilities as the artisans carry new product designs and ideas from one firm to another.

Specialisation can also be traced through the product transformation process. The district is a dense network of different types of firms based on vertical specialisation in which the transformation process is broken up into small activities and each firm participates in only one or two of them. For example, Table 6 below shows the transformation process for two different products.

**Table 7: Transformation process for two products**

<table>
<thead>
<tr>
<th>Sofa Set</th>
<th>Set of Steel Chairs and Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Framing</td>
<td>1. Bending</td>
</tr>
<tr>
<td>2. Cutting and designing of covers</td>
<td>2. Welding</td>
</tr>
<tr>
<td>3. Tailoring</td>
<td>3. Cutting and shaping boards</td>
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<tr>
<td>4. Cutting and shaping of wings and panels</td>
<td>4. Painting</td>
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<td>5. Staffing and covering</td>
<td>5. Upholstering</td>
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The firms are not fully mechanised self-contained production units but use very simple production technologies that are based on simple hand tools. Any necessary mechanised work is contracted out to other firms. The artisans in a firm dedicated to sofa sets, for example, would be engaged only in certain
stages of the transformation process, such as the design and construction of the wooden frame, cutting and designing of the fabric for the covers as well as staffing and covering the frame. The tailoring of the fabric is contracted out to other entities which are dedicated to this part of the process and have invested in industrial sewing machines. Within the Glenview Industrial District there are more than one-hundred tailoring firms. The cutting and shaping of wings and panels is also done by other entities that have invested in the required plant and machinery such as lathe machines, rip saws, compressors, surface planes and spindle molders. These entities make the various types of wings, panels and other parts for stock and sell them to the production units. Thus, there is no need for large capital investment within the production unit itself. The production unit invests only in light hand tools, such as hand saws, hummers and small planes.

In addition to the firms that are involved in the actual transformation process, there are hundreds of other entities providing supporting services such as the transportation of goods for customers and the provision of food and beverages to the inhabitants of the district. More than 500 hundred other entities supply the required inputs such as timber, cotton, wood glue, nails, vanish, paint, and foam rubber at low cost and in small quantities, which reduces the need for financing inventory on the part of the production units. These entities are also a source of information for the production entities as they bring feedback from customers and suppliers. Most of these suppliers, such as timber merchants and sellers of cotton, are former carpenters themselves, who have branched out to these other activities, thus have an intricate knowledge of the industry itself.

6.2.4 Co-operative competition
The fourth success factor is co-operative competition. Though there is intense competition among the firms, they also collaborate and support each other. Each firm has a display area and a sales team which is deployed to the sales area where they fiercely compete for customers. However, when you go to the production area, you find a different situation. Some customers may wander throughout the district and unintentionally find themselves within the production area. The firms therefore make strenuous efforts to attract these customers. However, each production area has a cluster of firms in that particular neighbourhood that also compete among themselves and each cluster is in competition with the other clusters. Once a customer walks up to a particular cluster or firm, there is an unwritten rule that says that the others should not try to lure this customer away from the chosen cluster or firm. They in fact try to support the chosen firm, for example, if that firm does not have all the products requested by the customer, only then do they come in to assist.

The artisans within each cluster or firm are free to hire out their labour to other firms within the cluster or even to an outside cluster for a fee, which is normally about 10 percent of the cost of the item produced. Thus if a firm receives a large order, other artisans from other firms hire out their labour to this firm to enable it to fulfill the order timeously. In this way, the artisans also exchange knowledge and skill through cross pollination of ideas. In certain cases, a wholesale customer may request a very large order which requires the combined efforts of all firms from different clusters in that neighborhood. In this instance all the firms work together in order to meet the customer's requirements.

The firm itself has very little investment in plant and machinery. All work that requires plant and machinery is contracted out to other firms that have invested in these capital items. The most critical capital items that are required in the industry are:

- Lathe machine
- Spindle molder
- Surface plane
- Thickness plane
- Rip saw
- Compressor
- Industrial sewing machine
Most of these items of plant and machinery are not imported or bought from established manufacturers, but are made by other artisans in and around the district, having been fabricated and fashioned from an combination of blades, pulleys, electric motors and work-benches.

The production unit itself does not have a very large capital base but invests in the very simple hand-held equipment that is required for finishing products, such as hand saw, hammer and small wood planes. In order to minimise costs and maximise production efficiencies, each of these firms specialises in the making, shaping, or molding of particular items, for example wings and armrests for sofa sets, or panels for wardrobe doors, or legs for base beds. A firm that specialises in the molding of panels or shaping of base bed legs would employ up to five artisans, who daily work on the several machines, such as spindle molders. In the case of panels, the artisans within the production unit design the required shapes and take them up to the specialist in that area for cutting and shaping. Once this is done, the firm’s artisans put in the finishing touches of smoothening and vanishing. These items can be made on order or they are made for stock. Each firm would then buy the ready-made items as required. In times of slack business, however, an artisan can make some of the required shapes, such as frames using hand held tools instead of hiring out the work to the owner of a rip saw, or thickness plane.

The firms in the district form a dense network of interrelationships with horizontal co-operation between otherwise competing firms. This is further evidenced by the existence of joint sub-contracting, joint purchasing, or marketing of products. For example, there are more than two-hundred timber merchants and cotton merchants located at the district. These merchants are organised into ‘syndicates’ for the purpose of jointly buying cotton lint from ginneries and timber from the forestry plantations.

7. CONCLUSIONS
The study came to the following conclusions:

7.1 The contribution of small cluster-located firms to employment creation and income generation is very significant. Thus, the growth of such firms in Zimbabwe should be encouraged and nurtured.

7.2 Zimbabwe’s small-firm clusters are unique in that they have successfully combined a low-cost competitive strategy with a product differentiation strategy by producing a wide range of products in convenient locations and at a reasonable price to consumers in different market segments. Three factors have been responsible for the success of the firms in the cluster: territorial specificity; flexible specialisation and co-operative competition.

Territorial specificity has enabled the cluster itself to hone its capabilities to the production of a single product type. Flexible specialisation at the cluster, product and firm level have enabled the artisans to generate and share tacit knowledge.

8. RECOMMENDATIONS
From the conclusions above, the following recommendations are made:

8.1 The firms are “isolated” technologically because all the knowledge that is being shared among them is knowledge that is being acquired within the confines of the cluster. Initiatives are therefore required to link the firms in the cluster with other firms and institutions outside so that the firms gain new knowledge from outside the cluster environment.

8.2 The spirit of co-operative competition among the firms implies that any initiatives that are meant to improve the competencies of the firms in the cluster should not be directed at individual firms but at groups of firms in the cluster. Funding initiatives should not be directed at particular firms but at distinct groups of firms such as the cluster of cabinet-makers or sofa-set-makers. Training initiatives should also be aimed at the epistemic community of “independent” artisans rather than at artisans belonging to a particular firm.
8. REFERENCES


