Pricing in the Informal Sector: Evidence from Zimbabwe's urban informal metal firms

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ABSTRACT
The main purpose of this paper is to investigate the price-setting behavior of Zimbabwe's urban informal metal firms. In order to achieve this objective, data collected from 647 urban informal metal entrepreneurs is used. The study reveals that the majority of urban informal metal enterprises' customers are households and individuals. Empirical results indicate that urban informal metal entrepreneurs do not set their prices in a chaotic manner but use established economic principles of setting prices. Cost-plus and bargaining are the most popular theories recognized by the entrepreneurs. The cost-plus technique is the dominant strategy used by entrepreneurs followed by the bargaining strategy. While the cost-plus technique suggests uniform prices, this is rejected by the bargaining strategy which suggests that prices are set on a case-by-case basis. Evidence suggests that the entrepreneurs' pricing decisions are mainly influenced by cost factors. Apart from covering production costs the entrepreneurs' pricing decisions also emphasize 'ethical objectives' by charging 'what the market will bear.' From the two dominant pricing strategies, two issues are central to the entrepreneurs' pricing decisions that is, covering costs of production and minimizing the loss of customers.

Key words: Informal sector, pricing, metal enterprises

1. INTRODUCTION
The importance of the informal sector cannot be overemphasized especially in developing countries where there are high unemployment and poverty levels. Hence, the analysis of informal sector firms has mainly focused on issues of employment and poverty alleviation. Over the years, Zimbabwe's informal sector has emerged as a major force contributing to the livelihoods of many Zimbabweans. The Government also recognizes the importance of the informal sector in employment creation as well as poverty alleviation. Its support has increased with the establishment of the Ministry of Small and Medium Enterprises and Cooperative Development. Government has also intensified research into informal sector activities. Zimbabwe's 2014 National Budget also acknowledges that the informal sector is an important feature of the Zimbabwean economy. A major step of 2014 National Budget has been the decriminalization of informal small scale mining activities and extension of financial support to that sector.

Despite Government efforts to promote informal sector activities, very little is known about the way Zimbabwe's informal entrepreneurs conduct their businesses. Recognition of informal sector activities requires that more research be conducted in this sector. This is important for policy makers. Pricing is critical as it produces revenues for the firm. Hence, pricing is important for the profitability and long term survival of the firms. The way firms set prices is also critical to the functioning of any economy. Amirault, et al (2004-2005) and Park, et al (2010) note that the way firms set prices can be a key determinant of the dynamics of the inflation process in the economy. There is limited research, especially in developing countries on how firms and especially informal firms set prices. With the growing informalization of the Zimbabwean economy, it is critical that we understand the price-setting behavior of informal firms. It is a fact that a large part of the Zimbabwean population now obtains products from the informal sector. Hence, it is important that we

1 I am greatly indebted to Mr. Carren Pindirizi for the comments he provided on earlier versions of this paper. I would also like to thank the two anonymous referees of this Journal for their constructive comments.
2 In his 2014 National Budget Statement Zimbabwe's Minister of Finance and Economic Development proposed to decriminalize small scale mining activities and extend financial support to small scale miners.
3 A recent comprehensive study on the Zimbabwe's informal sector was undertaken by FinScope on behalf of the Zimbabwean Government.
understand how these products are priced. This paper contributes to the area of price-setting by focusing on Zimbabwe’s urban informal metal firms. The main objective is to investigate how Zimbabwe’s urban informal metal firms set their prices.

This paper is divided into five sections. Section two provides a review of the theoretical and empirical literature on pricing methods. Section three discusses the research methodology. Section four considers the survey’s empirical evidence. Section five concludes this paper.

2. LITERATURE SURVEY

Pricing is important to firms as it generates turnover for them. There are established economic principles that firms can use in setting prices. Theoretical approaches to price-setting emphasize profit maximization as being critical when setting prices. Theoretically, pricing should take into account many factors including fixed and variable costs, competition, firm objectives and clients' willingness to pay. Kotler (1991) argues that firm owners should establish the customers' perceptions of the product, be aware of the competitors' actions and know their profit margin.

Pricing theory identifies three major pricing techniques (Avlonitis and Indounas, 2005). Firstly, the cost-plus (or mark-up) pricing technique involves the firm determining the price by adding a fixed amount or percentage to the cost of production. Apart from its simplicity, this technique’s main advantage is that the firm’s costs will be covered. Its main disadvantage is that products may be priced un-competitively. Zimbabwe being a high cost producing country is facing a lot of competition in all sectors. Competition is more pronounced in manufacturing and firms are unlikely to adopt the cost-plus technique as there is likely going to be price takers.

The second pricing technique is the customer or demand based pricing. Under this method, the product price is determined by what the firm believes customers are prepared to pay. Firms may adopt this technique in order to increase their market share of the product. Under this pricing technique, prices are set to satisfy customers' needs. Given the high level of competition and the low incomes characterizing the economy, Zambian firms are likely to adopt this technique.

The third pricing technique is the competition-based pricing which is common in markets where there is strong competition. In a highly competitive environment, customers can either buy from the cheapest provider or from where they get the best customer service. Under this pricing technique, competitors' prices have an influence on the firm’s price. The firm has three options: (a) price its product according to its competitors’ prices, (b) price its product above its competitors’ prices or (c) price its product below its competitors’ prices. In reality, most firms do not have enough power to set prices above their competitors’ prices. They tend to use the ‘going rate’ that is, a price that is in line with their competitors’ prices. Such firms can be referred to as 'price takers.' Zimbabwe's informal sector firms operate in a highly competitive environment and hence are likely to charge a price that is influenced by their competitors' prices. Competition for informal sector products comes from formal sector firms and imports.

Most empirical studies of firm pricing behavior have been conducted in developed economies, especially in the USA and the UK. Some empirical evidence suggests that small and medium enterprises (SMEs) owners do not manage their businesses in a functional way (Carson, 1993, Hankinson, 1991). This suggests that they are likely to take pricing decisions in a chaotic manner. A number of studies however point at the dominance of the cost-plus pricing method because of its simplicity and easiness to use. In the USA, Schyssel (1977) found out that out of 43 firms, 24 used the cost-plus pricing method. In the USA again, Goetz (1985) concluded that 36 firms out of 56 firms employed the cost-plus pricing technique. Zeithaml et al (1985) studied a total of 323 firms drawn from 13 different sectors of the USA economy. They concluded

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1 In his ‘2014 National Budget Statement’ Zimbabwe’s Minister of Finance and Economic Development attributed the high cost of production to a number of factors including the high cost of capital, obsolete machinery and equipment and the erratic supplies of power and water.
that 63% of the firms used the cost-plus pricing technique. Morris and Fuller (1989) found out that out of the 71 USA firms that they studied, 75% used the cost-plus pricing method. Fabiani et al (2005) found out that smaller firms tended to rely on mark-up pricing. Hankinson (1991) concluded that the major determinant of price among small engineering firms was cost with market conditions acting as influences.

Although cost-plus pricing appears to be the dominant pricing approach used by small firms, literature also suggests the use of other approaches. Lance (1982) concluded that firms base their pricing on a combination of what the market will bear and cost-plus. Scarborough and Zimmerer (1984) are of the view that a firm's pricing policy should be market-driven. It has also been argued that the pricing policies of small firms reflect the views of the owners/managers. For example, Redinbaugh and Neu (1980) argued that the manager's intuition and judgment is the dominant factor in small firms pricing. Watkins and Blackburn (1986) appear to agree with this view by suggesting that a firm's pricing policy may be guided by the owner's feel for the market.

3. RESEARCH METHODOLOGY
This study uses primary data that was collected under the International Development Research Centre (IDRC) sponsored project6 in Zimbabwe. This project was undertaken by the Centre for Applied Social Sciences (CASS) Department, University of Zimbabwe. The data was collected from Zimbabwe's urban informal metal entrepreneurs operating in Harare,6 Bulawayo, Mutare and Rusape. The sample firm information is summarized in Table 1 below.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sample size</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Harare</td>
<td>471</td>
<td>72.8</td>
</tr>
<tr>
<td>Bulawayo</td>
<td>96</td>
<td>14.8</td>
</tr>
<tr>
<td>Mutare</td>
<td>53</td>
<td>8.2</td>
</tr>
<tr>
<td>Rusape</td>
<td>27</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>647</td>
<td>100</td>
</tr>
</tbody>
</table>

Selected areas with the largest concentration of informal metal firms in the four cities were visited during the survey. In Harare interviews were conducted in Mbare, Gazaland and Makoni business centres while in Mutare, two business centres; Sakubva and Dangamvura were visited. In Bulawayo, interviews were conducted in Belmont and Renkin business areas. Rusape has one major area where informal sector businesses are concentrated, the bus terminus area. These areas are designated by the local authorities for SMEs operations.7 An attempt was made during the survey to cover all informal metal firms operating in the visited areas.

The survey data was collected by a group of enumerators8 through face to face interviews using an IDRC approved structured questionnaire. Interviews were conducted with urban informal metal entrepreneurs between January and March 2013. By the end of the survey, a total of 647 urban informal metal entrepreneurs

5 The data was collected using financial assistance from the International Development Research Centre (IDRC). This project was conducted in three other African countries namely, Tanzania, Rwanda and Uganda on 'Sharing Growth through Informal Employment in East and Southern Africa.'
6 For the purposes of this study Harare includes Chitungwiza.
7 Although the firms operating in these areas are expected to be formally operating these firms do not fulfill the conditions of formal firms in terms of registration/licensing and observation of labour laws and regulations.
8 The enumerators used to collect the survey data were all University of Zimbabwe postgraduate and undergraduate final year students from the Faculties of Social Studies and Agriculture.
had been interviewed. The survey collected a wide range of information from entrepreneurs' backgrounds, employment and remuneration data, entrepreneurs' pricing techniques, their perceptions on stakeholders and their problems and constraints⁹. However, for purposes of this study, a part of the questionnaire with questions on entrepreneurs' pricing techniques was selected for analysis. This part of the questionnaire collected information on the entrepreneurs' customer base, their competitors and their pricing techniques. The analysis was done using the SPSS and Excel statistical packages.

4. EMPIRICAL RESULTS

Informal metal firms mainly produced building and farming materials. Building materials included: windows and door frames and gates while farming equipment included; hoes, axes and scotch-carts, among others. Other common products included; grinding mills, cooking utensils and braai stands. Table 2 indicates the diverse customer base that includes formal and informal sector customers. Most firms sold their products to households and individuals.

<table>
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<tr>
<th>Table 2: Customer base of urban informal metal firms</th>
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<tr>
<td><strong>Customer type</strong></td>
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<td>------------------------------------</td>
</tr>
<tr>
<td>Public sector</td>
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<tr>
<td>Formal enterprises</td>
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<tr>
<td>Informal enterprises</td>
</tr>
<tr>
<td>Households/individuals</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

The nature of informal metal firms' products makes households and individuals their biggest clients. As indicated above, these firms generally produce small items suitable for use by households and individuals. Most entrepreneurs (89.4%) had no contracts with their clients. Contracts are unlikely to be used where the major customer base is households and individuals as these customers prefer buying on a cash basis and usually ask for price concessions.

Generally, urban informal metal enterprises charge lower prices compared to their formal sector counterparts. As indicated in table 3, 65.5% and 2.2% of the sample firms charged lower and higher prices, respectively compared to their formal sector counterparts. The 32.3% of the sample firms that charged average prices can be described as price takers as their prices are determined by their competitors' prices.

<table>
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<th>Table 3: Informal metal firms prices comparisons with formal sector competitors</th>
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<tr>
<td><strong>Price comparison with formal competitors</strong></td>
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<tr>
<td>-----------------------------------------------</td>
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<tr>
<td>Higher</td>
</tr>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Lower</td>
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<tr>
<td><strong>Total</strong></td>
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⁹ For more detailed information see the report 'Sustaining livelihoods through informal sector activities: evidence from Zimbabwe's urban informal metal sector'
Out of the 14 firms that charged higher prices, 87.5% indicated that their products were of higher quality while 7.1% had higher production costs. A number of urban informal metal entrepreneurs gave a number of reasons for charging lower prices compared to their formal sector competitors. Figure 1 indicates that the entrepreneurs’ knowledge of their customer base has a strong influence on the entrepreneurs’ pricing decisions. Knowledge by entrepreneurs that their customers are less rich has a strong influence on the sample firms’ pricing decisions.

Figure 1: Reasons for charging lower prices

Information based on 621 informal urban metal entrepreneurs’ pricing strategies is summarized in figure 2. Empirical evidence indicates that the cost-plus pricing technique is the dominant pricing method. The concepts of mark-up and marginal costs referred to in literature may be difficult for most entrepreneurs to understand. To avoid confusion, the technique of cost-plus was translated into profit margin during the survey. As discussed in the literature section, these results are consistent with results obtained from a number of developed countries’ studies such as those by Schlissel (1977), Goetz (1985), Zeithaml (1985) and Morris and Fuller (1989).

Figure 2 indicates that the most popular pricing strategy is the cost-plus technique. There are possible reasons why entrepreneurs prefer the cost-plus method even under competitive conditions. Its major advantage is that production costs are covered first and then the owner determines his/her profit margin. Secondly, entrepreneurs do not need to gather extra data besides production costs. Covering costs seems to be the major reason why the cost-plus technique is preferred by most entrepreneurs. The major disadvantage of the cost-plus method is on consumers’ side as entrepreneurs can quickly pass on any increases in input costs to consumers. Mark-up pricing is unlikely to be adopted by firms operating in a highly competitive environment as firms are likely to be price takers. As indicated above, the 32.3% of the sample firms that charge average prices can be described as price takers. For the entrepreneurs running these enterprises, competition is likely to have a strong influence on their pricing decisions.
The second most popular pricing strategy is the bargaining strategy. This is a strategy that works well in a highly competitive environment as it involves entrepreneurs negotiating with their clients over prices. The bargaining strategy is demand driven as it suggests that entrepreneurs are prepared to charge what the market can bear. It also suggests that entrepreneurs set their prices on a case-by-case basis and that prices are flexible downwards. This strategy is common in weak economies characterized by low incomes and weak demand. Zimbabwe is currently in a similar situation. Bargaining minimizes the loss of customers. Price bargaining allows entrepreneurs to price discriminate and this benefits the customers with good negotiating skills. This strategy is now commonly practiced especially by Zimbabwe’s retail formal businesses.

A small proportion of entrepreneurs (6.7%) had their prices determined by the prices of their formal competitors. For these entrepreneurs, their formal sector competitors’ prices have a strong influence on their product prices and this is evidence of competition based pricing. Over all, the impact of the formal sector competitors’ prices does not have a strong influence on the majority of the informal entrepreneurs pricing decisions. Less important is the adoption of prices set by the producers’ associations as only 0.3% of the entrepreneurs adopted this approach. For the remaining 0.5% of the entrepreneurs, prices were set according to ‘other’ pricing techniques.

A number of entrepreneurs used a combination of pricing techniques with the majority using the cost-plus and the bargaining techniques (table 4). Most urban informal metal enterprises (78.1%) used the cost-plus technique as their first pricing technique. The same pricing technique was used by 3.2% of the metal entrepreneurs as their second pricing strategy. The bargaining strategy was used by 17.4% of the metal entrepreneurs as their first pricing method. The majority of the entrepreneurs (76.2%) used the bargaining strategy as their second pricing technique.
It is clear from the empirical evidence that most entrepreneurs choose a price that represents a mark-up over costs and leave some room for adjusting prices when faced with clients seeking price concessions. This suggests that informal metal entrepreneurs climb down from their set prices to meet the needs of their customers hence suggesting that informal metal enterprises product prices are flexible downwards. This is done in order to minimize the loss of customers. It still remains clear that input costs play an important role in the entrepreneurs’ pricing decisions. The empirical evidence thus indicates that informal metal entrepreneurs are concerned with covering production costs and what the clients can afford. These two factors are important for the survival of Zimbabwe’s urban informal metal enterprises. The empirical evidence also suggests that Zimbabwe’s urban informal metal entrepreneurs do not set their product prices in a chaotic manner but follow the established principles of setting prices. This is important for the long term survival of Zimbabwe’s urban informal metal sector.

5. CONCLUSIONS
This paper’s objective was to investigate the price-setting behavior of Zimbabwe’s urban informal metal entrepreneurs. To realize this objective, primary data from the International Development Research Centre (IDRC) sponsored project was used. The survey data sheds light on price-setting practices of Zimbabwe’s urban informal metal enterprises. The empirical evidence indicates that the largest customer base of the urban informal metal enterprises is households and individuals. Empirical evidence further suggests that the urban informal metal enterprises are free to set their prices. In determining prices, the entrepreneurs use established economic principles of setting prices. The cost-plus approach is the dominant strategy followed by the bargaining strategy. The empirical evidence indicates that the competitors’ prices play a minimal role in the urban informal entrepreneurs’ pricing decisions.

The dominance of the cost-plus pricing technique indicates the importance attached to cost factors by urban informal metal entrepreneurs. This result is consistent with results of similar studies as discussed in the literature survey section. The cost-plus approach suggests that firms have some market power and that prices are uniform. The second dominant strategy, the bargaining strategy refutes the notion that firms may have market power. Bargaining implies prices are flexible downwards as entrepreneurs charge prices on a customer-by-customer basis. The strategy also suggests that demand factors are critical in the entrepreneurs’ pricing decisions. The bargaining method also suggests that competition matters. The bargaining strategy is associated with economies undergoing an economic meltdown. Entrepreneurs bargain in order to minimize the loss of customers. Minimization of customer loss is done with the idea of covering production costs in mind. Customer relations are a key feature of the metal entrepreneurs’ pricing decisions. Price flexibility is also another key feature. Market conditions that is, demand factors and competitors’ prices are the major driving forces behind price flexibility.
REFERENCES