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The Role of Market Middlemen in the Marketing of Smallholder Horticultural Products in Zimbabwe

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Research Article

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ABSTRACT

The study seeks to assess the role played by market middlemen in smallholder horticultural products markets in Zimbabwe. There are contrasting views regarding the role of these middlemen among both farmers and farmers' representative bodies. One view maintains that middlemen are unnecessary while the other view contends that they are needed. We carried out this study under a research project HIC¹ funded by BUSE² to provide market information to smallholder horticultural farmers. The study is based mainly on observations, discussions and interviews of various stakeholders in the horticultural markets. Results indicated that middlemen are largely beneficial to most market participants especially farmers. For instance, they carry out a daily assessment of markets which act as a cheap source of information to farmers.

Keywords: Smallholder, Horticulture, Market Middlemen.

JEL: Q 13

1.0 INTRODUCTION

Small scale horticultural activities are a source of livelihood for most rural families in Zimbabwe (Zimtrade, 2005). With the bulk of the population, constituting more than 65%, residing in rural areas and lacking capital to engage in large scale agricultural production, this makes small scale agriculture one of the most pivotal activities in the fight against poverty and unemployment which is pegged at over 80%. Most rural dwellers in Zimbabwe are elderly people, women or school leavers who possess little or no skills that are required in more sophisticated sectors of the economy such as industry. As a result, most families in these rural areas³ engage in small scale horticulture in order to earn cash income which they desperately need for their day to day survival. However, returns from these activities are highly compromised in a number of ways.

First, farmers depend mainly on a limited range of largely perishable crops such as tomatoes, leafy vegetables, cabbages and onions which they sell to limited (open) markets (Poulton, 2000). Second, prices of these crops are considerably low compared to other horticultural produce such that for farmers to realise meaningful benefit they have to sell large quantities of their produce on any given marketing day within the restricted trading hours⁴. Third and most importantly, high price volatility in the markets which is believed to be significantly influenced by market middlemen through destabilising speculation has been cited to be amongst the major sources of uncertainty and risk in the marketing of horticultural produce.

In addition, a significant number of farmers, scholars⁵ and farmers advocacy groups believe that farmers' returns can be further reduced in markets with many middlemen who hoard the produce from farmers at very low cost and sell at considerably high prices depriving the farmer of potentially higher incomes. Therefore, removal of market middlemen has been prescribed as the panacea to eliminate the difficulties that are bedevilling marketing

¹ Horticultural Information Centre, is a project funded by Buse and housed within the Economics Department.

² Bindura University of Science Education

³ Especially in Mashonaland regions where the bulk of small scale agricultural production is carried out in Zimbabwe.

⁴ Farmers rent market space from Harare city council which they are allowed to use between 6am and 12am

⁵ Edwards *et al*, 1997; Nyange, 2000; Lee 2004; Mati & Penning, 2005; Kulecho & Weatherhead, 2006; Ton, 2008

of small scale horticultural produce. However, this view has been profusely debated⁶ in recent times given the increasing role that middlemen are playing the world over.

2.0 OVERVIEW OF THE ZIMBABWEAN ECONOMY

2.1 The role of horticulture in Zimbabwe

Over three quarters of the Zimbabwe population derive its livelihood from agriculture and related activities (Zimtrade, 2005). At its peak (towards the end of the 90's) agriculture contributed about 35% of Zimbabwe's GDP. Although the contribution reduced to about 11% around 2005-2006, the country has worked hard to re-establish the sectors contribution to 20.4% in 2012 (Global Finance, 2012) and signs are there that this percentage might further improve. Agriculture employs 66% of the country's working labour force and about 60% of all raw materials used in industry come from agriculture (CIA world fact book, 2012). According to UNCTAD (2000), "the horticultural sector is considered strategic in terms of high employment opportunities since most production systems are labour intensive." Given an increase in domestic demand for agricultural produce as a result of improving standards of living and industry's capacity utilisation, which increased from below 10% in 2007-2008 to about 57.2% in 2012 (CZI, 2012), the agricultural sector's prospects are expected to improve.

Zimbabwe produce a wide array of agricultural produce and horticulture is among the country's top foreign currency earners alongside tobacco, cotton and sugarcane (ZFU, 2010). About 45% of the country's exports are of agriculture origin and horticultural export industry is the fifth largest agricultural commodity after tobacco, maize, sugar and beef (HPC, 2011). At its peak the sector was the second largest agricultural foreign exchange earner after tobacco and accounted for approximately 3.5 to 4.5% of GDP (UNCTAD, 2000). Currently the sector's annual revenue earnings have dropped significantly from US\$142 million in 1999 to US\$39.1 million in 2010 representing an aggregate 28% decline (HPC, 2011). According to Horticultural Promotion Council (2012), the sector is operating at below 20% capacity mainly due to marketing and logistical constraints. As a result, promotion of horticulture can be crucial in improving the country's foreign currency earnings and employment opportunities vital for economic recovery in a dollarized economy.

Most horticultural producers have become small to medium scale in nature since the advent of the land-reform programme. Juana and Mabugu (2005) concluded in his study that investment in small-holder agriculture should be seen as investment in the entire economy. He further argued that small-holder agriculture promotes sustainable development and the inclusion of rural communities especially the poorest in economic activities should be encouraged. If careful attention can be extended to smallholder horticulture, there is great potential for the subsector to grow and regain its position as a meaningful contributor to the country's economic growth (HPC, 2012).

2.2 The nature of horticulture in Zimbabwe

Agricultural activities in the country are mainly of a dual nature. On the one hand there are large scale commercial producers who have easier access to sources of finance and wider options on the markets they can supply their produce including the possibility of exporting. On the other hand we have peasant farmers whose main aim is survival and have limited or no scope for growth. Although the land reform programme tried to upgrade some of these peasants into middle scale producers, a considerable number of them are still struggling and require more time to grow and capitalise. Most of the peasant farmers engage in horticultural activities to earn cash income since they have no other form of employment. They also sale to very limited open markets where competition is often very stiff and there is an unlimited number of players. This makes them vulnerable to manipulation and abuse since they have no other means of earning cash income. Most of this abuse is purported to be either induced or accentuated by market middlemen.

Baggs *et al* (2001) observed that most smallholders in communal areas grow crops under rainfed conditions in the "summer", i.e. November to April, and only concentrate on horticultural production once the main harvest period is completed, i.e. May-June onwards. They concluded that maize and horticultural products are not substitutes in the case of these farmers. This implies that maize production is the major activity and horticulture is only a way of maintaining a steady flow of income until the next maize farming season.

In contrast, HIC (2011) in its pilot study observed that smallholder agriculture have become the major activity for a growing number of farmers in the communal areas especially in Mashonaland East region. Farmers that were interviewed indicated that maize production has over the years become less and less lucrative due to a centralised marketing system which offers very low producer prices and the payment is made rather late than they would prefer. Thus smallholder horticulture is relatively more convenient as the marketing channels are more private, producer prices are higher, and payment is timely.

⁶ Omosa, 2002; McGuigan *et al*, 2005; Enete, 2009

In addition, HIC (2012) investigations further revealed that horticultural farmers engage in small scale horticulture awaiting opportunities to get alternative employment preferably in the more lucrative industrial sector of the country. When the opportunity does come mostly for men, women will continue with the farming legacy in order to supplement the family income which is why they play a key role in most smallholder horticulture. They also indicated that horticulture is a survival strategy and they have no intention whatsoever to expand their activities so as to target probably the export market. Even if they get extra income they do not have enough confidence to reinvest it so that they can expand their horticultural activities, they would rather invest in less risky ventures such as grinding mills among other possibilities.

Some of the most common problems that were cited include low income and high uncertainty that smallholders face in marketing their produce to an extent that the income that they get is only enough to sustain them. They indicated that even if the returns increase significantly in one month, there would normally be a nosedive in the following month which forces them to either hold on to the extra income or buy consumption goods in bulk in order to cover for the losses in other months so as to smoothen consumption. The pilot study also indicated that most of the farmers were in consensus that removal of market middlemen would significantly reduce their troubles in the markets. Therefore we sought to investigate whether the market middlemen are really a menace to the farmers and deserve to get rid of or not.

3.0 METHODS, RESULTS AND DISCUSSION

This study used primary data which we collected using interviews, observations and group discussions. In order to test various aspects of middlemen activities in the markets, we collected data from farmers themselves, buyers in the markets and middlemen. Each aspect of middlemen activities in the market is discussed in turn and the method used to collect data for that aspect therewith.

3.1.0 Identifying the major middlemen that small-scale horticultural farmers deal with

We identified 40 farmers in the three markets that we would visit each week or fortnightly to discuss issues to do with marketing and other market developments and how they affected their welfare for the period spanning from December 2011 to May 2012. We chose to visit individual farmers weekly because we observed that most smallholders have specific days that they visit the markets and the cycle is often seven or fourteen days mainly because of transport arrangements and also to give their crops enough time to recuperate after the previous harvest. Of the 40, 20 visited Mbare musika, 15 visited Lusaka in Highfields and 5 visited Chikwanha in Chitungwiza⁷. Most farmers that we dealt with came from Mashonaland east constituting 70% of the subjects and the remainder came from Mashonaland central. In addition we would visit farmers in the Musana-Domboshava area twice a month to discuss mainly about the effectiveness of the marketing information that we were providing them and also other issues concerning the marketing of their produce.

3.1.1 Marketing channels and agents used by smallholder horticultural farmers

Figure 1 below shows the marketing channels used by smallholder farmers as adapted from Mabaya (1998) with a few modifications. The four major channels of marketing are numbered 1 to 4 in order of the volume of produce tradable through each channel according to our pilot study.

⁷ We chose to deal with fewer farmers at Chikwanha because a significant number of sellers are middlemen and not farmers and also the market is relatively the smallest compared to the others.

Figure 1: Market structure

Source: adapted from Mabaya by Chaonwa, Coote and Poole

Channel 4 is the least used channel of the four, and of the 40 plus farmers that we made contact with, only 4 had previously used the channel before and two know of people who have used it before. Of the four that used the channel they believe that the large scale farmers that bought produce from them wanted to cover up for the shortfall that they had made in satisfying their clients' contracts. However, one of them said he would not enter such deals again in the future given the thorough selection that is done on the produce when no commensurate payment is done to cover up for the low prices that the 'junk' produce that they will be left with would attract in the market.

Channel 3 is still the third most used marketing channel by smallholders although use of the channel is on the increase in the country in recent times. According to van Santen (1996), middlemen who do operate in rural areas to supply wholesalers are felt by farmers to offer unjustifiably low prices. This feeling is still common among farmers and 77% of the respondents we interviewed said they would prefer supplying to wholesalers directly rather than selling to these middlemen. In addition Baggs *et al* (2001) noted that wholesalers themselves have little incentive to develop relationships with smallholders, unless they can supply reasonable quantities of good quality produce on a regular basis. Thus the channel is mainly utilised by large scale commercial farmers and is the most paying of all the four if the farmers can satisfy the demanding quality and quantity requirements. In addition prices are more stable for this kind of marketing as compared to Mbare musika and other open markets.

However, there is an increased infiltration of this kind of marketing among smallholders in the country whereby wholesalers are using a more educated approach to vertically integrate themselves backwards into farming through what is known as contract farming. In this case the wholesalers themselves or their agents provide farmers with inputs and often technical advice and quality requirements on condition that they will supply all or part of their produce to the contractors. The farmer binds himself to sell his produce to his contractor, according to the conditions set by the latter. 10 farmers said they were contracted before and they will be willing to do it again. 26 more farmers said they are willing to give it a try if they get the chance.

Channel 2 is the second most used channel and most farmers said it is the second best method if they do not have enough produce to bring to the urban markets. This channel has lower transaction costs compared to visiting urban markets and some farmers use it between the days they visit the urban markets. They either sell directly to rural assembly markets or to rural roadside vendors who collect the produce directly from the farm. In addition most fruits that they sell are bulky and attract lesser prices compared to garden produce thus highly

costly to bring to the urban markets. Therefore, they prefer using the roadside market especially main roads to sell fruits.

Most farmers prefer using channel 1 and they actually use it whenever they have enough produce to cover the cost of visiting the market. Besides the benefits of obtaining higher prices in the urban markets, farmers also enjoy adjunct benefits associated with visiting the urban markets. Such benefits include the opportunity to purchase consumption goods and inputs, and also to do other business that they cannot do in the rural areas. 38 of the 40 respondents representing 95% of our sample said they use this channel more than 80% of their times in a year. In addition, most farmers that use channel two only in the Musana-Domboshava area said they are working to increase their output in the hope that they can graduate to using channel 1. Therefore channel 1 is the most important marketing channel for smallholder farmers and most of this study is devoted to analysing this channel.

3.2 The role of market middlemen

The term middlemen as used in this study refers to those middlemen that are found in the markets and buy farmers produce in bulk in order to resale to either vendors, hawkers or the ultimate consumers. This is the type of middlemen that small scale farmers always do the bulk of their business with and always complain about. They have nevertheless continued to sustain their relationship with these middlemen, however loosely.

3.2.0 Why farmers engage market middlemen

Farmers engage market middlemen for a number of reasons; first some farmers will be having too much produce such that if they sell it all themselves they miss the opportunity of earning higher morning prices for the bulk of their produce. Prices are always higher at the beginning of the marketing day and they go down as the day progresses. In addition most smallholders prefer to finish selling early on in the day so as to have ample time for shopping in time before the transporters leave the market. Therefore farmers are inclined to divide their produce into batches in order to increase the mean price that they get at the end of the marketing day and also finish selling early.

Second, crooks are rampant in all the markets and they continuously terrorise farmers unabated. Farmers can lose a significant amount of their produce to these crooks and the structures to report such matters they believe are ineffective and corrupt. Therefore they often engage middlemen as a form of individual security.

In addition there is a myth among vendors which some farmers purport to be created by the 'middlemen' that certain farmers are unlucky and if you purchase produce from them customers will be scarce no matter the quality of the produce. Therefore such farmers are forced to change the face of the marketer by engaging the services of middlemen.

Third, farmers engage middlemen as 'buyers of last resort'. Sometimes the market can be very slow such that farmers can fail to sell half their produce at the time they expect to have finished selling all the produce. This situation increases farmers' risk of making huge losses due to weaker bargaining power since farmers have limited time in the market to sell their produce which they cannot afford to carry back home because of the expense and perishability. Furthermore farmers have no proper storage facilities at the markets to reduce the rate of deterioration of their produce due to long-time exposure to sunlight. Given that most smallholders hold no cash reserves and operate in arrears the need for cash income to cover immediate expenses such as transportation is high. As a result farmers are forced to broker deals with middlemen so as to cover for the abovementioned risks.

Middlemen have the whole day to market the produce, they have better storage facilities, they are highly mobile and generally have better market access, and consequently they have a lower probability of making losses. As such middlemen are aware of the plight of farmers and they often take advantage of that plight to broker deals with them by offering to inherit their risk. Normally they would offer deals to the farmers that are slightly better than what the market is offering but in some way also benefiting them thereby creating an 'optimum' solution to the situation.

For instance, some middlemen lack working capital and if prices have fallen too low in the market they offer farmers to remain with the remainder of the products and pay the farmer a price that is slightly higher than the one obtaining in the market at that time on the next marketing day which is usually less than a week. In this case the farmer acts as a creditor to the middleman and also stands a chance to reduce losses that s/he might encounter as a result of slow moving markets.

3.2.1 How farmers engage market middlemen

There are various ways used by farmers to engage middlemen in marketing their produce, the major ones are detailed below. The first method operates like a Vickrey auction system, individual middlemen will approach the farmer seeking the permission to sell the produce on his behalf. They offer him a unit price for the produce which they can pay at the end of the marketing day after they remove their margin. Farmers will receive different offers

and are inclined to accept the highest offer that they get on the day although the actual price that they will eventually receive might be revised downwards given what actually transpired in the market. After all the deliberations and if they seal the contract, the farmer surrenders some or all of his produce to the middleman for an agreed unit price at the start of the marketing day. The middleman will bear the responsibility of marketing the produce and will sell it at a premium to the buyers.

The second method involves the farmer actually selling the produce in bulk to the middleman at a discount to the price that will be prevailing at the time of sale. The produce will be removed from the market and stocked elsewhere by the middleman so that it can be sold outside the farmers market and after the farmers' time has elapsed. This method has two major advantages to the farmers; one advantage is that it reduces supply in the market which aids in sustaining the price at a higher level than when the market is flooded. This will ultimately result in farmers getting a higher average price at the end of the day.

Another advantage pertains to the herding behaviour that bulk buying induces to other market participants. For a number of vendors demand by middlemen act as a pointer to the quality of produce which might seem highly homogenous to an ordinary and/or inexperienced buyer. Market middlemen operate in the market on a daily basis and are at an information advantage on most activities that occurs in the market, therefore most market participants have accepted them as 'leaders' in the market decision making process. Thus if other participants observe market middlemen buying in bulk, it triggers panic buying so as to counter shortage of supply, deteriorating quality or any other foreseen problem that caused the middlemen to buy in bulk. This has a huge advantage to the farmers in terms of average price obtainable on the day.

3.2.2 Effect of middlemen on pricing

Middlemen buy a significant proportion of farmers' produce on every marketing day. On average for the major markets (Mbare, Lusaka and Chikwana)⁸, middlemen buy approximately 40% of the produce on any given day and the proportion can go up to 70% on extreme days, i.e. days when markets are fast moving on the one hand and when they are slow moving on the other. Therefore middlemen have a significant say on the daily market prices.

Middlemen often trigger a signal on the likely prices that the produce will fetch in the market. If they are suspecting that a certain product is in short supply, they offer farmers deals before the market has opened for prices that might be higher than the previous day's price. Farmers will react to the signal by charging a price that is higher than what the middlemen offered and often keenly await the opportunity to increase prices even higher if demand continues to be high. On the other hand if middlemen are reluctant to enter into deals with the farmers, it is a signal that prices will be falling fast on the day and thus marketers have to be alert for satisfactory deals early on in the day.

Middlemen are also some of the fewer buyers in the markets who have the guts to make a first purchase. Normally farmers can be sure that a certain price can sell if at least one person buys at that price. Although middlemen normally buy at a price that is slightly lower than what the seller is asking, probably because of the bulk buying discount or because of market reciprocity agreements with farmers, they are among the first people to make purchases in the markets which normally influence the price that will obtain on the day. Other market participants also imitate the middlemen in buying creating cascades of buyers on sellers where they make their purchase.

3.2.3 Middlemen as decision leaders in the markets (Testing for herding behaviour)

According to the theory of herding behaviour (Banerjee, 1992; Lux, 1995), others' behaviour usually influences the buying behaviour of an ordinary consumer. An ordinary consumer, who occupies incomplete information, will tend to imitate others in buying. If he saw others rush to purchase something, he will believe that this commodity must be in short supply and be afraid of price skyrocketing. Accordingly, he will join in the line of panic buying, which will lead to real short of supply (Miao *et al.*, 2011).

Having found out in the previous section that market middlemen are the leaders in the market decision making process, we hereafter assume that whenever we observe a crowded seller in the market on most of the occasions that crowding would be initiated by middlemen. The formal examination of this role of middlemen is carried out as follows:

We would identify five buyers on any marketing day and observe them from the time they enter the market to the time they make their first purchase. We would then approach them afterwards and request them to respond to a few questions. The exercise was carried for eleven marketing days and fifty-five buyers were identified and observed, but only thirty-four responded to all our questions. This exercise was only carried out at Mbare and Lusaka markets since at Chikwanha a significant number of sellers were not farmers but middlemen

⁸ More than 70% of the horticultural output produced by small-scale farmers in mashonaland regions (where most of the small-scale horticultural production is done) is sold in these three markets.

who would have purchased their produce from the former markets. We summarised the results as follows, observational results are given in tables followed by the most common responses obtained on the subsequent interviews under each table.

Table 1: Time taken before a purchase is made

Time taken before a purchase is made (minutes)	Frequency
0-5	3
5-10	8
10-15	26
15-20	11
20 and above	7
Total	55

More than 47% of our subjects took between ten and fifteen minutes before making the first purchase in the market. In addition, 80% took more than ten minutes to make the first purchase. This shows that decision making in the market is a process that require farmers to satisfy certain procedures before they can make a purchase and most farmers need at least 10 minutes. Furthermore, more than 67% of the subjects took less than 15 minutes to make a purchase. Thus the decision making process is relatively fast.

When asked why they take time before they make purchases, seventeen farmers responded that it is important to observe the market first to see how fast prices are falling although you don't have to delay too much otherwise (makoronyera) the middlemen will buy all the good produce. In this case the middlemen exert pressure on other buyers to make quick purchases which acts as a benefit for farmers to sell faster and at higher prices.

Table 2: Number of people buying or contemplating to buy where a purchase is made

Number of people buying or contemplating to buy where a purchase is made	Frequency
0-5	7
5-10	18
10-15	22
15-20	8
20 and above	0
Total	55

In all the markets that we visited, rarely would you find more than 20 people around an individual seller at a time. However, the general observation was that buyers preferred purchasing from crowded sellers. 87% of our subjects purchased from sellers with more than five buyers around them at a time.

When asked why they mainly buy where there are crowded buyers, some common responses include: 1. Nineteen buyers claimed that they know which produce is competitive on their markets and which is what they buy, coincidentally the same produce is also competitive elsewhere so the other buyers will also demand the same produce resulting in crowding on the same suppliers. 2. Twelve buyers argued that you will not go wrong if you follow the majority, especially (makoronyera) the market middlemen they normally make good purchases which you will not regret at the markets.

Table 3: Number of people buying or contemplating to buy where enquiries are made

Number of people buying or contemplating to buy where enquiries are made (average)	Frequency
0-5	24
5-10	19
10-15	8
15-20	4
20 and above	0
Total	55

Interestingly, we noted that most buyers made enquiries from less crowded sellers as opposed to where they actually make their purchases. 44% made enquiries at sellers with less than five buyers around them at the time. 78% made enquiries where there are less than ten buyers around the seller. This shows us that before making a decision to purchase most buyers have the opportunity to use their own individual information to make a decision. However, they normally disregard their individual information to follow the masses.

When asked why they don't usually buy where there are few or no other buyers, twenty-one responded that it is because their produce will not be good enough or overpriced. Nine more responded that some sellers are cursed (vane mhepo).

Table 4: Number of enquiries made before making a purchase

Number of enquiries made before making a purchase	Frequency
0-5	33
5-10	21
10-15	1
15-20	0
20 and above	0
Total	55

Majority buyers made between two and seven enquiries before making a purchase, this could probably be the reason they take time to make a purchase. However, it is interesting to note that on days when markets are moving, buyers make fewer or no enquiries before they purchase. Eleven buyers made zero or one enquiries before purchasing.

When asked why they visit a number of sellers before they make purchase, 23 farmers responded that it is important to know the average prices in the market otherwise you may be duped since there are many crooks in the market.

We were fortunate enough to observe seven ladies more than six weeks after they were first observed and five of them did not show any significant difference in buying behaviour from the first time they were observed. Two of the ladies were quicker in making a decision to buy but they would still visit crowded sellers to make a purchase. Therefore there is heavy evidence of herding behaviour in the markets and given that market middlemen are the ones who initiate this herding behaviour, their influence in the market decision making process is enormous and largely beneficial to farmers.

However it is important to note that use of formal methods to test for herding behaviour in markets such as the Cross-Sectional Absolute Deviation method by Chang, *et al* (2000) or the mutual-mimetic contagion method by Lux (2006) is necessary.

4.0 SUMMARY AND CONCLUSIONS

Results of our study reveal that market middlemen are not as bad as people think, in actual fact they are an important element of the day to day operations of the market. They create benefits that are multifaceted on the entire economy. Firstly, they promote efficiency in the markets through arbitrage activities. They also play a significant part in creating an efficient pricing system in the market through signalling critical information to other market participants. They also act to reduce losses by farmers through brokering mutually beneficial deals with them. However, there are other elements of those middlemen that are unruly and always threaten and steal from farmers. However, we do not consider those as 'legitimate' market middlemen since it is an age-old fact that where there is money crooks are always found.

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