

Operator Characterization and Acquisition of Sold Items for Tshakhuma and Khumbe Markets of Limpopo Province, South Africa

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Abstract

The purpose of the study was to characterize operators of the Tshakhuma and Khumbe markets and to investigate the items sold and sources from which they were acquired. Some 91 operators were interviewed, 67 from Tshakhuma and 24 from Khumbe Market. Majority (91.2%) of operators was female and 77% of them were 21 to 60 years old. Some 22% of the operators had no schooling, 25.3% had primary, 44% had secondary and 8.8% had tertiary education. Operator incomes were low as evident from budget spending on basic necessities only. Half (49.5%) of operators were married, 31.9% were single, 3.3% were divorced while 15.4% were widowed. Agricultural produce constituted the main items sold in the markets, and those were mostly fruits, vegetables and field crops. Fruits were acquired from commercial farmers while vegetables and field crops were from own households and local smallholder farmers.

Key Words: Market, operator, smallholder farmer, Tshakhuma, Khumbe

1. Introduction

Though agriculture has been identified as one of the three pillars of economic development in Limpopo Province, small-scale emerging farmers have great challenges in participating in product markets (Nesamvuni *et al.*, 2003). These farmers have limited technical expertise and only a partial understanding of market requirements. This situation was exacerbated by the fact that the small-scale farmers did not benefit from the agricultural policies of the past regime. As a result, the small-scale farmers in South Africa still have to manage basic farming issues while their large scale commercial counterparts focus on issues of improving competitiveness (Makhura and Mokoena, 2003). Increased contribution of the small-scale farmers to items sold in agricultural markets is an indication of improvement in their farming production. The relative contributions of small-scale and large commercial farmers on items sold in agricultural markets is therefore of interest. The purpose of the study was to characterize operators of the Tshakhuma and Khumbe markets and to investigate the items sold in the two markets and sources from which they were acquired, i.e. whether they were bought from small-scale emerging or large-scale commercial farmers.

2. Research Methodology

2.1. Description of Study Area

The study was conducted in the Limpopo Province of South Africa and was focused on the Vhembe District Municipality of the province. The specific target of the study was the Tshikhuma Market in Makhado and the Khumbe Market in Thulamela Local Municipality (Figure 1). The Tshikhuma Market is located closer to the commercial Levubu farms and would be expected to acquire more selling items from the commercial farms. The Khumbe Market on the other hand is located deep in a rural settlement and would likely acquire selling items from surrounding households and small-scale emerging farmers.

2.2. Sampling Frame and Sampling Procedure

The importance of a sampling frame in scientific research was shown by Welman *et al.* (2005) who revealed that it is impossible to properly judge the representativeness of the obtained sample unless a sampling frame is borne in mind. A representative sample is a requirement for subsequent research results to be credible and trustworthy (Leedy and Ormrod, 2010). Multistage sampling was conducted as described by Leedy and Ormrod (2010) and involved (1) primary area selection of municipalities (both district and local municipalities), (2) location selection of agricultural markets and (3) respondent selection of stakeholders sampled for interviews.

For primary area selection of municipalities, the sampling frame was composed of the five district municipalities of the Limpopo Province, namely: Vhembe, Capricorn, Mopani, Sekhukhune and Waterberg District Municipality and the Vhembe District was purposively sampled for its accessibility to the researcher. At a local municipality level, four municipalities of the selected Vhembe District comprised the sampling frame, namely: Thulamela, Makhado, Musina and Mutale Local Municipality. The Thulamela Municipality was also purposively sampled for its accessibility to the researcher as he resided in this municipality while the Makhado Municipality was purposively included for being a large producer of sub-tropical fruits and most vegetables. As for location selection, the sampling frame was comprised of numerous agricultural markets of various sizes (with or without accommodation infrastructure). The Tshikhuma Market was purposively sampled for its location near a major commercial farming area (Levubu farms) while the Khumbe Market was selected for its location in the midst of small-scale emerging farmers. The sampling frame for market operators comprised of 600 members for Tshikhuma and 200 for Khumbe Market. Some 67 market operators were randomly sampled for Tshikhuma while 24 were randomly selected for the Khumbe Market.

2.3. Data Collection and Analysis

Primary data was collected from the sampled respondents through interviews which were conducted by trained enumerators using a structured questionnaire. The questionnaire contained both open- and closed-ended questions which included socio-economic variables such as gender, age, education, marital status and household sizes of respondents. The closed-ended questions collected quantitative data while the open-ended questions recorded qualitative data (Leedy and Ormrod, 2010). Qualitative techniques were directed towards improved understanding of the market operators as influenced by their socio-cultural environment (FAO, 2001). This research method that combines the collection and analysis of quantitative data with that of qualitative data is referred to as a mixed study (Hurmerinta-Peltomaki and Nummela, 2006). The questionnaire was complemented by an interview guide for a focus group and interview schedules for several key informants, and these collected qualitative data. Secondary data was collected by studying relevant documents, reports and other literature. The data collected were analysed using a Statistical Package for Social Sciences (SPSS). Basic Statistics were computed to determine frequencies of each variable.

3. Results

3.1. Characterization of Market Operators

The characterization of role players in any development process is key for success of the development initiatives. Resources such as land, capital and technology are important but not sufficient for development to be realized as they should be organized and operated, and these require the human element (Steyn, 1988). Analysis of the characteristics of human beings as participants in a development process is therefore essential for successful community development (Crouch and Camala, 1981).

For this study, analysis of the characteristics of the market operators was necessary as this influenced performance in their market job, and this was categorized into personal and socio-economic characteristics. The personal characteristics prioritized for the study were gender, age, education, marital status and sizes of household while the socio-economic characteristics were occupational status and household income and expenditure.

3.1.1. Personal Characteristics

(a) Gender

Of the 91 market operators selected for the study (67 from Tshakhuma and 24 from Khumbe Market), about one in ten (8.8%) were male and nine in ten (91.2%) female. All male market operators were found at Khumbe Market, a situation that suggested that some small-scale farmers who were mostly men could have also served as operators. Market operators at the Tshakhuma Market mostly bought produce from large commercial Levubu farmers who are focused in their farming business and could not possibly have served as operators, hence the operators in this market were all female. This suggests that the job of market operation in the study area was largely regarded a responsibility for women.

Heads of household are important decision makers in their families and therefore have a huge influence in community development. Respondents (market operators) were therefore requested to reveal the gender of their heads of household. Half (50.5%) of the respondents stated that their households were headed by men (Table 1) while 49.5% were women headed. Female heads of household were single, divorced, widowed or separated and hence also assumed functions that could be the responsibility of husbands.

As shown in Table 1, a little less than half (47.8%) of the households for Tshakhuma Market operators were male headed compared to three in five (58.3%) households for Khumbe Market operators. Subsequently, a little more than half (52.2%) of the heads of household for Tshakhuma Market operators were reportedly female while two in five (41.7%) heads of household for Khumbe Market operators were said to be female. The higher reported number of male heads of household by Khumbe Market operators could have been influenced by the fact that all male respondents were from this market and those were probably heads of household themselves and this then increased the number of male heads of household. The higher number of reported female heads of household by Tshakhuma Market operators could have resulted from the fact that all respondents from this market were female.

(b) Age

According to Smith and Zopf, (1970) as cited by Bembridge *et al.* (1982), the age of an individual is one of the most important factors which determine the way he or she thinks and behaves. The types of decisions made by elderly people and their ways of behaving tend to be different from those of their younger counterparts. Some 1.1% of the respondents were at most 18 years old (Table 2) and this would at best be completing their secondary education. The young people in this category were only recorded for the Tshakhuma Market, and this could be because a larger number of respondents were sampled at this market (Table 2). Considering the fact that the respondents were market operators, the results suggest that this category of the respondents would not be attending school or could be attending and performing market operation responsibilities in the afternoon when they return from school. For the young people to be abandoning secondary education to be working at the markets would be bad for the community in the area under study as they would be missing out on acquiring the education which they will require for their future. For those who could be attending school, the market job after school would be consuming the time for studying and would result in poor school achievement.

Some 2.2% of the respondents were in the age group of 19 to 20 years old, and this comprised of 1.5% for Tshakhuma and 4.2% for Khumbe Market. This category of respondents would at best be doing tertiary education and the fact that they were market operators in the study area suggests that they may not be at educational institutions any more, or if they are, they would likely not perform well as the precious study time is lost to market activities. The fact that 17.6% of the respondents (16.4% for Tshakhuma and 20.8% for Khumbe Market) were in the age group of 21-30 reveals that youth in the study area do participate in agriculture at the marketing level of the value chain. Also, one in five (22.0%) of the respondents were aged 31-40 years old, and this confirmed participation of youthful members of the study community in the marketing of agricultural produce. The respondents in this age category comprised one in four (25.4%) for the Tshakhuma and one in eight (12.5%) for the Khumbe Market.

The same number (22.0%) of respondents was in the middle ages of 41-50 years old with more (28.4%) for Tshakhuma and few (4.2%) for Khumbe Market. Relatively fewer (15.4%) respondents were in their elderly ages of 51-60 years old comprised of 17.9% for Tshakhuma and 8.3% for Khumbe Market. One in five (19.8%) of the respondents were over 60 years (9.0% for Tshakhuma and 50.0% for Khumbe Market) and this would include those in pension. Bembridge (1982) argue that, although increasing age may have an impairing effect on the physical ability of participants, several research studies in recent years have indicated little or no mental deterioration at least up to sixty years of age. Since marketing and its management is considered primarily to be a mental process, it is assumed that at least up to the age of sixty, managerial ability will not be seriously impaired. Health issue aside, it can be concluded that approximately 70% of the respondents in the two markets is having the necessary physical capacity to carry out their operation effectively.

As revealed in Table 2, the respondents were distributed in a wide range of age groups from children of school going age through youth, the middle aged and the elderly, including those that could be pensioners. This result suggests that agriculture is an important economic activity in the study area, and this supports the identification of the sector as a major pillar of the economy of Limpopo Province (OTP, 2009).

(c) Education

The degree of human development is highly influenced by their level of education. While it may not be the only element determining the extent of human development, education is recognized as having a critical role to play since it is a key that unlocks human potential which is necessary for development. According to Lundahl (1979) as cited by Steyn (1988), education is one of the important agencies of acculturation and renewal for the members of the society as a whole. It is generally accepted that education is the cornerstone of the comprehensive human resources approach to development.

Human behaviour sometimes needs to be altered and education plays a vital role for such change to be successful. Ndegwe *et al.*, (1985) expressed the fundamental significance of education development as a basic need in its own right, a way of meeting other basic needs, and an activity that sustains and accelerates overall development. According to Olaiton (1984) and Tompson (1981) more years of schooling are associated with higher adoption rates than are fewer years of schooling. It was therefore necessary for this study to investigate the educational status of the respondents from the two markets (Table 3) as this would influence their performance in the agricultural trade sector and subsequently their level of development.

About one in five (22.0%) of the market operators had no schooling, and this comprised of 22.4% for Tshakhuma and 20.8% for Khumbe Market. This category of market operators would have very little if any literacy at all. As a result of being generally illiterate, these market operators would not easily be reached by development and other information sent through the print media. The lack of access to print media information could create a dearth of development and other important information for this category of market operators and this would indeed influence their level of development. In addition to influence on literacy status, the lack of schooling for 22.0% of the market operators would also negatively affect their level of numeracy. The low level of numeracy for the market operators would have serious negative effects in their business as they need to know the prices of different packs of the agricultural produce they sell, receive money from buyers and often give back some change. These tasks require not only literacy skills (for reading out prices where written and the money) but also basic numeracy skills for calculating the money for buying the produce from farmers, amount of change to be given back to buyers and the total income and profit made. The market operators who reported to have had no schooling must have gained the basic numeracy skills through some other means, else they could be having other people to assist them.

Some 2.2% of the market operators (3.0% for Tshakhuma and none for Khumbe Market) reportedly passed grades 1-3, some 12.1% (11.9% for Tshakhuma and 12.5% for Khumbe Market) passed grades 4-5 while 11.0% (10.4% for Tshakhuma and 12.5% for Khumbe Market) passed grades 6-7 (Table 3). These categories of market operators comprised primary school education and the operators probably had none to low literacy and numeracy skills with those who attained higher grades (grades 4-5 and 6-7) possibly having achieved basic levels of these skills. The market operators with none to low levels of literacy and numeracy skills would probably struggle to access written information and to perform correct counting and calculations of money while those with the basic skills would be relatively better.

One in ten (9.9%) of the market operators (7.5% for Tshakhuma and 16.7% for Khumbe Market) revealed that they had passed grades 8-9 which are the entry grades to secondary school education. Two in ten (19.8%) of the operators (20.9% for Tshakhuma and 16.7% for Khumbe) reported having passed grades 10-11, the middle grades of secondary school education. These market operators would be expected to have acquired sufficient levels of competence in literacy and numeracy to correctly perform their job, more so for the operators who passed the middle grades of secondary education. Some 14.3% of the market operators (13.4% for Tshakhuma and 16.7% for Khumbe Market) indicated that they had passed Grade 12. The operators who passed Grade 12 would have acquired sufficient education to proceed to college or university for higher education. The involvement of these people in the operation of the markets in the study area suggests that the markets used high levels of literacy and numeracy skills, in addition to other competences the operators might have acquired as part of their education. The market operators with Grade 12 could therefore be expected to be performing well in their market responsibilities.

As shown in Table 3, some 8.8% of the market operators (10.4% for Tshakhuma and 4.2% for Khumbe Market) had completed diplomas. These market operators acquired high levels of competencies in their fields of study and could be under-utilized by working as market operators. The market job for this category of operators could have been taken as interim responsibilities while they search for preferred jobs aligned to their diploma qualifications. Some of these market operators might even be performing the market job as complementary while also involved in some other jobs where their competencies are fully utilized.

It is interesting to note that the Tshakhuma Market had more diploma holders (10.4%) as market operators than the Khumbe Market (4.2%). Tshakhuma Area used to host two Colleges of Education, the Tshisimani and the Ramaano Mmbulaheni College of Education. The two colleges were closed down as part of the restructuring of the education system in the country which resulted in merging of some institutions. The majority of the diploma holders who are operators at the Tshakhuma Market could be qualified teachers trained in these institutions. Some of the operators could be employed teachers doing the market job part-time while some could still be looking for employment.

(d) Marital Status

Marital status plays a major role in agriculture, especially in rural areas where certain duties are assigned only to men while others are assigned to women (Tshenkeng, 1985). As stated by Tshenkeng (1985), duties assigned to men include major cultivation practices while women are reportedly assigned duties such as cooking, fetching water, collecting firewood, crop weeding and marketing of farm produce. The marital status of a person is therefore important as it reveals whether he/she has a spouse to help perform the tasks normally assigned to the opposite gender. It was a result of this importance of marital status that this study included it in the investigation (Figure 2). About three in ten (31.9%) of the market operators in the study area were single with almost the same number of operators for the Tshakhuma (31.3%) and Khumbe (33.3%) markets (Figure 2). Considering Tshenkeng (1985) assertion that certain duties are assigned only to men in rural areas while others are assigned to women, single market operators probably had to perform both duties to survive or they might have to hire other people to perform the duties they could not perform.

Half (49.5%) of the market operators were married, suggesting that as couples they could perform all the tasks and would not have to hire other people to have both male and female assigned tasks performed. Some 50.7% of the married market operators were based at the Tshakhuma Market while 45.8% were at the Khumbe Market. The number of market operators that were reportedly married constituted the majority of the respondents in each of the two study markets, and this was a good result as the married market operators would be more likely to be successful as they would have their spouses to complement them. Some 3.3% of the market operators (3% for Tshakhuma and 4.2% for Khumbe Market) were reportedly divorced while 15.4% (14.9% for Tshakhuma and 16.7% for Khumbe Market) were widowed. The divorce rate was probably low at 3% and this suggested relatively stable communities. The number of widowed respondents was rather high at 15.4%, and this could be assumed to reveal a rather high death rate in the study area. The high death rate could be a result of high incidence of disease infections with HIV / AIDS related diseases probably playing a major role. Both the divorced and widowed market operators would have to perform both men and women assigned tasks in order to survive or they would have to hire other people to perform the duties that used to be assigned to their spouses.

The overall results revealed that half (49.5%) of the market operators in the study area were married, suggesting they had spouses to perform complementary tasks to succeed in their business. Typical of a rural set up, some of the spouses of married market operators might be employed away from the study area and could therefore be staying away and probably commuting on a weekly, monthly or even quarterly (once in three month) basis. The number of couples staying together and complementing each other regularly could therefore actually be less than the 49.5%. The number of market operators who were not married comprised the other half (50.5%) comprised of those who were single (31.9%), divorced (3.3%) and widowed (15.4%). These would probably hire other people to perform tasks that could otherwise be fulfilled by their spouses.

(e) Household Size

Many factors act together to determine the size of a household, and those include access to information on family planning services, family income, maternal and child health care, women's status in society, level of education, religious and cultural factors. In rural subsistence economy, household size is important as it may strongly influence the productivity of the family and hence its income level. Although larger households would have advantage of providing more labour, they also cause great financial burdens which affect the family's ability to finance development initiatives (Williams, 1986). Rural areas are characterized by occurrence of extended families that tend to make the households rather larger. The extended family, according to Goodman and Marx (1978), consists of several nuclear families united by parent-child relationships and living together either in the same house or in a compound. The market operators in the area under study reported large families of an average of 6 members for Tshakhuma and 7 members for Khumbe Market. These families are characterized by more dependence as expected and were therefore a constraint to development.

3.1.2. Socio-Economic Characteristics

(a) Occupational Status

The occupational status of rural people plays an important role in development, be it in agricultural or non-agricultural sectors. It is because of lack of employment in rural areas that people, particularly heads of household migrate to urban areas. This exodus of people from rural to urban areas as stated by Tshankeng (1985) cannot be regarded a solution to the problem of rural unemployment. The findings in this study revealed all market operators in the two markets to be self-employed as they were full-time working at the markets. At Khumbe Market some male operators were full-time working on their farms while their household members sell the produce at the market. Female operators at Khumbe market also shared a considerable amount of time in peak season on the farms. The discussions held with committee members and other members at the markets revealed that the level of unemployment in the study areas was high and this necessitated increased promotion of agricultural production in the study area.

(b) Household Income and Expenditure

According to Burger (1983) as cited by Steyn (1988), it is always difficult to judge how accurate respondents are in answering questions probing their household budgets. The same problem was experienced by the current study when probing respondents on the amount of income they received. Instead of asking the market operators to reveal their household incomes, it was rather easier to ask about the items they spent their money on and the amount they spent. The household expenditure provided some idea on the household incomes. The market operators did not keep records of their expenditure and therefore it was not possible to have very good estimates of household incomes. Lack of knowledge on budgeting was the main reason behind the inability to give reliable information on expenditure. Focused group discussion revealed that households spent a high percentage of their incomes on basic necessities and low on luxury needs such as self-development. It was evident that the majority of households were in the subsistence standard of living.

3.2. Types and Acquisition of Produce Sold in the Study Markets

Apart from their personal and socio-economic characteristics, the performance of market operators is also influenced by the types of produce they sell and the sources from which they obtain these produce. Resultantly, the study provided for a focused investigation of the produce sold at the Tshakhuma and Khumbe markets and the sources from which the market operators obtained the produce.

3.2.1. Niche Produce

The niche produce sold in the two markets under study included fruits such as mangoes, bananas, avocados, oranges, pawpaws, tangerines, pineapples and litchis, vegetables such as tomatoes, cabbage and onions, and field crops such as maize and groundnuts. These were also the niche produce of households and small holder farmers in the study area. There was a potential to encourage smallholder farmers to produce high value crops such as herbs and spices in the irrigation schemes.

3.2.2. Acquisition of Produce Sold in the Markets

The cost of acquisition of the produce has an influence on the market price of the produce and therefore on the extent to which the produce is bought from the market operators. The cost of acquisition is influenced by such factors as the source from which the produce is acquired and the distance of such source from the markets under study. The study revealed that different sources were used to acquire various types of produce such as fruits, vegetables and field crops.

Fruits sold in the markets under study were predominantly sourced from commercial farmers. The commercially produced fruits were mainly purchased at the Levubu farms and Barota government estate. These were mainly improved varieties of the bananas (20%), oranges (15%), and tangerine (17%) and to limited extent litchis (10%). Some of the fruits were indigenous varieties produced under low input conditions at the households and on small farms of the market operators, and those included papaws, mangoes and avocados. As opposed to fruit, more vegetables were sourced from local households and smallholder farmers. There seemed to be less competition between local small holder and commercial farmers as far as vegetable sales to market operators was concerned, perhaps with the exception of onions and tomatoes where there was some competition. Tomatoes were predominantly commercially produced (80% of the produce) and were transported by hawkers to the markets such as those under study.

As far as field crops were concerned, the study showed sugarcane, maize and groundnuts to be predominantly produced by households in the study area and sold in the two markets under investigation. Less quantity of these field crops were sourced from the commercial farmers.

4. Conclusion

The market operators were mostly (91.2%) female and four in five (77%) of them were within an economically active age range of 21 to 60 years. Some 22% of the operators had no schooling, 25.3% had primary while 44% had secondary education. Only 8.8% of the operators had tertiary education. Unemployment was reportedly high in the study area and operators were mostly full time in the market job. Household incomes were low as evident from budget spending on basic necessities only. Half (49.5%) of the operators were married, 31.9% were single, 3.3% were divorced while 15.4% were widowed. Agricultural produce constituted the main items sold in the markets, and those were mostly fruits, vegetables and field crops. The fruits were mostly acquired from commercial farmers while vegetables and field crops were from own households and local small holder farmers.

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6. Figures and Tables

6.1. Figures

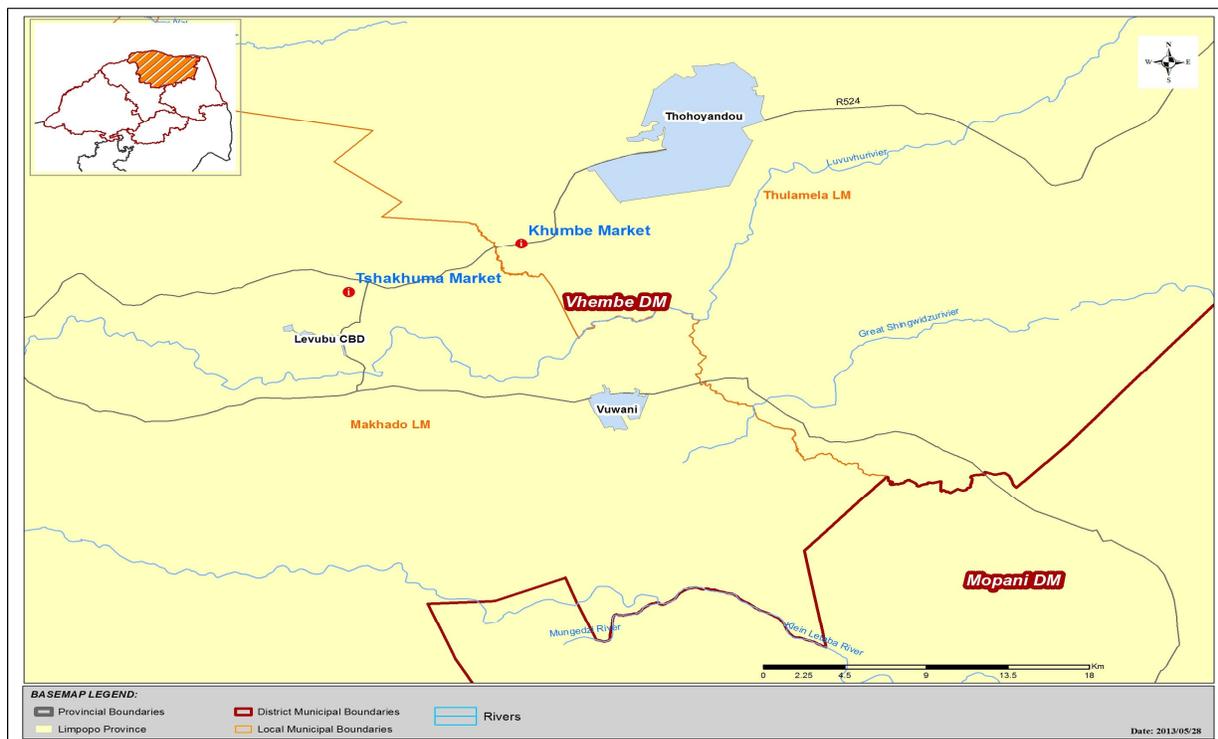


Figure 1. Map of the study area showing the location of the Tshakhuma Market in the Makhado Municipality and the Khumbe Market in the Thulamela Municipality in Vhembe District

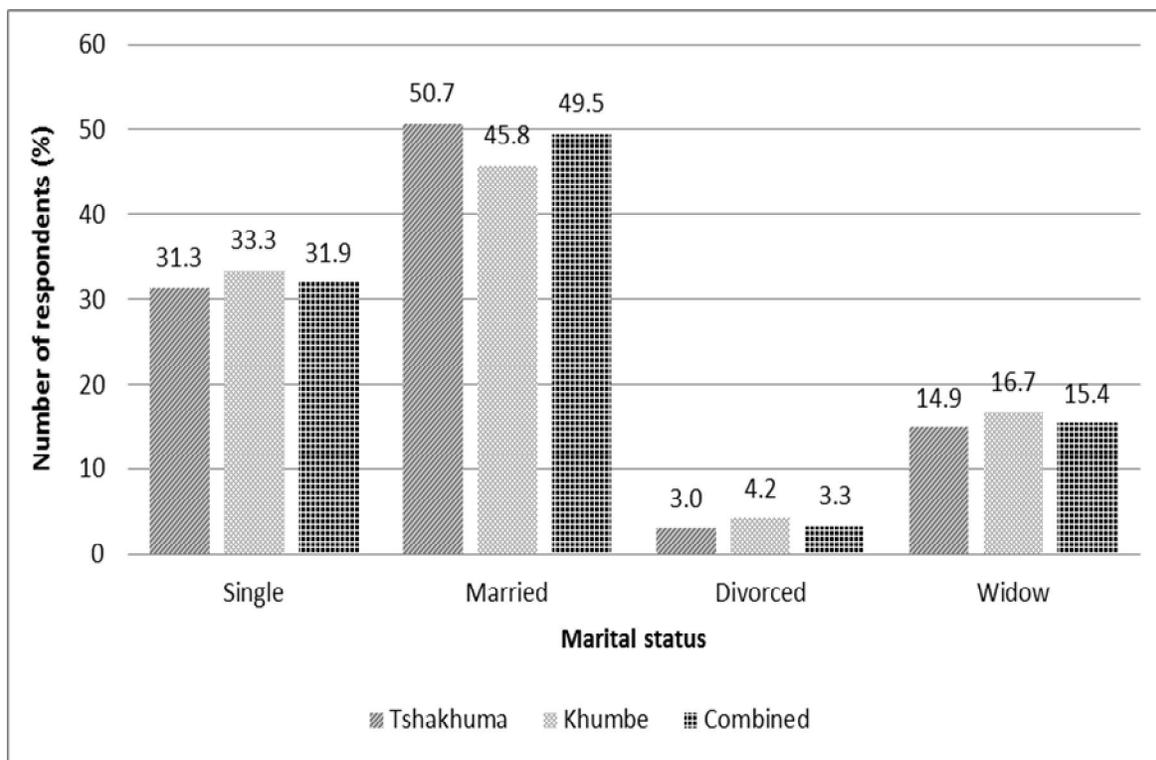


Figure 2 .Frequency distribution of market operators at Tshakhuma and Khumbe markets according to their marital status, 2003 (N=91)

6.2. Tables

Table 1 Distribution of respondents in the Khumbe and Tshakhuma markets according to sex of heads of household, 2003 (N=91).

| Name of the market | Sex of head of household | | | | Total no of Households | |
|--------------------|--------------------------|-------------|-----------|-------------|------------------------|------------|
| | Male | | Female | | N | % |
| | N | % | N | % | | |
| Tshakhuma | 32 | 47.8 | 35 | 52.2 | 67 | 100 |
| Khumbe | 14 | 58.3 | 10 | 41.7 | 24 | 100 |
| Total | 46 | 50.5 | 45 | 49.5 | 91 | 100 |

Table 2 .Distribution of respondents in the Khumbe and Tshakhuma markets according to age, 2003 (N=91).

| Age category (years) | Tshakhuma Market | | Khumbe Market | | Combined | |
|----------------------|------------------|--------------|---------------|--------------|-----------|--------------|
| | N | % | N | % | N | % |
| 0-18 | 1 | 1.5 | 0 | 0.0 | 1 | 1.1 |
| 19-20 | 1 | 1.5 | 1 | 4.2 | 2 | 2.2 |
| 21-30 | 11 | 16.4 | 5 | 20.8 | 16 | 17.6 |
| 31-40 | 17 | 25.4 | 3 | 12.5 | 20 | 22.0 |
| 41-50 | 19 | 28.4 | 1 | 4.2 | 20 | 22.0 |
| 51-60 | 12 | 17.9 | 2 | 8.3 | 14 | 15.4 |
| 61+ | 6 | 9.0 | 12 | 50.0 | 18 | 19.8 |
| Total | 67 | 100.0 | 24 | 100.0 | 91 | 100.0 |

Table 3. Distribution of market operators in the Khumbe and Tshakhuma markets according to level of education, 2003 (N=91).

| Level of education | Tshakhuma Market | | Khumbe Market | | Combined | |
|---------------------|------------------|--------------|---------------|--------------|-----------|--------------|
| | N | % | N | % | N | % |
| No schooling | 15 | 22.4 | 5 | 20.8 | 20 | 22.0 |
| Grade 1-3 | 2 | 3.0 | 0 | 0.0 | 2 | 2.2 |
| Grade 4-5 | 8 | 11.9 | 3 | 12.5 | 11 | 12.1 |
| Grade 6-7 | 7 | 10.4 | 3 | 12.5 | 10 | 11.0 |
| Grade 8-9 | 5 | 7.5 | 4 | 16.7 | 9 | 9.9 |
| Grade 10-11 | 14 | 20.9 | 4 | 16.7 | 18 | 19.8 |
| Grade 12 | 9 | 13.4 | 4 | 16.7 | 13 | 14.3 |
| Diploma | 7 | 10.4 | 1 | 4.2 | 8 | 8.8 |
| Total | 67 | 100.0 | 24 | 100.0 | 91 | 100.0 |