

Analysis of constraints faced by small scale broiler farmers in Capricorn district in Limpopo province

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Abstract: This paper examines constraints facing small scale broiler farmers face. in Capricorn district in Limpopo Province. Simple random sampling method was used by drawing from the hat to select farmers from the population based on the list of farmers in Capricorn District. From 10 selected villages in the district, 6 farmers were selected in each village to give a total sample size of 60. Data were collected through structured questionnaire on personal characteristics, production, marketing and financial constraints faced by small scale broiler farmers and .. analysed with SPSS (version 20), using frequency counts, percentages, and multiple regression. The study revealed that majority of the respondents are women, between 41 and 60 years, married, with secondary school level education having contact with extension agents, and have income of less than R50,000 annually. Prominent constraints identified as affecting small scale broiler farmers include lack of access to credit, high interests rates, short repayment period, small stock size, , inadequate infrastructure and high feed costs, difficulty to access veterinary service, lack of biosecurity knowledge, long distance to the market, lack of storage facilities limited markets, unorganized market outlets and inability to participate in the high value markets. Significant determinants of marketing constraints were age ($t = 2.243$), religion ($t = -2.381$), frequency of extension contact ($t = 2.154$), type of extension agent ($t = -1.699$) broilers housing types ($t = 2.273$). Significant determinants of financial constraints were marital status ($t = 1.937$), Religion ($t = -1.773$), Type of extension agent ($t = -1.86$) and the number of years in broiler farming ($t = -2.534$) while Significant determinants of production constraints were labour sources ($t = -2.084$) and number of years in broiler farming ($t = -2.286$). These results imply that as labour sources increases production constraints decreases. However as the number of years in broiler farming increase the production constraints decreases.

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Introduction

Agriculture plays a major role in South Africa. According to DAFF (2011) primary agriculture contributed about 3% to South Africa's gross domestic product (GDP) and about 7% to formal employment. South Africa is divided into a number of farming regions according to climate, natural vegetation, soil type and farming practices. Agricultural activities include intensive crop production and mixed farming in winter rainfall and high summer rainfall areas to cattle ranches in the bushveld and sheep farming in more arid regions. South Africa's agricultural economy is dualistic; the highly capitalized commercial sector co-exists with a traditional which is characterized by low-technology small scale sector. Agriculture in South Africa is also characterized by unequal distribution of land, economic assets, support services, market access, infrastructure and income among the commercial and small scale farmers (DAFF 2011). Although South Africa is a country which is food secured when it comes to all major agricultural products; exports growth rate has been slower than that of imports. Major agricultural import products include wheat, rice, vegetable oils and poultry meat. The type of poultry (broiler) commonly reared in

South Africa include chickens, guinea fowls, turkeys, pigeons and ostriches.

Broiler chicken production is an important source of income and employment. Meat from broiler chickens has become an important dietary component of most people in South Africa. Chicken meat is an important source of high quality protein, is easily digested and contains all essential amino acids. It is also an excellent source of vitamin A, thiamin, riboflavin and niacin; it is also a very important as a ruminant feed and manure used in crop production (Robert, 1992). According to STAT SA (2009) North West Province was the leading poultry producer as it produced 25% of the entire broiler meat in South Africa followed by Western Cape by 21%, Mpumalanga 18% and KwaZulu-Natal 15%. Limpopo and Northern Cape were the least producers, producing 1% each of South African broiler meat. According to Pedersen (1998) Broiler production seems to be a much-preferred alternative of development in community based projects and emerging or small scale farmers have shown keen interest. This is because broiler production requires less space than ruminants and is ready for human consumption within a very short period of time.

Poultry production provides a constant source of income and with huge customer demand. Poultry production can play an important role in poverty alleviation and in the supply of quality protein to rural people.

Many countries have initiated programs aimed at improving small-scale poultry as a means of helping to bring socio-economic benefits to rural communities (Tyson 1995). Not much research or if any has been conducted regarding the constraints facing small scale broiler farmers in Capricorn district. Broiler production seems to be a much-preferred alternative of development in community based projects and emerging or small scale farmers have shown keen interest (Pedersen 1998). It is vital to analyze the constraints small scale broiler farmers face so that there could be some solutions to the problems they face and that they could develop to be commercial farmers. South Africa as a country is unable to supply enough poultry meat to satisfy the domestic market, due to that reason South Africa end up becoming a net importer of broiler meat from countries such as Argentina, Brazil, Canada and United States. There were concerns of dumping (poultry produced at a very low cost than it is produced locally) from countries such as Brazil in which South Africa is importing poultry from, which posed a serious threat to local producers especially small scale farmers. The objective of the paper was to identify and analyze the constraints faced by small scale broiler farmers in Capricorn district. Specific objectives include identification of the demographic characteristics and analysis of the financial, marketing and production constraints facing small scale broiler farmers

Methodology

The study was carried out in Capricorn District of Limpopo Province. Capricorn district is one of the 6 districts of Limpopo province of South Africa. The district shares borders with four district municipalities namely; Mopani (east), Sekhukhune (south), Vhembe (north) and Waterberg (west). Capricorn District Municipality (CDM) is the economic hub and includes the capital, Polokwane. Nearly 44% of the populations of CDM live in Polokwane, one of the fastest growing municipalities in the country. Daily temperatures vary from mid-20's to mid-30's with an average range of between 17° and 27°C in the summer and 4° to 20°C in the winter. The total area of the Capricorn District Municipality is approximately 21,705 km². with coordinates of 23.8833° S, 29.4333° E.

The population of this study was all small scale broiler farmers in Capricorn District of the Limpopo Province. Kirsten and Zyl (1998) defined small scale farmers as farmers whose scale is too small to attract the provision of services they need to significantly increase their productivity. Simple random sampling

method was used by drawing from the hat to select farmers from the population based on the list of farmers in Capricorn District. This method of selection will give all small scale broiler farmers an equal opportunity of being selected. From 10 selected villages in the district, 6 farmers were selected in each village to give a total sample size of 60 small scale farmers that were be used for this study. Data for the study was collected from primary sources. The questionnaire had two sections, the first section had questions on personal characteristics of farmers (age, sex, educational level, income range, number of dependents and numbers of years in farming) and the second section had questions on constraints faced by small scale broiler farmers. Questionnaires were administered personally by the researcher. Data was sorted, coded and analysed with SPSS (version 20), using frequency counts, percentages, to describe the data and multiple regression were used to isolate determinants of constraints facing small scale broiler farmers.

Table 1 Personal and farm characteristics of small scale broiler farmers

Variables	Frequencies	Percentages
Sex		
Female	35	58.3
Male	25	41.7
Marital status		
Single	10	16.7
Married	37	61.7
Widowed	10	16.7
Divorced	3	5
Age		
20-30		8
31-40		20.6
41-50		31.7
51-60		31.7
Greater than 60		8
Size of the household		
1-5	23	38.3
6-10	37	61.7
Educational level		
Primary school	11	18.3
Secondary school	22	36.7
High school	12	20
College	9	15
University	6	10
Contact extension agents		
Yes	30	50
No	30	50
Labour Sources		
Self	14	23.3
Family	26	43.3
Hired	20	33.3
Broilers housing system		
Battery cage	2	3.3
Own built structure	58	96.7
Level of income (R)		
Less than 50 000	49	81.7
51 000- 100 000	8	13.3
Above 100 000	3	5
Membership of cooperatives		
Yes		30
No		70

RESULTS

The results in Table 1 presents the personal and farm characteristics of small scale broiler farmers, Table 2 shows financial constraints distribution faced by small scale broiler farmers, Table 3 the marketing constraint distribution faced by small scale broiler

farmers, Table 4, the production constraint distribution of the small scale broiler farmers and Table 5 the multiple regression analysis of socio-economic characteristics and marketing, financial and production constraints facing small scale broiler farmers.

Table 2: Financial constraints distribution faced by small scale broiler farmers

Constraints	The constraints faced by the farmers		Severity		
	Yes	No	Severe	Moderate	Low
Low level of income	47(78.3)*	13(21.7)	9(15)	36(60)	2(3.3)
Failure to provide collateral(s)	48(80)	12(20)	28(46.7)	20(33.3)	-
Waiting a long period before getting financial assistance or for the loan to be approved.	47(78.3)	13(21.7)	19(31.7)	27(45)	2(3.3)
A lot of forms to fill in	41(68.3)	19(31.7)	15(25)	10(16.7)	14(23.3)
Travelling cost to get to the financial institutions	53(88.3)	7(11.7)	28(46.7)	23(38.3)	2(3.3)
Ambiguous terms and conditions	31(51.7)	29(48.3)	11(18.3)	15(25)	6(10)
Lack of awareness about government sources of financial help	27(45)	33(55)	13(21.7)	10(16.7)	4(6.7)
Lack of access to credit or loan	49(81.7)	11(18.3)	15(25)	31(51.7)	3(5)
High interest on repayment	53(88.3)	7(11.7)	21(35)	32(53.5)	-
Lack of information about sources of finance.	39(65)	21(35)	6(10)	31(51.7)	3(5)
High transaction costs (withdrawal)	50(83.3)	10(16.7)	18(30)	31(51.7)	1(1.7)
Poor liquidity or inability to meet short term financial obligations	13(21.7)	47(78.3)	1(1.7)	8(13.3)	3(5)
Amount loaned out does not make provision for consumption	25(41.7)	35(58.3)	17(28.3)	8(13.3)	-
Inability to repay the loan	3(5)	57(95)	1(1.7)	3(5)	-
Inability to continue saving	9(15)	51(85)	4(6.7)	2(3.3)	1(1.7)
Not getting assistance in the language you fully understand	33(55)	27(45)	7(11.7)	17(28.3)	10(16.7)
Inability to manage funds	7(11.7)	53(88.3)	5(8.3)	-	1(1.7)
Customers buying chickens on credit and not paying as they promised.	59(98.3)	1(1.7)	15(25)	36(60)	8(13.3)
Small loan amount	52(86.7)	8(13.3)	40(66.7)	11(18.3)	1(1.7)
Short repayment period	55(91.7)	5(8.3)	9(15)	44(73.3)	1(1.7)
Small stock size	57(95)	3(5)	46(76.7)	7(11.7)	4(6.7)
Lack of record keeping skills	45(75)	15(25)	30(50)	17(28.3)	-
Lack of financial management skills	23(38.3)	37(61.7)	4(6.7)	12(20)	10(16.7)

*Figures in parentheses are percentages

Table 3: Marketing constraint distribution faced by small scale broiler farmers

Constraints	Constraints faced by farmers		Severity		
	Yes	No	Severe	Moderate	Low
No direct linkages with the consumers	3(5)*	57(95)	3(5)	-	-
Not getting expected prices in the market	59(98.3)	1(1.7)	30(50)	29(48.3)	-
Not getting the chance to understand consumer's behaviour	33(55)	27(45)	20(33.3)	12(20)	-
Not having enough storage facilities for your broilers	56(93.3)	4(6.7)	52(86.7)	1(1.7)	2(3.3)
Not foreseeing the supply and demand situation in the market	54(90)	6(10)	12(20)	41(68.3)	1(1.7)
Long distance to the market (consumers)	54(90)	6(10)	27(45)	25(41.7)	2(3.3)
Too many competitors	44(73.3)	16(26.7)	6(10)	25(41.7)	14(23.3)
Difficulties in selling products or lack of marketing strategies for your broilers	41(68.3)	19(31.7)	3(5)	35(58.3)	3(5)
Lengthened or long broiler rearing periods	10(16.7)	50(83.3)	4(6.7)	4(6.7)	1(1.7)
Lack of farmer cooperatives to fall under	39(65)	21(35)	32(53)	3(5)	-
Improper pricing of commodities (Broilers) or low selling price	56(93.3)	4(6.7)	6(10)	48(80)	1(1.7)
Inability to participate in the high value and reliable market	55(91.7)	5(8.3)	50(83.3)	2(3.3)	1(1.7)
Selling poor quality broilers	7(11.7)	53(88.3)	1(1.7)	-	3(5)
Lack of knowledge of quality parameters and standards.	13(21.7)	47(78.3)	11(18.3)	1(1.7)	1(1.7)
Limited knowledge and use of market information	51(85)	9(15)	20(33.3)	24(40)	7(11.7)
Limited market outlets	53(88.3)	7(11.7)	47(78.3)	6(10)	-
Limited customers	49(81.7)	11(18.3)	8(13.3)	40(66.7)	1(1.7)
Monopoly by commercial farmers	11(18.3)	49(81.7)	5(8.3)	6(10)	-
Unorganised market	53(88.3)	7(11.7)	48(80)	3(5)	2(3.3)
Products(broilers) perceived low standard or poor quality products	52(86.7)	8(13.3)	4(6.7)	45(75)	3(5)
Poor packaging	24(40)	36(60)	8(13.3)	14(23.3)	2(3.3)

*Figures in parentheses are percentages

Table 4: Production constraint distribution of the small scale broiler farmers

Constraints	Constraints faced by farmers		Severity		
	Yes	No	Severe	Moderate	Low
Predation e.g. by dogs	33(55)*	27(45)	-	20(33.3)	13(21.7)
Diseases e.g. Newcastle, fowl pox and chronic respiratory disease.	52(86.7)	8(13.3)	4(6.7)	28(46.7)	20(33.3)

Lack of access to veterinary services	49(81.7)	11(18.3)	40(66.7)	7(11.7)	2(3.3)
Lack of access to extension services	34(56.7)	26(43.3)	25(41.7)	3(5)	6(10)
Feed limiting you from increasing the number of your birds(broiler)	45(75)	15(25)	14(23.3)	29(48.3)	2(3.3)
High electricity costs	31(51.7)	29(48.3)	3(5)	25(41.7)	3(5)
Poor water supply	1(1.7)	59(98.3)	-	-	1(1.7)
Low quality feeds	-	60(100)	-	-	-
Theft	44(73.3)	16(26.7)	3(5)	27(45)	14(23.3)
Lack of capital	51(85)	9(15)	19(31.7)	32(53.3)	1(1.7)
High feed costs	60(100)	-	31(51.7)	29(48.3)	-
Lack of labour	36(60)	24(40)	17(28.3)	16(26.7)	3(5)
Small land holding	39(65)	21(35)	32(53.3)	5(8.3)	1(1.7)
Lack of infrastructure i.e. battery cage system	50(83.3)	10(16.7)	46(76.7)	2(3.3)	-
Unfavourable weather conditions	16(26.7)	44(73.3)	1(1.7)	7(11.7)	8(13.3)
Consumption of chickens by your family without paying or house hold consumption	57(95)	3(5)	11(18.3)	37(61.7)	9(15)
Poor management ability	30(50)	30(50)	5(8.3)	9(15)	19(31.7)
Lack of biosecurity knowledge	48(80)	12(20)	18(30)	28(46.7)	2(3.3)

*Figures in parentheses are percentages

Table 5: Multiple regression analysis of socio-economic characteristics and marketing, financial and production constraints facing small scale broiler farmers

	Marketing constraints	Financial constraints	Production constraints
Constant	29.104(.448)	58.188(.188)	61.089(.065)
Gender	2.369(.374)	2.891(.344)	.895(.691)
Age	3.205(.030)**	.632(.702)	-.714(.559)
Marital status	-1.740(.413)	4.667(.059)*	.178(.921)
Race	-31.107(.430)	-18.816(.676)	-26.365(.430)
Religion	-2.320(.022)**	-1.980(.083)*	-.423(.612)
Household size	-.362(.610)	.327(.687)	.291(.716)
Educational level	-.822(.546)	-.840(.590)	-.714(.537)
Membership of farmers' group	-5.154(.144)	-4.782(.234)	-1.861(.529)
Extension Contact	-1.857(.795)	-7.181(.381)	-7.236(.235)
Frequency of extension contact	6.259(.037)**	4.773(.159)	.535(.829)
extension agent affiliation	-6.639(.096)*	-8.324(.070)*	-2.239(.503)
Number of workers	.926(.307)	.262(.800)	.474(.536)
Labour sources	1.705(.442)	-1.029(.685)	3.882(.043)**
Income	3.428E-05(.646)	5.297E-05(.536)	5.165E-005(.415)
Farming experience	-1.256(.144)	-2.452(.015)**	-1.638(.027)**
Broilers housing types	34.729(.028)**	22.042(.215)	15.507(.238)
R	.719	.724	.700
R square	.517	.525	.489
F	2.882	2.966	2.575
Sig	.003	.002	.007
Durbin-Watson	2.200	1.640	1.78

Figures in parentheses are significant Significant at 10%, Significant at 5%** , Significant at 1%***

DISCUSSION

The results revealed that there were more women (58.3%) than men (41.7%) as shown in Table 1 this might be resulting from the fact that there are more women in the district and most women in rural areas rely on agriculture to provide for their families Mutangadura (2005) also reported that small-scale farmers the majority of whom are women, play a major role in providing food for everyone in the family. Table 1 also indicates that 61.7% of the respondents were married while 5% were divorced. As there are more married people there would not be a need to outsource labor as the family members could help in the operation of the farm enterprise. Oladele (2011) noted that the high percentage of married farmers depend on family labor. The results in Table 1 shows that majority of small scale broiler farmers in Capricorn district are aged between 41 to 50 and 51 to 60 which with 31.7% respectively. This is followed by 31-40 age group

which accounts for 20%. This might be due fact that young people such as those under 20 years of age are not interested in agriculture or who would like to pursue careers in agriculture as they regard agriculture as dirty work.

Table 1 further indicates that 61.7% of the respondent had household size of 6 to 10 persons, while only 38.3% had 1 to 5. About 37% of the respondents made had secondary school education while only 25% had tertiary education. The role of extension officers is to provide information to farmers with information on how efficiently farmers can utilize their resources to produce at optimum, from the results 50% of the farmers had contact with extension officers; out of which, 31.7% had contact with extension occasionally. 50% of the farmers did not have contact with the extension officers. However, . 43.3% of the extension officers were from government, 6.7% were from nongovernmental organizations and only 1.7%

were from parastatals. Table 1 indicates that 91.7% of the farmers had between 1 and 5 farm labor of which about 43.3% of it was family labor, this might be due to the fact that the enterprises of most small scale farmers are not large to an extent at which they could be required to hire labor due to shortage of labor in the farm, low profits also could also contribute as labor must be paid for the work they do.

Table 1 further shows that about 96.7% of the respondents use their own built structures to house their boilers this could be due to the reason that battery cages for housing chickens are expensive to construct Durga *et al.* (2009) reported that farmers inadequate knowledge of low cost scientific cage construction was perceived as the most serious problem. About 82% of the small scale broiler farmers get an income of less than R50 000 annually which is about R4166 per month while only 5% of the respondents get an income above 100 000 annually. Moreki (1997) reported that low level of income limits the growth of broiler enterprises. Since small scale farmers have to meet some financial obligations such as such as buying feeds, electricity costs, veterinary services, pay for labor and take care of family related obligations, with such small income generated it will not be easy for them to expand their enterprises and become commercial farmers. The level of income generated will depend on factors such as quality of production, products produced and the types of farm activities (StatsSa, 2002).

From the results, 30% of the respondents who are members of cooperatives while 70% of the respondents are not members of cooperatives. According to Ortmann, & King, . (2007) cooperatives provide smallholder farmers big benefits such as bargaining power and resource sharing that lead to food security and poverty reduction. Since 70% of the respondents are not members of farmer's cooperatives they receive the benefits such as bargaining power which are enjoyed by farmers under cooperatives.

The results in Table 2 indicate that 78.3% of the respondents experiences low level of income as a constraint and 60% of the respondents experiences the constraint moderately this findings agrees with the findings by Christensen (1993) who reported that small scale broiler farmers had poor liquidity due to low cash income and had limited access to credit and savings facilities, hence 80% of the respondents fail to provide collaterals to financial institutions to pledge as security for repayment of a loan and 46.7% of them experiences this constraint severely. About 98% of the respondents indicated that customers are buying chickens on credit and not paying as they promised and 60% of the respondents are affected by this constraint moderately which could lead to low level of income which affects the respondents negatively. Financial institutions

cannot risk giving out loans to farmers they don't have assurance whether they will be able to repay the loan back. Low level of income disables farmers to potentially meet their financial obligations which eventually decrease their chances to access credit in financial institutions. Even though some farmers may have access to finance (18.3%), the loan provided is small to enable them achieve their objectives this is evident by Moreki (1997) who reported that lack of access to credit hampers growth of broiler enterprises since small-scale farmers lack access to credit for transportation, purchase of feeds and birds. In terms of record keeping, 75% of the respondents highlighted that they do not keep records which is very essential in agriculture as it helps farmers to keep in track of everything that is happening within the business. Small sock size was one of the constraints the farmers indicated about 95% of the respondents indicated that that they are encountering this constraint at a severity rate of 76.7%.

Table 2 further indicate that about 88.3% of the respondents have cover long distance to get to financial institutions as the financial institutions are not located where the farmers are situated and 46.7% are severely experiencing this constraint while 78.3% of the respondents have to wait long periods before getting financial assistance or for their loans to be approved. About 91.7% indicated that the amount is small and 86.7% of the respondents say the repayment period is short. High transaction costs is another constraint which 83.3% of the respondents experienced. Banks charge users for withdrawals and deposits services, banks generate income from these costs (Botha *et al.*, 2009).

From Table 3 the results indicate that 95% of the respondents have a direct linkage with consumers and 98.3% of the respondents do not get the prices they are expecting in the market and this is considered as a severe constraint. Abedullah (2007) reported that marketing system still remained in traditional and heterogeneous condition in broiler farming, as a result, producers could not develop direct linkages with the consumers. About 88 % of the respondents indicated that there are limited market outlets, 88.3% of the respondents indicated that the markets were unorganised which implies that broiler farmers sell anywhere and at whatever price they desire. Almost 89% of the respondents feel their customers perceive their products as poor or of low quality this might be due to the fact that a small scale farmer might be lacking infrastructure for handling the broilers Okantah *et al.*, (2003) reported that most farmers had limited knowledge or access to ration formulations. Selling at low prices was reported by 93.3% of the respondents . Antwi (2011) who reported that the underlying reason for the inability of small scale farmers to participate in

high value markets may be due to their small sizes of production. About 93.3% of the respondents indicated that they do not have enough storage facilities for their broilers. Abedullah (2007) reported that farmers cannot take the risk of keeping the broilers after the recommended growth period because after that period cost of production increases rapidly than the weight gain of bird. Also, 90% of the respondents further indicated that their customers are far which means farmers have to travel long distances to reach their customers.

From Table 4 the results show that most of the respondents about 55% and 73.3% highlighted predation by dogs and theft as problems respectively. Predation by dogs is one of the highest constraint under production, experienced by the respondents which is in line with the findings by Pedersen (2000) reported that the major cause of mortality was predation by dogs. Also, 88.3% of the respondents highlighted that they do not have battery cages for their broilers, Durga et al (2009) also reported that problems of predators was perceived as the most serious one. Poultry farming predator problem is unavoidable unless and until the system is at least partially modernized introducing scientific housing and providing protection in terms of proper enclosures especially for chicks the author further elaborated that in the absence of such physical protection, predator problem would abound resulting in loss of chicks and birds. Lack of capital was indicated by 85 % of the respondents which is consistent to the findings of Veerabhadraiah (2000) who reported inadequate capital as a problem encountered by small scale broiler farmers.

Diseases such as Newcastle, fowl pox and chronic respiratory which affects broilers were highlighted by 86.7% of the respondents as a major constraint. Poor access to veterinary services was highlighted by 81.7% of the respondents. Ugwu (2009) reported that the common diseases prevalent in poultry, farms raising broilers/cockerels are the Newcastle, fowl pox and chronic respiratory disease, while Moreki's (1997) indicated that a rise in diseases affecting poultry contributes to low profit margins. Similarly, 80% of the respondents indicated that they were not aware of biosecurity measures which mean the broilers could easily get diseases from contaminated water or feeds and even from the people who handled them which might be the reason behind the vulnerability of the respondents' broilers being susceptible to diseases. Also, 75% of the respondents indicated that cost of feeds were limiting them from increasing the number of their broilers which might be due to the fact that (100%) all of the respondents indicated that the costs of feeds are high this might be one of the contributing reasons as to why the respondents are unable to increase the number of their broilers as they wish. Poor

management skills were highlighted by 50% of the respondents.

Marketing constraints: The results of multiple regression analysis of relationships between demographic characteristics and the marketing constraints faced by small scale broiler farmers is presented in table 5, the dependent variable with an F value of 2.882, $P < .05$. Also an R value of 0.719 showed that there was a strong correlation between the independent variables and marketing constraints. The results further predicted 51.7% of variation in the marketing constraints. Five out of 16 independent variables were significant, four variables being significant at five percent and one being significant at 10 percent. Significant determinants of marketing constraints were age ($t = 2.243$), religion ($t = -2.381$), frequency of extension contact ($t = 2.154$), type of extension agent ($t = -1.699$) broilers housing types ($t = 2.273$). These results imply that the higher the age of the farmers, contact with extension agent and the type of housing for the broilers the better the marketing constraints. However as religion and the type of extension agent increases the marketing constraints decline.

Financial constraint: The results of multiple regression analysis of relationships between demographic characteristics and the financial constraints faced by small scale broiler farmers is presented in table 5, the dependent variable with an F value of 2.966, $P < .05$. Also an R value of 0.724 showed that there was a strong correlation between the independent variables and financial constraints. The results further predicted 52.5% of variation in the financial constraints. Four out of 16 independent variables were significant, one variable being significant at five percent and four variables being significant at 10 percent. Significant determinants of financial constraints were marital status ($t = 1.937$), Religion ($t = -1.773$), Type of extension agent ($t = -1.86$) and the number of years in broiler farming ($t = -2.534$).

Production constraint: The results of multiple regression analysis of relationships between demographic characteristics and the production constraints faced by small scale broiler farmers is presented in table 5, the dependent variable with an F value of 2.58, $P < .05$. Also an R value of 0.489 shows a weak to moderate correlation between the independent variables and production constraints. The results further predicted 48.9% of variation in the production constraints. Two out of 16 independent variables were significant, the two variables being significant at five percent. Significant determinants of production constraints were labour sources ($t = -2.084$) and number of years in broiler farming ($t = -2.286$). These results imply that as labour sources increases

production constraints decreases. However as the number of years in broiler farming increase the production constraints decreases.

The study revealed that among small-scale broiler farmers in the study area there are more women than men majority aged between 41 and 50 and 51 and 60 respectively, married with secondary school level education having contact with extension agents, and have income of less than R50, 000 annually. Prominent constraints identified as affecting small scale broiler farmers include lack of access to credit, high interests rates, short repayment period, small stock size, broilers bought on credit and not re-paid as promised, inadequate infrastructure such as battery cage, and high feed costs, difficulty to access veterinary service, lack of biosecurity knowledge, long distance to the market, lack of storage facilities limited markets, unorganized market outlets and inability to participate in the high value markets.

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