Marketing Restraints in small Ruminant's Production with Special Reference to their Impact on Livestock Business Development of Balochistan, Pakistan

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ABSTRACT: The basic objective of the present study was to investigate the constraints of livestock marketing that can directly influence on the livestock business development as well as in the economy of Province Balochistan, Pakistan. In this study, convenience sampling technique was used to collect the data through five scale Linker self-constructed questionnaires during the period from January 2015 to December 2015. The obtained results were indicating that marketing constraints in small ruminants' production is producing difficulties, particularly to the small ruminants holders (SRH) of Balochistan. Though, large area of Balochistan is included in arid or semi-arid zones, so a bulk of the local population is betrothed in livestock rearing activities, however, because of their primitive marketing practices, still they do not get their outstanding yields. Hence, present study is focusing on computing the difficulties in marketing of small ruminants, which ultimately obstructing the development and prosperity of the local population of Balochistan. This study will also highlight the different factors that could create restraints for small livestock holders. From the results of the present study, It was concluded that marketing constraints e.g., inaccessibility to market (IM), middlemen role (MR), Price constraints (PC), market competitions (MC) and difficulties to Small ruminants' holders (DSRH) had producing a direct impact on the livestock business development and also on the economy of Balochistan.

Keywords: marketing of small ruminants, restraints, livestock holders, Balochistan.

INTRODUCTION

Balochistan province is comprises approximately 43.9% of the total area of Pakistan (Geological Survey of Pakistan, 2005), and having a low density per square kilometer. It is an extensive plateau of rough terrain divided into basins by ranges of sufficient heights and ruggedness. Its geographic area can be divided into four distinct zones including, Upper high lands, lower high lands, plains, and deserts (Population and Housing Census of Pakistan, 1998). Balochistan is predominantly bordered by two important countries such as, Afghanistan and Iran, and is also connected to the Arabian Sea to the south. Three significant provinces i.e., Sind, Punjab and Khyber Pakhtunkhwa) and federally administered tribal areas of Pakistan to the northeast. Due to such an important location, this province yet has to make the breakthrough in the field of industrial progress and economic development. As

Balochistan has a peculiar climate of hyper-arid to semi-arid, so, its economy is totally dependent on four main sectors *e.g.,* crops and vegetables production, fruits, fisheries and livestock sectors. Since, major parts of land of Balochistan arid, having low annual rainfall, so, crops, vegetables and fruits production is very difficult and expensive. Furthermore, fisheries sector is also providing very minute level of jobs only to the coastal belt of Makran coast of Balochistan, therefore, the majority of local populations (80%) are ultimately involve in livestock rearing activities (SMEDA, 2012), particularly the small ruminants, as the climate of this province is indigenously favorable for the rearing of livestock, therefore, these livestock sectors may contribute about >20 billion rupees to the economy of Balochistan each year (Livestock and Dairy Development Department, GoB, Quetta, 2012), which is a significance contribution to the economy.

In the same way, a livestock share average 47% to the agricultural economy of Balochistan each year (Livestock and Dairy Development Department, GoB, Quetta, 2012). Despite of these major facts, livestock economy is persistently wagering. But there are very less effort made by the stack holders to get livestock holders out of their ordeal. Though they have so much potential, but small ruminants holders have just maintain their livelihood. In addition, though there is huge investment potential, but numbers of constraints hinder this sector to grow more rapidly and smoothly. Thence, livestock marketing is one of the major impediments to fast growth and capitalizing the business opportunities in Balochistan (Balochistan Sub Strategy, 1999). Due to obstruction from primitive marketing, livestock holders even cannot access to major markets in the province, which ultimately forgo their large share of profit. Brokers, commission agents, middlemen and butchers earn lucrative earnings out of it. Therefore, present study on livestock marketing, particularly, regarding to its constraints will provides guideline to decision makers and concerned authorities to comprehend the significance of livestock business as major area of focus to get the dream of prosperity and development. The rationale to emphasis on sheep and goats is only due to their large share in the economic development of Balochistan, as they are the main livestock rearing species. Present data will also serve as guideline and foundation for other studies in future and also be valuable to the investors to invest in livestock.

H1: More the market competition, the more the difficulties to small ruminants'
holders(SRH).

H2: Inaccessibility to market for small ruminants' holder is positively related to
difficulties for SRH.

H3: Role of Middleman is positively related to difficulties for SRH in Balochistan.

H4: The more the price constraints, the more the difficulties to SRH in Balochistan.

RESULT AND DISCUSSION

The results of the present investigation on small ruminants' regarding its marketing constraints suggests the several constructs including i.e., inaccessibility to market (IM), middlemen role (MR), Price constraints (PC), market competitions (MC) and difficulties to Small ruminants' holders (DSRH). Constructs of the research show the relationship with each other's. All the variables obstruct the profit generation for small ruminants' holders. The results of the study revealed that small ruminants' holders do not earn sufficient profit. All independent variables are positively related to dependent variables. Furthermore, majority of population consists of pastoral livelihood. Study results are closely associated and supportive towards the past research and findings on the potential of livestock in Balochistan, particularly small ruminants, which substantiates the notion that the livestock generates ample income at every level and to capacitates the livestock holders to consolidate saving abilities. However, all marketing constraints have created the hurdle to development and meager profit for small ruminants' holders in Balochistan

A. Constraints of improper marketing practices

Marketing of small ruminants marketing in Balochistan is primitive and traditional; as people are not applying modern marketing tools and techniques (Baloch, 2003). They have no proper training regarding the development of supply chain to market their livestock (FAO, 1983). Hence, small ruminants' holders are mostly depriving from the major share of profit. In addition, market premises do not have the necessary facilities. Moreover, roads are broken or even there is no well-constructed road to reach the marketplace. Marketing constraints effects are taken as limitation for low profit of livestock sales in Balochistan (Afzal, 2003). A role of broker is very vital in order to engulf large amount of profit. Village traders of livestock are called "BEOPARIES". They are the main intermediaries in buying animals from the livestock holders. About 80 per cent of the livestock is purchased by the village beoparies (i-e local livestock traders) who further sold livestock to local contractors or commission agents. Generally, farmers have no access to the information regarding the pricing and trends prevailing in the markets and they are upon the mercy of the various traders (Shafiq, *et al.,* 2003), hence, they are unable to receive their legitimate profit from the sale of their livestock, so, livestock production does not increase as compare to population, creating shortage of food item. Hereafter, the World Trade Organization has enlisted Pakistan for the net food deficit country among sixteen others (Nadeem and Sajida 2004). With the exception of the mountain areas with an altitude of 2,436 to 3,352m above sea level, most of Balochistan is sparsely vegetated and severely eroded (Livestock sub strategy Balochistan, 1999), thence, helps the livestock holders to flourish their business (Fontana and Natali, 2008), but again the improper marketing efforts spoils all of these efforts. Major part of Balochistan's lands is not suitable for agriculture, so could not beutilized for crop cultivation; therefore, ultimately majority of local peoples utilized it only for livestock grazing, especially for small ruminants.

Rearing of small ruminants can provides the best opportunity to earn substantial profit but road and poor marketing effort damage badly all these opportunities yet again (Fontana and Natali, 2008). About 30 per cent of the total area is used for some sort of agriculture activities. Small ruminants are reared side by side (Giles and Baig, 1991). Roads are broken or do not exist. Therefore, broken road and poor infrastructure do not let livestock sector in Balochistan to flourish (Livestock and Dairy Development Department, GoB, Quetta, 2012). Rangelands provide herbs and grass which lack the necessary protein, vitamins and mineral that is necessary for animal growth and size (Livestock & Dairy Development Department, Government of Balochistan, Quetta, 2003) which cannot be fulfilled due to expensive road communication, which is the only way to reach the area (Balochistan Sub Strategy, 1999). Therefore, poor nutrition is generally blamed for low lambing percentage. The low proportion of cultivated land has also some agricultural crop residues available during the scarcity periods of winter and mid-summer. It is expected that the relationship between constraints and development would be negative and market in Baluchistan has been appearing as a constraint for livestock holders. All these factors lead to low prices for many products. Price of livestock product is consistently increasing which is a good sign for livestock holders. Nevertheless, the benefit of the hike in prices must be transferred to livestock holders. Three decades price hike of various livestock products starting from 1997, 2006 and 2016 are exhibit, as shown in Table 1, respectively.

Table 1: Prices list of livestock for a decades.

S. No	Product	Price (Rs) (1997)	Price (Rs) (2006)	Price Difference from (1997-2006)	Percent Change from (1997-2006)	Price (Rs) (2016)	Price Difference from (2006-2016)	Percent change from (2006-2016)
1.	Beef Rs. Per KG (kilogram)							
	With bone	45	100	55	55.00	350	250	250
	Boneless	60	130	70	53.85	420	290	70
2.	Mutton (Rs per KG (kilogram)							
	With bone	100	220	120	54.55	600	360	62
3.	Chicken Rs per KG (kilogram)							
	Undressed	60	75	15	20.00	230	155	67
	Dressed	85	120	35	29.17	160	40	25
4.	Milk (Rs. Per Liter)							
		16-18	26	10	38.46	80	52	70
5.	Egg (Rs price for 12 pieces)							
	Desi	36	65	29	44.62	150	85	57
	Farmi	30	55	25	45.45	90	65	97
6.	Butter (Rs per KG)							
		150	150	-Nil-	-Nil-	600	450	75
7.	Wool (Rs. /Kilogram)							
		25	40	15	37.5	67	25	120
Note:1996 prices were taken from Balochistan Sub-Strategy, while 1999; 2006, 2014 prices were collected from the market by the author.								

B. Market agents and their position in the market chain producers

There is no coordination of livestock holders to sale their product into the right market to get maximum profit. This might be because of no effective marketing society, they are scattered and have no proper voice in order to increase the price (Shafiq, 2008), hence, they mostly rely on market agents who buy the livestock from the livestock holders on low prices and sale it at higher prices. Their sale is made on initial level of the village broker to get some urgent cash for livelihood.

This practice deprives them from the major part of the profit which goes directly into the other pocket. Since, livestock holders often do not have enough cash for the livelihood, therefore, commission agents and brokers manipulate the compulsions of livestock holders. These commission agents and brokers are skillful to get the livestock, especially small ruminants on below market price easily (Balochistan Sub Strategy, 1999), so that they deprive the livestock holders from their rightful profit (Shafiq, 2008) as shown in Figure1 below.
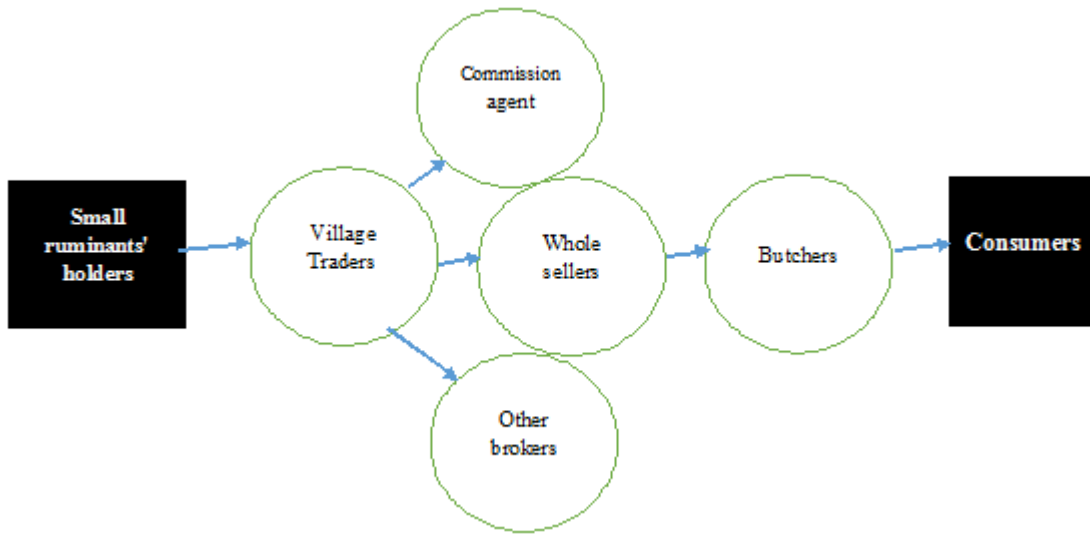
Fig. 1. Tradional market supply chain in Balochistan.

C. Pricing strategies in livestock
Pricing has a major role in the livestock business development and growth of the sector. Pricing of livestock and its by-products have been low for livestock holders in Balochistan (Pirzadeh and Islam, 1981), as the commission agents purchase the lot of small ruminants on lower price from the livestock holders and sell them with substantial profit.

Table 2: Supply, demand gaps in major livestock of Pakistan (Million Tons).

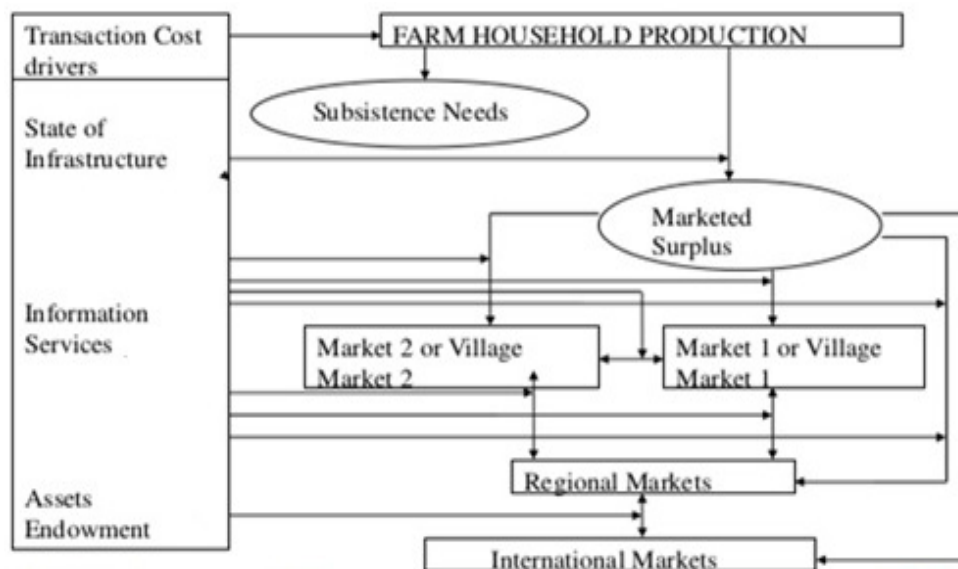| Product	2003			2020		
	Supply	Demand	Gap	Supply	Demand	Gap
Milk	27.8	31.32	3.52	43.43	98.91	55.48
Beef	1.05	1.21	0.16	1.43	3.74	2.31
Mutton	0.70	0.80	0.10	1.03	2.50	1.47
Note: Social Sciences Institute, National Agriculture Research Center and Agriculture Organization of United Nations (2003).						

Fig. 2. Asuggestive model to approach small ruminents market in the region.

Benefit of rise in price is capitalized by the commission agents, brokers and whole sellers, whereas livestock holders do not get the reward of their efforts. Prices of animals are settled through negotiation, demand and supply and bargaining skill in livestock traders (Livestock and Dairy Development Department, GoB, Quetta, 2012). Prices of the livestock also depend on seasonal pattern of the year as in summer season, prices go high and in winter they are adjusted on lower case. Table 2 shows the Supply demand gaps in major livestock products of Pakistan (Million Tons) and Fig. 2 is suggestive model to approach small ruminants market in the region.

D. Sample Size and area of research

Primary data was collected through convenience sampling technique through the close ended interview from twenty districts of Balochistan. Sample size was estimated 900 persons. Target population of male respondents included those males who had attained the age of 18 and above includes the nomadic, transhuman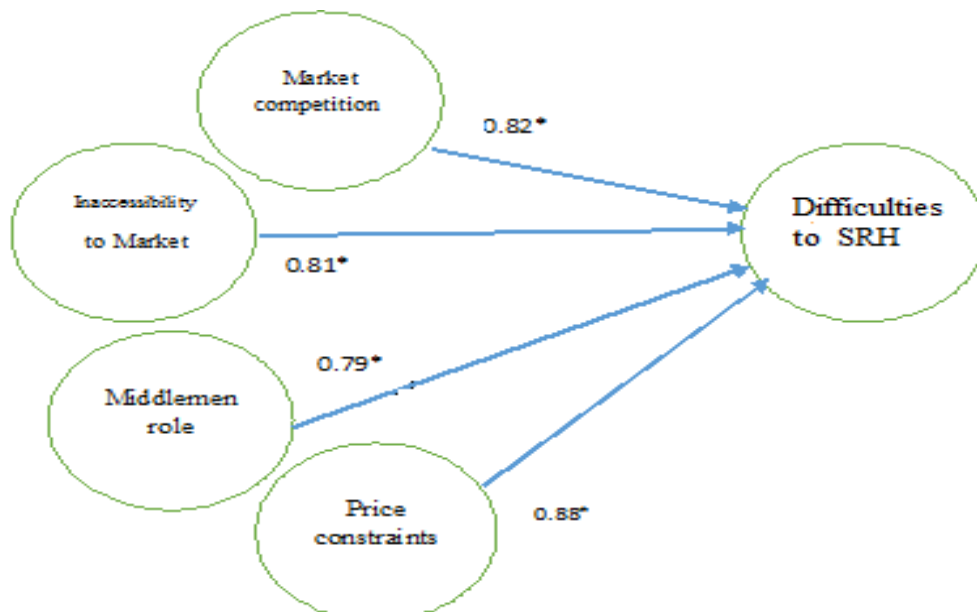ce, sedentary families and other common men and women who involve in livestock rearing activities. According to the possibility of unreturned questionnaires, 10 percent extra sample size questionnaire were distributed to male respondents and finally 549 questionnaires from male respondents were received that were very near to estimation of sample. Using SPSS 16.0, statistical tools were employed to test study hypotheses. The research has the practical implication and form the type of data gathering a descriptive and casual. Questionnaire development and results analysis were performed by adopting the due process.

Measures. There were eight scales used in this research study to quantify the construct of interest. Several measures were included to analyze the variables such as; the potential and prospects, constraints and prosperity and development. Measures planned to gather demographic information regarding the subjects, including Age, Education, Occupation, type of livestock and their number of each type of livestock.

Table 3: Means, Standard Deviation, and Correlations of data.

S.No.	Items	Mean	1	2	3	4	5	Beta
1.	Inaccessibility to Market (IM)	4.1±1.2	1.00					0.851
2.	Middlemen Role (MR)	4.1±1.4	0.821	1.00				0.801
3.	Price constraints (PC)	4.4±1.0	0.816	0.855	1.00			0.904
4.	Market competition (MC)	4.7±1.2	0.881	0.901	0.749	0.1.00		0.841
5.	Difficulties to SRH (DSRH)	3.1±0.9	0.902	0.825	0.912	0.876	1.00	0.814
	Note: *All items are Correlated significant at $p<0.05$ (2-tailed). Reference; Cronbach, L. J. (1951)							

Fig. 3. A path diagram for the initial theoretical model.

Thus research has the practical implication regarding the subject matter and establishes the type of data gathering which was descriptive and casual. Statistical tools were applied in order to analyze the results of the proposed study. Process of data collection started with the help of self-administered, well-structured self-constructed interview.

Measure was quite significantly revising form the 2 points (Danserreau, *et al.,* 1975), it was also depicted quite significant differences from 4-point (Linden & Graen, 1980) and from five item (Graen, Linden & Hoel, 1982). Before constructing the measure several scales were closely studied. Therefore, 5-point Likert-type scale was borrowed and adopted for the study. Moreover, the Cronbach alphas are consistent in the study. Thus, the 5-item Likert scale ranging from (1) "strongly disagree" to (5) "Strongly Agree" were used in the study. Person correlation and other descriptive statistics is shown the Table 3.

E. Analyses of Structural Equation modelling

IBM Amos 19 was used to measure the SEM shown in figure 3 above. In the current study, confirmatory factor Analysis (CFA) has been utilized in order to verify the suitability measurement model for each variable. Adequacy of model fit was determined by several Goodness of fit statistics, these are; Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (RMR), Goodness of Fit Index and Comparative Fit Index (CFI). The basic objective in the testing procedure of model is to estimate the goodness of fit between the hypothesized model and the sample. RMSEA is a traditional measure used to test the error of population approximation. It shows that sample data fit the population covariance matrix. If the value is less than 0.5 then it's a good fit whereas the average value.8 shows reasonably good fitness of the model. Standardized RMR defines the average across all standardized residuals, and ranges from zero to 1 in which 5 describes good fit of model. Standardized RMR depicts that there is inconsistency between the hypothesized correlation matrix and the observed sample averagely. On the other hand, Comparative Fit Index (CFI) measures relativeness of variance and covariance in the sample. It ranges from zero to 1, closeness of value to 1 being an indication of best fit; therefore, CFI procures the measure of comprehensive conversation of data (Byrne, 1998).

CONCLUSIONS

The primary purpose of this study was to develop and to test a model that examines the relationship of small ruminants' marketing constraint to profit of small ruminants. The study found out that a number of constraints are positively influencing the progress and development by increasing the difficulties to SRH. The results of this study provide considerable insight into the in order to determine the small ruminants' significant to the economy of Balochistan. Hence, the test of model indicates that the, marketing and constraints do not let the livestock sector to flourish. The study also indicates empirical sign of the effect of livelihood of small ruminants' holders is interrupted by the various marketing constraints in the province. This means the quality of livestock activities can be flourish by eliminating the inaccessibility to market, middlemen role, price constraints, market competition and difficulties to small ruminants' holders. Thus, the study provides guidelines to support decision makers to better comprehend how to progress the small ruminants' rearing activities. This study may provide better understanding in decision making about the outcomes and end results.

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