

Small ruminants-holders and Government supportive partnership business model through financial inclusion and marketing strategy in Balochistan-Pakistan

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Abstract

This study was conducted during December, 2018 to March, 2019 in twenty districts of Balochistan-Pakistan. The purpose of paper is to chalk out the framework for livestock business development strategy in order to pull out the small-ruminants-holders families from poverty and put them towards business development strategy in the province. Proportionate Purposive sampling technique was used through likert scale close-ended questionnaire to collect the data. As a matter of fact, livestock holders in the province of Balochistan, heavily depend on small ruminants rearing due to scanty vegetation in the major parts of province. It is due to its arid and semi-arid climate which does not allow to grow grassier field. However, they get almost sufficient rainfalls to rear their small ruminants. It is another fact that agriculture cultivation is extremely difficult to continue throughout the year but rearing livestock is possible for them to continue their livelihood. There are three stages to rear the small ruminants: one, to get finance to purchase kids, second, to feed them and third to sell them. In this regard, if government provides proper finance to herds' owners to increase production or rear of small-ruminants in the natural rangelands and then provide them assistance to sell their herds on appropriate prices in the market this will boost the economic activities and provide the livestock holders more profit. The results of the study support the hypotheses. A framework regarding government and livestock holders' partnership business model seems practically possible.

Keywords: Livestock financial inclusion, marketing, production, profit, Sale, small ruminants' holders.

Introduction

In the south west of Pakistan, the province of Balochistan situated, which is the largest province of Pakistan in terms of area (Geological Survey of Pakistan, 2017). In contrast of largest covered area of Pakistan, the province of Balochistan is lowest populated as per kilometer density is 19 persons which construct the population of 9% of Pakistan (Population and Housing Census of Pakistan, 2017). Geological location of Balochistan is peculiar in nature; hence, it is neighboring two important countries. Afghanistan is situated in the north and north-west and Iran to the south-west. Balochistan is such an important province of Pakistan as three provinces share the border with it (Sen, 1983). Hence, Punjab and Sindh are the two largest provinces of the country are located in the east of Balochistan; moreover, Khyber Pakhtunkhwa is situated in the northeast of Balochistan. As a matter of fact, the Economy of Balochistan runs through agriculture activities, basically a pastoral setting. From the centuries, the eco-system of Balochistan remained a major threat for its inhabitants. It is predominantly excelling low rainfall for the major part of province. Hence, small ruminants have become the main salable product in its wholesome form and it provides the mean for livelihood for dwellings (Whalen, 2007). The marketing practices are on its primitive stage throughout the province. Hence, the role of brokers and dealers are overwhelmingly significant and deci-

sive. They play major role in price setting and determination of profit for all factors of market to the end consumers. Most of the area is rangelands with only 5% arable (Qaseem, 2002). Animal agriculture is centuries old occupation of the people of Balochistan. Livestock are one of the major important sectors of the province having about 20% of the national stock (Raziq et al., 2010). The important of small ruminants for the provincial economy can be estimated by the way rural population participation as 80% of population directly or indirectly involve in livestock rearing (Afzal, 2008). As a matter of fact major parts of Balochistan consist of rangeland which are arid to semi-arid. It does let the cropping to flourish and this makes it possible to rear small ruminants (sheep and goat). Therefore, sheep and goat production is an integral part of the agrarian economy. The meager population of the province is approximately accounts for 12.3 million estimated in last population survey held in 2017 (Geological Survey of Pakistan, 2017). Pastoral population is engaged with small ruminants rearing for their livelihood. Balochistan is considered the poorest province of Pakistan as it only share in GDP of Pakistan dropped down from 4.9 to 3.7% (Chima, 2015) poverty has been increase in the province as in 2001–2002 rate of poverty was at 48% and by 2005–2006 was at 50.9% (Webb, 2015). According to a report on Dawn, the rate of multidimensional poverty in Balochistan had risen to 71% by 2016 (Pervaiz et al., 1990).

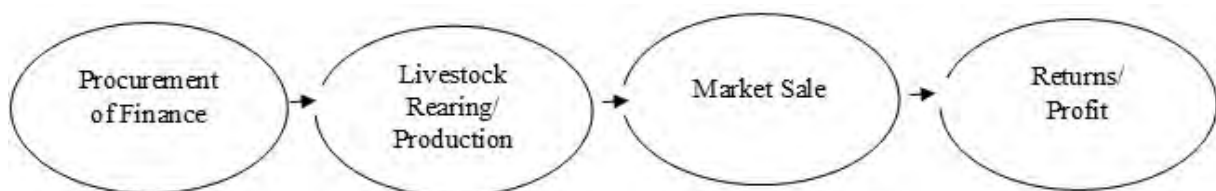


Figure 1. The proposed business development process of small ruminants' holders' in Balochistan-Pakistan

Animal-rearing originated during the cultural transition in Balochistan. Animal domesticating is a almost 10,000 years old as human used to keep them for their necessities (Livestock & Dairy Development Department. 2017). Like other civilization of the world, animal husbandry in Balochistan started with the domesticating the dog first and then ruminants i-e sheep, goat, cattle, horses and camels. From the inception, large and small ruminants remained scavenger on human residuals, hence, they have been well-adaptive with the human being. Province of Balochistan is an underdeveloped province of the country. Apart from the use as meat requirement, people have been using livestock for different other purposes as well, such as; transportation and ploughing in the field. Pastoral societies consider them vital for their livelihood. They get meat, fiber, milk, butter, cheese, and etc. Wool production and collection of hide and skin are other major reasons to domesticate livestock in the province.

As a matter of fact, food is prime need for human survival and it is critically important for stable socialization. Meat is prerequisite and considered the main ingredient for human social stability and existence in order to enhance food security and social stability. In developing and underdeveloped countries of the world, role of government is vital to support and strengthen the livestock-holders. By active support and participation of government, the mutton production can be increased as to remove the existing constraints and challenges. In developed nations of the world government assists to convert potentials into opportunities by providing the necessary infrastructure. In the developing country like Pakistan, small ruminant-holders are found in the remote part of the country

where extreme poverty is prevalent. Hence, they rear small ruminants for their livelihood (Whalen, 2007). As a matter of fact, they have primitive techniques to rear the small ruminants. They sell them to the village brokers and other factor agent on a compromising price due to scarce resources and do not have the ability to access the main market (Baloch, 2003). This ultimately concludes on low profit and they remain in extreme poverty. Nevertheless, a holistic approach can be better strategy to tackle the issue as it can be addressed through public private partnership in which government plays a parental and support role. At the same time, in formulating strategies for small ruminants, it is imperative to consider the ecological and environmental conditions and the challenges, needs, and opportunities for pastoral communities.

Table 1. Balochistan’s livestock population in national perspective

	Cattle	Buffalo	Sheep	Goat	Camel	Horse
Pakistan (million)	35.6	31.6	28.1	61.5	1.0	0.4
Balochistan (% age)	7.62%	1.17%	48.34%	21.91%	41.21%	17.42%

Source: Economic Survey of Pakistan, 2012

Hence, various governmental expansion policies and strategies are necessary for different parts of the province. It can be decided through the growth potential in the area. Strategies for areas with high potential and good access to market and services should focus on exploiting the existing potential as much as possible through land use intensification, efficient water use, crop diversification, commercial dairy, and growing of cash crops that offer higher incomes (Younas, 2003). Investment from government institutions in production facilities should be encouraged. It is possible by procurement of finance and financial services. In those areas with high potential for small ruminants’ production but poor access to markets and services, the focus should be on financial inclusion, removing the marketing constraints, developing infrastructure and institutional support so that the existing potential can be exploited optimally and sustainably. This is also evident that some areas do not have more potential for the growth of small ruminants’ production but the earning is substantial, it is because of financial inclusion and more access to marketing strategies, that enable them to access markets and services.

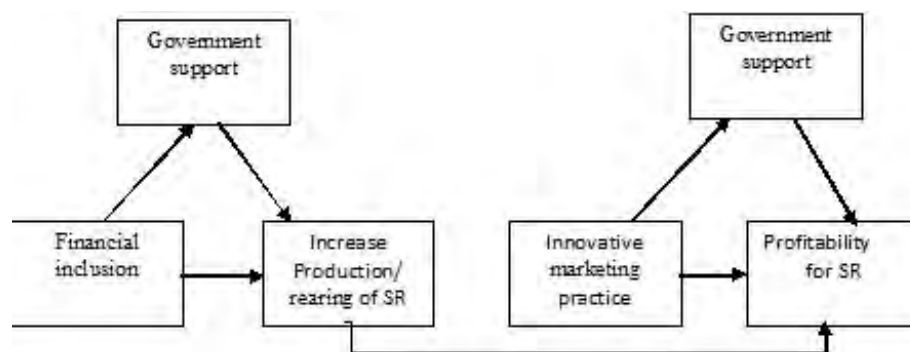


Figure 2. Theoretical framework.

Hypotheses

H₁: Financial inclusion for small ruminants’ holders positively relate to production of small ruminants.

H₂: Production/ rearing of small ruminants positively relate to profitability for small ruminants.

H₃: Government support intervenes between financial inclusion and production/ rearing of small ruminants

H₄: The more the innovative marketing practices, the more the profitability for small ruminants' holders.

H₅: Government support intervenes between production/ rearing and marketing practices of small ruminants

Materials and methods

A quantitative approach was adopted in this study as it facilitates the examination of a larger and more representative set of data (Fowler, 2002; Kumar, 2012). Due to the scattered population in the vast area and unknown population, data was collected through proportionate convenience sampling technique (Kumar, et al., 1993). Scale of the study was five-point Likert scale self-constructed questionnaire. Based on Morgan Table the sample size estimated 310 persons. As estimated, 20% extra questionnaires were distributed (Fowler, 2002). The demographical age was determined as it was of 39.1 years (a mean of 27.92, S.D. =2.41) years. For reliability of questions, content reliability and factor reliability used. To measure content reliability, academicians, livestock experts, and various stakeholders were consulted. Self-constructed questionnaire was developed to measure the population through proportionate convenience random sampling. The authors have gathered the data from ten (10) Districts out of 33 Districts of Balochistan considering the different factors. These were: Musa-Khel, Killa-Abdullah, Pungoor, Killa-Saifullah, Kharan, Harnai, Zhob, Kohlu, Kallat, Lasbela, and Noshki. All these districts consist of Baloch and Pashtoon tribes who are engaged with the rearing of small ruminants in Balochistan. The response scale has been five point Likert-type scale ranging from one (strongly disagree) to five (strongly agree).

Table 2. Government financial inclusion items

Access to finance can boost my business.
Providing finance by the government, I can earn more profit.
Profit can be accelerated if I have more financial resources
If I have more money, I can buy better breed of small ruminant
Government partnership in small ruminant farming is game changer
Due to lack of money, I can't invest more in livestock specially sheep and goat.
Veterinary services at my door me from large amount of profit.
Access to Financial resources to expand my business.

Table 3. Few items marketing practices items:

If I have the easy access to market, I can earn more profit.
If Livestock markets are facilitated, more profit can be earned.
Road and supply of electricity can increase the profit for small ruminants holders.

Table 4. Items from Profitability

Small ruminants rearing can give more profit than any other business in our area.
Small ruminant husbandry is the main business in Balochistan

Profit seeking is easy through small ruminants rearing.
If mutton sector develops than more profit can be earn for small-ruminants holders.
Fast growth of livestock rearing can bring profitability for small ruminants holders.
Livestock rearing activities can bring prosperity in short time in which benefit is more than the cost.

Table 5. Pearson correlation Matrix for profitability, financial inclusion, production/ rearing and sale in market

	Mean	SD	Va- riance	Correlations				b
				1	2	3	4	
1. Profitability/ returns(DV)	3.34	..44	.88	1				0.78
2. Financial Inclusion (IV)	2.30	.55	.99	.885	1			0.89
3. Increase Production/ rear- ing (IV)	1.20	.34	.68	.814	.874	1		0.82
4. Innovative marketing prac- tices (IV)	2.00	.39	.78	.914	.931	.910	1	0.91

** . All items are Correlated significantly at the 0.01 level (2-tailed).

b =Cronbach Alpha (Cronbach, 1951).

Data analysis

SPSS version 23 was used to analyze the data. First of all, normality and homogeneity tests were conducted. Reliability and validity were checked. Normality of the data distribution may be measured based on Shapiro-Wilk (Pallant, 2013), Normality indicated $>.05$ which is good for further analysis. Normal distribution was depicted a significant (0.813) value of the Shapiro-Wilk statistic. Factor analysis procedure used to evaluate the instrument validity (Fowler, 2002). Principal component analysis for the ten items of financial inclusion revealed the presence of one component with eigenvalue exceeding 1, explaining 56.09 percent of the variance. Principal component analysis on the five items for production also revealed only one component with eigenvalue more than 1, where the variance was 44.11 percent. Since factor loadings for all associated items were strong, i.e. >0.5 (Fowler, 2002; Kumar, 2012), no item was deleted for the next stage of analysis. The instrument was then tested for reliability. Following the guidelines specified by Kumar (2012), our results indicate that both scales were reliable. Since the α score for each scale was not improved by deleting any of its corresponding items, both scales were retained for subsequent stages of the analysis. Next a frequency analysis was conducted to generate a profile of the respondents based on age, gender, education and so on. To test the first hypothesis, correlation and regression analyses were used. This is considered appropriate because the theoretical framework consists of only a single relationship between the variables one independent variable and one dependent variable (Tabachnick and Fidell, 2013). The second hypothesis was tested using ANOVA, by checking the significant value of the post hoc tests as well as comparing the mean differences among groups (Pallant, 2013).

Results

The results of the analysis support the hypotheses of the study. Government support is significant for livestock-holders in Balochistan. In this regard, financial inclusion can make the difference as to promote the sector. Marketing is another important factor which must be addressed by the government to strengthen the livestock sector. Both hypotheses were significant predictors; $B = .825$, $SE = .312$, $p < .05$, and that government support for marketing activities positivity was a significant predictor of profitability, $B = .515$, $SE = .228$, $p < .05$. These results were supportive to the media-

tion. Increase production of small ruminants was no longer a significant predictor of profitability after controlling for the mediator, production positivity, $B = .453$, $SE = .392$, ns, steadily on mediation. just about 35% of the variance in profit was measured for predictors as ($R^2 = .299$). The indirect effect was tested using a percentile bootstrap estimation approach with 310 samples (Shrout & Bolger, 2002), implemented with the PROCESS macro Version 3 (Hayes, 2017). These results indicated the indirect coefficient was significant, $B = .361$, $SE = .18$, 95% CI = .0358, .7123. Receiving marketing practices was associated with profitability scores that were approximately .40 points higher as mediated by government support.

Discussion

Livestock sector in Balochistan is vital for the overall economic growth in Balochistan. It contributes more than 47% for the agrarian economy (Islam, et al., 2006). However, the livestock holders which are predominantly consist of small ruminants' holders, cannot come out of the vicious circle of poverty due to climatically condition, remoteness from the Quetta city (the capital of Balochistan), inaccessibility to financial services and marketing constraints. This paper is an attempt to present a viable framework to strengthen the agrarian economy through different extension services from the provincial government. The current study provides the evidence for future prospects and development for small ruminants' holders. Financial inclusion is one of the important variables which can provide the base for stable livestock forming. When money supply is frequent and adequate then there will not be any difficulty to have some healthy small ruminants; additionally, if infrastructure is in place, having the proper roads, availability of electricity, veterinary extension service (Walsh et al., 2003), there will be more profit for small ruminants' holders. However, the role of government has emerged to be meager and weak support for small ruminant's holders as it has to function to uplift the sector.

This finding suggests that small ruminant's holders who engage with small ruminants' business are susceptible to constraints. This study investigated the relationship between production, marketing practices and accelerated profit. Decision makers can use the research outcomes as to focus on the downsides in order to fully utilize the potential of livestock for the economic development of province. As a matter of fact, Balochistan economy is overwhelmingly a small ruminant's economy due to its peculiar nature of ecological system. Nevertheless, it is another fact that Balochistan outskirts are very vast. It covers wide range of mountains which have less vegetation or no vegetation; it has plains on southern lower lands where farmers are engaged with cultivation of various crops. Notwithstanding, majority of livestock holders keep small ruminants for its livelihood. Most of the small ruminants' holders are illiterate or very low educated that may not be able to grasp the new techniques and technology, Government support in the form of business partner can be catalyst for them. It can boost the economy and can bring better results

Conclusion

Balochistan is an agrarian economy and livestock is an important part of agrarian economy. It is the part and parcel for the inhabitants of this province since the centuries. Due to lack of rainfall, it is difficult for pastoral societies to survive the hard weather condition. Therefore, they rear small ruminants for their livelihood. However, continual drought is one of the ecological characteristic which causes the poverty in rural communities of province. Hence, government role is predominantly important for sustain growth and healthy GDP of the province. Majority of people in remote areas of Balochistan have small ruminant just to survive themselves (Nadeem and Sajida 2004). Since, Small ruminants are easy to manage at home and provide quite lucrative income for

small ruminant holder. In order to support the livestock sector to optimize its performance from livelihood to business venture, it is imperative that government must provide support in terms of financing and marketing activities (The SOFA Team and Cheryl Doss, 2011). This research study is valuable for livestock holders, producers and traders, as they plan their activities by considering the significant role of livestock for the economy of Balochistan as it might provide the guideline for policy makers in their planning pertaining to livestock sector especially small ruminants.

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