



ASSESS THE IMPACT OF ICTs IMPERATIVES IN LIVESTOCK AND ANIMAL HUSBANDRY SECTOR IN BALOCHISTAN

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Abstract

In order to assess the impact of ICTs imperatives in livestock and animal husbandry sector in selected districts of Balochistan this research was carried out. In this context, Mastung and Loralai were selected. A descriptive design was used by using a sample survey. Two hundred (200) livestock farmers were selected by random sampling. Cronbach's Alpha program was reported as 0.98. to 0. 94. SPSS (version 25) was used for data analysis. Results revealed that (53%) of the livestock farmers fell into the 31 and to 40 years' age categories. (47%) of the livestock farmers did not get formal education. Majority (60%) of the livestock farmers were married. Levene's Test for Equality of Variances was carried out. The significance differences were reported in two (2) out of five (5) classes regarding ICTs role. Therefore, smart-phone, internet, television and other ICTs resources and electronic assets should be promoted at grass



root level in the livestock and husbandry sector so as to improve the livestock farmer's practical knowledge and cross-cutting skills.

Keywords: ICTs, Livestock and Animal Husbandry Sector, Balochistan

1.1 Introduction

Of late, mostly in advanced nations, the livestock and animal husbandry sector is becoming progressively significant, for food demand. Without effective communication patterns and effective uses of information technology the success of livestock and animal husbandry was not achieved. Timely information was an imperative and massive tool for the livestock sector and animal husbandry profitability. On the other hand, the accurate field data are the major sources of livestock information (Brodnig and Mayer-Schönberger 2000).

Furthermore, livestock sector snags like diverse livestock diseases, lack of livestock nutrition, lack of livestock treatment and lack of livestock breeding techniques have been disseminated by communication resources as the prime impediments. Therefore, the major sources of livestock information are imperative aspects. The IT section may increase the livestock production and increase the livelihood option of the livestock farmers. Mostly in rural and urban areas the sources of information were the major communication tools for livestock and animal husbandry sections. In this regard the internet, smart phone, TV, radio and the like were the major sources of livestock and animal husbandry sources as major communication tools.

Lack of communication patterns and dearth of information were the major problems in the livestock sector, therefore the livestock farmers did not acquire the desirable output from their animal farms. As a result, limited output from livestock and animal husbandry sectors (CIRAD, 2009). Mostly in urban areas the livestock faced the organizational networking, therefore overcoming these problems and coping strategies of current difficulty, the sources of information were the major imperatives and dynamics in this regard (Guendel, 2002).

Fresh innovation around the world and major emerging new resources or technologies in this regard, are prime success keys as factors that address the actual livestock farmer's problems either large-scale farmers and small-scale farmers. Thus, the productive resources in the livestock sector remain as the key role that might ensure food security and rural development (Munyua, 2008).



Practical knowledge diffusion towards at field level in the livestock sector are the prime key and success factor and imperative as a whole. Though contemporary telecommunication structures developed fast growth, that may dole out the saturation to livestock farmers. However, on the other hand, livestock farmers frequently did not use the satisfactory info and effective ICT infrastructure about their livestock resources relatively in urban areas (Ramkumar, 2005; and CIRAD, 2009).

But in less developed nations the access or sources of information were limited, mostly in the livestock sector (Gakuru et al., 2009). Similar problems were faced by small-scale Africans. However, in this regard the livestock farmers did not obtain the timely information from various sources either the government or private sources. On the other hand, 70-80% of the population have poor animal husbandry practices, facing the major constraint in livestock and agriculture sectors in Africa (Souter et al., 2005).

But the revolution in the ICT sector empowered them and also improved their animal husbandry practices at a considerable rate. The ICT sector as a major source of information also reflected the everlasting impact over the socio-economic condition of the livestock farmers. Due to the ICT sector empowerment the specific urban livestock farmers enhanced their livelihoods option at a greater extent (Souter et al., 2005). Further, in less developed nation still ICTs section were poorer as a results the income generation process was halted. Because of the poor decision making, poor policy and rule the livestock and animal husbandry sector were faced with various and multidimensional handicaps (Chilimo 2009).

Various stakeholders like public sector, private sector, NGOs, CBOs, national organization, International agencies were made to develop the livestock sector in developing countries but fruit of these efforts was not harvested in proper manner mostly in peri-urban areas as a result low production of livestock farmers (Chilimo 2009). ICT themes and communication environment in this context were beneficial aspects of this investigation qualitative aspects. However, the ICT remains as the major electronic means that are capturing, or to processing as well as to storing the data (Greenberg, 2005). In this context, the smart cell phones, electronic and printed media were the major sources of livestock information (URT, 2003).

At the national level the ICT environment is still facing problems to a certain degree. In this regard in Africa various countries faced the ICT problems (Swarts and Wachira 2010). In livestock sector the communication sources are very restricted for research proposes. Therefore, the socio-economic condition of the livestock farmers did not improve. In this context, the various governments have taken a firm policy on how to



improve the livestock farmers' social condition by using the superior ICT mechanism (Ngalinda and Mutagahywa, 2005; Shoki, 2010; and TCRA, 2010).

ICTs section for livestock and animal husbandry remains as the driving force of any nation economy as well as also developing the income and also increases the maintainable economic development plus prosperity of any nation. Nowadays the ICT section plays the major catalysts role so as to attain their Millennium Development Goals) for poverty reduction and income generation process. Furthermore, the dawn of information culture amplified the role of ICT. However, the scope on the other hand the ICTs enhanced as a result the uplifting the livelihood option of the rural masses in livestock sector (Stienen et al., 2007).

1.2 Problems Statement

Balochistan has the deprived and unprivileged province of Pakistan due to the 44% of land masses. Due to vast rangeland, extensive pasture areas still the livestock sector faces various problems. One of the most and prime snags in this context is the lack of information access and deprived communication pattern as a result of the low socio-economic condition of the livestock farmers. Therefore, this research was carried out in the diverse district of Balochistan to assess the impact of ICT imperatives in the livestock and animal husbandry sector and their role regarding dissemination of information in Balochistan.

1.3 Objectives

The objectives of this research are to:

- determine the socio-economic profile of the livestock farmers in study areas.
- evaluate the role of ICT in livestock sector, and
- design a firms and need-based recommendations for livestock farmers in both national and international contexts.

1.4 Research Methodology

So as to measure the livestock farmer's perception by using the ICT tools this research was conducted in Mastung and Loralai districts (Balochistan). A descriptive design was used in this study by using sample survey at field level (Gay & Mills, 2006; and Babbie, 2004). A detailed questionnaire was developed based on perceptual views of the livestock farmers. Two hundred (200) livestock farmers were selected in both districts by using the random sampling. 100 from each district. Cronbach's Alpha program was reported as



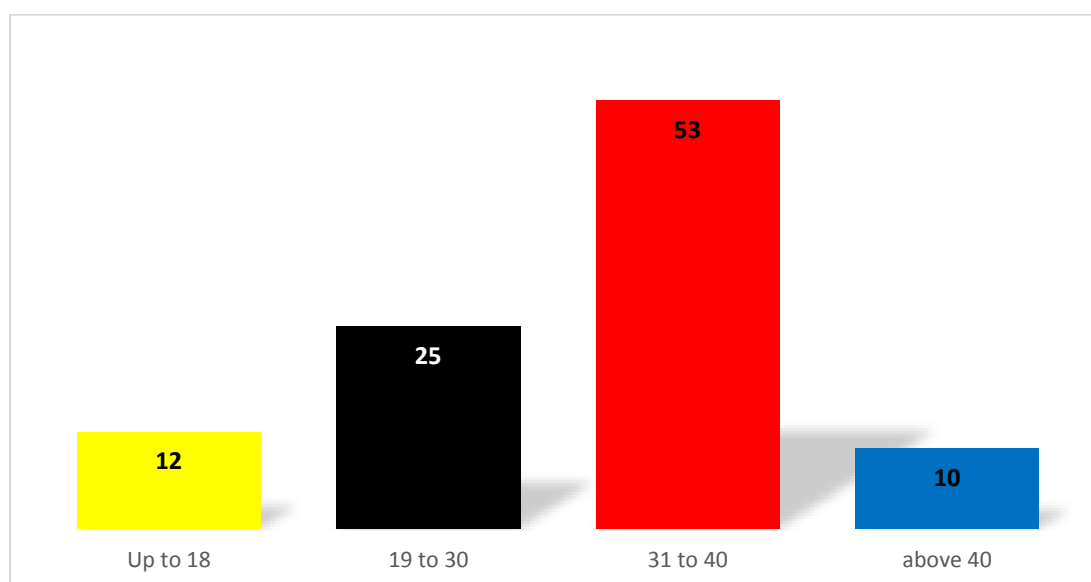
0.98. to 0.94 (Pallant, 2007; and Nunnally, 1978). Eye-to-eye technique was used to capture the data by using the SPSS (version 25). T-test was used for dependent variables based on 0.05 alpha level (Gay & Mills, 2006).

1.5 Results and Finding

1.5.1 Socio-Economic Attributions

Socio-economic attributions of the livestock farmers were the imperative aspect of the present research. In this regard the data was collected so as to check the livestock farmer's views about ICT importance. Whenever, the farmers were asked about their socio-economic conditions the responses of the farmers were found diversities. In this regard, the data was collected of livestock farmers. The results of the socio-economic conditions of the livestock farmers were checked and reported as shown in figure-1.

Figure-1, Livestock Farmers Socio-Economic Condition About Age Composition

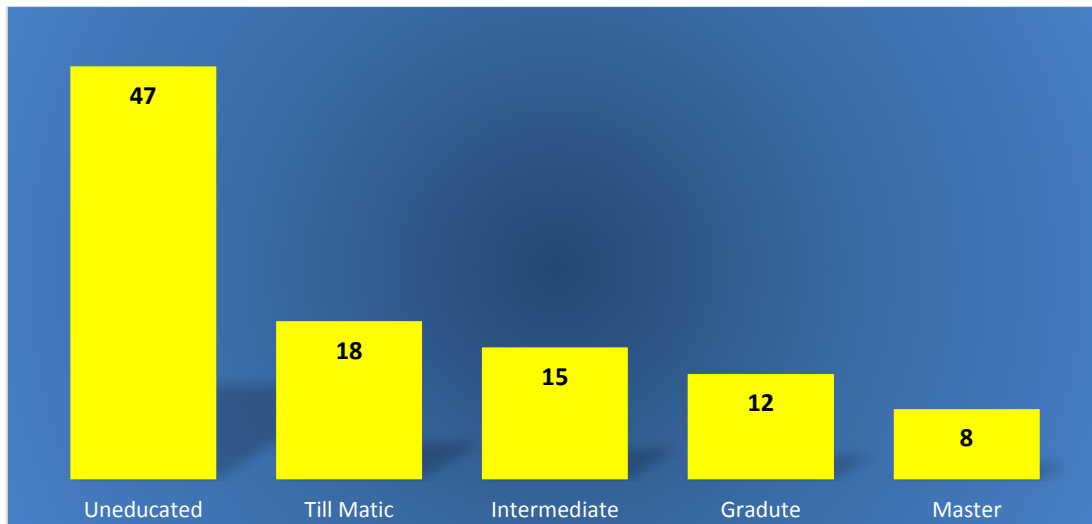


Livestock farmer's socio-economic conditions about age composition were shown in figure-1. More than half (53%) of the livestock farmers fell into the 31 and to 40 years'



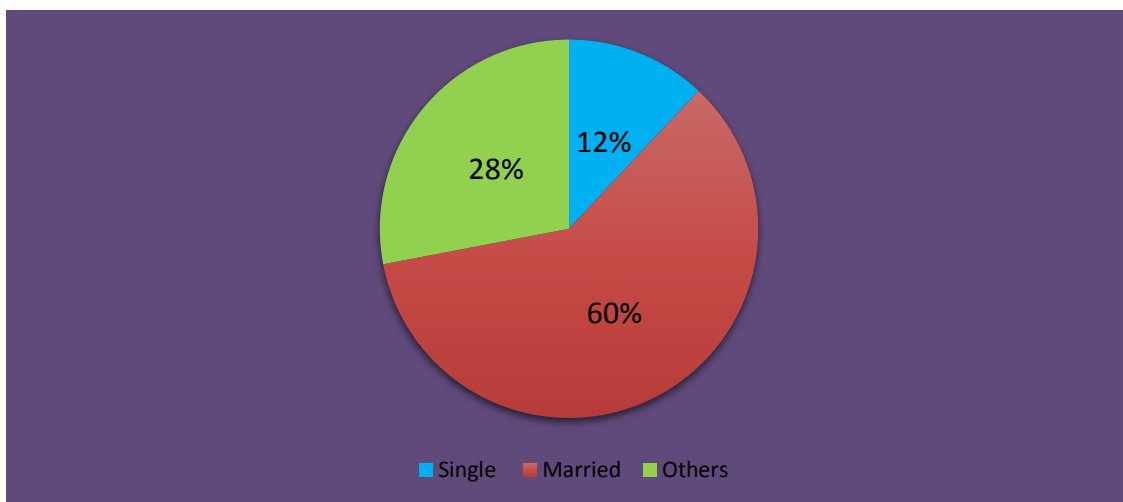
age categories followed by (25%) of the livestock farmers who fell into the 19 and to 30 years' age categories. The data was gathered at field level. Only 12-10% of the livestock farmers had fallen up to and above 40 years' age categories respectively.

Figure-2, Livestock Farmers Socio-Economic Condition About Educational Status



Educational status of livestock farmers was checked as shown in figure-2. (47%) of the livestock farmers did not get formal education. While, 18% were matriculation and 15% were intermediate level of education respectively.

Figure-3, Livestock Farmers Socio-Economic Condition About Marital Status



Livestock farmers were further asked about their marital status as shown in figure-3. Majority (60%) of the livestock farmers were married while 28% were fall into other categories respectively.

Table-1: Levene's Test for Equality of Variances of ICTs Role in Livestock Sector

Items	Mastung		Loralai		F-value	Sig*
	Means	SD	Means	SD		
Uses the ICTs for save time	3.1300	.75893	3.7600	1.00624	13.251	.000**
Uses the ICTs for save costs	2.7700	1.27484	2.9400	1.22944	.112	.738 ^{NA}
Uses the ICTs for exchange of ideas	2.2150	1.51003	3.1400	1.44963	2.312	.064 ^{NA}
Uses the ICTs for livestock improvement	3.8050	.65507	2.8500	1.06719	34.236	.000**
Any other (please specify)	3.3900	1.25930	3.9000	1.20185	3.567	.006 ^{NS}

Source: Field survey, 202

1* Significant at 0.05 Level

Levene's Test for Equality of Variances of ICTs role in livestock sector so as to detect the



perception variations of the livestock farmers as shown in table-1. In this regard the variables were identified as items or shape of items. The uses the ICTs for save time (Mean score =3.1300 “Mastung**”, Mean score =3.7600 “Loralai **”) and uses the ICTs for livestock improvement (Mean score =3.8050 “Mastung**”, Mean score =2.8500 “Loralai **”) were highly significant ($P \leq 0.05$). Whereas, uses the ICTs for save costs (Mean score =2.7700 “Mastung**”, Mean score =2.9400 “Loralai **”), uses the ICTs for exchange of ideas (Mean score =2.2150 “Mastung**”, Mean score =3.1400 “Loralai **”), and any other (please specify) (Mean score =3.3900 “Mastung**”, Mean score =3.9000 “Loralai **”) were non-significant ($P \leq 0.05$). The significance differences were reported in 2 out of five classes regarding ICTs role.

1.6 Conclusion

This research concluded that the ICTs were the imperatives and major sources of information within the livestock and husbandry sector in Balochistan. In order to assess the impact of ICTs imperatives in the livestock and animal husbandry sector this research was useful for policy-maker and livestock stakeholders in qualitative features. However, on the other hand, ICTs must be promoted in the livestock sector in the province so as to reduce the knowledge and communication gaps. Therefore, other various sources such as smart-phone, internet, television should be promoted at grass root level in livestock and husbandry sector so that to improve the livestock farmer's practical knowledge and cross-cutting skills.



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