

REVIEW ARTICLE

A SWOT ANALYSIS OF AGRIBUSINESS ENTREPRENEURSHIP IN NEPAL

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ARTICLE DETAILS

Article History:

Received 30 May 2020

Accepted 12 June 2020

Available online 24 June 2020

ABSTRACT

Agribusiness entrepreneurship has potential to generate growth, diversify income, and provide widespread employment and entrepreneurial opportunities. Nepal is an agrarian nation where one third of the GDP comes from agriculture. Nepal possesses numerous opportunities in agribusiness entrepreneurship mainly because of varied agro-climate, rich plant biodiversity, niche specific commodities and export potentiality prevailed in the country. A shift from subsistence agriculture to robust, vibrant and commercial agriculture through technology led agribusiness entrepreneurship is an essential pathway to revitalize Nepalese agriculture as an attractive and profitable venture. This review paper presents SWOT (strengths, weaknesses, opportunities and threats) analysis of agribusiness entrepreneurship in Nepal. It also highlights the existing opportunities which can be further strengthened to augment agribusiness entrepreneurship potentiality.

KEYWORDS

Agribusiness, Entrepreneurship, SWOT analysis.

1. INTRODUCTION

Entrepreneurship research is concerned with why, when, and how individuals identify and exploit the opportunities (Shane and Venkataraman, 2000). It is worth taking into consideration that the evolution of the free market economies globally has led to the development of a new spirit of enterprise "Agripreneurship" and the increased individual need for running their own business (Alex, 2011). Entrepreneurship in agriculture is defined as the modeling of innovative economic organization with the target of growth or gain under conditions of risks and uncertainty in agriculture (Dollinger, 2003).

Agribusiness entrepreneurship can simply be defined as managerial capacity to launch investment and run business either farming or other rural income generating activities (Escalante and Turvey, 2006). It is one of the recent areas of research in the entrepreneurship field (Mugonola and Baliddawa, 2014). The active attitude towards innovation is required for successful agribusiness entrepreneurship and is influenced mainly by the economic situation, culture and education (Gielen et al., 2004; Singh 2013). Agri-business includes enterprises related with the production, propagation, and distribution of products and services related with agriculture, floriculture, sericulture, horticulture, aquaculture and animal husbandry.

Entrepreneurs are individuals who manage business with the intention of expanding the business and with the leadership and managerial capabilities for achieving their goals (Gray, 2002). Entrepreneurs possess common traits as drive, ambition, single mindedness, creative and problem solving, goal oriented and practical (Bairwa et al., 2014). Agro-

entrepreneurs can grab advantage of opportunities to engage in new activities and increase household income, or expand farm operations so that additional family members can be employed (Alsos et al., 2013). Agro-entrepreneurial characteristics are viewed as initiative, sense of opportunity, intuitive, independent, dynamic, exhibiting leadership skills, a strong character and goal driven (Sancho, 2010).

Agriculture sector is central to Nepalese economy and plays a vital role to increase income, ensure food security, alleviate poverty and uplift the living standard of Nepalese people. It contributes about 27.1% of GDP and employs 65.6% labor force in Nepal. Recent data from the government revealed that out of the country's total area of 147181 square km, 21% is occupied by cultivated land whereas 6.9% is occupied by land suitable for cultivation (MoALD, 2019). As a country with a strong agricultural background, fertile soil and diverse and favorable climatic conditions, agribusiness entrepreneurship offers high potential for economic growth (Daayitwa, 2018).

Though a large portion of the population are involved in agriculture, Nepal imports huge amounts of agricultural commodities such as spices, food grains, potatoes, edible oils, fruits and vegetables from other countries for daily consumption. The export has stagnated in the recent year whereas import has skyrocketed leading to trade deficit (Ghimire, 2016). In 2017, Nepal exported \$803Millions and imported \$9.6Billions which resulted in a negative trade balance of \$8.75Billions (OEC, 2017).

"SWOT Analysis is a simple yet powerful framework for sizing up an organization's resource capabilities and deficiencies, its market opportunities, and the external threats to its future" (Thompson et al., 2007). It can assist to gain insights into the past and think of possible solutions to existing or potential problems, either for an existing or for a new business venture (Nouri et al., 2008). An analysis carried out using

Quick Response Code



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Website:
www.fabm.org.my

DOI:
[10.26480/fabm.02.202083.88](http://doi.org/10.26480/fabm.02.202083.88)

SWOT helps to focus activities into areas of strengths and where the greatest opportunities lie (Sanchez and Omar, 2012).

Traditional farmers who are unknown of scientific agriculture and effective management practices face difficulty to cope up with delaying monsoons, drought, crop debts, low quality seeds and lack of fertilizer (Bairwa et al., 2014). Agriculture in Nepal demands modernization, diversification, commercialization and promotion for creating crops to sustain the country and to increase export potentiality (STARTSUP Nepal, 2018). The managerial, technical and innovative skills of entrepreneurship applied in the field of agribusiness yields positive results. The purpose of the study is to assess the influencing factors of agribusiness entrepreneurship in Nepal and take them into consideration. The specific objectives of the study are to evaluate the internal factors (strengths and weaknesses) and assess the external factors (opportunities and threats) of agribusiness entrepreneurship in Nepal.

2. METHODOLOGY

Relevant information related to agribusiness, entrepreneurship and SWOT analysis were obtained from the thorough study of journal articles, research papers, annual reports, thesis, review articles, books, survey reports etc. and extensive review was done to evaluate the internal factors (strengths and weakness) and assess the external factors (opportunities and threats) of agribusiness entrepreneurship in Nepal.

3. RESULT AND DISCUSSION

The result has been discussed accordingly into four sections: as the Strengths, Weaknesses, Opportunities and Threats.

3.1 Strengths

For better understanding, the strengths of agribusiness entrepreneurship has been categorized into seven subheadings, namely "Diverse Climatic condition", "Niche specific commodity", "Rich in plant biodiversity", "Government priority sector", "Agriculture and Livestock Insurance Scheme", "Change in food consumption pattern" and "Indigenous and Traditional Knowledge (ITK)".

3.1.1 Diverse Climatic condition

Nepal contains a comparative advantage in farming due to a diverse climate and placement between China and India, the world's two most populous countries (Invest Nepal, 2015). A diverse variety of crops can be grown, from winter vegetables to tropical fruits. The country is divided into three climatic zones - Terai, temperate hills, and mountains - each suited to a unique variety of crops. There are areas of unique microenvironment in very short vertical distance. Nepal produces many agricultural commodities due to the diversity created by altitudinal variation (60 – 8,848 masl) and geography (UN, 2013). The Ministry of Agricultural Development published the annual statistics of 119 agricultural commodities and reported that farmers still practiced mixed crop and livestock integrated farming in every agro-ecological region of the country (FAO, 2010; MoAD, 2015).

3.1.2 Niche specific commodity

Commercially viable alternatives are present in the high hills which includes (sheep, goat, and yak farming) for wool, meat and milk and milk products. Emphasis should be given on non-timber forest product (NTFP) comprising of Yarsa gumba (*Cordyceps sinensis*), and locally available medicinal herbs such as *Panch aunle*, *Satuwa*, *Xanthoxylum*, *Seabuck thorn*, *Morchella* and other medicinally important mushrooms and many more should be cultivated at commercial scale. These are unique commodities having comparative advantage that can generate local employment leading to increase in purchasing power of the people for sustaining livelihood and tapping of niche specific commodities for agribusiness entrepreneurship (Poudel, 2016).

3.1.3 Rich in plant biodiversity

Though Nepal occupies only 0.1 percent of the earth surface area, it harbors 3.2% of world flora (MoFSC, 2014). Nepal is one of the biodiversity-rich countries, stands 27th position in the world, 10th position in Asia and 2nd position in South Asia (Shrestha and Bajracharya, 2018).

3.1.4 Government priority sector

The government has prioritized agriculture as the top choice of the nation. Nepalese Agriculture policy (NAP-2004) prioritized the increase in

commercialization and competitiveness of agriculture which was further strengthened by the introduction of agriculture and livestock insurance (GC and Ghimire, 2018). Investment in agriculture, agribusiness and rural development by Government, private sectors and development partners has increased since 2000 because of global and domestic factors including a more stable business environment (MoF, 2012). Agriculture development strategy aims to foster agricultural innovation and agro entrepreneurship through the combination of tax incentives, agribusiness incubators and matching grants (ADS, 2014).

3.1.5 Agriculture and Livestock Insurance Scheme

Agricultural insurance is widely recognized as one of the key options to manage climate and other risks to farm level production, infrastructure and income (Smit and Skinner, 2002; Warner et al., 2013). The current agricultural insurance scheme provided by the government covers many agricultural commodities such as paddy, vegetables, fruits, potato, livestock and poultry and many risks including climate change induced events, (flood, drought, landslide, windstorm, hail, snow, frost), disease, pests, fire, lightning, earthquake, and other emergency accidents that are likely to cause damage on agricultural production (MoALD, 2019). The insurance scheme provided by various companies is quite effective where 75% premium is provided by the government since 2014/15 (Ghimire et al., 2016). At present there are 20 Insurance Companies providing insurance in the agriculture sector in various regions of the country (MoALD, 2019).

3.1.6 Change in food consumption pattern

In recent years there has been a shift in food consumption pattern towards high value commodities like fruits, vegetables, milk, meat, fish and eggs. This trend is attributed to factors such as increasing income, urbanization, health and environment consciousness and changing occupation profile. Although the present price of organic products is higher than inorganic products, many consumers are still continuing to buy organic products (Aryal et al., 2009).

3.1.7 Indigenous and Traditional Knowledge (ITK)

Nepal is considered to be one of the richest countries in terms of ITK due to its geographical diversity and many ethnic communities. ITK practices are farmer friendly, socially accepted, economically viable, environmentally sound and suited to the specific local and environment conditions (Sharma et al., 2009). Agribusiness entrepreneurship has a strong traditional knowledge which is passed from generations to generations which is providing inputs to the expertise in manufacturing like textile industry, handicraft industry etc.

3.2 Weaknesses

For better understanding, the weaknesses of agribusiness entrepreneurship in Nepal has been categorized into seven subheadings, namely "Average land holding", "Land Degradation", "Lack of infrastructure facilities", "Low Competitiveness", "Gap between export quality requirement and available quality", "Lack of agricultural value-chain and systems research" and "Poor linkages between technology generation and dissemination".

3.2.1 Average land holding

In the last 15 years, the average size of land owned by the household is declining from 1.1 ha in 1995 to 0.70 ha in 2010. Additionally, these landholdings are frequently fragmented, averaging 3.1 parcels with average size of 0.21 ha per parcel (CBS, 2012). Such small holdings create obstacles to carry out farm mechanization operations and make farming non remunerative.

Table 1: Trend of Land Holding Among Farm Households, 1995-2011

Land holding pattern	1995/96	2003/04	2010/11
Agricultural households (%)	-	79.9	76.6
Average size of agricultural land (ha)	1.1	0.8	0.7
Agricultural households without land (%)	16.9	22.5	26.1
Marginal farms (% Households operating less than 0.5ha)	40.1	44.8	52.7
Small farms (% Households operating 0.5-2.0ha)	47.0	47.2	42.9
Large farms (% Households operating 0.2ha and above)	12.9	8.0	4.4

Source: (Central Bureau of Statistics ,2012)

3.2.2 Land Degradation

Land degradation is one of the greatest obstacles faced in Nepal (Acharya and Kafle, 2009). Both natural conditions and anthropogenic activities have led to the degradation of land in Nepal. Major causes include fragile geological structure, forest fire, avalanches and dry landslides which are fueled by increasing population and fragile economy. 4% area mostly situated in higher altitude and trans-Himalayan region is affected by wind erosion. Land degradation due to chemical and physical processes is less than 2% of the total area of the country (Gautam et al., 2003). 28 percent of total land (3.26 million ha) is degraded which includes 36 percent of the forest, 37 percent of the rangeland and 10 percent of the agricultural land (MoEST, 2008).

Table 2: Land area under degradation

S.N	Land use category	Degraded area (million ha)	Total land area (million ha)	% of degraded land
1.	Forest (poorly managed)	2.100	5.828	36.02
2.	Agriculture (poorly managed sloping terraces)	0.290	2.969	10.00
3.	Pasture/ rangeland (degraded)	0.647	1.75	37.00
4.	Areas damaged by floods and landslides (1984-20003)	0.106	11.551	0.92
5.	Forest encroachment	0.119	5.828	2.04
	Nepal	3.262	11.551	28.24

Source: Ministry of Education, science and Technology, 2008

3.2.3 Lack of infrastructure facilities

Nepal does not possess sound basic infrastructure for favoring commercialization of agriculture massively. Successful agribusiness entrepreneurship should be supported and promoted by the investment on basic infrastructures such as strong research and development systems, construction of irrigation channels, link roads, and power, marketing systems, storage facilities etc. Huge amounts of fruits and vegetables are wasted everyday due to the lack of proper post-harvest facilities at the fruit and vegetable wholesale markets (Devkota et al., 2014).

3.2.4 Low Competitiveness

The increase in growth of food and agricultural trade deficit in Nepal is mainly due to low competitiveness of agriculture in Nepal. Low competitiveness is the consequences of the difficulty of carrying out business activities, poor infrastructure, governance, and regulations. Most of the indicators of competitiveness in Nepal are very low in international benchmarking.

Table 3: Competitiveness indicators for Nepal

Indicator	Rank of Nepal
Difficulty of carrying out business across borders	99 of 189 countries
Infrastructure index	126 of 144 countries
Ease of access to loan index	116 of 144 countries
Corruption perception index	128 of 144 countries
Governance effectiveness index	-0.83 (range -2.5 to 2.5)
Regulatory quality index	-0.85 (range -2.5 to 2.5)

Source: World Economic Forum 2016, World Bank 2016

3.2.5 Gap between export quality requirement and available quality

Quality and processing issues with Nepalese agricultural products account for additional non-tariff barriers (Daayitwa, 2018). High-price, low-volume products like cardamom that could find profitable markets in Europe can sometimes be restricted from entering these markets due to strict European quality standards. Spices dried using traditional methods often fail to fulfill these benchmarks, closing off potentially lucrative trade channels (ITC, 2017). Similar nontariff barriers are not only a problem in

accessing distant, Western markets; but Indian authorities also regularly cite sanitary and phytosanitary standards (SPS) to reject shipments of Nepali ginger (Khanal, 2018).

3.2.6 Lack of agricultural value-chain and systems research

A top-down approach of agriculture research, education and extension, which is not demand-driven, is a huge obstacle to the overall development of the Nepalese agriculture sector. One of the most fundamental knowledge gaps in research and intervention is an understanding of the determinants of consumer choice and the way to use this information to improve the food and the agricultural system (Paudel and Rajotte, 2013). However, cereal research dominates over other subsectors in terms of technology generation, availability of human resources, and investment in research projects leading to limited technologies available in horticulture, livestock, commercial crops and fisheries (MoAD, 2012).

3.2.7 Poor linkages between technology generation and dissemination

In Nepal, technologies are introduced by international, regional and local networks of research activities. The major concern for agribusiness entrepreneurship is the ineffective link between technology generation and dissemination among public and private sectors. It has hindered commercialization of agriculture in niches where there is sufficient room for raw material production for several agro-based industries such as sugar factory, jute mills, tea industries, vegetable seed production and many horticultural commodities of flowers, fruits, vegetables and agro processing and post-harvest related industries (Poudel, 2016).

3.3 Opportunities

In addition to various positive endogenous factors, there are several positive exogenous factors which may lead to the success of agribusiness entrepreneurship in Nepal. These potentials are discussed under the sub-headings "Agro -Processing Sector", "Agro-Tourism", "Bee -Keeping", "Diversification", "Export Potentiality" and "Floriculture".

3.3.1 Agro -Processing Sector

The agro-processing sector covers both large and small firms that carry out intermediate and final processing of produce from agriculture, livestock and fisheries (Henley, 2017). In Nepal, sub-sectors with the maximum number of firms include grain milling (575 firms), bakeries (112 firms), dairying (56 firms) and sugar processing (54 firms) (CBS, 2014). The food and beverage sub-sector was the only largest manufacturing sub-sector, in terms of both number of firms (26.3% of total) and value-added (34%), the latter rising from 22.8% in 1996 (Henley, 2017). Of all industries, noodles, dairying and sugar have showed the most consistent growth (Islam, 2000). Processing of rice, wheat, ginger, spices, tea and coffee has strong backward linkages with domestic traders and the farmers cultivating these crops. Arrangements of efficient supply chains and processing infrastructure can do miracles in terms of employment generation and creation of productive assets in rural areas (Kumar and Nain, 2013).

3.3.2 Agro-Tourism

Agro-tourism can be various things, vegetable farming, fruits picking, organic farming, horse riding, visiting and overnight stay at farm, harvesting, bed and breakfast, special events and traditional food festival celebration, bow hunting, fishing etc. (Dangol and Ranabhat, 2007). Tourism and agriculture are pivotal sectors of the Nepalese economy with competitive and comparative advantages, and enhances each other's performance (Thapa, 2013). Agro-tourism can be a tool to boost branding of local, organic and traditional products along with development of entrepreneurship in rural areas and creation of job opportunities (Thapa, 2013). Nepal possesses huge potentiality for agro tourism owing to utilization of diverse resources, landscapes, biodiversity, cultural heritages, and unique traditions (Maharjan, 2006).

3.3.3 Bee -Keeping

Honey is regarded as an important high value commodity of Nepal and one of the most important income-generating activities for majority people (Aryal et al., 2000). The enormous possibility of bee enterprise exists in Nepal due to the distribution of diversified bee flora and suitable climatic condition for honeybee diversity (Bista, 2001; Thapa, 2006; Adhikari and Ranabhat, 2011; Thapa, 2012). A study estimated that Nepal could have as much as one million bee colonies producing more than 10,000 MT of

honey annually (Aryal et al., 2015). Currently, Nepal exports only around 4 MT of honey for which it gets a fair price but it imports about 300 MT annually to satisfy the domestic demand. Honey has both the export orientation and import substitution potentials in the country (Bhandari and Kattel, 2020).

3.3.4 Diversification

Agricultural diversification towards high value crops is one of the viable ways of improving the livelihood of the small farmers and has been gaining attention in the rural areas. It has been considered as an effective means of reversing the declining trend of agriculture growth (Rosegrant and Hazell, 2000). In Nepal, a country dominated by marginal and small farms, the Government has prioritized high value farming as an important strategy for developing a more competitive and commercial agricultural sector (ADS, 2014).

3.3.5 Export Potentiality

Nepal has comparative advantage and has high scope of exportability of those commodities to other countries mainly India namely; ginger, tea, coffee herbs, Ayurveda medicines, pashmina, brooms, pulses, vegetables, large cardamom, turmeric, cane molasses and many others (Poudel, 2016).

Table 4: Export of major agricultural commodities From Nepal to Other Countries during Fiscal Year 2017/18				
S.N	Agricultural Commodities	Unit	Quantity	Export (Rs.'000)
1.	Mixture of fresh juices, unfermented	LTR	48,271,284	3,423,869
2.	Fresh Ginger	KG	17,222,449	388,363
3.	Black tea	KG	14,986,756	2,845,739
4.	Frozen orange juices	LTR	8,506,902	662,530
5.	Cane molasses	KG	7,408,580	56,365
6.	Cardamom	KG	5,392,214	4,841,380
7.	Frozen boneless bovine meat	KG	4,114,707	433,679
8.	Apple juice of a brix value < =20	LTR	3,335,436	208,578
9.	Uncooked pasta	KG	3,333,288	423,442
10.	Broom Grass	KG	2,101,470	52,547

Source: Ministry of Agriculture and Livestock Development, Statistical Information on Nepalese Agriculture, 2017/18

3.3.6 Floriculture

Nepal comprises 6,973 species of flowering plants of which 315 species are endemic (Groombridge and Jenkins, 2002). In 2015/16, the floriculture business was carried out in 39 districts occupying 147 ha of land and more than 41000 people were directly or indirectly dependent in this sector. Floriculture has the potential of getting off season prices. Nepal has natural advantage for cultivation of floricultural products in hills when there is no possibility of producing them in the plains of Nepal and nearby India and Bangladesh without controlled environment. Cut flower is the product where very high level of value addition is made at retail level. There is high demand for cut flowers from international markets including Middle East, Japan and European countries (FAN, 2017).

3.4 Threats

Despite having various opportunities, agribusiness entrepreneurship in Nepal has been surrounded by several threats. They are discussed under the sub-headings "Climate Change", "Unorganized trade practices with India", "Global competition", "High cost of modern technology" and "Skilled migration and brain drain".

3.4.1 Climate Change

Extreme events, especially floods and droughts, have adverse impacts on South Asian crop productivity and food supply, which ultimately leads to upward pressure on food prices (Bandara and Cai, 2014). Among the countries in South Asia, Nepal is expected to be one of places most vulnerable to climate change (Chalise et al., 2017). With regard to climate change parameters in Nepal, the regional climate-model projections show temperature increases of 1.6°C–2°C by 2030, 2.3°C–2.9°C by 2050, and

3.4°C–5.0°C by 2080 (Ahmed and Suphachalasai, 2014). The climate change-induced productivity loss therefore has negative impacts on the overall Nepalese economy.

3.4.2 Unorganized trade practices with India

India is the primary source of imports and the primary export market for Nepal. Due to this reliance, Nepali producers lose access to the inputs they need as well as the markets where they can sell their goods. Insufficient investment in processing and holding facilities, labeling capacity, and value addition activities has intensified these issues. From 2012-2016, more than 63% of Nepal's total exports were to India, mainly due to Nepal's landlocked nature and open border with India to the west, south, and east (WITS, 2017).

3.4.3 Global competition

Agricultural entrepreneurship is now facing the global competition. It is very difficult for agro-entrepreneurs to run a business in the high competitive area with the low profile. Generally agriculture entrepreneurship is limited to remote areas with small capital with low potentiality to compete with large organizations. Good trade practices are necessary to maintain the sustainable development of any agribusiness entrepreneurship. Lack of good trade practices like quality of product, weight, packaging, labeling etc. are major obstacles to realize the full potentiality of the agribusiness in Nepal.

3.4.4 High cost of modern technology

New advancements in technologies ranging from robotics and drones to computer vision software have completely revolutionized modern agriculture which addresses issues related to consumer preferences, labor shortages, and the environmental footprint of farming (Ku, 2020). But the cost of modern technology is always high which is beyond the reach of small agribusiness entrepreneurs. Due to lack of machinery and technologies, small entrepreneurs are confined within the boundary of small scale and labor intensive production.

3.4.5 Skilled migration and brain drain

Young and enthusiastic agriculture graduates and scientists leaving the country in search of more attractive opportunities abroad is very common; 30% of the total number of agriculture graduates produced each year go abroad to study or work (Pokhrel, 2013). The result of this is a high average age of agricultural personnel due to the low intake of younger candidates; over 40% of the scientists are nearing retirement age, while 32% of posts are vacant as a result of recruitment problems (IRIN, 2013).

4. CONCLUSION

Agriculture will remain a significant contributor to the economy of Nepal well into the long run. The agriculture sector is undergoing rapid changes as a result of both technology and economic forces, which call for an increased market focus, increased competitiveness, and higher productivity. An individual with risk bearing capacity and a quest for the latest knowledge in the agriculture sector can prove to be right agribusiness entrepreneurs. Agribusiness entrepreneurship, with innovations, management skills and technology can come up as a major player in the economy as well as a tool for rural development. Nepal's environment of diverse climatic condition endowed with rich biodiversity, export potentiality, change in food consumption patterns of consumers, niche specificity strengthens the development of agribusiness entrepreneurship in the competitive business environment. However, lack of infrastructure and ineffective agriculture value chain and system research, poor linkage between technology generation and dissemination, poverty and several other factors limits the actual realization of agribusiness potentiality. Due to the traditional farming practices and lack of skilled working force in the field of agribusiness entrepreneurship, Nepal is compelled to import agro-products worth hundreds of billions. There are numerous opportunities including agro-processing sectors, agro-tourism, bee-keeping, diversification, export potentiality and floriculture which can be exploited to uplift agribusiness entrepreneurship in Nepal. Several factors such as climate change, global competition, high cost of modern technology, unorganized trade practices and brain drain of skilled manpower pose serious threats. It requires conducting research and development on different aspects of agribusiness entrepreneurship model to overcome the weakness and threats at micro and macro levels. Creation of critical infrastructure for cold storage, refrigerated transportation, rapid transit, grading, processing, packaging and quality control measures open major opportunities for investment. Raising awareness about agriculture entrepreneurship, development of

required technical manpower and infrastructure facilities, promotion and protection by the Government and establishment of agribusiness special export zones can help to exploit the full potential of agribusiness entrepreneurship in Nepal. Agribusiness entrepreneurship is not only an opportunity but also a necessity to improve the production and profitability in agriculture as well as the allied sector.

ACKNOWLEDGEMENT

We would like to offer our sincere gratitude and huge appreciation to Mr. Kamal Regmi and our dearest friend Mr. Sangam Bhattarai for their valuable suggestion and guidance throughout the work. Our honorable regards to our parents for their sacrifice, continuous efforts, blessings and encouragement to boost our moral. We would like to express our deepest acknowledgement, heartfelt gratitude, and profound appreciation to all concerned people and helping hands for their significant support for the completion of the study.

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ABBREVIATIONS

ADS- Agriculture Development Strategy
 CBS- Central Bureau of Statistics
 FAO- Food and Agriculture Organization
 Ha- Hectare
 ITC- International Trade Centre
 masl- meter above sea level
 MoAD- Ministry of Agriculture Development
 MoALD- Ministry of Agriculture and Livestock Development
 MoEST- Ministry of Education, Science and Technology
 MoF- Ministry of Finance
 MoFSC- Ministry of Forest and Soil Conservation
 MT- Metric ton
 WITS- World Integrated Trade Solutions.