

Analyzing Financial Capital Behavior in the Renewable Energy Sector of Nepal

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Abstract

The paper aims at analyzing financial capital behavior in the renewable energy sector of Nepal. The study consists of a descriptive research design based on both primary and secondary data. The necessary primary data were collected through a field survey by using a structured questionnaire on a sample of 118 Nepalese renewable energy enterprises having 264 respondents while the secondary data were collected through the relevant publications from January to March 2016. The collected data were analyzed using simple statistical tools such as tables, mean, rank, and percentage to derive results leading to major findings of the study. The major components of the renewable energy sector comprise biogas, solar and micro-hydro companies ranging from micro to medium enterprises in Nepal. The study concludes that the initial investment appeared to vary with the sectors of enterprises. The major source of financial capital for renewable energy enterprises is their capital. Financial capital is a vital and basic requirement of entrepreneurship in the sector. This study is useful for biogas companies, solar companies, and micro-hydro construction companies to grow their own business by focusing on the financial capital behavior in the renewable energy sector of Nepal. The study can be extended by incorporating other sectors of renewable energy, such as improved cooking stoves, wind technology, and biomass sectors to get greater insight into the results.

Keywords: Biogas, financial capital, micro-hydro, renewable energy, solar

1. Introduction

Entrepreneurial success is defined as receiving financial returns and non-financial achievements from entrepreneurial activities (Gupta, Sikarwar, & Holani, 2021). Entrepreneurial success is determined by multiple factors. Entrepreneurial success depends upon starting a business and identifying an opportunity (Kumar, 2007). According to Alvarez and Busenitz (2001), entrepreneurial resources might be unique to entrepreneurial success. Financial, social, and human capital are the important factors affecting entrepreneurial success (Alvarez & Busenitz, 2001). An entrepreneurial individual has specific resources which expedite identifying an opportunity and the accumulation of new resources to create a new enterprise leading to entrepreneurial success.

Financial capital is one of the most visible resources. It can create a buffer against random shocks and allow the pursuit of more capital-intensive strategies, which are better protected from imitation (Cooper, Gimeno-Gascon, & Woo, 1994). The new venture growth depends upon access to resources (Aldrich & Martinez, 2001). In this perspective, the studies showed that the formation of a new enterprise was customary when an individual had access

to finance [Evans & Jovanovic, 1989; Holtz-Eakin *et al.*, 1994 Blanchflower *et al.* (2001)]. An individual having finance can acquire the necessary resources to grasp an opportunity to start an enterprise (Clausen, 2006). On the other side, the various studies are in distinction to the above-mentioned model as it is observed that several entrepreneurs start a new enterprise without ample financial capital (Aldrich, 1999; Kim *et al.*, 2003; Davidsson & Honig, 2003 and Hurst & Lusardi, 2004). It shows that an enterprise can start without ample capital. Accordingly, access to finance by the entrepreneur is a key element to the growth of the firm; however, it is not essentially important to start an enterprise (Hurst & Lusardi, 2004). In the context of the renewable energy sector of Nepal, it is not yet known about the role of financial capital in entrepreneurial success.

In the context of Nepal, a study by Poudyal (2002) revealed that faith in a business plan and willingness to stick to it could increase an entrepreneur's chances for success and profitability. The critical factors contributing to the success of entrepreneurship are easy access to finance followed by easy access to raw materials (Shrestha, 2007). Women can become active entrepreneurs if they have access to finance (Rakhal, 2015). In addition to market segmentation, access to capital and lack of skills and knowledge are the main constraints to micro-business growth (Villanger, 2015). Moreover, AEPC (2011) and AEPC/ESAP (2010) found higher income for electrified households from small businesses compared to non-electrified households in the context of Nepal. Rural electrification and the installation of solar home systems are likely to increase the probability of starting a small business. In the case of Nepal, the renewable energy sector has two categories of enterprises i.e., successful and subsistence. The enduring question arises of how financial capital behaves in the context of the renewable energy sector in Nepal.

Sustainable economic development depends upon goods and services produced in the country rather than a remittance-based economy like Nepal. Due to the acute unemployment situation in Nepal, over 3,000 youths have been departing abroad day by day for employment (Khadka, 2022). The economy of the country has gone remittance-based economy. As a proportion of GDP, Nepal is the highest recipient of remittances (31.3 percent) in the world followed by Kyrgyzstan (30.4 percent) and Tajikistan (26.9 percent) in 2016 (Desilver, 2018). In these circumstances, entrepreneurship can generate employment locally and convert a remittance-based economy into a sustainable economy.

To sum up the above discussion, the purpose of this study is to examine the financial capital behavior in the context of the renewable energy sector of Nepal. This study is the first of its kind as no study has so far been conducted in the renewable energy sector of Nepal. Thus, the study dealing with financial capital behavior in the renewable energy sector of Nepal is of greater significance.

2. Materials and Methods

The study comprises a descriptive research design based on primary and secondary data. The primary data were collected through field surveys using structured questionnaires while the secondary data were collected through annual reports of the Alternative Energy Promotion Centre (AEPC) from January to March 2016. The required primary data were collected from 264 owners/managers of 118 renewable energy enterprises (REEs) using structured questionnaires.

The study covers the renewable energy sector of Nepal considering the samples from biogas solar, solar sector, and micro-hydro sector. There were 260 REEs in Nepal with ages of 3 years or more in the sector. There are 162 REEs or 62 percent out of 260 lie in the Bagmati province of Nepal. A total of 162 REEs of the Bagmati province were considered as the population of the study.

The study has determined its sample by using a simplified formula for the proportions of a finite population (Yamane, 2007). The study assumes a 95 percent level of confidence. Based on these assumptions, the required sample size was calculated as under:

$$n = \frac{N}{1 + N(e)^2} \dots (1)$$

Where, n= sample size; N = population size; e = level of precision.

$$n = \frac{162}{1 + 162 (0.05)^2} = 115.30 \cong 116 \text{ REEs}$$

Thus, the minimum sample size should be 116 REEs. It seems to be representative of the renewable energy sectors in Nepal. The selected REEs were biogas companies, solar companies, and micro-hydro construction companies as shown in Table 1.

Table 1: Number of REEs selected for the study

| SN | REEs | Total REEs(N) | Proportion (%) | No. of REEs selected (n) | n/N (%) |
|--------------|-------|---------------|----------------|--------------------------|---------|
| 1 | BCs | 46 | 28 | 33 | 71.74% |
| 2 | SCs | 61 | 38 | 44 | 72.13% |
| 3 | MHCCs | 55 | 34 | 39 | 70.91% |
| Total | | 162 | 100 | 116 | 71.60% |

Source: Annual report of AEPC, various issues, and Annual report of BSP-Nepal, various issues.

The details of sample size and distribution of questionnaires for each sector and the number of questionnaires distributed and collected are presented in Table 2. To achieve the objective of this study, 130 REEs were selected out of 162 REEs based on the availability of data. For each sector, random sampling was used to determine the respondents. From 130 REEs, 390 owners/managers were selected as respondents for this study. Out of 390 questionnaires distributed, a total of 273 questionnaires were returned from 118 REEs, yielding a response rate of 70 percent. Out of the 273 questionnaires received, nine questionnaires were discarded as they were not filled up properly. Thus, the primary data analysis was based on 264 questionnaires received from 118 REEs. The collected data were analyzed using simple statistical tools such as percentages, tables, and descriptive statistics to derive results leading to major findings of the study. This study used a summary of descriptive statistics associated with financial capital behavior, characteristics of the owners/managers, and the firm to analyze and identify the characteristics, patterns, and rank of the responses in the renewable energy sector.

Table 2: Number of REEs and collection of questionnaires

| REEs | Sample size determine (No. of REEs) | Questionnaires distributed (No. of REEs) | Questionnaires collected (No. of REEs) | No. of questionnaires distributed | No. of questionnaires collected |
|--------------|-------------------------------------|--|--|-----------------------------------|---------------------------------|
| BCs | 33 | 38 | 33 | 114 | 63 |
| SCs | 44 | 48 | 45 | 144 | 102 |
| MHCCs | 39 | 44 | 40 | 132 | 99 |
| Total | 116 | 130 | 118 | 390 | 264 |

Source: Field survey

Descriptive statistics such as mean, standard deviation minimum, and maximum values were used to describe the characteristics of renewable energy enterprises and entrepreneurial behavior in the renewable energy sector of Nepal.

3. Results and discussion

In this section, an attempt has been made to study financial capital behavior by analyzing financial capital used by entrepreneurs in the context of the renewable energy sector of Nepal based on a field survey using structured questionnaires. Table 3 shows the profile of the respondents comprising the firm characteristics and characteristics of the owners/managers.

The respondents were from three major components of the renewable energy sector- biogas, solar, and micro-hydro sectors. As shown in Table 3, the responding enterprises from the solar sector constitute the majority of the sample (39 percent) followed by 37 percent from the micro-hydro sector and 24 percent from the biogas sector. As regards the age of enterprises, most of the enterprises (44 percent) covered in this study are 6 to 10 years old. However, 24 percent of the enterprises were 3 to 5 years old, and 18 percent were 11 to 15 years old. The rest (14 percent) were more than 15 years old. The average age of enterprises was observed to be 10 years. The size of enterprises covered in this study ranged from micro to medium enterprises. Most of the enterprises (33.7 percent) contain 21 employees or more while 30.7 percent of enterprises had 11 to 20 employees. Likewise, 21.2 percent of renewable energy enterprises had 7 to 10 employees and the rest (14.4 percent) had 6 or fewer employees. The average number of employees of REEs was observed to be 20 employees. Regarding the legal status of enterprises, the majority of the responding enterprises (79.5 percent) were partnership firms followed by sole proprietorship firms (20.5 percent).

As is evident from Table 3, the majority of the respondents (50.4 percent) were managers of renewable energy enterprises while 49.6 percent of respondents were owners of the enterprises covered under this study. Regarding gender, the majorities of the respondents (87.1 percent) were male, and only 12.9 percent of respondents were female covered under this study. Likewise, the majority of the respondents (67.8 percent) were married followed by single (32.2 percent). Concerning the age of respondents, the majority of respondents (40.4 percent) were 26 to 35 years old while 30.2 percent of respondents are 36 to 45 years old. Likewise, 14.4 percent of respondents were under 26 years old, and the rest (14.4 percent) were more than 45 years old. The average age of the respondents is observed to be 35 years. Furthermore, the respondents were from different districts of Nepal. Out of 264 responding owners/managers, 170 were from the Kathmandu district, 56 were from Lalitpur district, 17 were from Kavre, 10 are from Chitwan district, 6 were from the Bhaktapur district, and 5 were from Makwanpur district of Nepal.

Table 3: Profile of the respondents

This table shows the firm characteristics such as firm age, firm size, the legal status of enterprises and sector of enterprises, and the characteristics of owners/managers such as designation, gender, marital status, and age of respondents.

| Characteristics | Profiles | Number of respondents | Percentage |
|-------------------------------|-----------------------|-----------------------|------------|
| Sector | Biogas | 63 | 23.9 |
| | Solar | 102 | 38.6 |
| | Micro-hydro | 99 | 37.5 |
| | Total | 264 | 100.0 |
| Firm age | 3-5 years | 64 | 24.2 |
| | 6-10 years | 116 | 43.9 |
| | 11-15 years | 48 | 18.2 |
| | 16 years or above | 36 | 13.6 |
| | Total | 264 | 100.0 |
| Firm size | 1-6 employees | 38 | 14.4 |
| | 7-10 employees | 56 | 21.2 |
| | 11-20 employees | 81 | 30.7 |
| | 21 employees or above | 89 | 33.7 |
| | Total | 264 | 100.0 |
| Legal status | Sole proprietorship | 54 | 20.5 |
| | Partnership | 210 | 79.5 |
| | Total | 264 | 100.0 |
| Designation of respondents | Owners | 131 | 49.6 |
| | Managers | 133 | 50.4 |
| | Total | 264 | 100.0 |
| Gender of respondents | Male | 230 | 87.1 |
| | Female | 34 | 12.9 |
| | Total | 264 | 100.0 |
| Marital status of respondents | Single | 85 | 32.2 |
| | Married | 179 | 67.8 |
| | Total | 264 | 100.0 |
| Age of the respondents | 25 years and under | 38 | 14.4 |
| | 26-35 years | 108 | 40.9 |
| | 36-45 years | 80 | 30.3 |
| | 46 years and above | 38 | 14.4 |
| | Total | 264 | 100.0 |
| District of the respondents | Kathmandu | 170 | 64.4 |
| | Lalitpur | 56 | 21.2 |
| | Kavre | 17 | 6.4 |
| | Chitwan | 10 | 3.8 |
| | Bhaktpur | 6 | 2.3 |
| | Makwanpur | 5 | 1.9 |
| | Total | 264 | 100.0 |

Source: Field survey

The above-mentioned profile of respondents reveals that the sample was a good mix of all types of owners/managers in the Nepalese renewable energy sector. Hence, the sample

appeared to be representative one from which to extract general conclusions on factors affecting entrepreneurial success.

Furthermore, an individual with access to finance was more capable to obtain resources to exploit an opportunity and create a business firm (Clausen, 2006). Starting an enterprise is possible when people have access to financial resources. In this connection, it is important to determine how much capital has been invested by Nepalese renewable energy entrepreneurs. The number of responses on the initial investment in renewable energy enterprises by sector of enterprises is presented in Table 4.

Table 4: Number of responses on the initial investment by sector of enterprises

This table comprises the number of responses on the initial investment in renewable energy enterprises by entrepreneurs in the biogas, solar and micro-hydro sectors of Nepal with percentages over total responses.

| Initial investment | Biogas | Solar | Micro-hydro | Total |
|------------------------|-------------|--------------|-------------|--------------|
| 500,000 and below | 32 (51) | 12 (12) | 20 (20) | 64 (24) |
| 500,001 to 1000,000 | 11 (17) | 33 (32) | 24 (24) | 68 (26) |
| 1,000,001 to 1,500,000 | 7 (11) | 11 (11) | 4 (4) | 22 (8) |
| 1,500,001 to 2,000,000 | 1 (2) | 0 (0) | 12 (12) | 13 (5) |
| 2,000,001 and above | 12 (19) | 46 (45) | 39 (40) | 97 (37) |
| Total | 63 (100) | 102 (100) | 99 (100) | 264 (100) |

Source: Field survey

Note: Figures in parentheses are percentages over total responses.

Most of the biogas companies (51 percent) invested Rs. 500,000 or less as an initial investment. Similarly, 19 percent of biogas companies had an initial investment of Rs. 2,000,001 or more. While 17 percent of biogas companies had initial investments ranging from Rs. 500,001 to 1,000,000, 11 percent had an initial investment of Rs. 1,000,001 to 1,500,000. Only 2 percent of biogas companies had employed initial capital investment ranging from Rs. 1,500,001 to 2,000,000.

Similarly, most of the solar companies (45 percent) had invested Rs. 2,000,000 or more as an initial investment. Likewise, 32 percent of solar companies had an initial investment ranging from Rs. 500,001 to 1,000,000 while 12 percent had an initial investment of 500,000 or less. Only 11 percent of solar companies had employed initial investments ranging from Rs. 1,000,001 to 1,500,000.

Moreover, the majority of the micro-hydro construction companies (40 percent) had invested Rs. 2,000,000 or more as an initial investment while 24 percent had initial investments ranging from Rs. 500,001 to 1,000,000. Similarly, 20 percent of micro-hydro construction companies had an initial investment of Rs. 500,000 or less. Twelve percent have initial investments ranging from Rs. 1,500,001 to 2,000,000. Only 4 percent of micro-hydro construction companies employed initial investments ranging from Rs. 1,000,001 to 1,500,000.

Concerning initial investment, the biogas companies are smaller than that of solar companies and micro-hydro construction companies. Thus, the initial investment appears to vary with the sector of enterprises.

Table 5 shows the number of responses on the initial investment by the legal status of enterprises in the context of the renewable energy sector of Nepal. The majority of the partnership firms (41 percent) invested Rs. 2,000,000 or more as an initial investment. Similarly, 26 percent of partnership firms had initial investments ranging from Rs. 500,001 to 1,000,000 while 19 percent had an initial investment of Rs. 500,000 or less. Likewise, 8 percent of partnership firms had initial investments ranging from Rs. 1,000,001 to 1,500,000. Only 6 percent of partnership firms employed initial investment of Rs. 1,500,001 to 2,000,000.

Table 5: Number of responses on the initial investment by the legal status of enterprises
This table consists of the number of responses on the initial investment by the legal status of enterprises in the renewable energy sector of Nepal with a percentage over total responses.

| Initial investment | Partnership | Sole Proprietorship | Total |
|------------------------|--------------|---------------------|--------------|
| 500,000 and below | 41 (19) | 23 (43) | 64 (24) |
| 500,001 to 1000,000 | 55 (26) | 13 (24) | 68 (26) |
| 1,000,001 to 1,500,000 | 16 (8) | 6 (11) | 22 (8) |
| 1,500,001 to 2,000,000 | 13 (6) | 0 (0) | 13 (5) |
| 2,000,001 and above | 85 (41) | 12 (22) | 97 (37) |
| Total | 210 (100) | 54 (100) | 264 (100) |

Source: Field survey

Note: Figures in parentheses are percentages over total responses.

Moreover, the majority of the sole proprietorship firms (43 percent) invested Rs. 500,000 or less as an initial investment while 24 percent had initial investments ranging from Rs. 500,001 to 1,000,000. Similarly, 22 percent of sole proprietorship firms had an initial investment of Rs. 2,000,000 or more. Only 11 percent of sole proprietorship firms had initial investments ranging from Rs. 1,000,001 to 1,500,000.

Having analyzed initial investment by sector of enterprises and legal status, it is also felt necessary to analyze sources of financial capital for different renewable enterprises. The number of responses on sources of financial capital by sector of enterprises is mentioned in Table 6.

Table 6: Number of responses on sources of financial capital by sector of enterprises
This table comprises the number of responses on sources of financial capital used by different renewable energy enterprises with the percentage over total responses.

| Sources of capital | Biogas | Solar | Micro-hydro | Total |
|--------------------------------|-------------|--------------|-------------|--------------|
| Own capital only | 36 (57) | 42 (41) | 41 (41) | 119 (45) |
| Own capital and loan | 17 (27) | 22 (22) | 34 (34) | 73 (28) |
| Own capital and subsidy | 2 (3) | 6 (6) | 2 (2) | 10 (4) |
| Own capital, loan, and subsidy | 8 (13) | 32 (31) | 22 (22) | 62 (23) |
| Total | 63 (100) | 102 (100) | 99 (100) | 264 (100) |

Source: Field survey

Note: Figures in parentheses are percentages over total responses.

On sources of financial capital, the majority of biogas enterprise respondents (57 percent) state that their capital is the major source of capital they use. While 27 percent of

biogas companies used their capital and loan together, 13 percent used their capital, loan, and subsidy together. Only 3 percent of biogas companies employed investment from their capital and subsidy.

Similarly, most of the solar companies (41 percent) used their capital only. Similarly, 31 percent of solar companies used their capital, loan, and subsidy together while 22 percent of solar companies used their capital and loan together. Only 6 percent of solar companies employed their capital and subsidy together.

Moreover, most of the micro-hydro construction companies (41 percent) used their capital only while 34 percent employed their capital and loan together. Similarly, 22 percent of micro-hydro construction companies used their capital, loan, and subsidy together. Only 2 percent of micro-hydro construction companies employed their capital and subsidy together. The results reveal that the major source of financial capital for renewable energy enterprises was their capital as revealed by most of the biogas companies, solar companies, and micro-hydro construction companies (45 percent).

Table 7 presents the number of responses on sources of financial capital by the legal status of the renewable energy enterprises of Nepal.

In the case of partnership firms, most of the respondents (42 percent) show that the major source of financial capital was own capital followed by own capital and loan (30 percent), own capital, loan, and subsidy (25 percent), and own capital and subsidy (3 percent).

The findings are similar for sole proprietorship firms. The majorities of the sole proprietorship respondents (57 percent) indicate that the major source of financial capital to their enterprises was their capital followed by own capital and loan (20 percent), own capital, loan, and subsidy (17 percent), and own capital and subsidy (6 percent).

Table 7: Number of responses on sources of financial capital by the legal status of enterprises

This table comprises the number of responses on sources of capital by partnership and sole proprietorship in renewable energy in Nepal. The chi-square test has been employed to test the difference in views of responding groups on sources of capital by the legal status of enterprises.

| Sources of capital | Partnership | Sole proprietorship | Total |
|--------------------------------|--------------|---------------------|--------------|
| Own capital only | 88 (42) | 31 (57) | 119 (45) |
| Own capital and loan | 62 (30) | 11 (20) | 73 (28) |
| Own capital and subsidy | 7 (3) | 3 (6) | 10 (4) |
| Own capital, loan, and subsidy | 53 (25) | 9 (17) | 62 (23) |
| Total | 210 (100) | 54 (100) | 264 (100) |

Source: Field survey

Note: Figures in parentheses are percentages over total responses.

Table 8 presents the opinion of the owners/managers on access to financial capital in the context of the Nepalese renewable energy sector. The various statements concerning access to finance were given to them on a five-point Likert scale ranging from 1 for strongly disagree (SD) to 5 for as strongly agree (SA). The respondents were asked to rank various statements based on access to financial capital. The respondents gave the first priority to

‘financial capital is a vital and basic requirement of entrepreneurship’ while the second priority to ‘network plays an important role in facilitating accessing finance by building trust between entrepreneurs and investors. The statement ‘If I had enough capital, my enterprise could have grown faster’ received the last priority.

Table 8: Rank-wise number of responses on access to financial capital

This table consists of the frequency, percentage, mean weight, and rank based on the mean weight of opinions of the owners/managers on access to finance in the context of the Nepalese renewable sector. The statement is based on the opinion of owners/managers on access to finance and is measured on a five-point Likert scale (1 = strongly disagree (SD), 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree (SA)).

| Statement | Strongly disagree | Disagree | Undecided | Agree | Strongly agree | Total responses | Weighted Value | Mean weight | Overall rank |
|--|-------------------|-------------|-------------|---------------|----------------|-----------------|----------------|-------------|--------------|
| | 1 | 2 | 3 | 4 | 5 | | | | |
| Financial capital is a vital and basic requirement of entrepreneurship. | 2 (0.8) | 1 (0.4) | 4 (1.5) | 190 (72.0) | 67 (25.4) | 264 | 1,111 | 4.21 | 1 |
| Access to finance is an important determinant of entrepreneurial success. | 3 (1.1) | 10 (3.8) | 6 (3.3) | 187 (70.8) | 58 (22.0) | 264 | 1,079 | 4.09 | 3 |
| If I had enough capital, my enterprise could have grown faster. | 20 (7.6) | 48 (18.2) | 42 (15.9) | 104 (39.4) | 50 (18.9) | 264 | 908 | 3.44 | 7 |
| Experience in accessing business finance such as family funding, subsidy, and bank loan is important for success. | 3 (1.1) | 5 (1.9) | 25 (9.5) | 177 (67.0) | 54 (20.5) | 264 | 1,066 | 4.04 | 5 |
| The network plays an important role in facilitating accessing finance by building trust between entrepreneurs and investors. | 2 (0.8) | 3 (1.1) | 13 (4.9) | 179 (67.8) | 67 (25.4) | 264 | 1,098 | 4.16 | 2 |
| Access to capital is an important predictor for the growth of a new venture but not necessarily important for the founding of a new venture. | 6 (2.3) | 11 (4.2) | 64 (24.2) | 162 (61.4) | 21 (8.0) | 264 | 973 | 3.69 | 6 |
| Access to finance is a determining factor for enterprise start-ups. | 2 (0.8) | 7 (2.7) | 6 (2.3) | 211 (79.9) | 38 (14.4) | 264 | 1,068 | 4.05 | 4 |

Source: Field survey

Note: Figures in parentheses are percentages over total responses.

Among others, the result reveals that networks played an important role in facilitating access to finance by building trust between entrepreneur and investor which was consistent with the findings of Sengupta (2011). The results also reveal that access to finance was a determining factor for micro, small, and medium enterprises (MSMEs) start-ups. This is consistent with the findings of Macht and Robinson (2009), Underwood (2009), and Derera *et al.* (2014). Moreover, these results reveal that ‘if they had enough capital, their business could have grown faster’ which was similar to the findings of Derera *et al.* (2014). However, this contrasts with the findings of Aldrich (1999), Kim *et al.* (2003), Hurst and Lusardi (2004), and Davidson and Honing (2003). Likewise, the results reveal that using different types of business finance such as family funding, subsidy, and bank loan was important for success. This is consistent with the findings of Sengupta (2011). The results reveal that the entrepreneur’s access to capital was a significant factor affecting the growth of new enterprise which was similar to the findings of Blanchflower *et al.* (2001), Evans and Jovanovic (1989), and Holtz-Eakin *et al.* (1994) but it was in contrast to the findings by other

studies (Aldrich, 1999; Kim *et al.*, 2003; Davidsson & Honig, 2003; and Hurst & Lusardi, 2004).

4. Conclusion, Implication and Recommendation

The major components of the renewable energy sector consist of biogas, solar, and micro-hydro companies ranging from micro to medium enterprises in Nepal. Concerning initial investment, the biogas companies are smaller than that of solar companies and micro-hydro construction companies. Thus, the initial investment appears to vary with the sector of enterprises. The major source of financial capital for renewable energy enterprises is their capital. Financial capital is a vital and basic requirement of entrepreneurship in the sector. Likewise, the results reveal that using different types of business finance such as family funding, subsidies, and bank loan is an important factor leading to entrepreneurial success.

This study is useful for renewable energy enterprises (REEs), development actors in the sector, academia, and policymakers. The study is valuable particularly for biogas companies, solar companies, and micro-hydro construction companies to grow their own business by focusing on the financial capital behavior in the sector. It is also useful for the development actors of the renewable energy sector for more commercialization of the sector. This study aims at generating at least some new knowledge in the literature on entrepreneurship and provides avenues for future research. Finally, it is also useful for policymakers as reference materials to formulate entrepreneur-friendly policies to facilitate the existing and potential REEs leading to generating employment locally. It plays a vital role in economic growth by increasing production and providing energy in the country.

The first and foremost research avenue of this study is to make the study more fruitful by incorporating other sectors of renewable energy such as improved cooking stoves, wind technology, and biomass sectors to get greater insight into the results. The extension of this study can be made by conducting a detailed analysis of the impact of financial, social, and human capital on entrepreneurial success in the renewable energy sector. Further study can be extended by incorporating the opinions and views of respondents from customers, regulating authorities, and development actors in the sector in future studies.

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