Abstract

Nepal’s energy sector comprises both successful and subsistence entrepreneurs. In this connection, the enduring question arises of how successful entrepreneurs have something special in the context of the solar companies in Nepal. The purpose of this paper is to analyze the role of financial, social, and human capital in entrepreneurial success in this sector of Nepal. The study adopts a causal-comparative research design to determine the effect of initial investment, access to finance, network ties, trust, shared vision, education, and experience on entrepreneurial success. This study is based on primary data that were collected from a sample of 102 owners / managers of 45 solar companies using a structured questionnaire. The factors affecting entrepreneurial success were determined by estimating the econometric models and correlation analysis using IBM SPSS Statistics 20. The results show that access to finance, network ties, trust, education, and experience appeared to be the major factors affecting entrepreneurial success. Factors like initial investment and shared vision did not appear to be the important factors affecting entrepreneurial success. Policy implications and future avenues were also discussed.

Keywords: Entrepreneurial success, Financial capital, Human capital, Social capital, Solar companies.

JEL Classification: L26, P42, Q29, Q42

Introduction

Entrepreneurial success is measured based on both financial and non-financial performance by an enterprise. Firm performance in financial term is measured as average sales and profit growth while the subjective measurement of non-financial performance are based on the entrepreneurs’ perception of present business success, future growth, and profitability (Saha & Banerjee, 2015). It
can be defined as receiving financial returns and non-financial achievements from entrepreneurial activities (Gupta et al., 2021). Entrepreneurial success has a relationship with the willingness to start a business and the identification of an opportunity (Kumar, 2007). Individuals are engaged in two types of entrepreneurship subsistence and transformational (Schoar, 2010). The enduring question arises of how transformational entrepreneurs have something special in the context of the solar energy in Nepal.

Entrepreneurial resources might be unique to entrepreneurial success (Alvarez & Busenitz, 2001). Entrepreneurship is considered a crucial mechanism of economic development (Landes, 1998). Entrepreneurship is widely recognized to be indispensable for the economic development of nations (Jaiswal, 2017). The economic contributions of entrepreneurship include economic growth, maintaining a favorable balance of trade, balance of payments, and employment creation (Mahembe, 2011). Many studies have pointed out that small and medium enterprises (SMEs) contribute to the gross domestic product (GDP) of many countries, wealth creation, job creation, innovation and technology transfer, and socio-economic transformation (Tustin, 2001). Entrepreneurship plays a vital role in firm performance in terms of financial, export performance, country’s economic growth, and culture (Terjesen et al., 2013). SMEs are an essential panacea for improving the standards of living in a society and the stability of a country (Mahembe, 2011). Consequently, entrepreneurship development leads to an increase in per capita income for the people of a country.

The role of entrepreneurship as a driver of economic growth and development has long been recognized as a key component for smart, sustainable, and inclusive growth (Batthini & Saxena, 2017). 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, about 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 %) in the world followed by Kyrgyzstan (30.4 %) and Tajikistan (26.9 %) in 2016 (Desilver, 2018).

In these circumstances, entrepreneurship can generate employment locally and convert a remittance-based economy into a sustainable economy. Thus, the study related to the role of financial, social, and human capital in entrepreneurial success in the context of the solar sector in Nepal that has a big significance. This study may be useful for solar energy enterprises (SEEs), development actors in the sector, academia, and policymakers. The study is valuable particularly for solar companies to grow their own business by focusing on the main factors affecting entrepreneurial success. It is also useful for the development actors of the sector
for more commercialization of the sector. It is said that entrepreneurship is still considered a highly unexplored area (Batthini & Saxena, 2017).

To sum up the above-mentioned issues, the purpose of this study is to examine the impact of financial capital in the form of initial investment and access to finance, social capital in the form of network ties, trust, and shared vision, and human capital in the form of education and experience on entrepreneurial success in the context of the solar energy in Nepal. This study, therefore, deals with the following issues in the context of the Nepalese solar energy: How do initial investment, access to finance, network ties, trust, shared vision, education, and experience play a role in determining firm performance? What is the key factor affecting entrepreneurial success?

The study helps in making entrepreneurship a field of study. It would contribute to generating employment locally that plays a vital role in economic growth by increasing production and providing energy in the country. It is also useful for policymakers by providing reference materials to formulate entrepreneur-friendly policies to facilitate the existing and potential solar SEEs. Finally, the study helps to generate at least some new knowledge in the literature on entrepreneurship and provides avenues for future research.

As already mentioned, the introductory section has described the major issues to be investigated along with the general background and objective of the study. Section 2 describes the review of literature related to the theories and empirical studies. Section 3 presents the research methodology to be employed. Section 4 is for data presentation and analysis. Finally, section 5 is for major findings and discussions, and conclusion.

**Review of Literature**

Several entrepreneurship theories put forward by scholars have their origins in economics, psychology, sociology, anthropology, and management. Entrepreneurship theories remain important to the development of entrepreneurship. The major entrepreneurship theories are economic, psychological, sociological, anthropological, opportunity-based, and resource-based entrepreneurship theories (Simpeh, 2011). Alvarez and Busenitz (2001) have extended the boundaries of resource-based theory into resource-based entrepreneurship theory. This theory emphasizes the importance of financial, social, and human capital. In this connection, the study on entrepreneurial success in the context of Nepal taking resource-based entrepreneurship theory into account is not available. Thus, this study is based on the resource-based entrepreneurship theory.

Entrepreneurial success is determined by multiple factors. Financial, social, and human capital is the important factors affecting entrepreneurial success (Alvarez & Busenitz, 2001). An entrepreneurial individual has specific resources
Financial capital is one of the most visible resources (Cooper et al., 1994). The new venture growth depends upon access to resources (Aldrich & Martinez, 2001). From this perspective, the study showed that the formation of a new enterprise is customary when an individual has access to finance (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 (Davidsson & Honig, 2003; Hurst & Lusardi, 2004). It shows that an enterprise can start without ample capital. Accordingly, access to finance by an entrepreneur is a key element for the growth of the firm. However, it is not essentially important to start an enterprise (Hurst & Lusardi, 2004). In the context of the solar energy of Nepal, it is not yet known about the role of financial capital in entrepreneurial success.

Social capital in the form of network ties, trust, and shared vision influences firm performance (Koka & Prescott, 2002). Network ties, trust, and shared vision have a positive impact on firm performance (Saha & Banerjee, 2015). Alam et al. (2012) have showed that family support, social ties, and internal motivation are positively and significantly related to the success of women entrepreneurs. Likewise, Sengupta (2011) revealed that network plays a key role in facilitating access to business finance by building trust between entrepreneurs and investors. Aarstad (2012) has said that network connectivity has strong and additive effects on performance specifically in the case of rural entrepreneurs in developing countries. Dua and Bhandarker (2017) showed that both of internal and external forms of social capital are important for bringing about overall organizational innovativeness in the product and the market. Martins (2016) revealed that networks provide opportunities to accomplish sustainable competitive advantages and compete successfully in the marketplace. In the context of the solar energy of Nepal, it is not yet to examine the role of social capital in determining entrepreneurial success.

Human capital constitutes the abilities and skills of workers that affect the overall productivity of a venture (Marshall & Samal, 2006). Human capital in the form of education and experience is the key factor affecting entrepreneurial success (Becker, 1975). Education and experience are important factors to identify and exploit an opportunity (Chandler & Hanks, 1998; Shane & Venkataraman, 2000; Anderson & Miller, 2003). Similarly, formal education is one of the important factors of human capital that may assist in the accumulation of explicit knowledge and skills for entrepreneurs (Reynolds, 1991). Human capital has a positive effect on financial performance (Laing et al., 2010). Rose et al. (2006)
have found that financial support, education, and experience are the major factors affecting business success. In addition, education, training in a specific sector, and prior experience have a positive relationship with entrepreneurial success.

Likewise, Zhouqiaoqin et al. (2013) found that human capital, women’s characteristics, and motivation have a significant influence on the success of women entrepreneurs while family background has a less significant influence on the success of women entrepreneurs in China. An individual having diverse work experience and diverse educational backgrounds has much more possibility to start an enterprise than one who has experience in one role and concentration in one subject at school (Lazear, 2005). Schoar (2010) concluded that human capital is a key determinant of entrepreneurial success. In this connection, it is yet to explore the role of human capital in entrepreneurial success in the context of the solar energy of Nepal.

In the context of Nepal, the critical factors contributing to the success of entrepreneurship are access to finance followed by access to raw materials (Shrestha, 2007). Thapa et al. (2008) found that education has a positive effect on entrepreneurial success. Furthermore, Sigdel (2015) revealed that age, experience, and export promotion are important factors affecting the success of women entrepreneurs while education does not appear to be an important factor affecting the success of women entrepreneurs. Moreover, Yadav et al. (2018) conducted a study on a sample of 118 renewable energy enterprises (REEs) and found that access to finance, network ties, trust in the network, education, and experience play a vital role while initial business investment and shared vision do not play a vital role in determining entrepreneurial success. Considering the successful and subsistence entrepreneurs in the solar energy in Nepal, the enduring question arises of how successful entrepreneurs have something special in the context of Nepal.

**Data and Methodology**

**Research Design**

The study adopts a causal-comparative research design to determine the role of financial, social, and human capital on firm performance and success perception. In order words, it has analyzed factors affecting entrepreneurial success in the context of the solar sector of Nepal. The dependent variable is specified as the firm performance index and success perception index while the independent variables are initial investment in the business, access to finance, network ties among the network members, trust among the networks, shared vision, education, and experience used for empirical analysis.
Conceptual Framework

The given review of literature shows that there is no controversy as to whether financial, social, and human capital play an important role in determining firm performance. However, the controversy lies in which of these factors play the most important role in determining firm performance in the context of the solar energy of Nepal. It shows that the bulk of the research tends to concentrate on the factors affecting entrepreneurial success in the context of developed countries. Very limited studies have provided such research in the context of developing countries, and even less in Nepal. In this connection, this study will be the first of its kind to examine the factors affecting entrepreneurial success in the context of the solar energy in Nepal.

Based on the given review of literature, it is beyond the scope of this study to consider all the dependent and independent variables. However, the major variables have been considered in this study considering resource-based entrepreneurship theories. The conceptual framework adopted in this study is presented in Figure 1.

**Figure 1: Factors Affecting the Entrepreneurial Success**

![Conceptual Framework Diagram]

*Source: Author’s creation. 2022.*
The schematic diagram of the conceptual framework shows that entrepreneurial success and firm performance are influenced by various factors like financial, social, and human capital. Financial capital depends upon initial investment and access to finance while social capital depends upon network ties, trust, and shared vision. Similarly, human capital depends upon education and experience.

**Nature and Sources of Data**

This study is based on primary data that were collected from 102 owners / managers of 45 solar companies (SCs) using a structured questionnaire. Primary data includes the opinions of entrepreneurs and managers on the role of key factors affecting entrepreneurial success in the context of solar companies in Nepal. The respondents were selected randomly.

**Population, Sample, and Sampling Procedure**

There are 69 solar companies (SCs) having age of 3 years’ experience in Nepal. Out of which 61 SCs (88%) are operating in the Kathmandu Valley as per Alternative Energy Promotion Centre (AEPC), Government of Nepal. So, a total of 61 SCs and their owners / managers were considered as the total population of the study. Among them, 41 SCs were from Kathmandu, 14 SCs were from Lalitpur, and 6 were from Bhaktapur selected as the population for this study. Out of 61 SCs, 48 SCs (79%) were selected randomly using random numbers generated using Excel as the sample solar companies for this study. Among them, 34 SCs were from Kathmandu, 12 SCs were from Lalitpur, and 2 were from Bhaktapur selected as the sample solar companies for this study. Altogether, 144 owners / managers were selected as the respondents from the sample solar companies. Although a total of 144 questionnaires were distributed to concerned respondents, only 102 (71%) filled-up questionnaires were returned from 45 SCs, and the data analysis is based on these questionnaires for this study.

**Tools and Method of Data Collection**

The required data and information were collected through field surveys using a structured questionnaire from November to December, 2016 to determine the role of financial, social, and human capital in determining entrepreneurial success and firm performance in the context of the solar energy in Nepal.

**Reliability and Validity of Tools**

The study uses procedures, methods, and techniques that are tested for their reliability and validity to be unbiased and objective design. Reliability is the worth of a measurement procedure that provides repeatability and accuracy whereas validity is the capability of an instrument to measure what is intended to measure. The reliability test consists of a pre-test and statistical test to test the internal consistency of data in the study. To test the reliability, Cronbach’s alpha
has been computed, and found that the overall Cronbach’s alpha coefficient was observed to be 0.92 showing the reliability of the data. The least factor-wise Cronbach’s alpha coefficient has also been observed to be 0.71 which is also more than 0.70 showing the reliability of the primary data used in this study. Cronbach’s α coefficient (> 0.7) for all constructs established scale reliability (Nunnally & Bernstein, 1994). Face and content validity are employed in the study. The study has used experts’ opinions and the pretested questionnaire over a sample of 9 SCs. to test the validity of tools through judgment on the logical link between the questions and the objective of the study.

**Tools and Method of Data Analysis**

The method of analysis employed in this study consists of estimating the econometric models and correlation analysis. The linear regression models were used to determine the factors affecting entrepreneurial success while correlation analysis is used to establish the relationship between dependent and independent variables used in the study. All statistical test results were computed at the 2-tailed level of significance using IBM SPSS Statistics 20. Furthermore, t-statistics, F-statistics, adjusted $R^2$, and Durbin-Watson (D-W) statistics have also been adopted for the analysis of the data. The D-W statistic is a test for autocorrelation in a regression model’s output. Similarly, the results of the normality test of residuals show that the residuals are normally distributed to validate the data for further analysis.

**Econometric Models**

The econometric models employed in this study attempt to analyze the role of financial, social, and human capital on entrepreneurial success by estimating various linear regression models. In other words, entrepreneurial success may be regarded as subject to the constraints of financial, social, and human capital variables (Saha & Banerjee, 2015; Yadav et al., 2018). Thus, the theoretical statement may be stated in functional form as -

$$\text{Entrepreneurial Success (FPI and SPI)} = f (\text{INV}_i, \text{ACF}_i, \text{NTW}_i, \text{TRS}_i, \text{SVN}_i, \text{EDU}_i, \text{EXP}_i) \ldots \ldots \ldots (1)$$

Converting the functional eqn. 1 into a linear function, it becomes as following,

$$\text{FPI}_i = \beta_0 + \beta_1 \text{INV}_i + \beta_2 \text{ACF}_i + \beta_3 \text{NTW}_i + \beta_4 \text{TRS}_i + \beta_5 \text{SVN}_i + \beta_6 \text{EDU}_i + \beta_7 \text{EXP}_i + \varepsilon_i \ldots \ldots (2)$$

$$\text{SPI}_i = \beta_0 + \beta_1 \text{INV}_i + \beta_2 \text{ACF}_i + \beta_3 \text{NTW}_i + \beta_4 \text{TRS}_i + \beta_5 \text{SVN}_i + \beta_6 \text{EDU}_i + \beta_7 \text{EXP}_i + \varepsilon_i \ldots \ldots (3)$$

Where,

- FPI = Firm performance index
- SPI = Success perception index
- INV = Initial investment
- ACF = Access to finance
The firm performance index (FPI) is measured based on the ranking of the firm by the owners/managers in terms of the growth of sales and profit. The success perception index (SPI) is the subjective measurement of firm performance based on the entrepreneurs’ perception of present business success and future profitability. The future growth is considered the non-financial firm performance index (Saha & Banerjee, 2015).

The initial investment (INV) is an important factor affecting entrepreneurial success. The initial investment was categorized into five ranges from 500,000 or below to 2,000,000 or more and ranked accordingly by the owners / managers. Access to finance (ACF) is one of the major factors affecting business success. The responses on access to finance were taken on a five-point ‘Likert Scale’ (1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree). The mean weight computed for each respondent is used as an index of access to finance.

The term Network ties (NTW) describes a collection of actors such as people, departments, or businesses and their strategic links such as family, community, finance, and business alliances with each other. The responses on network ties were taken on a five-point ‘Likert Scale’ (1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree). The mean weight computed for each respondent was used as an index of network ties.

Trust in the network (TRS) has a positive impact on financial and non-financial firm performance. The responses on trust among networks were taken on a five-point ‘Likert Scale’ (1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree). The mean weight computed for each respondent was used as an index of trust.

Shared vision (SVN) has a positive relationship with financial and non-financial firm performance. The responses on shared vision were taken on a five-point ‘Likert Scale’ (1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree). The mean weight computed for each respondent was used as an index of the shared vision.

Education (EDU) is one of the major factors affecting entrepreneurial success. The responses on the highest-level education were taken as 1 = SLC (Class 10), 2 = Intermediate degree or 10+2, 3 = Bachelor’s degree, and 4 = Master’s degree or above. The score given to the respondent was used as an index for education.
In the case of experience (EXP), entrepreneurs having longer experience have a greater likelihood of success. The responses on experience were taken on a five-point ‘Likert Scale’ (i.e., 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree). The mean weight computed for each respondent was used as an index of experience.

Ethical consideration is an important aspect of research. It was ensured to get an appointment beforehand and volunteer participation of the respondents in filling out the questionnaire. The consent of respondents was taken to get involved in the process. It is ensured that privacy should be maintained during research and afterward. The respondents can be distressed when questioned about sensitive topics or controversial issues. The study has maintained unbiasedness during the collection and analysis of data.

**Data Presentation and Analysis**

In this section, an attempt is made to analyze the role of all given independent variables to the dependent variable (entrepreneurial success) through the firm performance index (FPI) and success perception index (SPI) in the solar energy of Nepal by using statistical tools of correlation and regression analysis.

**Correlation Analysis**

The correlation coefficient has been computed to examine the relationship of firm performance with financial, social, and human capital variables based on the responses of 102 owners/managers from 45 solar companies. Firm performance includes the firm performance index (FPI) and success perception index (SPI) while financial capital has comprised initial investment and access to finance. Likewise, social capital consists of network ties, trust, and shared vision and human capital comprises the education and experience of the owners/managers of renewable energy enterprises. The computed Spearman’s rho correlation coefficients for solar energy in Nepal are shown in Table 1.

**Table 1: Spearman’s Rho Correlation Matrix for the Solar Energy**

<table>
<thead>
<tr>
<th>Variables</th>
<th>FPI</th>
<th>SPI</th>
<th>INV</th>
<th>ACF</th>
<th>NTW</th>
<th>TRS</th>
<th>SVN</th>
<th>EDU</th>
<th>EXP</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPI</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.15</td>
<td>0.51</td>
</tr>
<tr>
<td>SPI</td>
<td>0.47*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.10</td>
<td>0.51</td>
</tr>
<tr>
<td>INV</td>
<td>0.03</td>
<td>0.20*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.34</td>
<td>1.58</td>
</tr>
<tr>
<td>ACF</td>
<td>0.31*</td>
<td>0.38</td>
<td>0.20*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.00</td>
<td>0.51</td>
</tr>
<tr>
<td>NTW</td>
<td>0.32*</td>
<td>0.41*</td>
<td>0.17</td>
<td>0.42*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.13</td>
<td>0.41</td>
</tr>
<tr>
<td>TRS</td>
<td>0.36*</td>
<td>0.33*</td>
<td>0.16</td>
<td>0.42*</td>
<td>0.47*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.95</td>
<td>0.48</td>
</tr>
<tr>
<td>SVN</td>
<td>0.28*</td>
<td>0.05</td>
<td>0.09</td>
<td>0.20*</td>
<td>0.33*</td>
<td>0.36*</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3.74</td>
<td>0.63</td>
</tr>
<tr>
<td>EDU</td>
<td>0.35*</td>
<td>0.37</td>
<td>0.32*</td>
<td>0.25*</td>
<td>0.30*</td>
<td>0.26*</td>
<td>0.14</td>
<td>1</td>
<td>-</td>
<td>2.57</td>
<td>0.75</td>
</tr>
<tr>
<td>EXP</td>
<td>0.22*</td>
<td>0.29</td>
<td>-0.13</td>
<td>0.34*</td>
<td>0.35*</td>
<td>0.34*</td>
<td>0.09</td>
<td>0.11</td>
<td>1</td>
<td>4.10</td>
<td>0.41</td>
</tr>
</tbody>
</table>

*Significant at 5 percent.

**Source:** Author’s calculation, 2022.

**Note:** *Significant at 5 percent.*
Table 1 reveals that the firm performance index (FPI) and success perception index (SPI) are positively related to the initial investment. It indicates that an increase in initial investment leads to an increase in FPI and SPI. Access to finance is positively related to FPI and SPI indicating that an increase in access to finance leads to an increase in FPI and SPI. Similarly, network ties, trust among networks, and shared vision have a positive relationship with FPI and SPI. It indicates that the higher the network ties, trust among networks, and shared vision, the higher would be the FPI and SPI. Moreover, education and experience are also positively related to FPI and SPI. It shows that an increase in education and experience leads to an increase in both FPI and SPI.

**Regression Analysis**

The regression models have been computed to assess the impact of financial, social, and human capital variables on entrepreneurial success. The results of estimated regression (Model-I) of financial, social, and human capital variables on the firm performance index (FPI) for solar energy in Nepal have been presented in Table 2.

**Table 2: Results of Financial, Social, and Human Capital on FPI**

<table>
<thead>
<tr>
<th>Model - I: FPI = β₀ + β₁INV + β₂ACF + β₃NTW + β₄TRS + β₅SVN + β₆EDU + β₇EXP + εᵢ</th>
<th>Independent Variables</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.772</td>
<td>0.592</td>
<td>2.993</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>Initial investment (INV)</td>
<td>-0.0001*</td>
<td>0.000</td>
<td>-1.982</td>
<td>0.050</td>
<td></td>
</tr>
<tr>
<td>Access to finance (ACF)</td>
<td>0.052</td>
<td>0.103</td>
<td>0.508</td>
<td>0.613</td>
<td></td>
</tr>
<tr>
<td>Network ties (NTW)</td>
<td>0.023</td>
<td>0.129</td>
<td>0.182</td>
<td>0.856</td>
<td></td>
</tr>
<tr>
<td>Trust (TRS)</td>
<td>0.181</td>
<td>0.112</td>
<td>1.614</td>
<td>0.110</td>
<td></td>
</tr>
<tr>
<td>Shared vision (SVN)</td>
<td>0.071</td>
<td>0.077</td>
<td>0.933</td>
<td>0.353</td>
<td></td>
</tr>
<tr>
<td>Education (EDU)</td>
<td>0.188*</td>
<td>0.066</td>
<td>2.844</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td>Experience (EXP)</td>
<td>0.195</td>
<td>0.113</td>
<td>1.720</td>
<td>0.089</td>
<td></td>
</tr>
</tbody>
</table>

F-statistic = 4.038*; Prob (F-stat.) = 0.001; R² = 0.231; Adj. R² = 0.174; D-W stat. = 1.837

Source: Author’s calculation, 2022.

Notes: *Significant at 5%.

The results indicate that the beta coefficient for initial investment is negative while the beta coefficients of access to finance, network ties, trust, shared vision, education, and experience are positive. It shows that there is a positive impact of access to finance, network ties, trust, shared vision, education, and experience on the firm performance index (FPI). The results thus indicate that with higher access to finance, network ties, trust, shared vision, education, and experience, a higher would-be FPI. Moreover, the overall results show that the most important factor affecting FPI is education followed by experience, trust, shared vision, access to finance, and network ties in Nepal’s solar energy context.
Similarly, the results of estimate regression (Model - II) of the financial, social, and human capital variables on the success perception index (SPI) for solar energy in Nepal have been presented in Table 3.

Table 3: Results of Financial, Social, and Human Capital on SPI

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial investment (INV)</td>
<td>0.00001</td>
<td>0.000</td>
<td>0.315</td>
<td>0.753</td>
</tr>
<tr>
<td>Access to finance (ACF)</td>
<td>0.078</td>
<td>0.099</td>
<td>0.789</td>
<td>0.432</td>
</tr>
<tr>
<td>Network ties (NTW)</td>
<td>0.273*</td>
<td>0.123</td>
<td>2.218</td>
<td>0.029</td>
</tr>
<tr>
<td>Trust (TRS)</td>
<td>0.142</td>
<td>0.107</td>
<td>1.324</td>
<td>0.189</td>
</tr>
<tr>
<td>Shared vision (SVN)</td>
<td>-0.066</td>
<td>0.073</td>
<td>-0.899</td>
<td>0.371</td>
</tr>
<tr>
<td>Education (EDU)</td>
<td>0.152*</td>
<td>0.063</td>
<td>2.396</td>
<td>0.019</td>
</tr>
<tr>
<td>Experience (EXP)</td>
<td>0.186</td>
<td>0.109</td>
<td>1.711</td>
<td>0.090</td>
</tr>
<tr>
<td>Constant</td>
<td>1.169</td>
<td>0.568</td>
<td>2.059</td>
<td>0.042</td>
</tr>
</tbody>
</table>

F-statistic = 5.615*; Prob (F-stat) = 0.000; R² = 0.295; Adj. R² = 0.242; D-W stat. = 1.517

Source: Author’s calculation, 2022.
Notes: *Significant at 5 %.

The beta coefficients for initial investment, access to finance, network ties, trust, education, and experience are observed to be positive while the beta coefficient for shared vision is negative. Moreover, the beta coefficient for initial investment is very small. It shows that there is a positive impact of access to finance, network ties, trust, education, and experience on the success perception index (SPI). It indicates that the higher the access to finance, network ties, trust, education, and experience, the higher would be the SPI. The overall results show that the most important factor affecting the success perception index (SPI) is the network ties followed by education, experience, trust, access to finance, and initial investment in Nepal’s solar energy context.

Major Findings and Discussions

Considering the results from Tables 2 and 3, the beta coefficients for initial investment and shared vision are sometimes positive and sometimes negative indicating that initial investment and shared vision do not explain the variation in the firm performance in the context of solar energy in Nepal. The beta coefficients for initial investment are consistent with the findings of Hurst and Lusardi (2004). But, the results are not consistent with the findings of Holtz-Eakin et al. (1994); Blanchflower et al. (2001); Clausen (2006); Derera et al. (2014); and Yadav et al. (2018). Likewise, the finding that access to finance has a positive impact on firm performance is consistent with the findings of Zafar (1984), Hurst and Lusardi (2004), Shrestha (2007), Woldie et al. (2008), Azimzadeh et al. (2013), Rakhal (2015), Villanger (2015), Yadav et al. (2018).

Similarly, the finding that network ties have a positive impact on firm performance is consistent with the findings of Pokharel et al. (2006), Sengupta...
(2011), Saha and Banerjee (2015), Danso et al. (2016), Martins (2016), and Yadav et al. (2018). But, this finding contradicts the finding of Rajput (2011). Again, the finding that trust among networks has a positive impact on firm performance is consistent with the findings of Zaheer and Harris (2006), Saha and Banerjee (2015), and Yadav et al. (2018). Furthermore, the results show that shared vision does not explain the variation in firm performance in Nepal’s solar energy context. This result is consistent with the findings of Yadav et al. (2018) while contradicting the findings of Wollebaek and Selle (2002), and Saha and Banerjee (2015).

The finding also shows that there is a positive impact of the level of education on firm performance which is consistent with the findings of Tuladhar (1996), Chandler and Hanks (1998), Shane and Venkataraman (2000), Korunka et al. (2003), Anderson and Miller (2003), Hattab (2014), and Yadav et al. (2018). Likewise, the finding that experience has a positive impact on firm performance is consistent with the findings of Chandler and Hanks (1998), Shane and Venkataraman (2000), Alvarez and Busenitz (2001), Anderson and Miller (2003), Korunka et al. (2003), Rose et al. (2006), Woldie et al. (2008), Yadav et al. (2018), and Gupta et al. (2021).

**Conclusion**

The study reveals that a strong role is played by access to finance, network ties, trust, education, and experience while a weak role is played by initial investment and shared vision in determining firm performance. In other words, the study theorizes that an educated and experienced individual with access to finance and good networking through trust among networks can be a successful entrepreneur in Nepal.

This study is useful for solar companies, development actors in this field, academia, and policymakers. Since access to finance and firm performance are positively related, the firm willing to improve performance should mobilize more resources or finance. Network ties and trust have a positive impact on firm performance. Thus, the firm should maintain good network ties through trust among networks for better firm performance. As firm performance is positively related to education and experience, solar energy companies should make efforts to motivate and maintain educated and experienced employees to pursue an opportunity in the market.

The development actors and policymakers should focus on these factors to create a conducive enabling environment for existing and potential solar energy entrepreneurs by formulating entrepreneur-friendly policies. It is useful for academia by generating at least some new knowledge in the literature on entrepreneurship and provides avenues for future research. Further study can be extended by incorporating other sectors of renewable energy such as improved cooking stoves, biogas, micro-hydro, wind technology, and biomass sectors to get greater insight into the results.
References


