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ENTREPRENEURS, INDUSTRIES AND EMPLOYMENT OPPORTUNITIES IN NEPAL

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ABSTRACT

Entrepreneurs, industries and employment opportunities are three interrelated terms. Not only entrepreneurs can properly utilize factor of production, but also they can play multidimensional role in the process of economic growth, which in turn reduces unemployment, poverty gap, social and economic discrimination and supports in sustainable economic growth. This study was conducted to analyze and to establish the valid tripartite statistical relationship among the number of employment, number of industries and total capital investment through Poisson Regression Model using statistical software named Xl-stat. Analysis shows insignificant impact of capital investment in employment generation where as ratio of increment in the number of industry and job creation is 1:1. Average capital investment required to generate a single job in small scale industry is only Rs. 0.21 million where as this capital in medium and large scale industry is Rs.0.85 and Rs. 6.82 million, respectively. On the other hand, in comparison to another category of industry, agro-forest based industries are the best category of industries which can generate more employment opportunities with low capital investment and average capital investment per employee in this category of industry is only Rs.0.49 million. Research also demonstrates that the only capital investment and the number of industries can't determine the number of job creation in the industrial sector. Hence other more factors influencing the industrial sector should be included in the model in order to predict the expected number of jobs created in the sector of industry. Despite of lot of entrepreneurship promotional activities, entrepreneurship development in Nepal is in slow pace and is blamed on load shedding, lack of irrigation facilities, shortage and high cost of raw material, lack of transportation facilities, political instability and industrial unrest and the like.

KEYWORDS: Dutch Disease, Xl-Stat, Entrepreneurs, Innovation, Venture

INTRODUCTION

Proper entrepreneurial activities support in optimal utilization of available resources and speed up the process of industrialization which is very crucial for the economic development and employment generation. During the process of economic development people are generally shifted from agricultural activities to non-farm activities such as manufacturing and services. As raw material required for industrial sector basically come from the agricultural sector and different mining activities, development of industrial sector serve as a basis for the development of both agricultural and service sectors which result in more income and employment generation in all sectors of the economy. Development of new technology and technology transfer due to globalization reduces the number of employees required for industries day by day. Therefore, the only way to increase employment opportunities is to increase and expand the number of industries in the competitive market through new creative and innovative ideas. The majority of people in the least developed and developing nation involve in the agriculture sector, which contribute only a minor share to GDP and this situation pushed a majority of people under the poverty line. In fact, all sorts of industries, whether that is small, medium or large can play

vital role in boosting employment generation and offers maximum opportunities for self-employment. As there is a high probability for the industrial sector to expand and it accounts for nearly 14.4% of GDP in FY 2013/14 along with employing 7% of the country's labor force, it holds a key position in the Nepalese economy (CBS, 2014). Development of industrial sector not only provides a transitional opportunity to the labor force in the agricultural sector but also it has a multiplier effect of job creation in the service sector.

Experience of various developed nations during the process of economic development reveals an industrial sector as the transformational sector, which absorbs the surplus labor from agricultural sector and help them to shift into more value added jobs in manufacturing and service sector. This clarifies the importance of the manufacturing sector for Nepal, where the majority of people involving in agriculture sector, but contributes only a minor share to GDP. Development and continuous expansion of industrial sector builds favorable grounds for entrepreneurs and encourage them to become more innovative and creative. Entrepreneurs, industries and employment are three interrelated terms. Indeed, industrialization is the result of the entrepreneurial activities of entrepreneurs which ultimately create employment opportunities in the labor market of any nation. Nepal is a small landlocked country extending from the nearby sea level (60m) to the top of the world (Mt. Everest). Due to this anomalous geographical extension within the small boundary, Nepal is rich not only in bio-diversity, but also in various natural resources which creates and provides unbelievable opportunities for existing and potential entrepreneurs to assemble, coordinates and direct various factors of production in the process of industrialization. Despite these opportunities, numbers of entrepreneurial activities in Nepal are negligible and it is blamed on load shedding, lack of irrigation facilities, shortage and high cost of raw material, lack of transportation facilities, political instability and the like. Likewise, lack of confidence, lack of motivation, personal disinterest, family volatility and financial problem are considered as factors obstructing entrepreneurs to continue and expand their business successfully. In economics, entrepreneurs are considered as a key figure as they play a vital role in the process of economic development and employment generation. Availability of a number of dynamic entrepreneurs, who is also known as a risk-bearer, innovator, organizer and opportunity taker, determines the rate of economic growth and employment opportunities of any nation and larger number of such entrepreneurs assist in breaking the vicious circle of poverty within the nation. Entrepreneurs can play a multidimensional role (such as promoter, investor and manager) in the country like Nepal, where unemployment and acute under-employment is a serious national problem.

Entrepreneurship and entrepreneurial activities have possessed special form of employability which creates jobs and provides alternative to violence for idle youth, health and education services for children and economic freedom for women which in turn reduce poverty, promote social cohesion and improve gender equality. For these reasons it is very crucial to promote entrepreneurship and entrepreneurial activities in the country like Nepal, where society and communities have been facing extreme problems related to the caste system, gender discrimination, and unequal distribution of wealth among the people. Many economists focus on economic growth to reduce unemployment, poverty gap and to continue sustainable development, but sometimes this concept of economic growth can be wrong as new technology and higher commodity prices can increase productivity and produce economic growth without increasing job opportunities. Therefore, this sort of economic growth doesn't always solve the issue of unequal distribution of wealth and unemployment as it influence only particular group of people in particular sector. As compared to non-entrepreneurs, entrepreneurs can create more jobs; foster an environment of innovative thinking and supports in lunching of pioneering and cutting edge companies. As Nepal is adopting the mixed system of economy, both government and private

organizations have been involved in entrepreneurship function and moving forward in the process of industrialization. Even though large numbers of government and non-government organizations have been investing huge amount of money in the development and promotion of entrepreneurial activities in Nepal, development of entrepreneurship, increase in the number of dynamic entrepreneurs, industries and employment opportunities are not as per the expectations. Industrial statistics reveal negligible changes in the number of dynamic entrepreneurs, industries and the employment opportunities as compared to various inputs used in the promotion of entrepreneurship development in Nepal. In Nepal small scale industries have played big role in employment generation in comparison to large and medium scale industries. According to the industrial statistics imparted by Ministry of Industry Nepal 3,630 small scale industries have created jobs for 237,517 employees where total capital investment is only Rs. 49761.9 million. But large (686 in numbers) and medium (1,330 in numbers) scale industries where total capital investment is Rs.745, 704.32 and Rs.112, 934.61 have employed only 109,334 and 132,995 employees respectively (Department of Industry, 2014, P.79-89).

This shows that small scale industries have high employability in comparison to medium and large scale industries where total capital investment is gradually increasing. This also reveals that the numbers of industries play vital role in employment generation irrespective of capital investment and scale of the industry. Research interest of scholars in the field of entrepreneurship development and its impact on various sectors of the economy is increasing day by day and same trend and interest can be observed in the scholars of Nepal. Generally, the most research conducted in the area of entrepreneurship in Nepal is highly focused on factors influencing entrepreneurship ability (Pun, 2012 & Tuladhar, 1996), women based entrepreneurship (Dhakal, 2006; Ranabhat, 1995 & Frear, 2007), history of entrepreneurship in Nepal (Guthier, 1992; Regmi, 1988; Joshi, 1977; K. C., 1989a), the role of entrepreneurs (K. C. 1989b; Pyakurel, 1984 & Shrestha, 1982) and the like and outcome of all the entrepreneurship based researches conducted till date are unable to solve the problems related to slow development of entrepreneurship, industrialization and less number of job creation in Nepal. This research assumes that the only way to solve the aforementioned problem is to understand the linkage among the number of industries, capital investment and employment opportunities. In fact, implementation of entrepreneurship development program on the ground of relationship among the number of industries, capital investment and employment opportunities can increase the effectiveness of the program and also increase the efficiency of existing and potential entrepreneurs in the form of output. This assumption of the researcher and outcomes of past researches clearly reflects the need of this research and hope that the output of this research will support and work as foundation knowledge for all government and non-government organization of Nepal working in the area of entrepreneurship development.

LITERATURE REVIEW

History of entrepreneurs' involvement in the industrial sector of Nepal is not very long. Starting of industrialization process in 1950 was the main turning point for Nepalese entrepreneurs as it imparted various opportunities for them to shift their business activities from the agricultural sector to industrial sector. Various revolutionary changes in between 1950 and 1994 such as industrialization process in 1950, restoration of multiparty democracy system in 1990, enactment of the Labor Act in 1992, Trade Union Act of 1993 and Labor Rules of 1994 have legally expanded the working area of entrepreneurs along with creating a favorable working environment for employees. Even after these revolutionary changes, Nepalese entrepreneurs are unable to impart expectable momentum to the industrialization process. A decade long insurgency was a major reason for this as it weakens the constructive, innovative, creative and risk taking capacity of

Nepalese entrepreneurs for a long time. Impact of insurgency can still be seen even after the completion of the peace process and constitution preparation process. Likewise politically motivated labor movement, competition among trade unions for supremacy at the enterprise level, lack of industrial culture, lawlessness in the country, change in social and economic condition, growing demand of worker, and ineffective enforcement of the existing labor related laws are major factors influencing Nepalese entrepreneurs negatively, which result in low productivity, less employment generation and poor economic performance in the industrial sector (Amatya & Shrestha, 2010). This section of article focused on all the existing concept and researches conducted in the area of entrepreneurship, which shows the vital role of entrepreneurs in industrialization process and employment generation and it also verifies the need of this research in Nepal on the ground of existing literature.

Economist and planner of any nation who are quite sensitive to economic growth place more emphasis on entrepreneurs as a means of stimulating economic growth and employment opportunities. Entrepreneurs always seek profit, growth and sustainability in their business. According to Peake and Marshall (2009) entrepreneurs have been employing 50% of the all private sector employees. Study of Shola (nd.) revealed increment in employment opportunity due to increment in private business in Nigeria. Industrial revolution in Europe in 1780 and in America in the 19th century brought new concepts related to work ethics, ways of thinking, organizational behavior and ways of managing productive resources such as land, labor, capital and enterprise. Hisrich and Peters (2002) also focused on the vital role of entrepreneurs on industrialization and employment generation. According to them entrepreneurs redeploy physical, financial and human resources and coordinates the required process for efficient large scale industrial development. Entrepreneurial activities such as innovation, development of untried technologies and technological breakthrough can expand all economics (Schumpter, 1934). Various activities conducted by entrepreneurs can be supportive for reducing poverty and hunger among the people as those activities can increase in production, income, employment opportunities and create a favorable environment for rapid growth of micro, small, medium and large scale enterprises. Various definitions and concept explained by different scholars from the beginning of the establishment of entrepreneurship thought to till date demonstrates entrepreneurs as a key role player in the process of industrialization and employment creation. Davis in 1983 and Timmons in 1987 as cited by Igbo (2005), defines entrepreneurship as the starting of one's own business and running small business through planning, organizing, mobilizing people and resources in order to distribute something valuable to meet the people's needs. Entrepreneurship is a process of creative destruction for reconstruction of old industries by means of innovation and improvement in the old or existing system (Schumpeter, 1950). This concept of Schumpter can be a superb concept in the context of Nepal because Nepal has a mixed economy where innovation can increase the efficiency of land, labor, capital and enterprises which result in increment in marginal productivity. Entrepreneurship is the process of transforming an old business concept and old enterprises into a new business idea and high growing venture potentials (Ceglie & Dini, 1999).

From all the above definitions and discussion, we can conclude that entrepreneurship involves such catalytic activities which are required for economic, industrial and social development. Infancy stage of industrial sector of Nepal provides more innovative opportunities for Nepalese entrepreneurs through which they can improve the quality and quantity of products, create new things from existing one, try new production technology with low risk, open up new markets and explore new sources of raw materials. Indeed, economic growth, which includes growth in employment opportunities and a number of industries entirely depends on the quality and efficiency of entrepreneurs about utilizing

factors of production in productive ventures. Therefore, growth in productivity, employment opportunity, export and overall GDP of any nation fully depends on the efficiency of entrepreneurs; otherwise factors of productions become useless in the absence of quality entrepreneurs. If entrepreneurs lack quality and efficiency, then most of the newly established firms ceased within first three years of establishment (Spletzer, 2000). There will be 7.9 billion people searching job in developing countries by 2050 (GBSN, 2013) and a certain percent of this population represents Nepal as well. But as Nepal is suffering from Dutch diseases, all these problems have not been seen in the Nepalese labor market till date. Due to Dutch disease employee hiring capacity and productivity in the Nepalese labor market and the industrial sector is very low, but out-migration, overseas employment and remittance inflows are more than expected. Various evidences show the number of jobs created by entrepreneurs is higher than that of non-entrepreneurs (Van Praag & Versloot, 2007). To generate more employment in the developing nation like Nepal, more focus should be given on establishment and growth of small and medium sized enterprises. Developing nation like Nepal is always in the continuous process of shifting their economy from factor driven economy to innovation-driven economy and this transitional period provides maximum opportunities to small and medium sized enterprises for expansion and grow, which result in demand of more skill and knowledgeable labor along with creation of employment opportunities for many people (Khalid & Airey, 2013; Djordevic (nd), & Martizez, Levie, Kelley, Saemundsson & Schott, 2010)

Even though Nepal is a small country, there is a high probability for the development of entrepreneurship. If we correctly develop the entrepreneurship, then we can sharply reduce poverty and unemployment within ten years invisible ways. Numbers of institutional entrepreneurs such as investment trusts, development banks, Nepal Industrial Development Corporation (NIDC), Rastriya Bema Sansthan (RBS), Employee Provident Fund (EPF) and other financial institutions along with numbers of NGOs and INGOs funded by UKAID, USAID, UNDP, GTZ etc. have been working for the development of entrepreneurship in Nepal. These organizations have especially been assisting potential and existing entrepreneurs by providing guarantees, medium and long term loans, equity participation along with technological and managerial supports on the ground of priority guidance set by the national plan. Despite these attempts development of entrepreneurship, industrialization and creation of employment is in slow pace. Hence, this research will formulate the relationship among employment, number of industries and capital investment which will be supportive for government, NGOs and INGOs working in the field of entrepreneurship development, employment and entire economic development of Nepal. Albeit, understanding this relationship can be of valuable assets for a planner of entrepreneurship development, they have to think of other factors influencing entrepreneurship such as talent and personality traits, education, skill and knowledge, attitude, entrepreneurial age, social capital, political risk and governance, access to credit, technology and infrastructure, access to information and access to market and the like. In addition, they have to know that only training is not fruitful for the development of entrepreneurship. The positive impact of training on entrepreneurship development depends on the quality of training, local business environment and quality of infrastructure used in the training (GSBN, 2013, P.7). On the other hand Nepal government and concerned authority should take initiation to remove barriers to entrepreneurship such as regular strikes, labor conflicts, load shedding, lack of fertilizer, lack of irrigation facilities, lack of big plant and machinery including small one, existing syndicate system, poor access to finance and startup capital, social and cultural norms, and the like. Nearly around thirteen million (9.8 percent) youth are unemployed in South Asia (ILO, 2013). Effect of youth unemployment can be “scarring” and lead to social unrest and long-term negative effects such as unable to find a suitable job after leaving school and a reduction in self confidence. This situation becomes more

complicated when these young persons are rejected by the employer due to their long term unemployment (Clark, Gerorgellis and Sanfey, 2001). Peoples' involvement in agriculture, industrial and service sector of Nepalese economy is 69%, 12% and 19% respectively, and correspondingly its contribution to GDP is 33.4%, 14.4% and 52.2% ("World Factbook, n.d)

As the Nepalese labor market is unable to absorb all the labor force, foreign employment is the only option for young Nepalese to inter labor market. As a consequence of high labor migration, in year 2013 remittance inflow to Nepal reached US$ 5.55 billion, representing 29% of GDP (The World Bank, 2015, P. 23). Contribution of the industrial sector to GDP of Nepal has declined from 17.1% to 14.4% within thirteen years, i.e. from 2001/02 to 2013/14 and it can be the cause of premature deindustrialization (ILO, 2014, p.2). Even though the economy of Nepal has shifted to the service sector, vast majority of people are still working under agriculture sector. So, to balance these imbalances, Nepal government must shift their citizen from the primary sector to secondary and tertiary sector and only option for this is entrepreneurship development. Census of the year 2011 revealed that around 70% of the populations are under the age of 35 and this clearly exhibit that the vast majority of people in total population are of working age. This also shows expected high pressure of the labor force in the Nepalese labor market. Structural transformation and maximum job creation in the forthcoming years are the only solution to manage this labor pressure and for this maximum entrepreneurial activity are required in the coming days as well. Even though excess remittance inflows result in reduction in labor market pressure, increase in imports and consumption, reduction in poverty (Sapkota, 2013), in the long-run it creates an imbalance in the economy. That is why it is very essential to create more jobs through more entrepreneurial activities so that drivers of GDP growth can be made more diversified. The study has also revealed that the poverty rate for people involving in manufacturing, trade and service sector is lower than that of people involving in agriculture sector. 47% of poverty in Nepal is found in those households where the head of the family is working as agricultural labor (CBS, 2011). Analysis of the development history of entrepreneurship theory shows the term "risk" as a major determinant of entrepreneurship and clearly noticed that if the risk associated to any venture is mitigated due to any reason then that venture is not termed as entrepreneurship (Dollinger, 2007). According to Dollinger (2007), entrepreneurs are those people who create risk associated venture in the economy. Proper and optimum utilization of land, labor and capital in those ventures where the outcome cannot be predicted makes the task of entrepreneurs more risky. From the above discussion, it is clear that one and only way to reduce poverty permanently is to generate more jobs in the domestic labor market and to solve current imbalances in the economy is to develop entrepreneurship which result in increment in entrepreneurial activities and job creation within the nation. Therefore, this research will impart basic knowledge that must be required for entrepreneurs, trainers and planners before lunching business, training and planning through establishing tripartite relationship among number of employment, capital investment and number of industries.

HYPOTHESES

To meet the objectives of the research following hypothesis is formulated for testing:

- **H_0:** Number of employment creation is not depended on the number of industries and total capital investment.
- **H_1:** Number of employment creation is depended on the number of industries and total capital investment.

OBJECTIVES OF THE STUDY

This study mainly focused on establishment of the tripartite relationship among the number of employment, total capital investment and number of industries in Nepal. Other minor objectives that can be achieved from this study are as under:

- To understand fluctuation in the number of employment due to changes in total capital and number of industries.
- To know which category and scale of the industry is highly effective in employment generation on the ground of capital investment.
- To identify how much total capital is required to generate single employment opportunities in a different category and scale of industries at present context in Nepal.

SIGNIFICANCE OF THE STUDY

This research will be of high importance due to the following reasons:

- This research will impart foundation knowledge, for all sorts of organizations, which they must know prior to initiate or implement any training or program related to entrepreneurship development.
- This study will help to identify the best category and scale of the industry, which can generate maximum number of employment opportunities under low capital investment.
- This study will provide continuity in research related to entrepreneurship and also add extra literature in the field of entrepreneurship development.
- It will support national planner and policy maker to isolate priority sector of industries and also help in the formulation of entrepreneur oriented new plan and policies in the industrial sector.
- It will inform government and other various donor agencies about the current scenario of interrelationship among the number of industries, capital investment and employment opportunities.

In addition, the outcome of this study will be supportive of entrepreneurs, scholars, students, planners and economist to conduct different sorts of economic analysis and to generate new creative ideas in the field of entrepreneurship and industrialization.

RESEARCH METHODOLOGY

In this research required data has extracted from the secondary source known as Industrial Statistics compiled by Ministry of Industry, government of Nepal. Yearly time series data of last twenty-five years, i.e. from year 1990/91 to 2014/15 has been collected for the purpose of study as per the objectives and hypotheses. Total variables used in this research are three in numbers. Number of employment is dependent variable and number of industries and total capital investment are independent variables. Dependent variable, i.e. employment can be defined as the verbal, implied or official agreement between employee and employer where the employee needs to provide designated service at a designated place for the achievement of the organization's goal, in return for compensation. In other word, it can be defined as the contract where one person agrees to perform a task, service or job for another with or without remuneration. Researcher's definition

of employment for the purpose of this study is a situation in which all available labor resources could be employed within an economy at any given time. Independent variable capital can be defined in various ways as per the nature of the subjects. Finance defines it as a wealth in the form of money or assets, whereas account defines it as money invested in a business to generate income, but economics defines it as factors of production that are used in business to create goods and services and are not themselves in the process. Total capital can be split into fixed capital and working capital. Initial investment made by entrepreneurs on long-term assets can be termed as fixed capital, whereas working capital is continuous investment of capital in order to operate ordinary course of production and distribution of goods and services. Likewise, another independent variable industry can be defined as any business organization producing goods and services. Here the response variable, i.e. number of employment is counted data and explanatory variables, i.e. total capital investment and number of industries are both continuous and count respectively. On the ground of the nature of the data, Poisson Regression Model will be employed to test the aforementioned research hypothesis. Mathematically, Poisson regression model can be written as under:

$$\text{Log}_e(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_n X_n \quad \text{(I)}$$

$$Y = e^{(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_n X_n)}$$

$$Y = (e^{\beta 0})\,(e^{\beta 1 X 1})\,(e^{\beta 2 X 2})\ldots\ldots\ldots(e^{\beta n X n})$$

Equation (I) can be changed as under for the purpose of this study.

$$\text{Log}_e(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots + \beta_n X_n$$

$$\text{Log}_e(\text{Number of Employment}) = \beta_0 + \beta_1 * \text{Total Capital} + \beta_2 * \text{Number of Industries}$$

$$\text{Number of Employment (Y)} = e^{(\beta_0 + \beta_1 * \text{Total Capital} + \beta_2 * \text{Number of Industries})}$$

$$\text{Number of Employment (Y)} = (e^{\beta_0})\,(e^{\beta_1 * \text{Total Capital}})\,(e^{\beta_2 * \text{Number of Industries}}) \quad \text{(II)}$$

In the above equation-II, β_0 indicates intercept, β_1 indicates the slope of total capital and β_2 represents the slope of number of industries.

DATA ANALYSIS AND PRESENTATION

Analysis of average capital investment per industry and per employee and average number of employee per industry under different category can be clearly understood from the Table-1 presented below.

Table 1: Analysis of Capital Investment Per Employee, Per Industry, and Employment Generation per Industry by Category (UP to F. Y. 2014/15; Rs. in Millions)

S.N.	Category*	No. of Industry*	Total Capital*	No. of Employment*	Average Capital Per Industry	Average Capital Per Employee	Average No. of Employee Per Industry
1	Agro & Forestry Based	317	14986.13	30780	47.27	0.49	97.10
2	Construction	41	41219.03	2818	1005.34	14.63	68.73
3	Energy Based	227	493394.89	24009	2173.55	20.55	105.77
4	Manufacturing	2415	199159.15	274577	82.47	0.73	113.70
5	Mineral	54	4115.91	5719	76.22	0.72	105.91

Table 1 - Cond.,							
6	Service	1550	103898.21	99057	67.03	1.05	63.91
7	Tourism	1042	51627.51	42886	49.55	1.20	41.16
Total		**5646**	**908,400**	**479,846**			

*Source: Department of Industry: Government of Nepal

Table-1 reflects the average consumption of employee as per different category of industry, capital investment per industry and capital investment per employees. As per the analysis, manufacturing sector of Nepal has played major role in employment generation in comparison to another category of industry. Average employment per industry under manufacturing sector is 113.7 employees. But average capital investment to generate single employment is higher in energy based industry, which is equivalent to Rs. 20.55 million per employee. Likewise, average capital investment per industry is also higher in energy based industry which is about Rs. 2173.55 million per industry. In contrast, agro-based industry invests the least capital per employee (Rs. 0.49 million/employee), tourism sector generate the least employment which is only 41.16 employees per industry and agro-based industry has been running under the least capital investment (Rs. 47.27 per industry) as compared to other category of industries.

Table 2: Analysis of Average Capital Per Employee, Per Industry and Average Employee per Industry by Scale (Up to F.Y. 2014/15) (Rs. in Millions)

S.N.	Scale*	No. of Industry*	Total Capital*	No. of Employment*	Average Capital Per Industry	Average Capital Per Employee	Average No. of Employee Per Industry
1	Large	686	745704.32	109334	1087.03	6.82	159.38
2	Medium	1330	112934.61	132995	84.91	0.85	100.00
3	Small	3630	49761.9	237517	13.71	0.21	65.43
	Total	**5646**	**908400.83**	**479846**			

*Source: Department of Industry: Government of Nepal.

Similarly, Table-2 analyses the same case as per the scale of industry. Analysis of Table-II reveals that large scale industries have not only been employing the highest number of employees per industry (159.38 employee/industry) but also investing the highest average capital per employee (Rs. 6.28/million) along with the highest capital investment per industry (Rs. 1087.03 million/industry) and this trend is followed by medium scale and small scale industry respectively. Small scale industries can be considered as the best industries in terms of employment creation with low capital investment per employee.

Table 3: Number of Industries Registered Up To FY 2014/15

Fiscal Year	No. of Industry	Total Capital (In Million of Rs.)	No. of Employment	Fiscal Year	No. of Industry	Total Capital (In Million of Rs.)	No. of Employment
1990/91	46	4,480.17	10,210	2003/04	109	13,203.46	12,877
1991/92	135	1,521.29	5,538	2004/05	146	13,163.41	11,687
1992/93	436	7,510.54	37,956	2005/06	107	18,003.13	8,490
1993/94	606	10,541.97	89,351	2006/07	120	9,527.85	10,398
1994/95	147	18,347.67	20,937	2007/08	177	8,123.68	9,232

Table 3 - Cond.,							
1995/96	231	17,543.31	21,339	2008/09	227	20,126.36	12,844
1996/97	373	19,902.27	34,571	2009/10	301	26,961.36	20,359
1997/98	242	14,032.46	23,745	2010/11	258	39,245.35	14,510
1998/99	112	10,531.68	10,136	2011/12	242	90,415.58	13,727
1999/00	110	12,546.50	8,882	2012/13	279	84,427.39	16,960
2000/01	159	25,908.36	15,118	2013/14	446	119,601.13	28,535
2001/02	145	10,766.61	9,165	2014/15	371	289,307.65	21,538
2002/03	139	22,661.64	11,741				

Source: Department of Industry, Government of Nepal, 2014.

Table-3 shows the trend of the industries registration process along with total capital investment and a number of employment generation within the last twenty five years. Table III demonstrates that the number of industries registered each year, total capital investment and employment generation from registered industries have fluctuated each year rather than increasing or decreasing in a constant ratio.

Table 4: Details of Test Statistics

Goodness of Fit Statistics (Variable No. of Employment)		
Statistics	**Independent**	**Full**
Observations	25	25
Sum of Weights	25	25
DF	24	23
-2Log (Likelihood)	8741582.1023	8741576.1480
R^2 (McFadden)	0.0000	0.0000
R^2 (Cox and Snell)	0.0000	0.2119
R^2 (Nagelkerke)	0.0000	0.2119
AIC	8741584.1023	8741580.1480
SBC	8741585.3211	8741582.5857
Deviance	8741294.7607	8741288.8064
Pearson Chi-square	15954966160.9840	15954819202.7524
Iterations	0	11

Correlation Matrix		
Variable	**No. of Industry**	**Total Capital**
No. of Industry	1.00	0.3627
Total Capital	0.3627	1.00

Summary of the Variable Selection (Variable No. of Employment)									
No. of Variables	**Variables**	**Variable In/Out**	**Status**	**-2Log (Likelihood)**	**Pr>Lr**	**Pr>Score**	**Pr>Wald**	**AIC**	**SBC**
1	No. of Industry	No. of Industry	IN	8741582.0994	0.9570	0.0000	1.0000	87415 86.099 4	8741588 .5371

Model Parameters for the Components						
Source	**Value**	**Standard Error**	**Wald Chi-Square**	**Pr>Chi^2**	**Wald Lower Bound (95%)**	**Wald Upper Bound (95%)**
Intercept	0.0000	0.3994	0.0000	1.0000	-0.7828	0.7828
No. of Industry	0.0000	0.0015	0.0000	1.0000	-0.0030	0.0030
Total Capital	0.0000	0.0000				

Equation Model for the Components (Variable No. of Employment)
Pred.(No. of Employment)=exp(-1.04857E-6+2.25274E-8*No. of Industries)

Table-4 shows the various statistics required for the analysis of goodness of fit, correlation matrix, summary of the variable selection, model parameters for the components and equation model for the component. Statistics such as -2log (Likelihood), information criteria (AIC, SBC), deviance, Pearson Chi-square is used to select the best suited model and Wald statistic is used to remove the insignificant independent variable. Wald statistics clearly indicate one of the two independent variables that is total capital as insignificant predictor of a number of employments. Analysis reveals that total capital investment does not play vital role in employment generation in the context of Nepal. Therefore, it is better to increase the number of industries in order to create the new employment opportunities rather than investing huge amount of capital in a single firm. Hence, Nepal government and Nepalese entrepreneurs, without considering profit, should diversify their investment in different sector, which results in an increment in the number of industries along with the creation of new jobs. As per the prediction model one unit increments in the number of industries can create jobs for 0.99 people. Statistically independent variable that is number of industries is a significant predictor in comparison to total capital investment, but in reality generation of a single job as a consequence of the unit increment in the number of industries shows that the role played by Nepalese entrepreneurs and government in the industrial sector to generate more employment cannot be considered satisfactory. As this research is entirely based on two independent variables, i.e., total capital investment and number of industries, there is still space for forthcoming researchers to include more variable in the model so that major factors influencing job opportunities in the industrial sector of Nepal can be identified. Although research and its outcome are statistically valid, there is still a necessity of next research in the same topic, including more independent variable besides total capital investment and a number of industries.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Existence of strong and positive association among the entrepreneurs, industries and the number of employment cannot be denied. In the context of Nepal both amounts of capital investment and a number of industries do not play vital role in employment generation. Although this research exhibits weak positive relationship between number of industries and employment opportunities, in truth increment in capital investment and the number of industries both are irrelevant in the case of employment generation. Result extracted from the analysis of two factors influencing employment opportunities, i.e. capital investment and the number of industries indicates towards the exclusion many other major factors in the model. Hence it is better for forthcoming researcher to add other factors in the model to understand the fact related to employment creation. It is also essential to examine the impact of political unrest, load shedding, lack of raw material, lack of transportation facilities, lack of irrigation facilities, and various types of strikes on invested capital and industrialization process in order to understand the real scenario related to job creation in the industrial sector of Nepal. Research also shows the need of development of infrastructures required for the entrepreneurship development along with promotional activities required to enhance entrepreneurial skills of entrepreneurs.

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