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Determinants Of Investment In Nepal: Theoretical Observation And Opinion Survey Result

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INTRODUCTION

Investment in the sense of formation of capital stock such as land, structure, plant and machinery, furniture and inventory has a crucial role in the economy. This is the focal point of the growth process (Schmidt-Hebeel, Serven and Solimano 1996 : p. 97) since it occupies a major place within the aggregate contribution of different variables in total growth. There is strong correlation between equipment investment and growth (Delong and Summers 1991: p.445). In some economists' view, it is the investment which drags growth of a country. In a recent survey, it was found that capital only contributes 43 to 54 percent to the average growth rate in developing countries (Khan and Reinhart 1990). This fact can also be witnessed from the comparison of economic growth rate and investment rate of different developed and developing countries such as Japan, East Asian Countries, China, Western Countries and others. Around two-digit growth rate of modern China during last half of 1970s to first half of 1990s is accompanied by high rate of capital formation. Furthermore, UK's poor growth rate within developed country also is a notable point in this respect (Kitson and Michie 1996 : p. 201).

The earlier discussion has pointed the role of investment in enhancing the growth of the economy. Again question arises, which type of investment-private or public- is more valuabel to trigger the process of economic growth ? For capitalist's model of economy advocated by classical economists and their many more followers from 18th century to supply-siders of 1980s, private investment is the key of economic development. Contrary to this, for socialist model of economy advocated by Marx and his followers, public expenditure is more important than private. Welfare economists led by Keynes too emphasize more on state' s role in economic development. Aschauer (1989: p. 186) found impact of sizable impact of public investment on growth. Easterely and Rebelo (1993 : p. 432) also were not far from Aschauer in this respect. They got public inverstment closely and positively related with private investment. Khan and Reinhart found private investment contributing much more important role in the growth process than public investment (Khan and Reinhart 1999:

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p.25). Mehta (1993:p.25) concluded that a percentage rise in private capital raises the productivity of public capital more than what a percentage rise in public capital raises the productivity of private capital. Accordingly, he opined that public investment in infrastructure is not complementary to private sector. The idea of promoting private investment to increase the growth process is taking momentum in these days in socialist countries too like China, Vietnam etc. Right now, all the countries of the world are trying to enhance economic development through the increase in private investment. Because of the indispensable role of private investmetn in economic development of a country, economists have tried to formulate various theories in this regard. In past, Nepalese policy makers have tried to increase private investment in Nepal through various measures. All the plan documents of HMG/Nepal from first to ninth had the objective to promote private sector for increas in the pace of the growth. Whether it was a period of Panchayat Autocracy or is the time of Parliamentary Democracy, there is always a target of getting capital formation through the participation of private sector. There were enactments of four Industrial Enterprse Acts three Income Tax Acts and their several amendments; two Income Tax Rules and their amendments and many more Finance Acts since 1960 to achieve the objectives. Not only this, Nepal is sacrificing huge amount of its scarce resource i.e. more than 3 percent of GDP (Foreign Investment Advisory Service 1997, Appendix) to enhance the rate of private investment. The objective behind this sacrifice is only to accelerate growth by boosting up the private sector.

But, in spite of such sacrifice, the nation is not getting anticipated result. There are only 36 manufacturing entities in the form of listed companies. Non-listed public companies and private companies also are not in substantial numbers. New entrants are once in a blue moon. Those in existence are aslo in heavy loss being a burden to the state. On the whole, far from being stronger, the private sector investment in the country is going to be meager. Nepal is lagging behind in terms of GDP growth and industrial growth in comparison to its two great neighbours-China and India and many other developing countries. Nepal's industrial sector is very weak. Its industrial growth rate is only about 7.75 percent of GDP as opposed to the 17.14 percent of China and 8 percent of India during 1992-1997. The main reason of this gloomy situation is the poor performance of the private sector. Nepal's GDP growth rate is also very low in comparison to other neighbouring countries.

DETERMINANTS OF INVESTMENT : A THEORETICAL REVIEW

Since, increase in investment is the backbone for economic development and growth of a country, there had been a great endeavour by different economists for finding out the exact determinants of the investment from the very beginning of the economic history. There was

always a contentious debate among economists in relation to the main variable or variables, which can sufficiently explain the causes of the changing pattern of investment. For example, classical economists-Malthus and Recardo-opined investment as the function of output and profit. Malthus emphasizes low expectations for future may decline investment (Kurdas 1993: p.11). For Marx also, investment was the function of output and profits. He assumes that capitalists will automatically invest a certain fraction of profits. When the profit rate falls, their expectation declines and the rate of investment also declines causing crisis. But in the long run, expectations adjust to the lower rate of profit and capitalists go back to invest the same fraction. Capitalists go on accumulating the capital for getting social status and power. In Keynes' view (1936: p.151), investors continue to invest until marginal efficiency of capital is equal or more than the interest rate. Internal rate of return is that rate which equates marginal efficiency of capital and the interest. Entrepreneur's animal spirits i.e., expectations play very important role in determining the level of investment. In his view, if the firm finds that actual stock is less than the optimum stock; it makes up the shortage by additional investment. On the other hand, if it contemplates that the actual stock is greater than the optimal stock, it starts de-investing.

Although, some economists took interest in studying developing investment theories before World War Second, the Great Depression of 1930s, the boom of Second World War period and the slackness of some years after the War were responsible for the development of sperate theories related to the investment. The names of the main theories of investment developed during this period with their main contributors are presented in Table 1.

Table 1

Schemetic Flow Of Theories

S.N.	Name of the Theory	Main Contributors
1.	Accelerator Theory	Clark, Hicks, Chenry, Eisner
2..	Neoclassical Theory	Jorgenson, Hall and Jorgenson, Bischoff
3.	Q/Secruities Valuation Theory	Brainard and Tobin, Tobin
4.	Profit/Liquidity/Financial Variables Theory	Meyer and Kuh, Eisner Dhrymes and Kurz
5.	Return Over Cost Theory	Feldstein
6.	Tax Rate Theories King and Fullerton,	Feldstein, Auerbach and Jorgenson Boadway, Bruce and Mintz

Accelerator Theory

One of the main systematic theories that tried to explain about the changing pattern of the investment was the accelerator theory. Clark (1917) propounded this naive or simple or crude accelerator, generally called accelerator only, theory of investment. His main version, pertinent to this theory, was that the change in investment occurs in accordance with the proportion of output and that proportion is equal to unity. The main assumptions of this accelerator theory are: full utilisation of capacity, permanent nature of sales change, constant ratio of sales to output, upswing phase of the firms etc.

Although crude in nature, the accelerator hypothesis was a milestone for the development of other theories of investment. In reality, it worked as the gateway for latter works related to investment theories. Many economists have developed other accelerator theories on the foundation of this naive theory propounded by Clark. Hicks introduced lag factor in accelerator theory (Kuh 1963: p. 261). Chenry (1952) tested accelerator and capacity utilisation theory by modifying the naive accelerator to its advance form using capacity utlisation factor and lag distributed factor introduced by Hicks. This version of acceleration theory, therefore, is called capacity accelerator or capacity utilisation theory. This theory is called capacity utilisation since it advocates that high investment expenditures are associated with high ratios of output to capital and low levels of investment with low ratios of output to capital (Jorgenson and Siebert 1968). In Chenry's (1952) view, investment is associated with current sales which is expected to continue in future. He opined that increase in sales will increase investment but less than proportionate and after some adjustment time. Eisner (1967) revised this theory concluding that sales of output is the main determinant of investment behaviour but that change in sales or output is not current one but past. Thus, after these modifications like introduction of lag, recognition of adjustment time and incorporation of past sales change variable, rigid accelerator became flexible accelerator.

In India, Krishnamurty and his collaborator have found acceleration theory useful in explaining investment behaviour. Krishnamurty (1964 p.117) concluded that capacity accelerator accompanied by profit variable can explain investmetn instead of taking them separately. Krishnamurty and Sastry (1971: p. 182) found accelerator variable to some extent useful for that purpose. From another study also, they found their finding accurate (Krishnamurty and Sastry 1973: p. 25). In Nepal, Poudel (1988 : p. 5,56) has made an inquiry to see the relationship between accelerator model and Nepalese investment behaviour. His finding in this respect is that accelerator hypothesis i.e. change in output with foreign aid or

imports of capital goods and lagged investment variables are important to forecast the Nepalese investment behaviour.

Although, the introduction of accelerator theory was a breakthrough in the history of the development of investment theories, it had limitations too being crude in nature. The first is that the elasticity of capital stock to output as assumed by this theory is not equal to unity in real life. The second one, similarly, is the rigidity in nature. Tinbergin (1938) criticised acceleration principle on the ground that it can not help very much in explaining the details of real investment fluctuations. Correspondingly, the original accelerator is also criticised on the assumption of instantaneous adjustment in capital stock with the level of output since the instantaneous adjustment is not possible in real life. It takes some time to go from the real level of capital stock to the desired level because of technological, institutional and expectation factors.

Neoclassical Theory

Jorgenson (1963) introduced neoclassical theory of investment through his seminal paper "Capital Theory and Investment Behaviour". Contrary to the version of the accelerator or profit theory, this theory show investment as a function of change in factor prices or ratio of factor prices to the price of output. In neoclassical theory, it is assumed that the firm tries to maximise present value of future cash flows. Assuming perfectly competitive market for the factor of production and financial market, unitary substitution of capital and labour depending on relative prices, diminishing returns to scale, indifference between buying and renting of capital, replacement proportional to the capital stock and fixed time lag for response; neoclassical theroy advocates that the firm will go adjusting itself its capital stock until the marginal revenue is equal to marginal cost. Thus, Jorgenson's model of maximising present value or net worth is to some extent similar to marginal productivity of capital where the firm goes on increasing production until the marginal cost equals marginal benefit. The other assumptions of this theory are certain and foreseeable future, perfect malleability of capital stock and determination of rental price by market equilibrium.

In view of neoclassical theory, as is already said, the firm always tries to maximise its present worth and this present worth maximisation in turn depends on rental price or user charge of capital services or cost of capital. Rental price on the other hand includes, cost or rent of capital stock, depreciation, and change in interest rate and government tax. Here, tax policy affects investment behaviour through rental price.

Research of Jorgenson (1967), Hall and Jorgenson (1967), Jorgenson and Stephenson (1967) and Jorgenson and Siebert (1968: pp. 1123-1151) proved the robustness of this theory. In the work done with Hall, Jorgenson included tax factor in the model and found that tax has

significant impact on investment behaviour. Except those done by Jorgenson himself and with collaborator, many other economists also have used this model to explain the relationship between different variables and investment and concluded that other methods are in inferior to it (Bean 1981: p. 106). In reality, this is the theory with which all other investment theories are interlinked and interwoven. This theory is considered landmark in analysing the impact of taxation on investment. Lots of techniques and concepts used to analyse investment incentives have strong bearing with neoclassical theory of investment.

In spite of its profound success in explaining the investment behaviour of private firms, neoclassical theroy is not without weaknesses. Different economists have shown these weaknesses from different angles. First, Bischoff (1971) criticised neoclassical theory on two-grounds-rigidness in specification and malleability of capital stock-both after and before its installation. Second, Eisner (1969) as well as Eisner and Nadiri (1968) criticised the neoclassical theory of investment on the ground of the unitary elasticity of capital stock to relative prices and output claiming it as less than unity. Third, Feldstein and Foot (1971), Feldstein and Rothschild (1974) proved that proportional replacement hypothesis of neoclassical theory is wrong at least for short run. In their view, it is correct only for the long run. Fourth, Jorgenson's model of neoclassical theory does not assume that there would be adjustment cost in buying or selling capital goods. Fifth, It is criticized on the ground of ad hocism also since this theory does not mention any thing about the delivery lag required to jump at once to optimal capital stock in the condition of no adjustment costs, which Jorgenson assumes (Nerlove 1972).

Q/Securities Valuation Theory

Q/securities valuation model of investment theory developed by Brainard and Tobin (1968) and Tobin (1969) was the alternative to recoup the shortcomings of neoclassical model as regards to the expectations of the people associated with the conjecture about the future. Although, investment of a firm depends mostly on these expectations, the neoclassical model had lacunae in this regard. Conversely, Q model considers and incorporates the expectation variable in its specification through market value. As per this theory, the decision of a firm as regards to the increase in investment depends on Q, that is, the ratio of market value of a firm to its replacement cost of fixed assets. This Q is perfectly observable and therefore, it is easy to the investor to decide whether to invest or not.

There are two types of Qs in Q theory of investment - average Q and marginal Q. Average Q means the ratio of the firm's market value of securities to its shadow price of capital assets. Marginal Q on the other hand means the ratio of expected increase in the market value of the firm

because of purchasing additional unit of capital asset to the expected cost of that additional unit of capital asset.

Q reflects the market's valuation of the firms' future profit prospects and thus guides investment decisions. Since firms seek to maximise their market value when marginal Q is higher than average Q, investment is encouraged. Contrary to it, when marginal Q is less than average Q, investment is depressed. Whenever average Q is positive i.e., greater than one, investors think that the firm's future prospects are favourable to provide safety to further investments thereby increasing the investment. This process goes on, until average Q becomes equal to marginal Q. When these Qs are not equal; it is marginal Q, which is relevant (Hayshi 1982). The main attraction of Q theory is that all the information required for investment decisions can be easily summarised in a single variable called Q (Ueda and Yoshikawa 1985: p.11). The other advantage already mentioned is substitution for neoclassical theory which has deficiency associated with expectation factor. It can be said that Q variable summarises all expectations that are related to investment expenditure. However, in some economist's version the neoclassical model with adjustment cost and the Q theory are equivalent (Hayshi 1982: p. 214).

Q theory has certain limitations also. The first and foremost is its assumption as in neoclassical theory-perfect certainty, perfect capital market, identical tax rates across investors and price taking behaviours. Besides these, it has the objective of maximising wealth equivalent to the maximisation of net worth in neoclassical theory. These limitations have made Q theory acceptable to a few sections of economists only.

Profit/Liquidity/Financial Variables Theory

The another variable, which determines the investment of a firm, is the profit. The greater the profit, the greater is the internal funds given normal dividend behaviour. Similarly, the greater the internal fund i.e., retained earnings, the greater will be the rate of investment. This theory is also related to financial variables. Eisner (1963) was the main supporter of profit theory as a determinant of investment. In his view, what counts for investment is the expected profitability. Firms tend to make capital expenditure immediately after high profits (Eisner 1963). In Dhrymes and Kurz's (1967) view rate of profit has not negligible impact on investment.

There are two schools of profit theory - expectation school and cash flow school. For expectation school, net profit after tax or gross profit is the main determinant of investment and whereas for cash flow school, cash flow or net retained earnings is the prime factor that determines fixed investment. Another hypothesis inseparably interlinked and interwoven with profit is liquidity one. Meyer and Kuh (1955:p. 266) at first introduced this variahble as the determinant of fixed investment. According to this

theory, the desired capital is proportional to liquidity when there is relatively less intense capacity pressure.

Since the liquidity/profit/financial variables theory of investment has vast coverage like internal fund, external fund, depreciation fund, current profit, past profit, future profit, cash flow and so forth, is no unanimity between economists in this regard. For example, Kisselgoff and Modiglani (1954: p. 369) found cash flow as important variable to determine investment. For them profit and cost of funds do not seem useful. In contrast to this, for Kaskarelis (1963: p. 1134) profit, demand and relative cost of fund were important variables to determine investment Accordingly for Steigum (1983: p. 644) and Hoshi et al. (1991: p. 33), the main determinants of investment were financial variable, rate of profit retention and liquidity respectively. Moreover, in Leeuw's (1976: p. 73) view; capital requirement, internal funds and bond yields were main variables to have impact on investment whereas in Bond and Meghir's (1994: p. 216) thinking only internal fund was important.

It is clear from the above observation that there is no consensus in this regard. For some economists, it is profit that determines investment while for others it is either retained earnings or external finance or liquidity or cash flow or any other else. In profit variable too, for some, past profit and for others, current profit or profitability is the most important factor. From these differences, it can be concluded that different studies vary regarding the determinant of investment as per the variables used, area covered, model used and so forth.

Return Over Cost Theory

This theory has been expounded by Feldstein (1982). As per this theory, since there is importance of internal rate of return in making the investment decision in a tax less economy, the economy with taxes has great importance of maximum potential rate of return (MPNR). This MPNR is the maximum net of corporate tax nominal yield that the firm can pay on its mix of funds (Feldstein 1982:p.847). MPNR is the return over cost that a firm can afford to pay on a standard project with the cost of funds. This return over cost theory implies that like in traditional marginal efficiency of investment where the increase in revenue or decrease in cost uses to increase the investment, in modern world, arise in the difference between the internal rate of return and cost of funds induces the higher rate of investment. According to this method, whenever the benefit exceeds the cost, firms begin to acquire capital in order to reestablish and thus investment is based on the return over cost i.e., MPNR (Feldstein 1982). However, this method is not fully proved as useful to analyse non-neutral tax rules. Similarly, this method might not be useful tool to analyse

relationship between taxes and investment in new plant and equipment since there are not only one but more capital assets with a firm.

Tax Related Theories

Tax incentive as the determinant of investment was mostly the function of the post Second World War depression. Although, there are numerous types of tax incentives introduced in different countries of the world, the main are accelerated depreciation system introduced in U.S.A. in 1954 and now popular in different countries of the world, tax holiday system mostly popular in developing countries, investment allowance, basically used by commonwealth nations and statutory tax rate reduction, especially started in Reagan - Thatcher era but now adopted by most of the countries of the world. In Nepal, tax incentives, especially the tax holiday was accepted as the determinant of private investment since the very beginning of 1960s. Full tax exemption to business firms, dividend tax exemption, investment allowance, accelerated depreciation etc. also were the ramifications of tax incentive systems in Nepal. Since the financial year 1992/93, tax rate reduction is also included within the gamut of tax incentives. Instead, tax holiday has been abolished and is going to be abolished as the incentive to promote investment.

Related to tax matters, the other theory proposed by Feldstein (1982: p. 825) was average effective tax rate theory. The main purpose of this theory was to explain the impact of inflation with corporate tax on investment behaviour of a firm. According to this theroy, net investment is dependent on net of tax real rate of return to capital. Here, the average effective tax retes on capital income is the taxes paid by the corporations, their shareholders and their creditors to central, state and local governments. The interesting point is that this model relates net investment directly to quantity and price variable and gives the alternative way of examining the effects of taxes on investment. According to this theory, the price variable is the net real return to capital. It is also defined as the net return to shareholders and bondholders net of depreciation and effective tax rates. Quantity variable, on the other hand, is related to fluctuations in demand and is measured by the index of capacity utilisation. The conclusion of this theory is that taxes in combination with inflation have reduced the investment.

Accordingly, in some economists' view, marginal effective tax rate is the responsible factor to determine imvestment. As per their view, higher the marginal effective tax rate, lower will be the investment and *vice varsa.* Here, marginal effective tax rate is the difference between the amount earned net of actual depreciation and the amount paid to the supplier of the fund for marginal investment (Bradford and Stuart 1986: p. 308). In other words, it can also be said as the difference between the before tax rate of return of marginal investment and the after tax rate of return on the

savings used to finance the investment (Boadway et al. 1987:p.2). Since, marginal effective tax rate is the amount of tax collected by government from the return of marginal investment divided by pretax rate of return of the same investment, it is also called the distortion made by corporate tax. It can also be said as the difference between the internal rates of return of cash flow before tax and cash flow after tax. Although some economists have taken marginal effective tax rate theory also as the determinant of investment, in reality, it is only a tool to measure the incentive or disincentive created by a tax system to an investor.

In Nepal there are only a few empirical studies regarding the determinants of investment behaviour. As already stated, Poudel (1988), in this respect, has found accelerator hypothesis with foreign aid or imports of capital goods the variables to determine Nepalese investment behaviour. Foreign Investment Advisory Service Nepal (1997) found tax holiday scheme inefficient and ineffective to promote foreign investment. Chitrakar's study (1986) showed access to the market followed by HMG/Nepal tax incentives, growth of market potential and expansion as the programme as the determinant of investment. Pradhan's (1984) findings showed infrastructure facility, supply of electricity, as the main problem of industrialization in Nepal.

Besides discussed above, there are many economists who have done work related to the factors determining the investment. The main variables indicated by these economists as the determinant of investment are as follows:

Demand Measures - Capacity utilization, sales, past sales, level of output, change in output, relative prices-user cost, product prices, wage rates;

Internal Funds- Retained earnings, depreciation, availability of liquid assets; financial structure of the company, debt equity ratio, risks;

External Funds- Interest rates, availability of debt;

Valuation - Stock market value of the company; replacement cost of capital and ratio of stock market value to replacement costs;

Others- Growth rate, inflation, public expenditure, change in bank credit, external debt, etc.

DETERMINANTS OF INVESTMENT IN NEPAL AN OPINION SURVEY

Methodology Of The Study And Selection Of Study Area

Opinion Survey was conducted to obtain the opinions related to the determinants of investment in Nepal from the horse's mouth i.e., from the entrepreneurs themselves. With a view of getting this broader objective, two sectors of Nepalese industry - manufacturing and hotel business - were selected for data collection. Manufacturing sector, was chosen because it is

the area which absorbs most of the fixed investment of the economy and again which plays crucial role in the economic development of a country. Likewise, hotel business was taken because it is also a flourishing sector in Nepal. For data collection, following two questions were asked to the respondents relating to investments:

-Why did you start this particular business ?

-What do you think the major factor that induces you to invest ?

The queries were ranking type with ten variables each - availability of tax incenties, availability of market or customer, strong liquidity position, possibility of increasing the value of share, availability of know-how, expectation of high profit, cheap factors of production, infrastructure facilities, experience and others. To add more, the variables above mentioned were framed considering the theories of investment and findings of different empirical studies previously done.

As already stated, the main purpose of this investor's response study was to find out the determinants of investment in Nepal including the tax incentive system in Nepal as per the response of the investors themselves. For this purpose, Ministry of Industry was able to provide a list of 25 largest companies, which come under its own purview for handling. In this study, this list of 25 largest companies was taken as the sample for the survey of manufacturing companies. And then, questionnaires were distributed to all 25 companies manually. In researcher's view, although the size of the population is small, they can represent the other tax exempted firms too because they are the largest firms which have sunk crores of rupees in capital stock while establishing the industry. These largest firms are supposed to think more seriously than the smaller firms about the usefulness of the tax incentives and other factors pushing to invest. The number of respondents which responded within manufacturing sector were 21.

As in manufacturing sector, a list of 60 hotels and resorts getting tax benefits was received from the Department of Tourism of HMG/Nepal. Taking these 60 companies as universe, a list of 40 hotels and resorts were randomly selected and questionnaires were distributed to them manually. Those, which responded from hotel sector, were 26 comprising 3 from Biratnagar, 3 from Pokhara and 20 from Kathmandu Valley.

As regards to the nature of 47 respondent companies-21 manufacturing and 26 hotel - 12 companies within manufacturing sector were public limited one and all others were of private limited type. Within the hotel sector, 9 hotels were three star or equivalent, 4 hotels were two star or equivalent, 1 hotel was of one star or equivalent category. Besides these, the number of hotels within non-star category and those not

mentioning the category were 6 each. All hotels were private limited companies.

Likewise, relating to the persons responding the questionnaire, 18 from manufacturing and 23 from hotel were the promoter themselves and the rest were financial executives of the companies. Due to receiving of the major part of the responses from the promoters themselves, they are taken as the investor in this study. Apart from percentage, chi-square test is used to test the difference in responses between manufacturing and hotel sector at 5 percent level of significance.

Analysis And Interpretation Of The Data

The main objective of this questionnaire study is to find out the main determinants of fixed asset investment and evaluate the role of tax factor in that respect. The following analysis of the investors opinion regarding two questions has tried to shed some light in this respect. Both of these questions require giving rank among the variables in determining investments namely, tax incentives, know how, market, high profit, experience, cheap factors of production, infrastructure facilities, strong liquidity position, possibility of increasing share value and others. The first question, in this regard, was to find out the factors that induced the investor to establish the concerned corporate entity containing "Why did you start this particular business ?" Rank them in order of your priority.

All the 47 respondents responded this question. However, the number of rankings were different in many respects. In manufacturing sector, the number of respondents giving first rank, second rank, third rank, fourth rank and fifth rank were 21, 20, 15, 10 and 1 respectively. There was one respondent to have sixth rank also in manufacturing sector. It means, there were altogether 68 observations containing all ranks of all investors. Correspondingly, in hotel sector, the respondents who gave first rank only were 26. Likewise, those who had second, third, fourth and fifth rank were 22, 11, 5 and 1 respectively. There was one respondent with sixth rank in this sector too. Weighted points were allotted to different variables for making comparison of different factors determining the investments. The points allotted were 6 for first rank, 5 for second rank, 4 for third rank, 3 for fourth rank, 2 for fifth rank and 1 for sixth rank. The scores of all the ten variables are also presented in Table 2.

Table 2

Ranking Of The Factors Affecting Nepalese Investors At the Time Of Introducting The Concerned Business

S.No.	Factors	Manufacturing		Hotel	
		Score	Rank	Score	Rank
1	Availability of tax incentives	14	(9)	37	(3)
2	Availability of know how	51	(2)	33	(4)
3	Availability of market	94	(1)	77	(1)
4	High expected profit	17	(8)	21	(7)
5	Experience	27	(4)	68	(2)
6	Cheap factors of production	20	(7)	7	(10)
7	Infrastructure facilities	21	(6)	24	(6)
8	Strong liquidity position	3	(10)	13	(9)
9	Possibility of increasing	24	(5)	19	(8)
10	Others	48	(3)	29	(5)

Note : Figures in parenthesis denote rank.

Rank correlation coefficient = 59 (significant at 10 percent level).

Source : Computed by the Author based on Survey conducted hy the Author in 1999.

Table 2 indicates that tax incentive is not the main factor that induces investor at the time of starting the business. In both the sectors of the industry, there are other factors affecting the entrepreneurs while starting the business. In manufacturing sector tax incentives occupies 9th place having 14 score after availability of market with 94, availability of know how with 51, others 48, experience 27, possibility of increasing the value of share 24, infrastructure facilities 21, cheap factors of production 20 and high expected profit 17. In manufacturing sector 10th rank factor is strong liquidity position. Contrary to it, in hotel sector, tax incentives have got the third grade with 37 scores led by availability to market or customer 77, experience 68. The other factors according to order of rank are availability of know-how (4th), others (5th), infrastructure facilities (6th), high expected profit (7th), possibility of increasing share value (8th), strong liquidity position (9th) and cheap factors of production (10th). In this regard, it is found from the rank correlation coefficient analysis that the correlation between the ranks in manufacturing sector and ranks in hotel sector is 59 which is significant at 10 percent level of significance.

As per the pattern of responses we can witness that in manufacturing sector, 12 persons have given first priority and 4 persons have given second priority to the availability of market or customer. In hotel sector, the number of respondents giving first and second rank to the availability of market are 9 and 3. Accordingly, the experience is taken as the major factor

by 3 respondents in manufacturing sector and 5 respondents in hotel sector. The number of persons giving second rank to experience are one in manufacturing sector and 6 in hotel sector. Availability of know-how is ranked first by 3 respondents in hotel sector and ranked second by 4 in manufacturing sector. In contrast to these, availability of tax incentives is given first rank by one respondent in manufacturing sector and 2 respondents in hotel sector. The number of respondents giving second priority to tax incentives are also one in manufacturing sector and 2 in hotel sector. However, there are some differences between the pattern of responses in manufacturing sector and hotel sector, the former giving to some extent more priority to the market than the latter one and the second one giving more importance to experience than the former. The tax factor is also to some extent more heavily favoured by hotel sector than manufacturing. Thus, from the above discussion, it is clear that the main determinants that led to the establishment of industry in the past were availability of market, experience and availability of know-how. Since accelerator variable is analogous to the availability of market, this result complies with the result of Paudel (1988) and Chitrakar (1986) too where they found accelerator variable as the main determinant of investment. The Table 2 also reveals that the other factors like cheap factors of production, strong liquidity position, infrastructure facilities etc. did not work much as the motivator of investment. In essence, the unacceptability of cheap factors of production, the proxy of neoclassical model, liquidity profitability, etc. respectively show that their use in determining investment behaviour is only in limited scale in Nepal. Instead, the acceptance of investor to the availability of market variable as the main factor that gave impetus to them to invest means that the accelerator is the main variable that determines investment. The analysis also makes clear that availability of tax incentive had only small role in determinig investment, especially at the time of investment of currently running firms in manufacturing sector.

Table 3
Ranking Of The Factors Acting As Incentives For Investment

S.No.	Factors	Manufacturing		Hotel	
		Score	Rank	Score	Rank
1	Availability of tax incentives	20	(8)	32	(4)
2	Availability of know how	29	(5)	15	(8)
3	Availability of market	100	(10)	50	(3)
4	High expected profit	23	(7)	59	(2)
5	Experience	6	(10)	50	(3)
6	Cheap factors of production	36	(3)	15	(8)
7	Infrastructure facilities	25	(6)	18	(6)
8	Strong liquidity position	11	(9)	8	(9)
9	Possibility of increasing	31	(4)	17	(7)
10	Others	45	(2)	22	(5)

Note : Figures in parenthesis denote rank.
Rank correlation coefficient = 08 (significant at 10 percent level).
Source : Computed by the Author based on Survey conducted hy the Author in 1999.

The second question containing "What do you think the major factors that induce to investment ? If there are more than one, rank them in order of your priority" was related to the factor which works as the incentive to increase investment in general. This question was also accompanied by above stated 10 variables that determine the investment. As regards the pattern of responses of this question, altogether 72 responses of 21 respondents were obtained in manufacturing sector comprising 21 first rank, 19 second rank, 15 third rank, 12 fourth rank, 4 fifth rank and 1 sixth rank. In hotel sector, total responses were 66 with 26 first priority, 18 second priortiy, 15 third priority, 5 fourth priority and 2 fifth priority.

As per the investors responses, the availability of market is the main motivator of investment in both the manufacturing and hotel sector. For manufacturers, the second motivator is other factors i.e., not specifically mentioned in questionnaire, having score of 45 whereas for hotel runner it is high expected profit with 59 score point. From the Table 3, it is found that the cheap factors of production and possibility of increasing the market value of share take third and fourth positions with 36 and 31 scores in manufacturing sector, whereas it is experience which is in third position in hotel business with 50 score point. The investors in manufacturing business have given only sixth priority with 20 score point to the tax incentives with 32 score point.

From the observation of the pattern of ranking of the investors as regards to the mojor factor which induces to invest, (Table 3) it is seen that 15 respondents in manuifacturing sector and 9 respondents in hotel sector

gave first rank to availability of market or customer. The high expected profit and experience got first priority from 7 and 4 respondents respectively in hotel sector. As regards to the second rank, 2 respondents of manufacturing sector and 3 respondents of hotel sector have second priority to availability of market. High expected profit was given second rank by 3 respondents of manufacturing sector and 1 respondent in hotel sector. Accordingly, cheap factors of production, possibility of increasing share value and other factors got second rank from 4, 3 and 4 respondents respectively in manufacturing sector and 3, 1 and 2 respondents respectively in hotel sector. It is also has not important role in increasing investment because no one has given first rank to this factor. In this regard, there is no significant relation between the rank of the responses of manufacturing sector and hotel sector at 10 percent level of significance of rank correlation. The difference in responses specially lies in second and third rank.

In addition to these analyses, other rank correlation tests were conducted to find out the association between factors that led to establish the business and the factors that, in their view, induce to invest right now, i.e. ranks shown in Table 2 and ranks shown in Table 3, of both manufacturing and hotel sectors. The result was rank correlation coefficient of 53 significant at 20 percent level of significance, and 69, significant at 5 percent level of significance, in manufacturing sector and hotel sector respectively. The rank correlation coefficient shows that there is some difference although not significant in priorities given by the respondents to different factors inducing investment at time when they introduced business and right now. The difference is more in case of manufacturing sector than the hotel sector. Thus, the above analysis makes clear that the market availability is the main determinant of investment in Nepal.

CONCLUSION

It is seen from the analysis that availabiltiy of market is the main deterninant of investment. Nepalese investors see mainly the market factor at the time of introducing the business. If the market is sufficient, they sink their money. After availability of market variable, there come experience, availability of know how, expectation of high profit, infrastructure facilities and possibility of increasing the value which also induce the investors to invest. The observation also shows that liquidity, low interest rate, availability of loan, cheap factors of production, etc. have only a negligible role in Nepalese investment market. In this sense, the liquidity, neoclassical postulation, interest rate, return over cost and tax related theories of investment are not of much importance. Instead, the accelerator theory plays dominant role and the profitability theory also has some significance in Nepal for determining the investment. The discrading of tax incentives

as the determinant of investment by Nepalese investors indicates that the tax relief policy adopted by HMG/Nepal for last 40 years since 2018 B.S. was wrong and it could not contribute to increase private investment in Nepal.

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