

## Problems and Prospects of Manufacturing Industries in Nepal

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### Abstract

*This study aims to examine the problems and prospects of manufacturing industries in Nepal based upon the responses obtained from investors, regulators, and independent intellectuals. Chi-square test is performed to check the validity of views from different groups of respondents and weight basis responses are ranked. It is perceived that the power outage, labour related problems, poor infrastructural development, shortcomings on industrial policies as being the major problems of Nepalese manufacturing despite there are bureaucratic impediment and poor managerial skills of manufacturer. Internal resource based production and internal market based production following comparative advantage productions are opined as prospects of Nepalese manufacturing. Problems inside the industrial estates such as poor infrastructure, less electricity facilitation and low voltage, no place for extension are also the subsequent causes of poor manufacturing development.*

**Key Words:** Duty drawback; One window policy; Antidumping; Countervailing

### Introduction

Manufacturing refers to any production that transforms raw materials into finished or semi-finished goods using machine, tools and labour. Industrial Enterprises Act defines manufacturing industries (MI) as those industries that they produce goods by utilizing/processing raw materials, semi-processed materials, by products or waste products or any other goods (IEA, 1992). Growing MI is crucial to greater economic development which acquires chain effects in a number of areas. The importance of manufacturing is mainly for economic development (Jain, 1997). The other importance of manufacturing are: via increase in income, meet the demand for industrial products, rise in productivity, develop economies of scale, remove disparity in export-import, absorb surplus labour, and use of modern technology in agriculture etc.

Until the 1980s, most of the developing countries adopted import substitution industrialization (ISI) strategy that followed mainly on setting up number of public enterprises to provide essential goods and services. Domestic MIs were protected and promoted through high barriers to trade. For this consideration, the low level of technological development incentives was provided to support small scale cottage industries

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(Action Aid, 2007). The failure of protection strategy appeared due to huge debt crisis to maintain public enterprises and incentives for private sector. There was global trend of privatization and liberalization because of policy recommendation made by Washington based institutions such as World Bank (WB), International Monetary Fund (IMF) and the United State (US) treasury; beneath enhanced structural adjustment program (ESAP) and structural adjustment program (SAP). The policy package of 1990s, known as the Washington Consensus, also insisted for privatization, liberalization, and globalization (Action Aid, 2007). The problems of the MIs could be various. It may rouse from insecurity to rising cost of production. Problems may be occurring from various forms of infrastructure to diverse forms of policies; from availability of raw material to the selling market; from labors skill to investor's entrepreneurship and so on.

### **Review of Literature**

The general thinking that the liberalizing economy increases the inward and outward competitiveness which increase the efficiency of private sector thereby increase the industrial sector. Consequently, liberalization was initiated during mid 1980s with the inception of financial sector reform though the massive liberalization started during 1990s. Although, various measures of liberalization were adopted like removal of import licenses, full convertibility of Nepalese rupees, opening up joint venture financial institutions, provision for FDI and one window policy, new Foreign Investment & Technology Transfer Act etc. Nepal's foreign trade and balance of payments have undergone delay and exports have not increased sufficiently to pay for imports of basic supplies and consumer goods. As a result, Nepal Rastra Bank was compelled to sell US 2.46 billion to the Reserve Bank of India for fulfilling the requirements of Indian currency (CBS, 2011). Large-scale commercial activity has hitherto been in the hands of foreigners, primarily Indians (MoF, 2012 and Karan, 2014).

Ineffective foreign aid as it is anticipated (Basyal, 2008), liberal policies of Nepal seemed to be unsatisfactory as stated by (Bora et al., 2013). Nevertheless, Nepal adopted various modalities for privatization such as bidding the enterprises, selling government shares, leasing out the land and building for 10 years and selling the plants and machinery, leasing out the management and liquidating the chronically loosed enterprises for the sake of overall improvements; only four are running out of 18 manufacturing privatized (MoF, 2012). Nonetheless, Khanal and Kanel, (2005) remarked Nepal as being one of the most highly liberalized countries, World Bank (2003) found stagnant private sector investment in Nepal and fall on overall industrial performance.

Competitive industrial performance index (CIPI) shows that Nepal at 119<sup>th</sup> out of 135 countries (CBS, 2014). The share of manufacturing industries to GDP is less than six percent in 2011 though it was nine percent from 1994 to 2001 (MoF, 2012). There were 4,271 manufacturing establishments generating 213,653 employments in 1992. Nevertheless, for 20 years of gap, manufacturing establishments have decreased to 4,076 and employment to 194,981 (CBS, 2012). There are still 17 districts with less than three manufacturing, and 10 districts without even a single manufacturing in 2012 CME year since only nine districts were without in 1997 which clarifies the worsening condition.

Different views have been expressed by academicians regarding the problems of manufacturing. In this context, liberalization without infrastructural development and haphazard privatization (K.C., 1999) along with the bureaucratic hindrances, lack of policy clarity, power outage and labor related are being noticed as main problems (Bhattari, 2012).

The other notable causes are difficulty in access of industrial loan, unclear tax policy and frequent closures/strikes (Adhikari, 2006) and (MoI, 2010). Further causes are administration hassles, lack of industrial security and delay on payment of VAT & duty drawback privileges. Low traditional technology as a problem is noted by (Shrestha and Chaudhary, 2014). But, above mentioned problems are mainly derived from the reports based on non-empirical studies.

To alleviate the problems of poverty and mass unemployment of developing countries, industrialization was considered as a key during the early 1950s (Fong, 1980). For instance, industrial states were established with the Nepal government and USAID (Shrestha, 2012). In spite of various facilitations, industrial estates are on the spiral problems. Currently, only 10 among 11 are in operation and about 50 percent industrial estates only are fully occupied (Kandel, 2012). Likewise, 51 industries out of 471 were closed in 2012 (MoF, 2012). Findings the problems and identifying the prospects, is core of manufacturing sector. Hence, the study attempts to disclose the problems and prospects of manufacturing industries relying upon the perception of investors, regulators and academicians.

### Data and Methodology

To obtain the views of investors, top five industries in terms of output and employment from 1982 to 2012 census were considered as the study area. Altogether 120 industries were noticed inside the industrial estates on the barrier of above definition. However, only 52 questionnaires were retrieved though the questionnaires were provided to all of them. The same numbers of industries with similarity in nature and same topographical location have been purposively selected even in outside industrial estates. The industries outside industrial estates are purposively selected from Directory of National Census of Manufacturing Establishment - 2013. Hence, 104 questionnaires were attained from investors. Regulators were considered the high ranking officials of Ministry of Industry, Ministry of Commerce & Supplies, Department of Small & Cottage Industries, and Trade and Export Promotion Centre thinking that they are on decision making position, involve in national and international seminars. There were 28 high ranked officials during the time of study period. All of them were provided questionnaires; however, only 17 were retrieved although they were tentatively requested. Independent respondents are considered as the high level officials of Federation of Nepalese Chamber of Commerce and Industries (FNCCI), Confederation of Nepalese Industries (CNI), National Productivity and Economic Development Center, Industrial District Management Limited, Industrial Enterprise Development Institute and Nepal Rastra Bank (NRB), because either they involve on research activities or belong to manufacturing industries. In the case of NRB, only the staffs of research division were provided the questionnaires. Only 35 questionnaires were retrieved though it was provided to 47 personals of above categories.

### Chi-square ( $\chi^2$ ) test

The **null hypothesis** -  $H_0$ : There is no significance difference in opinion among the observed group. It means they have similar opinion about the conducted study.

The **alternative hypothesis** -  $H_1$ : There is a significance difference opinion among the observed group. It means they have dissimilar opinion about the conducted study.

$$\text{The value of test statistics is: } \chi^2 = \sum_{i=1}^n \sum_{j=1}^n \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

The expected frequency in the cell corresponding  $i^{\text{th}}$  row and  $J^{\text{th}}$  column is given by:

$$E_{ij} = \frac{R_i * C_j}{n}$$

Where:  $\chi^2$  = Defining tabulated value,  $O_i$  = Observed frequency,  $E_{ij}$  = Expected frequency,  $R_i$  = Total for the  $i^{\text{th}}$  row,  $C_j$  = Total for the  $j^{\text{th}}$  column, and  $n$  = paired observations.

When observed frequency is less than 5, a more accurate value of  $\chi^2$  is obtained by applying Yeates' continuity correction which is achieved by subtracting each difference of expected and observed value by 0.5 before squaring.

Decision making: If the calculated value of  $\chi^2$  is less than the tabulated value at given level of significance and degree of freedom, we consider the fitness as good. It means, there are similar opinions among different groups of respondents (Chawla and Sondhi, 2011).

Perception analysis cannot be expressed on exact numbers rather they can be mentioned in prioritization. Hence, various perceptions are asked on ranking options like 1, 2, 3...n, assigning 1 to first priority and subsequently others. Further, the options are ranked according to weight given. The estimation procedure is as follows:

$$\text{Weighted Mean} = \frac{\sum WX}{\sum W}$$

Where:  $W$  = number of person choose the rank (the weights) and

$X$  = given rank (the value).

Once the various values are calculated, they are arranged in ascending order. Since the 1 is for highest rank and subsequently others, lowest weighted mean indicates the highest priority and consequently others. The weighted mean can be easily influenced by outliers in the data if the data have very high or very low values. In this case, a non-parametric ( $\chi^2$ -test) is appropriate to capture the association (Chawla and Sondhi, 2011).

## Problems of Nepalese Manufacturing

### *Effect of Frequent Closures and Strikes on Manufacturing Industries*

The various strikes provoked by different political parties and factories' closure due to labor unions activists is said to be one of the most affecting causes of poor manufacturing development in the case of Nepal. It is found that total accumulated output loss due to general strikes during 2009-2013 period amounted NRs. 117 billion (Chaudhary, 2013). For this sake, about 53 percent of respondents strongly agreed, 41 percent of them agreed and 6.41 percent of them somehow agreed. The Chi-square test also confirms that the respondents have similar views regarding the strike and closure issue as being problem.

**Table 1: Responses about Effects of Frequent Closure and Strikes**

Options	Respondents			Total	Chi-square Test D.F (r-1)(c-1)=4
	Investors	Independent	Regulator		
Strongly Agree	53(51.0%)	23(65.7%)	6(35.3%)	<b>82(52.56%)</b>	Tabulated $\chi^2 = 9.48$ (5% level)
Agree	46(44.2%)	10(28.6%)	9(47.1%)	<b>67(41.03%)</b>	
Somehow Agree	5(4.8%)	2(5.7%)	2(17.6%)	<b>7(6.41%)</b>	Calculated $\chi^2=5.59$
Disagree	0(0.0%)	0(0.0%)	0(0.0%)	<b>0(0.00%)</b>	
<b>Total</b>	<b>104(100)</b>	<b>35(100)</b>	<b>17(100)</b>	<b>156(100)</b>	<b>Null hypothesis is accepted</b>

Sources: Author's Calculation from Sample Survey, 2014.

The action initiators of strikes are political parties, rebellion groups, transport unions, local communities, ethnic & alliance groups, students union, business communities, trade

unions, and others. There are continuing industrial closure and national & regional level of strikes that have jeopardized Nepalese manufacturing (Chaudhary, 2013). There were 4451 closure and strikes of on different places with different on its nature all over Nepal during 2009 to 2013 period which had negatively impacted on economic growth and aggravated inflation during that period (Shrestha and Chaudhary, 2014). Consistency that has been found with the earlier review reflects about closure and strikes as a problem.

### Unmanaged Liberalization

Liberalization was initiated in Nepal with the inception of financial liberalization during mid 1980's though privatization and industrial liberalization was commenced during 1992. The reason behind liberalization was due to policy recommendation imposed by Washington consensus for debt wrecked countries. Liberalization with privatization was the basic requirement if short term loan was to be taken from IMF (for stabilization) and long term loan was to be taken from World Bank (for long term development). It was also increasing global phenomenon of liberalization and privatization during. However, due to the low level of physical infrastructure, shortage of skilled labor, inefficient institutions, importation of finished goods, and importation of processed primary products; developing countries could not compete with foreign production though liberalization is adopted by developing countries (Sharma, 2001). The issue of privatization and liberalization is more debated on the modus operandi on haste. Albeit aforesaid debates, no research was carried out yet to know the opinion from the concerned professional of different groups. Consequently, the respondents were asked if the matter as a problem of Nepalese manufacturing sector.

**Table 2: Responses on Unmanaged Liberalization**

Options	Respondents			Total	Chi-square D.F (r-1)(c-1)=6
	Investor	Independent	Regulator		
Strongly Agree	3(2.9%)	6(17.1%)	1(5.9%)	10(6.41%)	Tabulated $\chi^2$ = 12.59 (5% level) Calculated $\chi^2$ = 11.17
Agree	37(35.6%)	9(25.7%)	3(17.6%)	49(31.41%)	
Somehow Agree	41(39.4%)	14(40.0%)	9(52.9%)	64(41.03%)	
Disagree	23(22.1%)	6(17.1%)	4(23.5%)	33(21.15%)	
<b>Total</b>	<b>104(100%)</b>	<b>35(100%)</b>	<b>17(100%)</b>	<b>156(100%)</b>	<b>Null hypothesis is accepted</b>

Sources: Author's Calculation from Sample Survey, 2014.

Out of 156 respondents; 41 percent of respondents somehow agreed, 31 percent of them agreed, and 6 percent of them strongly agreed that unplanned liberalization as being one of the problem of manufacturing. The calculated value of Chi-square ascertains that modus operandi of liberalization is one of the problems which is supported by the findings of Sharma (2001) and SWTEE & AAN (2006). It is hot debate frequently that the selling of Harisidhhi Brick and Tile Factory, Bansbari Leather Shoe Factory, and Brikuti Paper Factory, was on haste. K. C. reviewed that excessive political interference, lack of adequate autonomy and accountability, absence of professionalism, rampant financial indiscipline and existence of conflicting goals are some fundamental reasons attributable to this deteriorating performance of the PEs in Nepal (K.C., 2004).

### Low Capital Utilization

If full fledge capital utilization (not necessarily cent percent) would be; manufacturing industries might have other problems such as on quality matter, competition, marketing

capability etc. However, the average capital utilization of Nepalese manufacturing industries is 60 percent (CBS, 2012). Consequently, the respondents were asked to rank the causes of low capital utilization.

As it is noticed by Sul, out migration is a problem in South Asia (Sul, 2005). More than 500 thousand documented Nepalese labour were abroad before 2005 (Bhattarai, 2005). Government of Nepal reported that 5, 21,878 labor permits were issued for the year 2013/14 only which is almost 16 percent increase comparing to previous year (MoLE, 2014). Contrarily, to Adhikari, quality works on labour is as a result of low wage and poor legislation (Adhikari, 2012). Therefore, labor union pressure and various industrial closures are the other main problems. In the same way, public enterprises including manufacturing are also disturbed by the unfavorable practices such as ultimatum, lockout, blockade, and even seizure of production and sale of it by trade union (MoF, 2012).

**Table 3: Responses on Low Capital Utilization**

Options	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	4	11	2	0	17	1.88	2
	Investor	29	67	8	0	104	1.80	2
	Independent	9	20	5	1	35	1.94	2
<b>Total</b>		<b>42</b>	<b>98</b>	<b>15</b>	<b>1</b>	<b>156</b>	<b>2.02</b>	<b>2</b>
B	Regulator	1	7	6	3	17	2.65	3
	Investor	0	2	39	63	104	3.59	4
	Independent	6	11	10	8	35	2.57	3
<b>Total</b>		<b>7</b>	<b>20</b>	<b>55</b>	<b>74</b>	<b>156</b>	<b>3.26</b>	<b>3</b>
C	Regulator	15	2	0	0	17	1.12	1
	Investor	72	1	31	0	104	1.61	1
	Independent	23	7	3	2	35	1.54	1
<b>Total</b>		<b>110</b>	<b>10</b>	<b>34</b>	<b>2</b>	<b>156</b>	<b>1.54</b>	<b>1</b>
D	Regulator	0	0	3	14	17	3.82	4
	Investor	2	7	38	57	104	3.44	4
	Independent	0	3	15	17	35	3.40	3
<b>Total</b>		<b>2</b>	<b>10</b>	<b>56</b>	<b>88</b>	<b>156</b>	<b>3.47</b>	<b>4</b>

1, 2, 3, 4 refers to first, second, and third priority (rank) respectively.

Sources: Author's Calculation from Sample Survey, 2014.

Power outage of electricity is being one of the main problems of Nepal for a last decade. There was no such problem before 2005; however, the situation is aggravated to 14-18 hours of load shedding for a day at winter season. Electricity as source of energy comprised only 2.04 percent of the total consumption of energy in 2007/8, while 85 percent of energy consumed was from the traditional sources like firewood, agricultural residue and animal residue (Shrestha, 2010). This situation has not been changed up to 2013 that electricity, biomass, and petroleum products consumption are about 2, 84 and 11 percent respectively (MoF, 2013). Shrestha (2010) illustrated load shedding as being main causes to deter production which mainly appeared from 2005 for two hours a day and aggravated up to 18 hours a day in 2009. Other possible cause of low capital utilization could be timely unavailability of raw materials mainly because of Indo-Nepal and Sino-Nepal land locked boarder. Relying upon above mentioned reviews and open discussion with various investors

and professionals, researcher assumed following four ranking options as being more near causes of low capital utilization, which are:

- A: Labor problems
- B: Poor managerial skills
- C: Power outage
- D: Timely unavailability of raw materials

Power outage, labor problems, poor managerial skills, and timely unavailability of raw materials are ranked as being the respective causes of low capital utilization. Respondents were also asked open-ended questions to know if there were other causes of low capital utilizations; however, few of them replied frequent closure/strikes, bureaucratic inefficiencies and inflow of cheaper goods produced by high technology (so that they could not compete to them); as being remaining causes of low capital utilization. The argument forwarded by Shrestha (2010) supports the findings.

### Labor Related Problems

Labor is unavoidable factor of production though the capital, technology, and materials are other closed factors. Being based upon literature reviews, conversation with investors, journal, members of FNCCI, & CNI; researcher has noted four main labor related problems that were asked to rank on weight basis. Options are:

- A: Labor shortage due to outmigration
- B: Absence of working attitude and dedication problem
- C: Unpractical wage system
- D: Role and activities of trade unions on firm level

**Table 4: Responses on Labor Related Problems**

Options	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	2	7	3	5	17	2.65	2
	Investor	35	41	27	1	104	1.94	2
	Independent	6	6	11	12	35	2.83	3
<b>Total</b>		<b>43</b>	<b>54</b>	<b>41</b>	<b>18</b>	<b>156</b>	<b>2.22</b>	<b>2</b>
B	Regulator	11	2	3	1	17	1.65	1
	Investor	57	30	9	8	104	1.69	1
	Independent	16	10	7	2	35	1.86	1
<b>Total</b>		<b>84</b>	<b>42</b>	<b>19</b>	<b>11</b>	<b>156</b>	<b>1.72</b>	<b>1</b>
C	Regulator	1	5	7	4	17	2.82	3
	Investor	6	5	6	87	104	3.67	4
	Independent	8	14	8	5	35	2.29	2
<b>Total</b>		<b>15</b>	<b>24</b>	<b>21</b>	<b>96</b>	<b>156</b>	<b>3.27</b>	<b>4</b>
D	Regulator	3	3	4	7	17	2.88	3
	Investor	5	29	9	61	104	3.21	4
	Independent	5	6	9	15	35	2.97	4
<b>Total</b>		<b>13</b>	<b>38</b>	<b>22</b>	<b>83</b>	<b>156</b>	<b>3.12</b>	<b>3</b>

1, 2, 3, 4 refers to first, second, and third priority (rank) respectively.

Sources: Author's Calculation from Sample Survey, 2014.

Working attitude and dedication problem, labor shortage due to outmigration, trade union related problem, and unpractical wage system are given first, second, third, and fourth respective priority. Seeing as rank values, unpractical wage is main issue than trade union issue for regulators and independent respondents. But, in view of investors', trade union problem is greater than unpractical wage system issue. But, the wage and trade union issues are interlinked. Unpractical wage does not mean low wage, however, it is the wage that is paid according to the labor productivity. So, the inferences is drawn that investors are ready to pay according to labor productivity. Similarly, according to independent respondents and regulators, labor union problem is due to unpractical wage, but according to investors unpractical wage is concerned with low productivity.

This finding is supported by the various earlier reviews and findings of Bhattarai (2005), Sul (2005), Adhikari (2012), and MoF (2014) that outmigration is one of the problem of Nepalese manufacturing. As mentioned by Adhikari (2012), and the findings of this research too; labor union is also a problem. Differently than earlier reviews and findings, this study shows absence of working attitude and dedication to work is found the main problem provoked from labor rather than outmigration, labor union, and wage issues. But, it cannot be readily say that poor working attitude is independent of migration, low wage, and labor union rather they are intertwined.

#### **Poor Infrastructure Development a Problem of Nepalese Manufacturing**

The main component of overall development is mainly concerned with the infrastructure development (World Bank, 1993). However in Nepal, about 3500 km of highway and 1906 km feeder roads are made up to 2014 (DoR, 2014). Electricity supply is just 712 MW in summer season and simply 400 MW in winter season though the demand forecasted for the same year is around 1271 MW. The miserable condition of electricity can be realized from ten to eighteen hours of load shedding a day. So as the concern of financial loan Khanal & Shrestha expressed:

Access to credit is perceived by Nepalese firms as one of the greatest barriers for doing business, due to the weak legal rights for claiming and collecting collateral. Moreover, despite the existence of a credit bureau, the information index in Nepal is weak. Disclosure standards for companies are close to non-existence and directors are permitted to influence the companies' actions for their own benefit with impunity (Khanal and Shrestha, 2008).

As it is reported by NRB, there are 2541 branches of banking and financial institutions in Nepal out of which 47 percent are concentrated in central region. However, Far-western region and Mid-western regions have about 4 and 8 percent branches only. Similarly, 75 percent working-age population of rural areas is exempt of banking system. Manufacturing are divested due to two third of investment on real estate sector. Shadow banking system and high concentration on the investment on nonproductive sector are also challenging for industrial investor. Likewise, instead of direct loan to investors, banking and financial institution are lending loans to microfinance, so that investors have to reach in those institutions to pay high interest (NRB, 2014). Chaudhary also claims the similar problem that a low level of interest rate (8 to 10 %) is for the investment of unproductive sectors like for houses, cars, land; but it is so high for the investment of industrial sector they have to pay more than 15 percent (Chaudhary, 2013).

The performance of Nepalese economy is affected by weak infrastructure particularly lack of energy and road (GoN, 2012). UNIDO also noted infrastructure bottleneck as a main

problem of Nepalese manufacturing (UNIDO, 2014). The empirical finding of International Finance Corporation also noted poor infrastructures; mainly electricity and poor roads as being main problem of Nepalese Economy (IFC, 2009). Based upon above reviews and data, respondents were asked to rank to know which of the poor infrastructure is mostly affecting. The ranking options are as follows:

**Table 5: Responses on Poor Infrastructure Development**

Option	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	17	0	0	0	17	1.00	1
	Investor	103	1	0	0	104	1.01	1
	Independent	33	2	0	0	35	1.06	1
<b>Total</b>		<b>153</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>156</b>	<b>1.02</b>	<b>1</b>
B	Regulator	0	11	6	0	17	2.35	2
	Investor	1	55	47	1	104	2.46	2
	Independent	2	17	16	0	35	2.40	2
<b>Total</b>		<b>3</b>	<b>83</b>	<b>69</b>	<b>1</b>	<b>156</b>	<b>2.44</b>	<b>2</b>
C	Regulator	0	6	10	1	17	2.71	3
	Investor	0	49	55	0	104	2.53	3
	Independent	0	16	17	2	35	2.60	3
<b>Total</b>		<b>0</b>	<b>71</b>	<b>82</b>	<b>3</b>	<b>156</b>	<b>2.56</b>	<b>3</b>
D	Regulator	0	0	1	16	17	3.94	4
	Investor	0	0	1	103	104	3.99	4
	Independent	0	0	2	33	35	3.94	4
<b>Total</b>		<b>0</b>	<b>0</b>	<b>4</b>	<b>152</b>	<b>156</b>	<b>3.97</b>	<b>4</b>

Sources: Author's calculation from Sample Survey, 2014.

### Shortcomings on Industrial Policies, Rules and Regulation

Shortcomings on industrial policies, rules and regulation bring obstacles on various ways. It creates legislative problem for the registration; facilitates some and neglects others; creates problems on decision making for authorities; the targeted firms may deprived of facilities like subsidiaries and protection but other may be privileged etc. If the policies are frequently changed then the firms who target their production under previous facilities and concession will no longer meet target and may upset their production. Those industries who are surviving under quota system, can no longer sustain if the privilege is dropped. If tax subsidiary and concession provided by the government is drawn back then concerned firms may not compete longer.

Protection policies like anti-dumping, countervailing and safeguard system are equally essential to protect domestic industries from low quality, out dated, and rubbish imported production. The industrial policy of Nepal looks like incapable to provide incentives for both domestic and foreign investment though the WTO provides such flexibility to LDCs to implement Trade Related Investment Measures (TRIMS) (SAWTEE & AAN, 2007). Similarly, the research of Ministry of Finance also discloses that policy implementation uncertainty has been unpredictable for firms in Nepal (MoF, 2014). Relying upon aforesaid rationales, respondents were asked to rank if shortcomings on industrial policies were pertaining to effect Nepalese manufacturing. The ranking options are:

A: Frequent changes on industrial policies, rules and regulation

- B: Poor facilities/concession and inefficient policies to protect national industries  
 C: Unavailability of technical and financial assistance  
 D: Poor anti-dumping, countervailing and safeguard system

Frequent changes on industrial policies rules and regulation; poor facilities/concession and inefficient policies to protect national industries; poor anti-dumping, countervailing and safeguard system to protect national industries; and unavailability of technical and financial assistance as mentioned by industrial policies; are ranked as being respective causes of policy shortcomings.

The provision of “No work no payment” is guaranteed under article 8.3 of Industrial Policy - 2010, however it is not implemented. Facilities and concession are enticed for the industries established in special economic zone (SEZ) under article 8.4, but SEZ has not still proposed for the entry of industries. Formation of industrial security forces is mentioned under article 8.13 but it is not implemented yet though some industrial estates are guarded by armed police force. Protection through anti-dumping is said to be implemented under article 10.5 but this act has not passed on bill (MoI, 2010). One window policy is framed in 1992 under article but the implements side is very poor (MoI, 1992). Since, it is not mentioned what sort of policies are affecting, what facilities/concession are poor, what sorts of policies are lacking; the clear decision cannot be made regarding impediments. Nonetheless, from the perspective of respondents, even it can be said that there are shortcomings on industrial policies, rules and regulations.

**Table 6: Responses on Shortcomings on Industrial Policies, Rules and Regulation**

Option	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	4	4	3	5	16	2.56	2
	Investor	78	16	8	2	104	1.37	1
	Independent	23	8	2	1	34	1.44	1
<b>Total</b>		<b>101</b>	<b>24</b>	<b>10</b>	<b>3</b>	<b>154</b>	<b>1.24</b>	<b>1</b>
B	Regulator	9	4	3	0	16	1.63	1
	Investor	25	73	5	1	104	1.83	2
	Independent	11	12	10	1	34	2.03	2
<b>Total</b>		<b>45</b>	<b>89</b>	<b>18</b>	<b>2</b>	<b>154</b>	<b>1.85</b>	<b>2</b>
C	Regulator	1	4	5	6	16	3.00	3
	Investor	0	15	11	78	104	3.61	4
	Independent	0	11	8	15	34	3.12	3
<b>Total</b>		<b>1</b>	<b>30</b>	<b>24</b>	<b>99</b>	<b>154</b>	<b>3.44</b>	<b>4</b>
D	Regulator	1	5	4	6	16	2.94	3
	Investor	0	1	80	23	104	3.21	4
	Independent	0	3	14	17	34	3.41	4
<b>Total</b>		<b>1</b>	<b>9</b>	<b>98</b>	<b>46</b>	<b>154</b>	<b>3.23</b>	<b>3</b>

Sources: Author's Calculation from Sample Survey, 2014.

### Trade Related Policy Problem

Trade related policy mainly works in accordance with demand for and supply of products. Producers will be attracted to produce if the trade policy is favorable. Liberal trade policy will have its likely impact only if domestic firms are able to compete in international

market. Otherwise, the inflow of imported cheaper goods upset domestic firms. Unfavorably frequent changes in trade policies also deter in production process because firms might have under privilege of existing policies. If exported items are not certified and don't have quality inspection; its reputation on international market decreases. Consequently, its demand decreases and production is to be halted. The other issue under trade policy is facilitation of transit service, warehouse facilities, clearing, forwarding, financial availability for credit guarantee, insurance etc.

The pilot survey shows that Nepalese investors are least satisfied from the trade policies; mainly on customs, regulatory and administrative procedures (Duval, 2008). Similarly, Khanal and Shrestha (2008) suggested decreasing the compliance costs of regulatory, customs and administrative procedures in order to advance the national policy framework. Further, they recommended disposing of impediment and cumbersome procedure ensuring policy stability by avoiding unpredictable changes, and trade policy to be framed or changed following consultation with investors. Though these findings and reviews were of before 2008 and the new trade policy was formulated in 2009; it was asked to respondents to rank whether trade related policies are still being problems.

A: Frequent changes on trade policies.

B: Ineffective transit services like warehouse facilities, transportation, and clearing, etc.

C: Poor system on quality inspection, certification, and monitoring on exportable goods.

D: Unavailability of financial resource for credit guarantee and insurance.

**Table 7: Ranking Responses on Trade Related Problem**

Options	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	1	0	2	4	7	3.29	4
	Investor	5	3	20	59	87	3.53	4
	Independent	2	2	11	15	30	3.30	4
<b>Total</b>		<b>8</b>	<b>5</b>	<b>33</b>	<b>78</b>	<b>124</b>	<b>3.46</b>	<b>4</b>
B	Regulator	4	2	1	0	7	1.57	1
	Investor	72	7	6	2	87	1.29	1
	Independent	25	4	1	0	30	1.20	1
<b>Total</b>		<b>101</b>	<b>13</b>	<b>8</b>	<b>2</b>	<b>124</b>	<b>1.28</b>	<b>1</b>
C	Regulator	2	4	1	0	7	1.86	2
	Investor	9	58	18	2	87	2.15	2
	Independent	2	18	7	3	30	2.37	2
<b>Total</b>		<b>13</b>	<b>80</b>	<b>26</b>	<b>5</b>	<b>124</b>	<b>2.19</b>	<b>2</b>
D	Regulator	0	1	3	3	7	3.29	3
	Investor	1	19	44	23	87	3.02	3
	Independent	0	7	12	11	30	3.13	3
<b>Total</b>		<b>1</b>	<b>27</b>	<b>59</b>	<b>37</b>	<b>124</b>	<b>3.06</b>	<b>3</b>

Sources: Author's calculation from Sample Survey, 2014.

Only 79 percent of respondent ranked trade related issues as being problems. Ineffective transit service like warehouse facilities, transportation, clearing, forwarding etc.; poor system on quality inspection, certification, and monitoring on exportable and importable goods; unavailability of financial resources for credit guarantee and insurance; are respectively ranked as being problems from trade policy issues. The outcome of this

research is somehow consistence to the reviews and findings of Duval (2008) and Khanal & Shrestha (2008) that there are still shortcomings on trade policies. Differently from Khanal & Shrestha (2008) (i.e. frequent changes on policies as being main problem); this findings shows the ineffective transit service as being the main problem following poor system on quality inspection, unavailability of financial guarantee & insurance, and frequent changes on policies.

### Tax Related Issues: A Problem of Manufacturing Industries

Tax policies effect on various aspects. If reasonable tax is imposed, firms can survive doing competition with rivals. If the import tax is higher on material inputs than on imported finished goods, domestic market cannot compete with imported foreign goods as a consequence of high cost of domestic production. Correspondingly, even if there is favorable tax on imported materials input, but, if the final product inflows with skimpy tax; domestic firms can no longer survive. Income taxes deter people from working and discourage investment for firms if the level of tax crosses certain level (Barro, 2012). But, the problem on tax issues of developing countries' is mainly on efficiency and integrity of the tax authorities rather than enactment of appropriate tax legislation (Todaro and Smith, 2011).

Further, they added that the main sources of government revenue in developing countries is taxation and primarily from import and export duties. So, the tax evasion may increase via competition for lower price. As said by Hyman, the productivity, willingness to work & invest, and attraction of foreign investment also depend upon the tax policy of the nation (Hyman, 2011). Developing countries mainly apply lower corporate tax to invite FDI and higher import tax on finished goods to protect national industries.

**Table 8: Ranking Responses on Tax Related Issues**

Options	Respondents	Ranking				Total Responses	Mean Weight	Overall Rank
		1	2	3	4			
A	Regulator	1	7	1	0	9	2.00	2
	Investor	15	78	8	0	101	1.93	2
	Independent	5	24	4	0	33	1.97	2
<b>Total</b>		<b>21</b>	<b>109</b>	<b>13</b>	<b>0</b>	<b>143</b>	<b>1.94</b>	<b>2</b>
B	Regulator	8	1	0	0	9	1.11	1
	Investor	86	10	4	1	101	1.21	1
	Independent	26	5	1	1	33	1.30	1
<b>Total</b>		<b>120</b>	<b>16</b>	<b>5</b>	<b>2</b>	<b>143</b>	<b>1.22</b>	<b>1</b>
C	Regulator	0	1	5	3	9	3.22	3
	Investor	1	11	43	46	101	3.33	3
	Independent	2	3	9	19	33	3.36	3
<b>Total</b>		<b>3</b>	<b>15</b>	<b>57</b>	<b>68</b>	<b>143</b>	<b>3.33</b>	<b>3</b>
D	Regulator	0	0	3	6	9	3.67	4
	Investor	0	3	55	43	101	3.40	4
	Independent	0	1	13	19	33	3.55	4
<b>Total</b>		<b>0</b>	<b>4</b>	<b>71</b>	<b>68</b>	<b>143</b>	<b>3.45</b>	<b>4</b>

Sources: Author's Calculation from Sample Survey, 2014.

Relaying upon discourse with various investors, it is known that tax evasion on imported goods is rampant in Nepalese context. According to them; they are compelled to do tax

evasion mainly for two reasons. The first, it has been hierarchy for long ago from customs officers as expectation of bribery otherwise service/import becomes delayed and in some cases import will be obstructed showing various filthy reasons. The other; if a raw material are imported without tax evasion by a single producer, he can no longer compete with others because of others cheaper production as a result of tax evasion on imported goods. So, there is competition on tax evasion on imported material inputs. Similar, cases occurs in the cases of VAT evasion, income tax evasion and other form of tax evasion too. There are so many other tax related issues like integrated/one door custom/tax system; duty drawback and VAT refund; unclear tax imposition etc; which are bothering producers. Relating upon above issues, the following options were asked to rank which of the issues were mainly affecting manufacturing industries.

- A: Ineffective integrated customs / tax system
- B: Ineffective customs valuation and tax evasion
- C: Unclear but various forms of tax in an overall
- D: Hindrance on duty drawback and VAT refund

Ineffective customs valuation and tax evasion; ineffective integrated customs/tax system, several forms of unclear tax; and hindrance on duty drawback & VAT refund are ranked first, second, third, and fourth respective causes to discourage manufacturing. The finding of this research is consistent with the views of Todaro & Smith (2011).

#### Problems inside Industrial Estates

Industrial estates are not free from problems. There are various disputes between IDML and industrial development association regarding continuous hikes on rent, promulgation of rules and regulations despite improvements in physical infrastructure.

**Table 9: Responses on Problems inside Industrial Estates**

Problems	Investor	Total Respondents
No place for extension	16 (30.77)	52
Poor infrastructure development	17 (32.69)	52
No sufficient electricity and low voltage	19 (36.54)	52
Double tax by IDML & municipality	14 (26.92)	52
Public disturbance for night shift working (Patan only)	5 (9.62)	52
Traffic congestion for entry in industrial estates (Patan only)	5 (9.62)	52
No Electricity as in other industrial estates (Birendranagar only)	2 (3.85)	52
Outdoor labour union disturbance	18 (34.62)	52
No loan availability by depositing buildings of inside	13 (25.00)	52
Congestion of trade and service industries and Manufacturing upset (Balaju only)	4 (7.69)	52

(Note: Results on parenthesis are percentage out of total respondents)

Sources: Author's Calculation from Sample Survey, 2014.

About 37 percent of investors replied that insufficient electricity supply and low voltage are still problems even though they have provision of 10 to 12 hours of electricity every day. But, Birendranagar Industrial Estates doesn't have such provision up to the time of field research. Nearly, 35 percent of them said regarding the outdoor labor union disturbance they

are facing as remaining inside industrial estates. If there is a problem concerning labor issue (not only in the case of on firms where they work but any other firm that is inside industrial estates) they come to halt the work of other firms uniting all labor union activists to insist their issues. Such kind of problem is not faced by industries outside the industrial estates as mentioned by investors inside industrial estates.

Almost 33 percent of them said that there are poor and dusty roads, insufficient water supply, regular drain blockage, and old buildings. If an investor wishes to extend firms by bringing new technology, new plant with their increase in popularity; there is not place inside industrial estates of Balaju, Patan, Bhaktapur, Pokhara, Butwal, and Hetauda. Likewise, investors also complain of double tax that they have to pay both for IDML and municipality since infrastructural development is to done only by IDML, and municipality do not involve in it rather compel for tax. Investors are also disappointed for unavailability of loan provision by depositing their infrastructural properties. Mostly, banks accept as collateral only to those fixed asset that a firm has on its own name. But, the land inside the estates is not belonging to investors though the buildings are constructed by them.

Estates wise problems are also noticed such as in Patan, there is problem of night shift working to those industries that are located periphery of residents. If they start to work at night, public raise the issue of sound pollution, if not listened, they throw stones over firms. There is also the transportation delay problem because of narrow roads, mainly at the office time. As it is noted down by the investors, there are many industries related with business and services so that manufacturing industries are ignored at Balaju industrial estates. Undoubtedly, there are show room and service center of popular brand car like Mahindra, Nissan, Volkswagen, Royal Enfield etc. Despite the fact that there are so many problems inside industrial estates; poor infrastructure, less electricity facilitation & low voltage, no place for extension are serious issues.

### **Prospects of Nepalese Manufacturing**

Industrialization comprises extensive technological development of the production system of an economy. Appropriate technology, management techniques and other resources are required to forward an economy from the traditional low production to a more automated and proficient system of mass production of goods. Despite existing setbacks, it is universally acknowledged that the new forms of production are to be invented completely or old forms of production are to be innovated. The development in manufacturing sector is reliant on the investment environment. On behalf of this logic, it is prone to find the possible prospects of Nepalese manufacturing.

- A: Production diversification
- B: Comparative advantage production
- C: Resource (including internal raw material) based production
- D: Internal demand/market based production
- E: Export based production

Internal resource based production is the first and most prospects following internal demand based production, comparative advantage production, production diversification, and export based production.

**Table 10: Ranking Responses on Prospects of Nepalese Manufacturing**

Options	Respondents	Ranking					Total Responses	Mean Weight	Overall Rank
		1	2	3	4	5			
A	Regulator	0	1	5	8	3	17	3.76	4
	Investor	0	5	33	31	35	104	3.92	4
	Independent	0	4	10	17	3	34	3.56	3
<b>Total</b>		<b>0</b>	<b>10</b>	<b>48</b>	<b>56</b>	<b>41</b>	<b>155</b>	<b>3.83</b>	<b>4</b>
B	Regulator	2	2	5	8	0	17	3.12	3
	Investor	5	5	30	46	18	104	3.64	4
	Independent	1	2	13	18	0	34	3.41	3
<b>Total</b>		<b>8</b>	<b>9</b>	<b>48</b>	<b>72</b>	<b>18</b>	<b>155</b>	<b>3.54</b>	<b>3</b>
C	Regulator	9	5	1	2	0	17	1.76	2
	Investor	61	39	3	1	0	104	1.46	1
	Independent	25	8	1	0	0	34	1.29	1
<b>Total</b>		<b>95</b>	<b>52</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>155</b>	<b>1.46</b>	<b>1</b>
D	Regulator	5	8	3	1	0	17	2.00	2
	Investor	39	53	11	1	0	104	1.75	1
	Independent	11	17	4	2	0	34	1.91	2
<b>Total</b>		<b>55</b>	<b>78</b>	<b>18</b>	<b>4</b>	<b>0</b>	<b>155</b>	<b>1.81</b>	<b>2</b>
E	Regulator	0	1	1	2	13	17	4.59	5
	Investor	0	1	25	26	52	104	4.24	5
	Independent	1	0	1	2	30	34	4.76	5
<b>Total</b>		<b>1</b>	<b>2</b>	<b>27</b>	<b>30</b>	<b>95</b>	<b>155</b>	<b>4.39</b>	<b>5</b>

Sources: Author's calculation from Sample Survey, 2014.

### Open Ended Responses

Agriculture based manufacturing have the prospects as it is mentioned by more than 51 percent of respondents. Similarly, construction based manufacturing, hydro power related articles manufacturing, toilette & cosmetic production, internal resource based manufacturing, herbal processing, handicraft, and mineral processing manufacturing are other prospects. It is viewed that the investors are more acknowledge regarding prospects of Nepalese manufacturing following independent respondents and regulators. The contribution agriculture sector on Nepalese GDP is still about 33 percent and 70 percent of people are still dependent on agriculture products (MoF, 2014). Emerging industries, like, noodles & similar products and other industries like dairy, bakery production are also agriculture based manufacturing production. Obviously, the opinions of respondents are highly relevant. But the belief of respondents might be for other new entrants of agriculture productions though existing production are equally important.

About by 46 percent of respondents have expressed the opinion that construction based industries are the prospects of Nepalese manufacturing. Needless to say, the respondents opined the prospects of construction based industries seeing existing scenario of growing those industries and its demand on market. The unexpected but relevant opinion is perceived on manufacturing of hydropower related articles. The reason behind to see the prospects of hydropower related articles, certainly, because of growing projects on those sectors. The other prospects mentioned are; toilette and cosmetic productions like perfume, deodorant, soap, brush, toothpaste, lotion, cream etc. They might have believed the possibility of these industries seeing growing demand of those products in Nepal. Others industries like herbal

processing, handicrafts and mineral processing industries also might have opined being based upon internal resources.

**Table 11: Responses on Prospects of Nepalese Manufacturing**

Prospects	Investor	Independent	Regulator	Total Responses	Total Respondents
Agro-based	67 (42.95)	12 (7.69)	1 (0.64)	80 (51.28)	156
Construction Based	59 (37.82)	10 (6.41)	2 (1.28)	71 (45.51)	156
Hydropower Related	44 (28.21)	6 (3.85)	0 (0.00)	50 (32.05)	156
Toilette and Cosmetic	10 (6.41)	0 (0.00)	1 (0.64)	11 (7.05)	156
Internal Resources Based	6 (3.85)	2 (1.28)	2 (1.28)	10 (6.41)	156
Herbal Processing	7 (4.49)	0 (0.00)	1 (0.64)	8 (5.13)	156
Handicrafts	2 (1.28)	2 (1.28)	0 (0.00)	4 (2.56)	156
Mineral Processing	1 (0.64)	0 (0.00)	0 (0.00)	1 (0.64)	156

Note: Results on parenthesis are percentage out of total respondents.

Sources: Author's Calculation from Sample Survey, 2014.

### Conclusion

Continuous strike/closure and bureaucratic deficiencies clarifies the disreputable phenomenon of Nepalese manufacturing. The modus operandi and haphazard liberalization without infrastructural development is the other problem. As per concern of low capital utilization; power outage, labor related problems are major causes. Lack of working attitude of employee, and labor union pressure are seen problems of labor. Likewise, poor infrastructural development, and shortcomings in industrial and tax policies are seen as further problems. The ranking responses clarified electricity following access of roads, right to use loans and poor communication as being the respective infrastructural problem. Despite the fact that there are so many problems inside industrial estates; poor infrastructure, less electricity facilitation & low voltage, no place for extension are serious issues.

Internal resource based and internal market based production and comparative advantage productions are opined as prospects of Nepalese manufacturing. Open ended questionnaires show the agriculture based manufacturing, construction based manufacturing, hydro power related articles; toilette & cosmetic production, internal resource based, herbal processing, handicraft, and mineral processing manufacturing are respective prospects of Nepalese manufacturing.

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