UNDERSTANDING FINANCIAL LIBERALIZATION IN ENDEMIC ERA IN NEPAL: APPLICATION OF FINANCIAL LIBERALIZATION INDEX

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ABSTRACT

This paper examines changes, stress and uncertainty in the financial market immediately after COVID-19 in the endemic period and their effects in financial market liberalization in the banking sector based on time series secondary data. This paper employs financial liberalization index (FLI) and descriptive statistics. As the result, the process of financial liberalization is disrupted in the endemic period in which financial liberalization index (FLI) shows 0.96 value, like the period of pandemic. Entry of new financial institutions is interrupted. The liquidity is found so critical that a higher lending interest rate has become a barrier to expansionary credit investment. Since reschedule of investment and scheduling of new investment are disrupted, output and employment are critical in terms of loss. Secondly, there is significant decline in number of various financial institutions. These negative trend line from pandemic to endemic is a stress and uncertainty in the growth of financial market and financial liberalization. Lastly, performance of indicators: number of ATMs, number of loan accounts, credit to deposit ratio and net profit of commercial banks are proportionally weak in the endemic period more than the pandemic period, except number of deposit accounts. The performance of banks has indicated annual change and stress instead of proper recovery in the endemic period, although the financial market is open. However, the adoption of digital transactions has improved significantly after pandemic but there are other related issues. Therefore, even in the endemic era there has been still a big challenge in order to maintain stability and stimulate growth in the financial market, particularly in the banking sector. This study shows Nepal's liberalization rank in FLI and its consistency to the pandemic period so that the central bank could reinitiate financial reform to revive financial liberalization activities for improving financial stability. This study is also expected to suggest that a digitalization could improve the IT infrastructure and capacity and services of the commercial bank to the low-income group living in the rural areas of Nepal. This study further contributes a literature about financial liberalization of pandemic and endemic period which would be comparative overview of financial liberalization with liquidity issues so that the central bank could formulate appropriate monetary policy responding all these issues to minimize stress and uncertainty in the endemic for achieving financial stability and growth.

Keywords*:* Endemic, Financial liberalization index, Financial Reform, Liquidity crisis Nepalese context.

INTRODUCTION

Financial liberalization (FL) is a process of removing barriers and restrictions of the financial sector (McKinnon,1973; Shaw, 1973; Bista, 2021). McKinnon (1973), Shaw (1973), and Misati and Nyamongo (2011) explains it as interest rate deregulation and means for achieving high economic growth by boosting savings and investments. Furthermore, this encourage savings, investments and economic growth (Shaw, 1973; Levine, 1997). In addition, they believe that it eliminates distortion caused by administrative controls and could help to expand capital formation. Similarly, Daniel and Jones (2007) mentions that financial liberalization opens foreign banks in the financial market which leads to a reduction in interest rates. Empirical literatures (Ariss, 2010; Agoraki et al., 2011; Hope et al., 2013; Cubillas and Gonzalez, 2014) argue it as a key driver of higher levels of financial development leading to competition in the financial sector. So, financial liberalization can be a key driver to economic growth and development.

Financial liberalization is one of major dimensions in the philosophy of globalization, economic liberalization and privatization. It aims to liberalize financial market, increase private sector' participation, deregulate interest rate, increase international capital, and integrate markets with international financial system for enlarging market size, volume, transaction, competition, and choices. McKinnon and Shaw (1973) mentioned six dimensions of financial liberalization: a) the elimination of credit controls, b) the reregulation of interest rates, c) free entry into the banking sector or, more generally, the financial services industry, d) bank autonomy, e) private ownership of banks and f) liberalization of international capital flows.

As a sector reform, Nepal started financial sector reform in the earlier 1980s to expand credit investment on productive economic sectors to stabilize macro-economic crisis and stimulate economic growth (NPC, 2019). Structural adjustment program (SAP) prescribed by the World Bank and IMF with their financial and technical assistance in 1984 was a major reform initiative, like South Asia and the world (Bista, 2021). The reform was targeted to eliminate the existing structural, institutional and policy barriers to open up private and foreign investment, knowledge and technology on farm and off farm (industry and service) for improving resources availability, productivity and production and for integrating with global market to achieve higher economic growth and welfare. In trade, high tariff barrier was partially reduced, along with elimination import licensing system. Industry and service sector were opened to private investment and FDI. Similarly, the financial sector in mid 1980s was liberalized for private and foreign investments; foreign currency convertibility, interest rate, repatriation of profit gain in foreign currency, along with administrative procedural provisions were made easy and simple. Immediately after, three foreign banks, Nepal Arab Bank Ltd in 1984, Nepal Indo-Suez Bank in 1986, and Nepal Grind lays Bank in 1987 entered in the financial market. In 1990s, the financial market was almost fully liberalized with deregulation of interest rate and privatizing and deregulating public banks (NPC, 1992). The government revised the Commercial Bank Act in 1991, Development Bank Act in 1996 and Nepal Rastra Bank Act in 2001 (Bista, 2021; MoL, 1991; MoL, 1996; MoL, 2001; and Shrestha, 2005). NRB (2012) reports notable records of 32 commercial banks in 2012. along with non-commercial banks (Development Banks, Finance Companies, and Micro Finance along with Cooperatives licensed by NRB). The growth of commercial banks and non-commercial banks have made competitive, qualitative and quantitative financial services to the people across the country. As the budget 2021-22 and 15th national plan development has given top priority to big infrastructure projects (Budhigandaki Hydro Project and Tunnel Roads, high speed roads etc.), the demand of a big finance is highly relevant. NRB had adopted a merger and acquisition policy to increase paid up capital of the commercial bank by four times in the monetary policy in 2015 in accordance with the merger bylaws in 2011 for financial growth, stability, and sustainability. In 2022, few numbers of the commercial banks and development banks are also merged to make a larger capital base. In 2022, number of the commercial banks is only 26 with 5009 branches across the country. Similarly, number of development banks is of 17 followed by 17 finance company and 65 micro finance (NRB, 2022). In spite of these efforts, financial instability and stress could be found because of consistent invisible syndicates, malfunctions, under-and over-allocation on unproductive sectors, increasing bad debts and fixed asset-liquidity ratio, high CCD ratio, demand and supply disequilibrium of credit (liquidity crisis) and issue of fair competition, although financial market growth is positive with NRs 4200 billion capital size in July 2022 (NRB, 2022). The positive relationship between financial liberalization and economic growth has been reported by the Government (NPC, 2019).

Nepal expects rapid and higher level of economic growth annually over 25 years to upgrade Nepal's least developing status to developing countries with the achievement of US$ 12210 Gross Domestic Product (GDP) per capita (NPC, 2019). This expectation will be in real, when as per indication of resource demand in the 15th five years' national plan is available for the listed big infrastructure national projects such as multimodal road project, big energy projects, and industrial and infrastructural development projects (NPC, 2019). Therefore, the financial sector should be liberal, competitive, credible, accountable, transparent, modern, and perfectly corporate.

Imperfect, underdeveloped, and small financial market in Nepal in 2019 and 2020 was unexpectedly recorded slow down (Bista, 2020). It was a result of being closed down consequences of the COVID-19 pandemic induced vulnerable staffs and clients and anti-COVID-19 pandemic health policy measures, namely health protocols (using mask and sanitization), social distancing, and lockdown (Bista, 2020). In the market, almost all commercial banks could not be resilient to the COVID-19 pandemics because of vertically and horizontally geometrical growth of COVID-19 across the country, highly exposure of bank staffs to the COVID virus, despite strict and mandatory health protocols in the office, increasing pressure of hospital beds, medicine and doctors, and strict lock down to all sectors all over the country. In the first wave of COVID-19, 7,929 bank staff and 2,969 of their immediate family members were affected. Nepal Bank Limited alone had over 400 infected staff in 205 branches across the country (https://www.ifc.org). About 80 percent of total staffs in Nepal Bank Ltd., Jawalakhel Branch were reported exposure to COVID-19 that is sick. Unexpectedly, the Branch was closed down for a week in 2020, despite no notice of lock down (NBL, 2020). Similarly, few big private banks were closed down, work from home started with similar reasons. Thus, the commercial banks were major vulnerable from the COVID-19 after other service, industry and trade sectors, although they could adopt resilient measures. Therefore, health protocol that was issue. Nepal Rastra Bank, the central bank of Nepal was to operate its branch offices to operate with 25 percent staff or less, and has allowed banks to have the rest of the staff work from home (https://www.ifc.org).

Testing and producing anti-dose to the COVID-19 pandemics in the pharmaceuticals company of USA, UK, France, China, India, etc. in 2020 and health assistance of WHO to developing countries of the world in the mid-way of the COVID-19, WHO (2020) mentioned the growing safety to the people, particularly women, children and old age. To some extent, the vaccination started a small section of the people of the World to be resilient for their safety more than the initial period of the COVID-19 because of the time and resource constraint to the production of vaccination. Receiving vaccine assistance from the different countries including India, China and USA, Nepal started to immunize the people from the COVID-19. At first, 20 percent of total population was vaccinated. At the end January 2022, its ratio reached 79.6 percent of total population. Having availability of adequate vaccination, lock down was lifted and all economic activities were opened. Then after, the government of Nepal initiated stimulus, recovery and stabilization policy and program for macroeconomic stability and economic growth through fiscal and monetary policy 2021. Thus, the financial sector of Nepalese economy has transited to the endemic from the pandemic.

The endemic period is a good miracle in the global economy. The miracle had resulted changes, uncertainties and stress in the global economy as well as in the developing economies. Naturally, the wider impacts of the endemic may fall on Nepalese economy, particularly on financial liberalization and financial market's function, pattern and composition.

The endemic context is a result of wider vaccination to control and minimize the unexpected shocks of the COVID-19 pandemics on all sectors of Nepalese economy after 92.1 percent of first dose vaccination (27.6 million population) and 79.6 percent of full dose vaccination (23.8 million population) across the country, along with stimulus and stabilization shocks and schemes (https://www.unicef.org › nepal › covid-19-vaccine-and...). In the endemics period, liquidity crisis, the slowdown of loan recovery, potentiality to increase the size of non-performing and nonproductive loans may be a stressful lowering saving investment gap and increasing growth rate of capital formation more than before (https://www.spotlightnepal.com › 2022/07/03 › nepal-f...). Furthermore, the existing financial market imperfection and significant unproductive credit size of the commercial banks are issues. In the financial market, structural and procedural rigidities of the financial institution have not made competitive and substitutable. In the market, the financial services of the financial institutions are supply oriented rather than demand oriented. Its example is interest rate policy and procedures of the bank. As result, the interest rate of the banks is normally higher in lower and higher both liquidity conditions of the financial market. Its negative implication is higher value addition on average cost of short and long-term development projects. Similarly, the loan procedure of bank is still based on collateral security and detail legal paper base instead of project basis. This procedural rigidness has delinked lending with nationally priority receiving economic sectors. As alternative, NRB (2020) again argued the financial reform to big merger as solution of big resources for big projects by merging big banks to the existing banks and financial institutions. Thus, the financial stability, liberalization, and economic growth are prime concern to date. Therefore, the relationship between the pandemic, endemic and financial sector liberalization is a relevant issue from financial economics and public economics.

Literatures such as (Ahmad & Malik 2009; Zhuang. J. et al., 2009; Hassan et al., 2011; Al-Malkawi & Abdullah, 2012; Croitoru, 2012; Hussain and Chakraborty, 2012; Barajas et al., 2013; Dabla-Norris & Narapong, 2013; Ibrahim and Shuaibu, 2013; Yildirim, Ozdemir and Dogan, 2013; Moyo, Nandwa, Oduor and Simpasa, 2014; Aye, 2015; Joshi, 2016; Bongini et al., 2017; Ibrahim and Alagidede, 2018; Paudel and Acharya 2020; Babajide et al., 2021) extensively focus the relationship between financial sector development and economic growth. Almost literatures have uniformly argued its positive relationship between financial sector development and economic growth. However, these literatures have different data sets and methodology; these literatures have not concerned with the pandemic and endemic periods.

So far pandemic and endemic issues relating to financial sector is concerned, few literatures (Emenike, 2021; Haruna & Bakar, 2021; Leykun Fisseha, 2022) have been found highly relevant to this study for discussion. However, these literatures cover African Countries. Firstly, studying the outbreak of the coronavirus pandemic on financial market stability in Africa in the endemic period, Emenike (2021) found that Africa's financial markets became very unstable during the coronavirus pandemic more than that of the endemic and pre-coronavirus periods with negative impact on financial market's returns. Secondly, Leykun Fisseha, (2022) found that the effect of financial liberalization was negative on domestic investment, and capital flight in the endemic period. Lastly, Haruna & Bakar, (2021) revealed that financial liberalization has negative impact on economic growth, like of corruption in sub-Saharan Africa (SSA) economies. These results are specific to the above-mentioned countries and do not have concern with developing economies, like Nepal.

However, in developing countries like in Nepal, few literatures (Adhikary, Pant and Dhungana, 2007; Rai and Supinit, 2016; Paudel, 2020; Paudel and Acharya 2020) have only focused on this issue but have not covered the pandemic and endemic periods. Despite its sensitivity, there are rarely found literatures focusing the relationship between the endemics, financial sector performance and financial liberalization. Therefore, this study is highly relevant to fill up this gap.

In this background, this study examines whether the endemics will carry out changes, uncertainties and stress in Nepalese economy, particularly in financial market, whether changes, uncertainties and stress will exist in the function and structure of the financial market and whether the endemic's impact will distort the sentiment of financial liberalization. The output of the study would be valuable input to the policy making and implication.

This paper is organized into the following sections: Section 1: Introduction, Section 2: Objectives, Section 3: Methodology, Section 4: Financial Liberalization and Reforms in Nepal, Section 5: Results and Discussion and Section 6: Conclusion.

OBJECTIVES

This paper examines changes and uncertainty in the financial market in the pre-pandemic, pandemic and immediately after COVID-19 in the endemic period and their effects on liberalization and performance of financial institutions. Specific objectives are as follows:

1. To examine consistency of financial liberalization in the period of pre-pandemic, pandemic and endemic,
2. To study changes, stress and uncertainty in the financial market immediately after COVID-19 in the endemic period,
3. To find out relevant issues and policy implications.

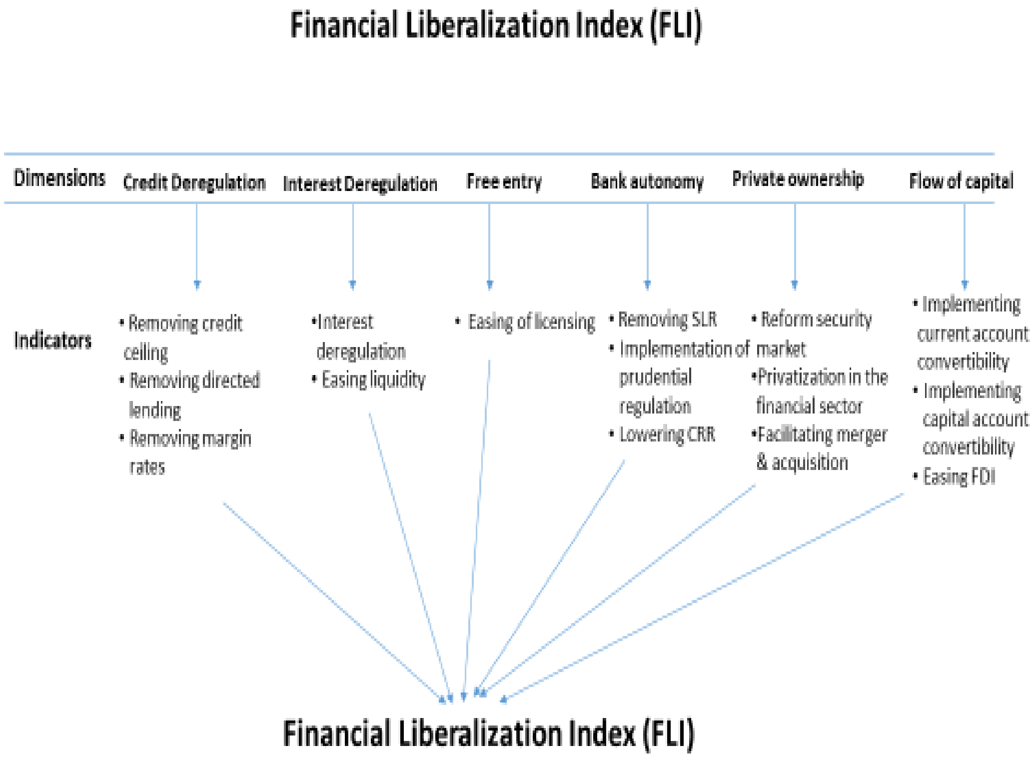
METHODOLOGY

Research design of this paper is explorative cum descriptive under which quantitative research is employed. Its nature of data sets is time series from 1975 to 2022 and its source is secondary. Its secondary sources are Nepal Rastra Bank as the central bank and Economic Survey of Ministry of Finance, and publications of World Bank, Ministry of Health and other relevant authorities.

Data analysis method is the construction of composite index and descriptive statistics. In the composite index, the construction of Financial Liberalization Index (FLI) method is used by using standardization method and average method. Furthermore, the descriptive statistics is used for data analysis for objective 2 and 3.

Financial Liberalization Index (FLI) is a composite index. Its dimensions and indicators are as follows.

Figure 1: Indicators of Financial Liberalization Index



Source: Based on McKinnon (1973) and Shaw (1973)

In the second step, the collected actual data sets of above indicators are standardized by the standardized method. Its detail are as follows:

Standardized value = Actual Value-Minima/ Maxima-Minima

Then after, the standardized value is calculated as follows:

$$\text{Index} = \sum (x_1 + x_{2+}\ x_{3+} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ x_{15})/15 \ldots\ldots\ldots\ldots\ldots(1)$$

The Index value is to be Financial Liberalization Index (FLI) value.

Idrees, Hayat, Radulescu, Alam, Rehman and Panait, (2022) have also applied this method.

FINANCIAL LIBERALIZATION AND REFORMS IN NEPAL

Financial liberalization is an important reform process to enhance financial market across the country in developing countries by reducing structure and policy barriers for improving competitiveness of the imperfect market. Until today, the government of Nepal has been reforming and liberalizing financial sector strongly with an objective to improve competition, effectiveness, efficiency, growth, better and quality services, coverage, scale and sustainability of financial sector. In the liberal financial sector, heterogeneous investment from private and foreign sector could come easily and quickly. Within different periods since mid-1980s the growth in financial services to the poor and in the remote areas has been extended to promote economic activities in order to achieve higher level of economic growth and welfare. Such reform can be studied into four major phases such as 1st Phase (1984-1990): First Financial Reform, 2nd Phase (1991-1998): Second Financial Reform and 3rd Phase (1999-2004): Third Financial Reform and 4th Phase (2004-to date): Fourth Financial Reform (NRB, 2019), which has been captured up to 2022.

Phase I (1984-1990): First Phase Financial Reform was initiated under Structural Adjustment Program (SAP) recommended by IMF and World Bank to response the issue of macro-economic crisis in Nepalese economy. Under SAP, Nepal liberalized almost all sectors for Private Investment (PI) and Foreign Direct Investment (FDI) so that the investment could be boost up. Its results are establishment of Nepal Arab Bank in 1984, Nepal Indo-Suez Bank in 1985 and Nepal Grindlays Bank Limited in 1985 (NRB, 1990). In 1984 Securities Exchange Center established to carry on stock transactions. In 1985, the commercial banks were permitted to collect foreign currency deposits. In 1986, the interest rate regime was deregulated and minimum liquidity was lowered at 9 percent. Nabil bank introduced plastic cards in 1990. Thus, the first financial reform partially liberalized the financial sector for promoting market competition, increasing capital formation for development activities and expanding financial services outwards cities.

Phase II (1991-1998): Second Phase Financial Reform was undertaken under Structural Adjustment Program (SAP). The democratic government's liberal and open economic policy had made rapid liberalization of the financial sector. There were surprising growth of financial institutions including bank and non-banks (financial institution, cooperatives and NGOs). Its figures are commercial banks (11), development banks (2), regional rural development banks (5), finance companies (44), insurance companies (3) and saving and credit cooperatives (29) and NGOs (30) (NRB, 1998). Thus, about 224 different financial institutions made diversification of financial sectors and services, expanding financial service coverage and access and increasing capital formation and competition. CBPASS report in 1992, prepared to improve performance of government sector commercial banks (NRB,1996).

Phase III (1999-2004): Third Phase Financial Reform was started to reform in the following areas: interest rate regimes, basic regulatory and supervisory framework, securities market, secondary market of government securities, function of stock exchange, competitive environment to insurance market and new entrant Banks and Financial Institutions. Its results were 17 commercial banks, 56 finance companies, 14 development banks, 11 micro finance development banks, 34 savings and credit cooperatives, 44 financial intermediary NGOs and 17 Insurance company (NRB, 2004). The NRB reports shows the growth of deposits /GDP ratio, the credit/GDP ratio, total liquid fund/total deposit ratio and capital adequacy ratio, the deposit of banks and total gross insurance premium. New NRB Act enacted in 2001. Long term FSR strategy prepared and approved by the government in 2001. Recovery of Debt of Banks and Financial Institutions Act also enacted in 2002.

Phase IV (2004-2022): Fourth Phase Financial Reform was initiated as the follow up of the third phase Financial Reform in different forms: Bank restricting and privatization (2004), the World bank financial sector restructuring project (2006), Asian Development Bank (ADB) Rural Finance Sector Development Cluster Program (RFSDCP) (2006), ADBRFDSCP (sub program 2) (2010) and the World Bank Financial Sector Stability Credit (2013). Under such reform programs, Rastriya Banijya Bank (RBB) and Nepal Bank Limited (NBL) were included under restructuring and privatization program with the objectives: to improve these bank's corporate governance and reduce the government ownership in the finance sector. The reform was supported by the Financial Sector Technical Assistance Program (FSTAP) and Financial Sector Reform Program (FSRP) of the World Bank. Despite its better result, the reform was considered failure to reach out the privatization. As supplementary, the government of Nepal launched financial sector reform program to reduce the vulnerability of the banking sector and increase its transparency from 2011 to 2013. Its major focus was on implementation of Basal Standards and anti-money laundering (AML). Digital transactions in the banking sector introduced with various products. Separate Payment and System department established in the NRB in 2015 (NRB, 2018). Now its size is larger than GDP, with a positive trend and pattern. In July 2022, this sector is of NRs. 5083 billion (https://www.nrb.org.np). As of July 2022, the market is of commercial Banks (26), Development Banks (17), Finance (17) and Micro Finances (65) and Infra Bank (1) licensed by NRB (excluded more than 10000 saving and credit cooperatives) (https://www.nrb.org.np). However, financial system and market are not perfect and riskless to date. Thus, the government has continued the reform process focusing on the stability of the financial system by improving the quality of regulation, merger and acquisition, supervision, transparency, governance and improving access to formal financial services, financial literacy and digitization.

RESULTS AND DISCUSSION

FINANCIAL LIBERALIZATION INDEX IN PRE-PANDEMIC, PANDMIC AND ENDEMIC PERIOD

Financial Liberalization Index (FLI) can be constructed for analyzing the level of liberalization for the various time periods. The FLI shows the degree of financial liberalization of a particular time (Shrestha and Chowdhury, 2006). In the recent years, this study has a query whether this liberalization process is consistent in the period of pre-pandemic, pandemic and endemic and whether change, uncertainty, and stress in this process exist in the endemic.

Regarding this query, FLI is employed. In this Index, there are 15 indicators of financial sector including a) Easing of licensing, b) Deregulation of interest rate, c) Removing of credit ceiling, d) Removing of directed lending, e) Removing of margin rates, f) Easing liquidity requirements, g) Lowering of CRR, h) Removal of SLR, i) Implementation of prudential regulation, j) Reforms in securities market, k) Implementation of current account convertibility, l) Implementation of capital account convertibility, m) Easing foreign direct investment (FDI), n) Privatization in the financial sector and o) Facilitating merger and acquisition. FLI as the composite index is constructed by using standardization method and average. Its result is as follows in figure 2.

Figure 2: Trend and Pattern of Financial Liberalization Index

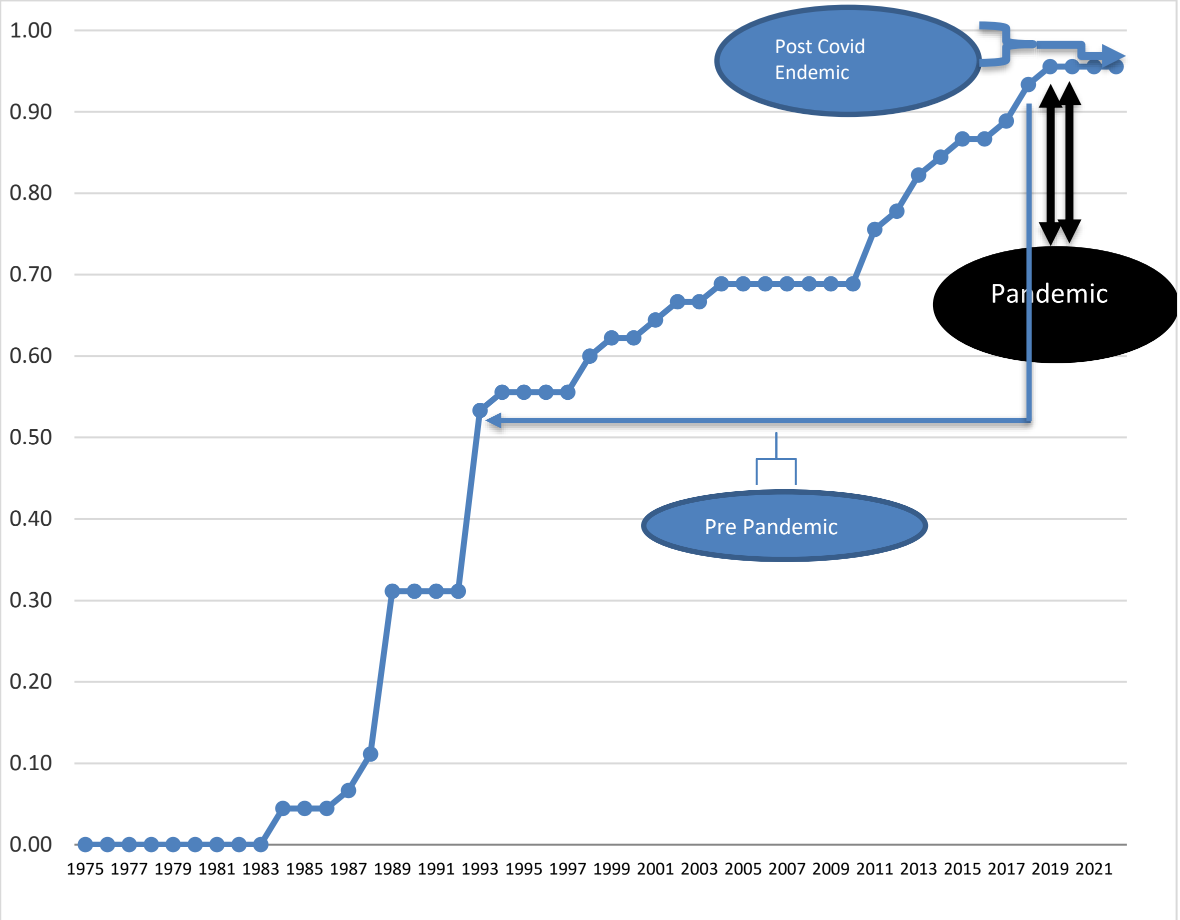


Figure 2 shows movement of FLI from 1975 to 2022 including three periods: pre-pandemic (1975-2018), pandemic (2019-2020) and endemic (2021-2022). In the pre-pandemic (1975-2018), financial liberalization index (FLI) indicates a notable positive trend. Its economic sense is the evolution of financial liberalization in the different dimensions and indicators. In the liberalization, macroeconomic indicators show vibrating to readiness and speed up economic activities in all the economic sectors for achieving economic growth and development for reducing poverty and inequality. In 2018, figure 2 shows its value 0.93(< 1) that is nearly full liberalization. In the value, 1 refers to the full liberalization. This is due to most of the indicators of FLI are mostly liberalized. jumping FLI trend in 2019 to 0.96 because of the follow-up liberalization policy shocks onward. Similarly, in the pandemic period (2019-2020), it is a stagnant. Analytically, it is negative effect as disruption of the liberalization process because the COVID-19 pandemic caused economic crisis in the country from 2019 to 2020. It is natural but is not favorable to liberalization process. Furthermore, in the endemic period (2021-2022), FLI trend is similar like in the pandemic period (2019-2020), despite 92.1 percent first dose vaccination and 79.6 percent full vaccination. It shows badly disruption in the liberalization process. Besides, the pandemic shock is found disastrous in the financial market. Its impact is still in the endemic period as liquidity crisis, financial resources leakages, and misallocation and over allocation of credit investment issues. Its stress and uncertainty could be found as market imperfection, reregulated deposit and lending interest rates, regulated CCD ratio and SLR in the stagnant situation. Therefore, FLI shows a need of big policy shock to recovery the process of financial liberalization for financial stability, growth and sustainability.

FINANCIAL MARKET IN THE ENDEMIC PERIOD

The Number of Financial Institutions is a key indicator on which changes, stress and uncertainty could be judged as possible. In the recent years, this study has a query whether number of financial institutions is stable in the period of pre-pandemic, pandemic and endemic and whether the probability of change, uncertainty, and stress exist in these financial institutions in the endemic.

The query is whether changes, stress and uncertainty in the financial market as well as the financial liberalization process exist in the endemic period. In order to respond the query, number of financial institutions was employed to measure the effect of pandemic and endemic in the financial market. Its result is as follows in figure 3 below.

Figure 3: Increase in Number of Financial Institutions

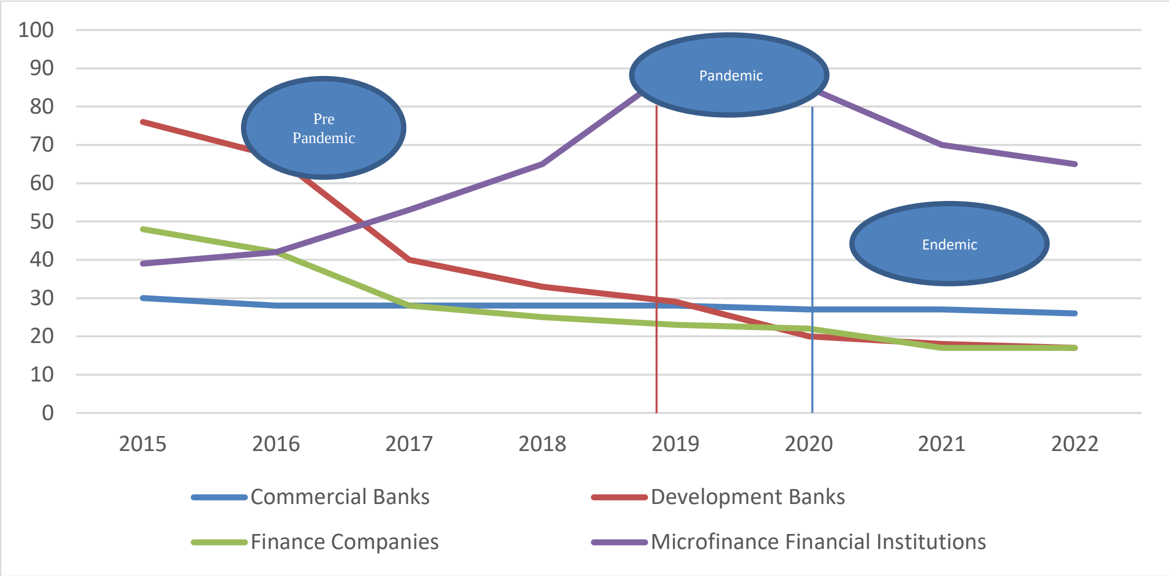


Figure 3 shows movement of number of financial institutions from 2015 to 2022 including three periods: pre-pandemic (2015-2018), pandemic (2019-2020) and endemic (2021-2022). In the pre-pandemic (2015-2018), entry trend of micro finance was inclining with a higher annual growth rate till 2018. Entry of the commercial banks were in the constant ratio. However, entry of financial institutions and development banks were declining with a higher annual growth rate. Unexpectedly, the pandemic (2019-2020) caused crash entry of micro finance and commercial banks, like finance company and development banks. In the endemic period (2021-2022), all these financial institutions could not gain recovery shock. The NRB policy were also directed to absorbing vulnerability by reducing the number of these institutions through merger, acquisition and other measures. It means the existence of negative change led stress and uncertainty in the entry of new financial institution because of the pandemic fear factor to the private sector. Consequently, the financial market was in the stress of liquidity crisis and recovery.

CHANGES IN FINANCIAL PERFORMANCE INDICATORS IN ENDEMIC PERIOD

The stressful situation was felt in the most of the countries in pandemic. A large number of middle class employed people also were experiencing greater stress of financial uncertainty and economic downturn during the COVID-19 pandemic (Wilson et al, 2020). Even in the South Asian countries such as Pakistan, employment instability was the most crucial social outcome of the pandemic (Abbass et al, 2022).

Pandemic caused panic to the financial sector across the country in Nepal too. How much such stressful panic was a query to all. This study employed five indicators: a) no of ATMs, b) number of deposit accounts, c) number of loan accounts, d) credit/deposit ratio, and e) net profit of the commercial banks in the period of pre-pandemic, pandemic and endemic for assessing such query to understand changes, stress and uncertainty. Its result is as follows in table 1 and 2

Table 1: Indicators of Financial Sector

Indicators	Pre pandemic				Pandemic		Endemic	
	2015	2016	2017	2018	2019	2020	2021	2022
Number of ATMs	1721	1908	2081	2791	3316	4106	4325	4602
Number of Deposit Accounts (in '000')	14935	16836	19754	23545	27867	32454	37771	44972
Number of Loan Accounts (in '000')	1033	1097	1216	1301	1440	1544	1702	1829
Credit/Deposit ratio	77	80	84	85	87	83	88	91
Net Profit of Commercial Banks (Rs. In million)*	27331	38129	45434	53633	65216	54351	63374	74801

Source: Nepal Rastra Bank, Payment Service Department (PSD).

Table 2: Annual Increment of Indicators of Financial Sector (in percent)

Indicators	Pre pandemic			Pandemic		Endemic	
	2016	2017	2018	2019	2020	2021	2022
Number of ATMs	0.10	0.08	0.25	0.16	0.19	0.05	0.06
Number of Deposit Accounts	0.11	0.15	0.16	0.16	0.14	0.14	0.16
Number of Loan Accounts	0.06	0.10	0.07	0.10	0.07	0.09	0.07
Credit/Deposit ratio	0.04	0.05	0.02	0.02	-0.04	0.06	0.04
Net Profit of Commercial Banks	0.28	0.16	0.15	0.18	-0.20	0.14	0.15

Source: Calculated from Table-1

Table 1 shows movement of financial indicators from 2015 to 2022 including three periods: pre-pandemic (2015-2018), pandemic (2019-2020) and endemic (2021-2022). In these three periods, indicators including number of ATMs, number of deposit accounts, number of loan accounts, credit/deposit ratio, and net profit of the commercial banks have inclining trend by number. In the pandemic period, credit/deposit ratio is stressful with negative change. But in the endemic period, its recovery is found positive but not sufficient to reduce changes, uncertainty and stress in liquidity.

In table 2, by annual increments in percent method, except number of ATMs, the remaining four indicators: number of deposit accounts, number of loan accounts, net profit of the commercial banks, and credit/deposit ratio are declining increment in the pandemic periods relative to the pre-pandemic period. In the recovery phase of the endemic period, except the number of deposit accounts and net profit of the commercial banks, all remaining three indicators such as number of ATMS, number of loan accounts, and credit/deposit ratio are found poor proportional change induced stress and uncertainty in the endemic period.

In table 3 below, three indicators have been used to test the stress on customers and bankers to adopt ICT based products in pre-pandemic, pandemic and endemic periods. These are uses of plastic cards such as debit cards, prepaid cards and credit cards; number of mobile banking users and internet banking users. Customers are forcefully compelled on adopting the ICT based products in pandemic and endemic periods. This was because of work from home culture developed in most of the countries (Bick et al., 2020). The figures clearly indicate a positive change on banking customers with higher level of adoption to ICT based products in pandemic and endemic than that of before in the Nepalese financial system. On the other hand, there is still low level of financial literacy in the country. Moreover, with the increase of ICT based transaction the cyber risk and operational risk has also increased in the system.

Table 3: Adoption of ICT Based Products in the Banking Sector

Channels	Pre-pandemic			Pandemic		Endemic	
	2016 July	2017 July	2018 July	2019 July	2020 July	2021 July	2022 July
Use of Cards	4891936	5151382	5745790	6899053	7553274	9098011	11203842
Mobile Banking (No of customers)	1754566	2669732	5086069	8347187	11306797	14194839	18307255
Internet banking (No of customers)	515465	783751	834302	917344	1031227	1160321	1684310

Source: Nepal Rastra Bank, PSD.

CONCLUSION

This study has two key curiosities: a) whether there is consistency in financial liberalization and, b) whether there are changes, stress and uncertainties in the financial market and performance immediately after COVID-19 in the endemic period. In above two results, Financial liberalization is found stagnant over the whole endemic period and the performance of financial market has followed negative trend. At first, the results show that the process of financial liberalization is disrupted in the endemic period in which financial liberalization index (FLI) shows 0.96 value, like the pandemic period. Entry of new financial institutions are far away from the financial market. The liquidity is found so critical that a higher lending interest rate has become a barrier to expansionary credit investment. Since reschedule of investment and scheduling of new investment are disrupted, output and employment are critical in terms of loss. Secondly, financial market is a heterogeneous of multiple financial institutions: commercial banks, development banks, micro finance and finance companies. There is significant decline in numbers of all these financial institutions, except the number of commercial banks. These negative trend line from pandemic to endemic is a stress and uncertainty in the growth of financial market and financial liberalization. This is an indication of recession. It causes macro-economic instability for a long term on which government and NRB needs to give serious attention to overcome. Lastly, by annual increment of performance indicators: number of ATMs, number of loan accounts, credit/ deposit ratio and net profit of commercial banks are proportionally weak in the endemic period more than the pandemic period, except number of deposit accounts. The performance of banks has indicated change and stress in financial indicators in the endemic period, because of a lack of proper recovery, although the financial market is mostly open. In other words, stagnant and uncertainty in the financial liberalization and stress in the financial market and indicators are being threats to stability and financial growth in the endemic period. While examining the validity and reliability of findings of this study with other relevant empirical literatures of the world (Emenike, 2021; Haruna & Bakar, 2021; Leykun Fisseha, 2022), the results of impact on financial liberalization seems perfectly similar but mixture on other financial indicators. Furthermore, in spite of the lower level of financial literacy, the adoption of digital transactions has increased significantly during and after pandemic but there are still issues of cyber risk and operational risk on it which has created stress in different levels. Therefore, even in the endemic era there has been still a big challenge for regulatory authorities in order to maintain stability and stimulate growth and managing risks in the financial market, particularly in the banking sector.

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