

Navigating the Landscape of Small and Medium Size Enterprises in Lumbini Province, Nepal

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Abstract: *Small and medium sized enterprises (SMEs) generate economy of the nation. This study explores navigating landscape of SMEs in Lumbini Province by analyzing its status, trends, opportunities, and challenges. Using an exploratory research design, data were collected through household surveys (n=130), FGDs (n=15), and KIIs (n=5), analyzed via the Resource-Based and Growth Pole models. The Province contributes 14.2% to national GDP through 68,492 SMEs, representing 16.8% of country's total. SMEs in Lumbini are concentrated in districts bordering India, with agro-forestry enterprises being dominant, alongside significant contributions from tourism. Opportunities for growth SMEs include the involvement of returnee entrepreneurs, market access, modern technology, financial support, and the growing demand for organic products. Key challenges include limited technological support, financing issues, marketing difficulties, and regulatory constraints. The study emphasizes need for strategic interventions to enhance finance access, various support programs ensuring long-term growth of SMEs in Lumbini including other Provinces of Nepal.*

Keywords: challenges, economic contribution, SMEs, organic products, opportunities,

I. INTRODUCTION

Small and medium sized enterprises (SMEs) significantly contribute to the economic development of the nation. Globally, 95% of the businesses in the formal sector are SMEs (United Nations Conference on Trade and Development [UNCTAD], 2018). Besides, SMEs represents about 90% of global businesses, contribute to over 50% of employment

(World Bank [WB], 2022). China had approximately 184 million registered market entities, with 58.3 million of them being SMEs (Textor, 2024). It make up 98.5% of all businesses, contribute 60% to the gross domestic product (GDP), and are responsible for providing three-quarters of all jobs (Zhang & Xia, 2014). In India, SMEs contribute around 38% to the GDP, about 40% of exports, and 45% of manufacturing output (Mahajan & Kaur, 2022). In developing countries, it has contributed more than 40% of national GDP with higher proportion of SMEs in their economies (WB, 2022).

In Nepal, SMEs are becoming crucial for the country's economic development. SMEs contribute approximately 22% to the national GDP and generate over 1.7 million employment opportunities (Ministry of Finance [MoF], 2021). There are over 923,000 registered businesses, with 90% SMEs, which provide 45% of jobs (MoF, 2024). Bagmati province had the highest proportion of registered industries at 33.0%, followed by Lumbini province with 17.0%, Madhes province with 14.0%, and Koshi province with 13.0% (MoF, 2023). In contrast, Karnali province had the lowest share, with only 5.0 % of the registered industries.

Lumbini Province is known for agro based SMEs related to agriculture include farming, agro-processing, and agro-based industries like rice and flour mills, dairy products, and fruit processing. The Province is also known as the birthplace of Lord Buddha which attracts thousands of pilgrims/tourists annually. SMEs in this sector include hotels, restaurants, travel agencies, and souvenir shops, textiles, handicrafts, and metal works. There is a presence of SMEs in trade (wholesale & retail) and service (education, healthcare, and IT) also. It is essential to substantially promote their presence for prosperous entrepreneurship development.

However, SMEs in Nepal face a financing gap of US\$ 3.6 billion, with only US\$ 731 million available (Shrestha, 2023). SMEs also has been facing multiple challenges such as limited market access, policy biases favoring large businesses, and monopolies stifling SMEs growth. Besides, SMEs also have been practicing informality that are often unregistered, are less integrated into the market compared to those in developed nations. Therefore, this study aimed to assess current status of SMEs operating inLumbini Province and also aimed to analyze opportunities and challenges for SMEs.

II. LITERATURE REVIEW

Theoretical review. This study brought insights from Resource-Based Theory (RBT) and Growth Pole Model (GPM) for interpreting research issues. RBT argues that SMEs gain a competitive advantage through their unique combination of resources and capabilities. SMEs can sustain this advantage by leveraging internal resources such as technology, relationships with stakeholders, human capital, and brand recognition. By strategically allocating these resources, SMEs can create value for customers and differentiate

themselves from competitors. To strengthen their market position, organizations must capitalize on these strategic resources, which not only create value for the organization but also help maintain competitive advantages over time (Dubey et al., 2019). SMEs also enhances its stakeholders through engaging in co-creating value (Cassidy & Resnick, 2022). Therefore various organizational resources can improve strategic performance of the SMEs (Wernerfelt, 1984; Chatterjee et al., 2022).

GPM can lead to significant economic multipliers effects in growth areas and the broader economy (Parr, 1999). GPM integrates SMEs into larger value chains and enhancing their competitive advantage (Dawkins, 2003). SMEs within growth poles significantly enhances access to markets, resources, and technologies (Adhikari et al., 2021), support to address regional economic disparities (Khatiwada et al., 2019) and showed greater economic resilience (García-Teruel & Martínez-Solano, 2010).

Small and Medium Size Enterprises. SMEs are non-subsidary, independent firms that employ less than a given number of employees, which varies by country. International Monetary Fund (IMF) further categorizes enterprises based on the number of employees: micro-enterprises with 1-9 employees, small enterprises with 11-50 employees, and medium enterprises with 51-100 employees (Table 1) (United Nations Development Program [UNDP], 2018). SMEs play significant role in stimulating economic revitalization (Spence et al., 2018). In developing countries, SMEs mainly serve to support the survival of poorer and more vulnerable groups in society (Dele, 2020). SMEs also play a vital role in innovative activities due to their flexible structures and willingness to take risks (Acs & Audretsch, 1990). However, it was due to the high costs of technology, low skilled personnel, and inadequate infrastructure, SMEs lag in adopting new technologies compared to larger enterprises (Organization for Economic Cooperation and Development [OECD], 2021).

In Nepal, the Industrial Enterprises Act of 2020 defines micro-enterprises based on four criteria: capital investment, employment, annual turnover, and energy consumption (Table 2).

Table1

Criteria of SMEs in Nepal

Type of Enterprises	Investment	Employees
Micro Enterprises	>NRs. 2 million	>10
Small Enterprises	NRs. 2 million to 30 million	11 to 50
Medium Enterprises	NRs. 30 million to 100 million	51 to 100

Source: UNDP, 2018

Table 2*Industrial types in Nepal*

Enterprises Category	Criteria
Micro Enterprises	Have a fixed capital not exceeding NRs. 2 million apart from land and buildings; Are run by the proprietor himself; Work at the local level and utilize local raw materials; Has an annual turnover of up to NRs. 10 million; Employs not more than nine workers, and consume less than 20 kilowatts of electrical power when they run in full capacity
Cottage Industries	Use local workers and raw materials; Are engaged in traditional labor-intensive industries that reflect the country's indigenous art/culture and consume less than 50 kilowatts of electrical power when they run at full capacity
Small-scale Industries	Other than micro and cottage industries with fixed capital not exceeding NRs. 150 million
Medium-scale Enterprises	Enterprises with fixed capital between NRs. 150 million and 500 million
Large Enterprises	Enterprises that have over NPR 500 million in fixed capital

Source: (Ministry of Industry, Trade and Commerce [MoITC], 2020).

SMEs policy and practices. Micro-Enterprise Development Program (MEDEP) was launched in 1998, initially in three districts. It has since expanded to cover all 77 districts. As of March 2018, MEDEP has facilitated the creation of 137,404 micro-entrepreneurs (UNDP, 2018). Over time, it has helped to establish more than 6,000 micro-enterprises (International Labour Organization [ILO], 2005).

The Nepal Rastra Bank's Monetary Policy and the Industrial Enterprise Act aim to improve access to affordable finance for SMEs through microfinance and collateral-free loans (Nepal Rastra Bank [NRB], 2020). The Industrial Policy and Trade Policy emphasize infrastructure development and market access, supporting the establishment of industrial zones and technology parks (Ministry of Industry, Commerce and Supplies [MoICS], 2018). The SMEs Development Policy focuses on capacity building and skill development initiatives to enhance the capabilities of SMEs owners and workers (MoICS, 2019). These policies, through their targeted actions and objectives, aim to create a supportive environment that fosters the growth and sustainability of SMEs, ultimately driving economic development in Nepal.

Khanal et al. (2023) argue that existing legislative frameworks do not adequately support the innovative needs of start-up SMEs. They thus recommend creating specific start-up policies and a supportive legislative environment to foster differentiation and innovation among these enterprises. While the Ministry of Industry, Commerce and Supplies (MoICS)

has drafted a start-up policy for 2079, it requires further discussion with entrepreneurs, investors, and relevant authorities to ensure its effectiveness in promoting start-up development in Nepal. Additionally, the government has initiated guidelines for financing start-ups through the Start-up Enterprise Loan Fund Procedure 2079, launched in March 2023.

Similarly, federal government grants municipalities the authority to formulate and implement policies that cater to local-level small-scale entrepreneurs (Government of Nepal [GoN], 2017). This devolution of power aims to address region-specific challenges and opportunities, potentially fostering a conducive environment for SME growth. However, challenges persist, particularly in the implementation and effectiveness of these policies. Pokhrel and Siwakoti (2020) pointed variability in policy implementation across different municipalities, influenced by factors such as administrative capacity and resource constraints.

The sixteenth plan (2024/25-20728) provisioned to provide initial investment to start-up joint venture SMEs, aimed to establish linkage between tourism business and local product for promoting and marketing local products (National Planning Commission [NPC], 2024).

SMEs in global and Nepali contexts: Empirical and theoretical insights. In global context, most of the SMEs have highlighted technological functions in SMEs. For example, success of SMEs depends on their use of new technologies (Radzi et al., 2017), technological advancement significantly improves the performance of SMEs (Durowoju, 2017) and technological developments affected the profitability of small businesses (Babu & Rao, 2019).

Besides, Chen (2023) highlights that while SMEs in China face financing challenges, they also hold significant potential for technological innovation, which can help the government allocate funding for innovation more effectively. Sharath and Yogish (2022) reveal that MSMEs in India have made a major impact on employment, regional balance, economic growth, and exports. Despite challenges like infrastructure issues and limited credit access, the sector has thrived in investment, production, and GDP contribution. Sharma (2021) examined the factors influencing access to finance for SMEs in Bangladesh, Pakistan, and Sri Lanka. The study found that firm's size, age, and formalization affect its access to both formal and informal finance, while factors like the owner's gender, sales performance, location, and legal status had little impact on the firm's ability to secure funding.

In Nepal, KC (2024) conducted a study in Birendranagar, Surkhet, collecting data from 205 SMEs. The study found that market access, technology, and financial availability influenced growth and expansion of small and medium-sized businesses, while the impact of human resources and government policy was minimal.

WB (2023) studied 600 Nepali businesses from May to August 2023, categorizing firms based on employee size: small (5-19), medium (20-99), and large (100+). The study found that political instability, tax rates, and limited access to finance were key challenges. Additionally, many firms faced competition from unregistered or informal businesses.

Chowdhury (2020) studied small and medium manufacturing enterprises in 12 South Asian and neighboring countries. The findings showed that Bangladesh, Nepal, Myanmar, Pakistan, Laos, and Cambodia were low performers, while Thailand, India, Vietnam, the Philippines, and Indonesia were high performers, with Sri Lanka in between. Khatri et al. (2023) analyzed the investment, income, and employment dynamics of 30 micro-enterprises in Kathmandu Metropolitan City. The study found a positive correlation between income, investment, and employment.

Adhikari (2022) identified several challenges limiting SMEs' access to finance in Nepal's hilly districts, including policy, lending approaches, interest rates, collateral, financial literacy, and infrastructure. Kharel and Dahal (2020) identified challenges for manufacturing SMEs in Nepal, including unclear policies, a lack of skilled workers, high collateral and interest rates, limited export credit, and inefficiencies in trade systems and public administration.

NRB (2020) reports that SMEs, particularly those led by women and marginalized groups, face barriers in accessing financial services. To address this, the Government of Nepal, in partnership with the UNDP, launched the Micro Enterprise Development Program (MEDEP) in 1998 to support disadvantaged groups living below the poverty line (UNESCAP, 2018).

Despite valuable insights from existing studies on SMEs in global to national contexts, several research gaps remain. The roles of government policies and human resources in fostering sustainable growth need further exploration, as their impact has been minimal in some cases. Additionally, more research is needed on effective targeted financial interventions, particularly in agriculture based enterprises. The interaction between political instability, tax rates, and internal SME capabilities, such as management and innovation, also requires deeper investigation. There is a need for more focused studies on sector wise categorization of SMEs, trends of SMEs development as well as opportunities and challenges of SMEs. Addressing these gaps will provide an empirical understanding on SMEs growth in Nepal. Policymakers and business leaders can develop more effective strategies to support the growth and sustainability of SMEs across the country.

III. RESEARCH METHODOLOGY

The scientific method is significant for producing the valid knowledge in the world of research (Khatri, 2020). This study used exploratory research design that helps to analyze SMEs development issues in Nepalese context. It is a more grounded and region-specific

approach, capturing local context that may differ from broader navigating SMEs landscape. Exploratory research helps researchers better understand research problems, and advance research in management sciences (Rahmon et al., 2023). It gives room for collecting numerical data as well as narratives information that can provide detailed perspectives about SMEs.

The study was conducted at cross border area of India. There are 68,492 SMEs operating in Lumbini Province. The average numbers of SMEs for the 12 districts of the Province is 5707 (sample population) and the average numbers of SMEs categories under seven types is 815 (sample number). The study began with questionnaire survey through Likert scale questions to quantify perceptions of 130 SMEs entrepreneurs (16% of sample number) residing in Rupendehi, Kapilvastu, Dang, Banke and Bardiya districts. The perceptions of the respondents are noted in (1–3) Likert scale format proposed by Babbie (1999). The scale used deviated from the conventional five-point Likert scale (Sivacek & Crano, 1982) due to its alignment with community norms and practices. This modification was essential to facilitate the translation and interpretation of the statements for the study's objectives. If respondents agreed, then one point was given to that statement and if they disagreed 3 point was given.

Likewise, 15 FGDs are conducted with five groups from each SMEs operating in Butwal, Bhairahawa, Nepalgunj, Gulariya and Tulshipur. And 15 KIIs were conducted with government officials (n=5), federation of commerce (n=5), entrepreneurs from different sectors of industries (agriculture and forests =1, Tourism =1, Infrastructure=1, Energy=1, Minerals=1). The FGDs and KIIs are conducted to understand subjective perceptions of the entrepreneurs who have been experiencing both opportunities and challenges of SMEs.

The collected data regarding the status of SMEs was analyzed using descriptive statistics, case studies and illustrated in frequency table and graphical trend line. The opportunities and challenges of SMEs were analyzed by categorizing them with respect to industries type i.e. agriculture and forestry, tourism, minerals, infrastructure and energy.

IV. RESULTS AND DISCUSSION

Lumbini province at a glance. Lumbini Province is located in the mid-western region of Nepal, covering an area of 22,288 km², which accounts for 15.11% of the country's total land area. It is bordered by India to the south, with its northern border defined by Putha Himal in Rukum East, Rampur Municipality in Palpa district to the east, and Rajapur in Bardia district to the west. Lumbini province is extended from Tarai to Mid-hills of Western Nepal. The province spans across five physiographical regions: High Himalayas (3.1%), High Mountains (9.1%), Middle Mountains (32.2%), Siwalik (27.9%), and Tarai (27.6%). Under the new constitutional provisions, Lumbini Province is divided into 12 districts and comprises 109 local governments. It has a population of 5,122,078, with 47.92% males

and 52.08% females (National Statistics Office [NSO], 2021). The census also shows that 8.4% of households (95,616) are operating business entrepreneurship with 55.6% male owned and 44.4% female owned (NSO, 2021). These include cottage industries (20.8%), trade/business (49.3%), transportation (6.6%), services (11.7%), and other types (11.7%). According to the Economic Survey of 2022/23, Lumbini Province contributes 14.2% to the national GDP. Nepal had a total of 687,643 registered SMEs, with Lumbini Province accounting for 81,961 (16.80%) of them (MoF, 2024). Out of 12 districts, this study was conducted in five districts (Rupendehi, Kapilbastu, Dang, Banke and Bardiya) which are located in growth pole areas or cross border areas of neighboring country India.

Demographic and household information. Of the total, majorities of the respondents are group falls between 18-35 years (Table 3). The male respondents are slightly more than female. However, female own a larger share (60%) of small and micro businesses in Nepal (Central Bureau of Statistics [CBS], 2018; NRB, 2019). One fourth of the respondents are illiterate and completed primary education. Majority of the respondents were local residents and belonging to Brahmin and Chhetri caste groups. Tharu and Magar ethnics residing in Bufferzone areas of the Banke and Bardiya National Parks are operating SMEs. SMEs mainly serve to support the survival of poorer and more vulnerable groups in society (Dele, 2020). Most of the respondents are Hindus followed by Christians and other religions. Agricultural activities such as farming, animal husbandry, and fishery found primary family occupation of the respondents.

Table 3
Demographic and household information

Category	Responses	N	Percent
Age	18 to 35	43	51.00
	36 to 55	60	31.00
	>55	27	11.00
Sex group	Male	77	59.00
	Female	53	40.00
	Illiterate	16	12.00
Educational attainment	Primary	29	22.30
	Secondary	51	39.20
	Higher Secondary	34	26.20
Originality	Residential	97	75.00
	Migrated	33	25.00
	Brahmin	45	34.00
Ethnicity	Tharu	30	23.00
	Chhetri	24	18.00
	Magar	17	13.00
	Other	14	11.00

Category	Responses	N	Percent
Religion	Hindu	86	66.20
	Christian	28	21.50
	Others	21	16.00
Primary sources of family income	Agriculture	52	40.00
	Foreign Employment	23	18.00
	Government and private job	35	27.00
	Others	20	15.00
Total		130	100.00

Sector-wise categorization, status and trends of SMEs. Highest numbers of SMEs are operating in Banke district, followed by, Rupendehi, Bardiya, Kapilvastu and Dang (Table 4). Agro and forestry enterprises dominate with 31 followed by 30 tourism and 23 construction related enterprises. Service and manufacturing related enterprises account 18 and 13 respectively in Banke. Energy and minerals related enterprises are less prevalent, with totals of 9 and 6 respectively across the districts. This distribution underscores the regional specialization of SMEs in Nepal, with Banke emerging as a significant hub for multiple sectors. The data indicates that SMEs are creating self-employment and generating economy. Throughout the country, SMEs constitute over 60% of the country's businesses (MoF, 2021). Min et al. (2021) also found that most of the Chinese SMEs are self-employed and entrepreneurial, starting as small ventures with a short-term vision in their early stages.

Table 4

Sector wise categorization of the SMEs

Sectors	Districts					Total
	Rupandehi	Kapilvastu	Banke	Bardiya	Dang	
Agro and Forestry Industries	7	5	9	4	6	31
Service Industries	2	3	8	4	1	18
Manufacturing Industries	3	2	4	1	3	13
Tourism Industries	6	7	2	15	0	30
Construction Industries	8	2	11	1	1	23
Energy related Industries	3	2	1	1	2	9
Mineral Industries	1	0	0	2	3	6
Total	30	21	35	28	16	130

Likewise, until FY 2017/18 to 2023, there is a clear upward trend in the number of SMEs in both Nepal and Lumbini Province in Table 3. For Nepal, the cumulative number of SMEs increased steadily from around 400,000 before 2018 to approximately 662,632 by 2023. In Lumbini Province, the growth trajectory mirrors that of the national trend but on

a smaller scale, starting at about 15,000 SMEs and rising to around 68,492 SMEs by 2023 in Table 5. This consistent growth indicates a robust expansion of SME activities across the country, with Lumbini Province contributing significantly to this upward trend, albeit at a lower rate compared to the national level. The data underscores the increasing importance and proliferation of SMEs as vital components of economic development in both the broader national context and within Lumbini Province specifically.

Table 5

Number of SMEs in Nepal and Lumbini Province

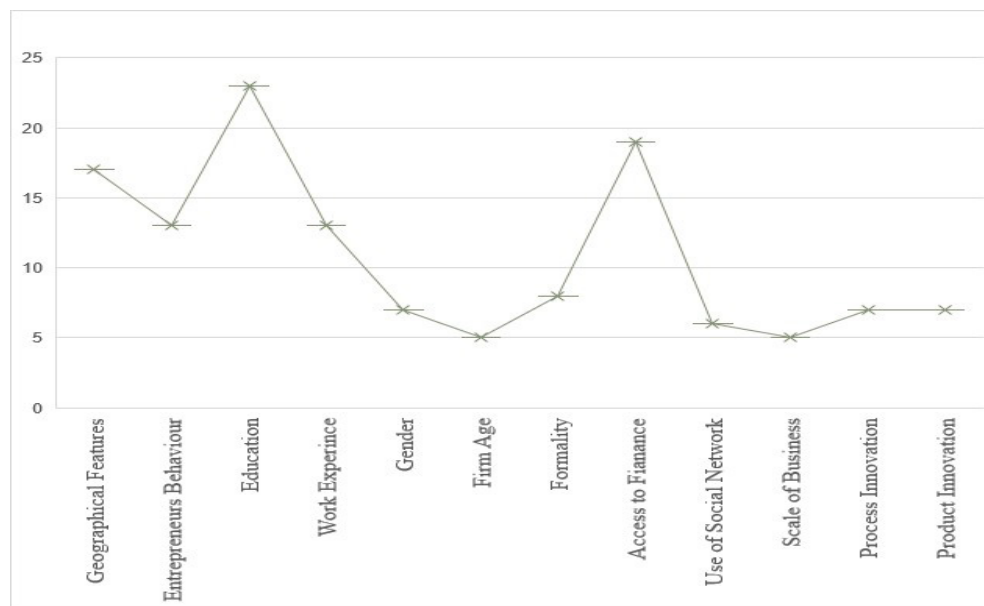
Fiscal Year	Number of SMEs	
	Nepal	Lumbini Province
2018	337,864	23,610
2019	52,629	5,253
2020	48,854	5,761
2021	83,386	11,906
2022	65,069	10,215
2023	74,830	11,747
Total	662,632	68,492

Source: MoF, 2024

Opportunities for SMEs. Lumbini Province presents a conducive environment for SMEs, as evidenced by its diverse geographical features, favorable entrepreneurial behavior, and robust educational infrastructure. The province's varied terrain, scoring notably in geographical features, provides strategic advantages for SMEs engaged in sectors such as tourism and agriculture, leveraging natural resources and climate diversity (Figure 1). High scores in education and work experience underline a skilled labor force capable of driving innovation and operational efficiency within SMEs.

Access to finance is prominently rated, indicating ample financial resources available to support business growth and development initiatives. The variables gender disparities, and the prevalence of younger firms underscore areas necessitating targeted interventions to foster inclusive economic growth. Moderate scores in formality, social network utilization, and innovation potential indicate opportunities for regulatory improvements, enhanced networking capabilities, and technological advancements within SME operations. Overall, Lumbini Province emerges as a promising hub for SMEs, advocating for strategic investments in education, gender equity, and innovation to sustain and amplify economic opportunities across the region. Local Governance Operations Act of 2017 grants each local government the authority to promote and support local small-scale entrepreneurs. However, Nepalese SMEs getting limited opportunities for their integration into the Global Value Chain (Asian Development Bank [ADB], 2019).

Figure 1
Opportunities for operating SMEs in Lumbini Province



Challenges in operating SMEs. The respondents perceived various challenges that have been affecting operations of their SMEs in Table 6. Among the most universally recognized issues are technological backwardness, inadequate training, workforce constraints, and the absence of a conducive regulatory environment. Khanal et al. (2023) also suggested fostering an entrepreneurial ecosystem to support those looking to start new businesses, scale existing one, and facilitate the transfer of knowledge, skills, technology, and experience.

These factors are underscored by high levels of agreement among respondents, reflected in low weighted means indicative of strong consensus. Conversely, opinions vary more widely on challenges such as market access, economic downturn, and unhealthy competition, with significant portions of respondents either neutral or disagreeing on their severity. Particularly striking are concerns regarding financial supports, quality raw materials, and the high cost of production, where a majority of respondents indicate these as substantial obstacles despite some variance in perception. A major challenge to the growth of Indian SMEs is their difficulty in securing financing and disconnectivity between the supply and demand side related information (Kumar & Rao, 2015)

This analysis underscores the heterogeneous nature of challenges faced by SMEs in Lumbini, suggesting a need for targeted policy interventions and strategic initiatives to bolster technological infrastructure, skills development, and regulatory frameworks to foster sustainable growth in the region. Women lead SMEs are facing limited access to finance

and financial literacy significantly hinder the progress of these (NRB, 2018). Besides, the entrepreneurs need establish strong cooperation and network for advocating against their challenges. Zaheer and Bell (2005) demonstrated that SMEs engaged in networks can access new resources, knowledge, and markets, leading to improved performance.

During the KII, one of the participants from Rupandehi shared that;

Nepal cannot export vegetables to India because of quality testing machine, Nepal government has installed quality test machine nearby boarder so the Indian vegetable can test immediately and send to Nepal but for Nepal to test the quality of vegetable need to send Delhi which takes more than 4 days for result and lack of big cold storage the vegetables in Nepal get spoil easily.

Table 6
Perceived challenges by SMEs entrepreneurs

Challenges Perceived	Response			WM
	Agree	Neutral	Disagree	
Technological Backwardness	64	17	19	1.55
Market Access	16	38	46	2.30
Inadequate Training	58	30	12	1.53
Financial Supports	15	27	58	2.42
Workforce	21	15	64	2.44
Quality Raw Materials	6	12	82	2.76
Skills	37	45	18	1.81
Economic Downturn	26	32	42	2.16
Unhealthy Competition	14	62	24	2.10
Absence of Regulatory Environment	59	22	19	1.60
Product Quality	34	29	37	2.03
Infrastructure availability	50	25	25	1.75
High Cost of Production	19	29	52	2.33

Case 2: Budan Sana Kisan Agriculture Cooperative Ltd.

Established in 2057 BS, Budan Sana Kisan Agriculture Cooperative Ltd. is a model institution supporting sustainable farming practices. Formed from the merger of two cooperatives: Budan Agriculture Cooperative and Sana Kisan Cooperative; it currently serves over 2,500 members and employs eight full-time staff.

The cooperative's primary role is to supply certified seeds (rice, wheat, mustard, lentils, and gram) and subsidized fertilizers to its members. Additionally, it facilitates financial services, allowing farmers to save, borrow at subsidized interest rates (9% for agricultural loans), and invest in farm development. Non-agricultural loans carry a higher interest rate of 14%.

Operating a rice mill and a seed storage facility, the cooperative also processes and markets members' produce. Farmers benefit from agricultural and livestock insurance schemes, and the cooperative supports the cultivation of off-season vegetables like cauliflower, cucumber, and various gourds.

Organizationally, the cooperative functions through a three-tier system:

Ground-Level Farmers' Groups – Discuss challenges and opportunities.

Ward-Level Committees – Represent farmers' groups.

Case 3: Nepalgunj Agriculture Market (Rani Talau Mandi)

The Rani Talau Mandi in Nepalgunj serves as a vital link between producers, wholesalers, retailers, and consumers. Managed by an elected leader, Moti Sara Thapa Chettri, and two regular staff, the market operates with oversight from the local Agriculture Knowledge Center, which monitors fertilizer use in vegetables daily.

The market is structured with dedicated spaces for both farmers and wholesalers, with rental fees of NRs. 1,700 per month for wholesalers and NRs. 40 per day for farmers. Revenue collected supports staffing, utilities, maintenance, and retrofitting of the market infrastructure. Pricing is determined through stakeholder consensus without committee interference.

Vegetables supplied to the market come from several districts, including:

Banke: Gourd, beans, cabbage, carrot, cauliflower, tomato, citrus

Bardiya: Cauliflower, cabbage, potatoes, chillies, eggplant

Jhapa: Ginger

Kathmandu: Chinese garlic

Ghorahi, Narayanghat, Salyan, and India (as needed)

Priority is given to domestic production, with imports from India used to meet shortfalls. The market committee monitors imported goods through customs receipts. In collaboration

with the municipality, a waste management site has been constructed, and the market pays NRs. 6,000 monthly for waste disposal services.

Discussion. Lumbini Province contributes 14.2% to Nepal's national GDP. It has a notable share in Nepal's SMEs, with 16.8% (81,961) of the country's total registered SMEs. However, most of the SMEs are operating in Rupendehi, Kapilbastu, Dang, Banke and Bardiya districts located in growth pole or cross border areas of neighboring country India. The concentration of SMEs in growth pole areas can generate significant **economic multiplier effects**. These clusters of SMEs benefit from increased access to markets, resources, and technologies, enhancing their competitive advantage and economic resilience, as suggested by Parr (1999) and García-Teruel and Martínez-Solano (2010). Additionally, the integration of SMEs into larger value chains supports regional economic development and helps address **economic disparities**, aligning with the perspectives of Dawkins (2003) and Khatriwada et al. (2019). This growth pole model fosters both local and national economic growth, creating a more resilient and inclusive economy.

The contributions of minority communities and women in operating SMEs and overall economic contributions of SMEs found satisfactory. **NRB (2020)** report also highlights the barriers women and marginalized groups face in accessing financial services, despite women owning 60% of SMEs in Nepal. The prevalence of illiteracy and limited education among respondents further supports **UNESCAP (2018)**, showing that disadvantaged groups struggle to access business support. Programs like the **Micro Enterprise Development Program (MEDEP)**, launched by the Government of Nepal and UNDP, are crucial in addressing these challenges by providing financial and technical assistance to improve the livelihoods of marginalized communities.

Lumbini offers a favorable environment for SMEs, with its diverse geographical features supporting industries like tourism and agriculture. These resources support industries such as tourism and agriculture, while opportunities to enhance formality, networking, and innovation could further strengthen SMEs' competitive positions (Cassidy & Resnick, 2022). The province has ample financial resources available, which are crucial for supporting business growth and development initiatives, highlighting a strong financial environment for SMEs. Resource-Based Theory also emphasizes that SMEs can sustain competitive advantage by leveraging unique internal resources like financial capital, geographical features, and government support (Wernerfelt, 1984). GoN (2017) empowers local governments to support and promote SMEs that has promoting access of external resources and marketing (Dubey et al., 2019). By co-creating value with stakeholders, SMEs can ensure long-term success (Chatterjee et al., 2022).

Opportunities for SMEs such as returnee entrepreneurs, market access, use of modern technology, financial support, agricultural value chains, and demand for organic products, align with global and regional trends identified in empirical studies. Radzi et al. (2017) and

Amaradiwakara & Gunatilake (2016) emphasize that the success of SMEs globally heavily relies on the adoption of new technologies, which significantly enhance performance and profitability (Durowoju, 2017; Babu & Rao, 2019). In the case of China, Chen (2023) highlights the potential of technological innovation to overcome financing challenges, a perspective applicable to Lumbini SMEs. Additionally, KC (2024) and WB (2023) underline that access to technology and finance are critical for SME growth in Nepal, reinforcing the importance of these opportunities in Lumbini Province.

Likewise, challenges for SMEs including technological support, irrigation, access to financing, marketing, price policies, regulatory issues, value chain support, waste management, and market access for off-season products, are consistent with findings from various empirical studies. Radzi et al. (2017) and Amaradiwakara & Gunatilake (2016) emphasize that lack of technological support hinders SMEs growth globally. KC (2024) and WB (2020) highlight access to financing as a major barrier in Nepal. Regulatory policies and price controls, as noted in studies by Sharma (2021) and WB (2020), contribute to market inefficiencies and challenges in competition, which are also relevant in the Lumbini context. Moreover, issues with irrigation and water supply are echoed in studies on regional challenges (Chowdhury, 2020), while in Nepal, lack of value chain is highlighted as an obstacle by KC (2024) and Kharel & Dahal (2020).

V. CONCLUSION AND IMPLICATIONS

Lumbini Province deserves diverse geographical features, favorable entrepreneurial behaviors that provides a conducive environment for SMEs. The geography offers strategic advantages for sectors like tourism and agriculture, capitalizing on natural resources and climate diversity. High ratings in education and work experience reflect a skilled labor force, essential for driving innovation and access to finance is also rated highly, indicating the availability of financial resources to support business growth. The Province is positioned as a promising hub for advocating strategic interventions in operating SMEs to enhance economic opportunities. Many entrepreneurs use a “Hit and Trial” method for technology which promote inefficiencies and low-quality production.

Major opportunities for SMEs in the Province include returnee entrepreneurs, market access, modern technology, financial support, and agricultural value chains, insurance, off-season farming, market facilities, and demand for organic products. Similarly, major challenges for SMEs involve technological support, financing, marketing, competition, pricing policies, regulations, value chain issues, waste management, and off-season product market access.

These opportunities and challenges highlight the need for targeted interventions, such as improved access to finance, better irrigation systems, and enhanced technical support to ensure the sustainability and growth of SMEs in Lumbini Province. The provincial

government should prioritize industries with successful characteristics, offering easily accessible enterprise loans with subsidized interest rates. Policies should support innovative SMEs and encourage scaling up. Additionally, traditional support programs should be replaced with integrated business development services, utilizing district CSIOs and formalizing collection centers through collective marketing systems.

Finally, the analysis of opportunities and challenges of SMEs are solely based on entrepreneurs' perception about the innovativeness of their business. The likelihood of success was analyzed rather than magnitude detection. The future studies can be recommended focusing the impact of scale of business in the success of SMEs through employability, interprovincial data and econometric analysis. The case-wise analysis illustrates how returnees, cooperatives, and structured marketplaces are shaping the modern agricultural landscape in Nepal. Through the integration of technology, institutional support, and entrepreneurial spirit, these models offer replicable examples for fostering rural development and food security.

REFERENCES

- Acs, Z.J. & Audretsch, D.B. (Eds.). (1990). *The economics of small firms. A European challenge*, Dordrecht: Kluwer.
- Adhikari, D., Shakya, B., Devkota, N., Karki, D., Bhandari, U., Parajuli, S. & Paudel, U. (2021). Financial hurdles in small business enterprises in Kathmandu Valley. *Modern Economy*, 12, 1105-1118. <https://doi.org/10.4236/me.2021.126058>.
- Adhikari, J. (2022). Expanding access to finance for small and medium enterprises: An analysis of demand and supply side constraints of Nepal. *The Journal of Economic Concerns*, 13(1), 67-81. <https://doi.org/10.3126/tjec.v13i1.57062>
- Aghazadeh, H. & Zandi, F. (2022). A typology of internationalization patterns for SMEs in developing countries. *Journal of Research in Marketing and Entrepreneurship*, 24(2), 337-364. <https://doi.org/10.1108/JRME-02-2021-0019>
- Amaradiwakara, A. U., & Gunatilake, M. M. (2016). Factors affecting growth of small and medium enterprises in Sri Lanka. *Journal of Business & Economic Policy*, 3(4), 62-71. <https://surl.li/exhohx>
- Asian Development Bank. (2019). *Potential exports and nontariff barriers to trade: Nepal national study*. ADB, Nepal. <https://www.adb.org/publications/nepal-exports-nontariff-barriers-trade-study>
- Babbie, E. (1999). *The basics of social research*. Wadsworth Publishing Company.
- Babu, D. S., & Rao, B. K. S. P. (2019). Impact of technological changes in small-scale industries: A conceptual study on Indian industry. *International Journal of Trend in Research and Development*, 6(1). <http://www.ijtrd.com/papers/IJTRD19200.pdf>

- Cassidy, K., & Resnick, S. (2022). Adopting a value co-creation perspective to understand High Street regeneration. *Journal of Strategic Marketing*, 30(1), 69–92. <https://doi.org/10.1080/0965254X.2019.1642938>
- Central Bureau of Statistics. (2018). *Nepal economic census 2018. Analytical report*. Kathmandu, Nepal.
- Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2022). Big data analytics in strategic sales performance: Mediating role of CRM capability and moderating role of leadership support. *EuroMed Journal of Business*, 17(3), 295–311. <https://doi.org/10.1108/EMJB-07-2021-0105>
- Chen, R. (2023). The Role of SMEs in China's Circular Economy Transition. In Sophia Vlieger de Oliveira Claire Mahut (Eds.). *A circular economy vision* (pp. 3-16). <https://surl.li/ydxysz>
- Chowdhury, D. (2020). Small and medium manufacturing enterprises (SMEs) and knowledge-base: South Asian experience. *Journal of Entrepreneurship and Management*, 9 (2), 29-42 <http://publishingindia.com/jem/>
- Dawkins, C. J. (2003). Regional development theory: Conceptual foundations, classic works, and recent developments. *Journal of Planning Literature*, 18(2), 131- 172. <https://doi.org/10.1177/0885412203254706>
- Dele, A. O. (2020). Micro-financing of small-scale enterprises: A panacea to poverty alleviation in Ekiti State, Nigeria. *Journal of Entrepreneurship and Management*, 9(1) 16-28. <http://publishingindia.com/jem/>
- Dubey, R., Gunasekaran, A., Childe, S. J., Blome, C., & Papadopoulos, T. (2019). Big data and predictive analytics and manufacturing performance: Integrating institutional theory, resource-based view and big data culture. *British Journal Management*, 30(2), 341–361. <https://doi.org/10.1111/1467-8551.12355>
- Durowoju, S. T. (2017). Impact of technological change on small and medium enterprises performance in Lagos state. *Economic and Environmental Studies*, 17(4 (44)), 743-756. <https://www.cceol.com/search/article-detail?id=607158>
- García-Teruel, P.J. & Martínez-Solano, P. A (2010). Dynamic approach to accounts receivable: A study of Spanish SMEs. *Eur. Financ. Manag.*, 16, 400–421. <https://doi.org/10.1111/j.1468-036X.2008.00461.x>
- Government of Nepal. (2017). *Local government operation act 2017*. Government of Nepal. <https://www.lawcommission.gov.np/>
- International Labor Office. (2005). *Decent work for all men and women in Nepal*. A Report on Micro and Small Enterprise Policy Review in Nepal, ILO, Nepal.
- KC, H. (2024). Factors affecting small and medium-sized businesses (SMEs) development and growth. *Journal of Nepalese Management & Research*, 6(1), 40-50. <https://doi.org/10.3126/jnmr.v6i1.72081>

- Khanal, R., Khanal, K., Gadtaula, M., Poudel, S. & Basnet, R. K. (2023). *Startup businesses and micro, small and medium enterprises in Nepal: A policy perspective*. [PRI Publication No. 072]. Policy Research Institute. <https://surl.li/euicdv>
- Kharel, P. & Dahal, K. (2020). *Small and medium-sized enterprises in Nepal: Examining constraints on exporting*. ADBI Working Paper 1166. Asian Development Bank Institute, Tokyo. <https://www.adb.org/publications/sme-nepal-examining-constraints>
- Khatiwada, P., Joshi, R. & Shrestha, S. (2019). Impact of growth poles on rural development and SMEs expansion in Nepal. *International Journal of Economic Research*.
- Khatri, B. B. (2020). Peer review process in scholarly communication and scientific publishing. *Nepalese Journal of Development and Rural Studies*, 17, 15–19. <https://doi.org/10.3126/njdrs.v17i0.34947>
- Khatri, B. B., Bista, R. & Acharya, K. R. (2023). The contribution of micro-enterprises in Nepalese economy. *Contemporary Research: An Interdisciplinary Academic Journal*, 6(2), 21–36. <https://doi.org/10.3126/craiaj.v6i2.60245>.
- Kumar, S., & Rao, P. (2015). A conceptual framework for identifying financing preferences of SMEs. *Small Enterprise Research*, 22, 99-112. <https://doi.org/10.1080/13215906.2015.1036504>
- Mahajan, R. & Kaur, D. (2022). Performance of MSMEs in Himachal Pradesh: A Comparison of Pre and Post MSMEDA Period. *NLDIMSR Innovision Journal of Management Research*, 21-30. <https://doi.org/10.31794/NLDIMSR.6.1.2022.21-30>
- Min, Z., Sawang, S., & Kivits, R. A. (2021). Proposing circular economy ecosystem for Chinese SMEs: A systematic review. *International Journal of Environmental Research and Public Health*, 18(5), 2395. <https://doi.org/10.3390/ijerph18052395>
- Ministry of Finance. (2021). *Economic survey of Nepal 2020/21*. Ministry of Finance, Government of Nepal.
- Ministry of Finance. (2023). *Economic survey of Nepal 2022/23*. Ministry of Finance, Government of Nepal.
- Ministry of Finance. (2024). *Economic survey 2023/24*. Ministry of Finance, Government of Nepal.
- Ministry of Industry, Commerce and Supplies. (2018). *Nepal trade policy review 2018*. Government of Nepal.
- Ministry of Industry, Commerce and Supplies. (2019). *Annual progress report 2018*. Government of Nepal.
- Ministry of Industry, Trade and Commerce. (2020). *Industrial enterprises act 2020*. Ministry of Industry, Trade and Commerce, Government of Nepal. <https://nwedcpl.com/wp-content/uploads/2021/04/Industrial-Enterprises-Act-2020.pdf>

- National Planning Commission. (2024). *Sixteenth plan (2024/25-2-27/28)*. Government of Nepal.
- National Statistics Office. (2021). *National population and housing census: Provincial report of Lumbini Province*. Lumbini_province_census_report.pdf
- Nepal Rastra Bank. (2018). *Current macroeconomic and financial situation 2018/19*. Government of Nepal.
- Nepal Rastra Bank. (2019). *Current macroeconomic and financial situation 2019/20*. Government of Nepal.
- Nepal Rastra Bank. (2020). *Nepal economic report 2020*. Government of Nepal.
- Organization for Economic Cooperation and Development. (2021). *SMEs going digital: Policy challenges and recommendations*. https://www.oecd-ilibrary.org/science-and-technology/smes-going-digital_c91088a4-en
- Parr, J. B. (1999). Growth-pole strategies in regional economic planning: A retrospective view. *Urban Studies*, 36(8), 1195-1215. <http://usj.sagepub.com/content/36/7/1195>.
- Pokhrel, R. & Siwakoti, B. (2020). Local governance and economic development in Nepal: A study of municipality-level initiatives for small and medium-sized enterprises. *Journal of Development Effectiveness*, 12(4), 539-555. <https://doi:10.1080/19439342.2020.1810087>
- Radzi, K. M., Nor, M. N. M., & Ali, S. M. (2017). The impact of internal factors on small business success: A case of small enterprises under the field scheme. *Asian Academy of Management Journal*, 22(1), 27–55. <https://doi.org/10.21315/aamj2017.22.1.2>
- Rahmon, S., Osademe, C. & Ononokpono, J. (2023). Exploratory Research Design in Management Science: A Review of Literature on Conduct and Application. *International Journal of Research and Innovation in Social Science*, 7, 1384-1395. <https://doi.10.47772/IJRISS.2023.7515>
- Sharath, A. M. & Yogish, S. N. (2022). Micro, Small and Medium Enterprises in India: problems and Challenges. *International Research Journal on Advanced Science Hub*, 2(1), 85-89. <https://www.researchgate.net/publication/345254206>
- Sharma, P. (2021). *Finance and growth of SMEs in South Asia: Evidence from Bangladesh, Pakistan, and Sri Lanka*. Warwick Monash Economics Student Papers 2021/10.
- Shrestha, H. P. (2023, December 17). *Opinion: Unlocking growth of small and medium-size enterprises*. My Republica. <https://myrepublica.nagariknetwork.com/news/unlocking-growth-of-small-and-medium-size-enterprises>
- Sivacek, J. & Crano, W. (1982). Vested interest as a moderator of attitude-behavior consistency. *Journal of Personality and Social Psychology* 43(2), 210–221.
- Textor, C. (2024). *Business enterprises in China: Statistics & facts*. <https://www.statista.com/topics/11783/business-enterprises-in-china/>

- United Nations Conference on Trade and Development. (2018). *Annual report 2018*. UNCTAD, United Nations. https://unctad.org/system/files/official-document/dom2019_en.pdf
- United Nations Development Program. (2018). *Economic analysis of micro entrepreneurs in Nepal*. UNDP, Nepal.
- United Nations Economic and Social Commission for Asia and the Pacific. (2018). *Unpaid work in Asia and the Pacific*. UNESCAP, Thailand.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- World Bank. (2020). *World development report 2020: Trading for development in the age of global value chains*. World Bank. <http://hdl.handle.net/10986/32437>
- World Bank. (2022). *Small and medium enterprises (SMEs) finance: Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital*. <https://www.worldbank.org/en/topic/smefinance>
- World Bank. (2023). *Enterprise surveys: Nepal 2023 country profile*. <https://surl.li/qswurg>
- Zaheer, A. & Bell, G. G. (2005). Benefiting from network position: Firm capabilities, structural holes, and performance. *Strategic Management Journal*, 26(9), 809-825. <https://doi.org/10.1002/smj.482>
- Zhang, L., & Xia, W. (2014). Integrating small and medium-sized enterprises into global trade flows: The case of China. *Small*, 575(588.75), 44-12. https://www.wto.org/english/res_e/booksp_e/cmark_chap3_e.pdf