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Characteristics of Better-Performing Nepali SMEs and Implications for Policy

RENT Programme (SOAS-PEI)

March 2023

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Executive Summary

The constraints facing Nepali SMEs are well known but most of these constraints will take time to address. In the meantime, higher-growth Nepali SMEs demonstrate that it is possible to achieve better performance within the current business environment. We look for characteristics distinguishing better-performing SMEs from others as a way of informing policies that are likely to be immediately effective in improving SME performance. It does not follow, of course, that the capabilities *associated* with better performance are necessarily the *cause* of this better performance. However, since these are plausible determinants of performance, the associations we find suggest plausible entry points for trialling feasible interventions to improve SME performance. The results of smaller-scale trials focusing on specific knowledge and capability transfer strategies could then be assessed for their causal effects, and the most effective types of support scaled up. Reforms addressing the business environment may become easier if a larger number of better-performing businesses emerge and help to identify and demand the most feasible and appropriate systemic changes.

We surveyed 352 SMEs in Bagmati, Madhesh, Lumbini, and Karnali, involving 274 small and 78 medium-sized firms, 106 in agro-based industries, 112 in tourism-related services, and 134 in light manufacturing. We looked at a wide range of characteristics that are plausibly important for SME performance and identified the ones that were significantly correlated with better-performing SMEs. Better performance was defined by an above-average employment growth rate and export success. Capability characteristics looked at included a range of organizational, technical, and marketing capabilities, learning by doing, investments in buying in consultants and marketing advice, access to finance, the type of market the SME operated in, and access to different types of politicians. The results of our analysis of correlations between capability characteristics and SME performance provide new evidence on Nepali SMEs and can be used to inform experimental policy trials prior to scaling up.

- 1) Setting up firms with good organizational and technical knowledge *at the outset* was the characteristic most strongly associated with both higher growth and export success. Better-performing SMEs were more likely to employ *personnel from successful firms marketing similar products while being set up* and more likely to have *owners with experience of working in successful firms*. Support for SMEs should seek to provide organizational and technical support at the time firms are set up using *personnel with a direct experience of working in a similar type of SME*. This is more challenging than the provision of general business support services, but we find little evidence of general business services being associated with success.
- 2) Investments in *skills training* have mixed associations with better performance, being associated with better performance in some groups of firms and not others. Evidence from other countries shows that skills training is only likely to raise competitiveness if a firm already has sufficient organizational capabilities to use skills profitably. Our field research shows that the most important types of technical skills required by SMEs involve *tacit knowledge (practical know-how) of actual processes*, and these too are best

supplied by personnel from other SMEs with practical knowledge of relevant processes. As with organizational knowledge, *tacit knowledge is best transferred by personnel with direct work experience in successful SMEs delivering the same product or service.*

- 3) Higher-growth Nepali SMEs are more likely to have *market power* because their products or services are *hard to copy*. This is not necessarily a problem for already existing SMEs, but for Nepal to break into broader markets *requires strategies for raising the competitiveness of firms providing standardized products and services*. This includes the tourist industry where Nepal needs to increasingly draw tourists who are not already committed to visiting Nepal. This is likely to involve matching or improving upon the price and quality offered by regional competitors in tourism.
- 4) *Access to finance* too was *associated with better performance in some groups of firms but not others*. Initial access to loans and subsequent access to working capital was associated with higher growth in the pooled sample of firms and in small firms, but not in medium-sized firms. From a policy perspective, *combining access to finance with effective strategies for improving organizational capabilities and skills is likely to be necessary*.
- 5) Finally, the *political access* of SMEs to *local and provincial government* officials was significantly associated with higher growth. *Developing the provincial government's capabilities for coordinating support to SMEs could be an important way of working in alignment with already existing SME demands for information and support from the provincial government*.

Despite the small number of exporting firms in our survey, we identify a few characteristics that distinguished exporting firms from others.

- 6) The *prior experience of owners working in successful firms* was again strongly associated with export success. This again highlights the *importance of setting up a firm with strong organizational capabilities*.
- 7) *Access to preferential (government incentive-backed) loans* was a very important *distinguishing characteristic of almost every category of export-oriented firms*. This is not the case with higher-growth firms in general. The most likely interpretation of this is that Nepali exporters are not yet sufficiently competitive and need different types of subsidies to offset lower productivity, and other systemic disadvantages like high input and transport costs, and so on. Further research on the prices and qualities of exporting firms is necessary to determine how important access to subsidies is for export success.
- 8) *Customer input* for improving product quality was a significant characteristic of exporting firms, but not in the average high-growth firm. Buyer/customer/OEM engagement with suppliers is one of the productivity-enhancing advantages of insertion into global value chains. But most Nepali SMEs will first need support to develop the capabilities and competitiveness to enter exporting value chains in the first place.

1. Introduction

SMEs dominate most countries in terms of number of firms and the employment they generate, and usually account for a large share of economic activity. How they perform has important effects on growth, employment, and income generation. Some SMEs grow into large companies, others remain critical suppliers to larger companies, and all of them act as incubators for entrepreneurs and providers of jobs and skills for most workers. Even in OECD countries, where large companies play a very important role, SMEs account for 99 percent of firms, provide around 70 percent of jobs and create around 50 to 60 percent of value added. In developing countries, SMEs account for around 45 percent of *formal* employment and 33 percent of GDP. If we account for informal firms, SME contribution in developing countries is likely to be as high or higher as a *share* of total activity compared to advanced countries (OECD 2017: 6).

In Nepal MSME numbers (micro, small and medium-sized enterprises) have been growing but capabilities have improved more slowly. Their numbers increased 2.5 times between 2010 and 2019 but manufacturing SMEs, which face greater competition from imports, declined from 49.2% to 33.2% of all MSMEs over the same period (ADB 2021). Few Nepali SMEs export. Most are unable to match the price and quality of similar products produced in other countries. A 2017 survey of the competitiveness of SMEs in 11 Least Developed Countries (LDCs) including Nepal shows that smaller SMEs have particularly severe productivity constraints (UNCTAD 2018: 85). Most Nepali SMEs are in the micro category and even in the small category, they are mostly at the very small end of the ‘small’ range. The heterogeneity of SMEs across countries and sectors also means that effective strategies have to be tailored to address specific constraints that are most important for the targeted SMEs (UNCTAD 2018: 83).

The constraints facing Nepali SMEs were the subject of a World Bank study (Irwin and Nada 2020) surveying 932 SMEs in seven districts of Nepal. Agriculture, manufacturing, tourism and services were all covered. The survey asked SMEs to identify the problems and constraints they faced. Their responses identified the inadequacy of support systems, including the policy framework, government support schemes, access to finance, lack of skilled workers, and access to business services as important constraints. The study separately interviewed 16 agencies supplying different types of business services, including 7 business support organizations and 2 donor initiatives. The study admits that the quality of these services and their relevance for SME performance was not directly assessed. However, the study provided three short case studies of SMEs that successfully used such services. On this basis, it recommends business support services should be strengthened in Nepal. The services identified include advisory support on how to get grants or loans, how to identify workspaces, the provision of information and training, market intelligence, participation in trade missions and fairs, financial readiness and packaging, and networking events. The World Bank study is clearly right in saying that knowledge transfers of this type may help to raise the capabilities and competitiveness of some SMEs. The challenge is to identify the

most important types of knowledge transfers, the most effective delivery agents and the best ways of transferring this knowledge to the broadest range of SMEs in Nepal. The types of business services identified in the World Bank study are sometimes likely to be helpful, but we need more evidence about the types of knowledge transfers that are significantly associated with better performance.

Our study takes a different but complementary approach. We look for characteristics that actually distinguish better-performing Nepali SMEs from others. What capabilities and characteristics are correlated with better SME performance? It does not follow, of course, that the capabilities and characteristics *associated* with better performance are necessarily the *cause* of their better performance. However, since the characteristics we look for are plausible determinants of performance, these associations can suggest entry points for trialling feasible interventions to improve SME performance. The results of smaller-scale trials focusing on specific knowledge and capability transfer strategies could then be assessed for their causal effects, and the most effective types of support scaled up.

To identify the capabilities and characteristics associated with better performance, we surveyed 352 Nepali SMEs in four provinces in 2022. We selected three sectors that are likely to be growth-drivers for Nepal: agro-based industries, tourism-related services, and light manufacturing. We looked at a wide range of characteristics that are plausibly important for SME performance and identified the ones that were significantly correlated with better-performing SMEs. Better performance was defined by above-average employment growth and the capacity to export. The capability characteristics we looked at included a range of organizational, technical, and marketing capabilities, learning by doing, investments in buying in consultants and marketing advice, access to finance, the type of market the SME operated in, and access to different types of politicians. The results of our analysis of correlations between capability characteristics and SME performance provide new evidence on Nepali SMEs and can be used to inform experimental policy trials prior to scaling up.

We find that the strongest distinguishing characteristic of better-performing firms was a strategy of hiring personnel at the time the firm was set up who had an experience of working in successful firms of the same type. The prior experience owners acquired in successful firms before setting up their own firm is also significantly correlated with better performance. Both suggest that practical knowledge of how a competitive firm should be *organized* when it is set up is associated with subsequent success. Interestingly, there is much weaker or no correlation of better performance with buying the services of consultants to acquire market knowledge or to understand competitor strategies. The knowledge transfer strategy that is most strongly correlated with success does not involve consultants, but practical people who have themselves previously worked in similar types of SMEs. Also correlated with better performance but less strongly, is engagement in ongoing learning by doing and capability development, and the hiring of skills trainers. Access to finance is important but not for all firms. Not surprisingly, better-performing firms were more likely to have had the requisite collateral and access to bank finance, but interestingly, this was less strongly associated with better performance across different categories of firms. Interestingly, better performing Nepali SMEs also tended to market products that were not easily provided by other firms, suggesting that product specificity and market power were often important. Nepali SME providing standardized products face greater competition and do less well and therefore need even more support to improve their efficiency before they can become globally competitive. Better-performing SMEs

were also significantly more likely to have access to local and provincial politicians (and to a lesser extent federal politicians). Talking to SME owners suggests that political access plays a role in gaining access to information about government support programmes and for accessing bureaucrats.

The business environment in Nepal has well-known problems (Irwin and Nada 2020). There are issues with contract enforcement and timely payments (indicating a relatively weak rule of law), tariff policy appears to be driven mainly by revenue maximization, but this raises input costs for SMEs, and transaction costs are generally high because of complex or unclear regulations. In addition, transportation through India raises costs relative to regional competitors, while internal transportation faces difficult terrains. Finally, there is relatively high corruption and political instability. These factors are also reported by our survey respondents as reported below. All these constraints mean that Nepali SMEs find it hard to be competitive relative to regional competitors. These constraints will take time to fix, and some disadvantages like location and terrain are permanent, though road and rail networks will improve.

Nevertheless, our study shows that better-performing Nepali SMEs have found ways of improving performance within these constraints. A better understanding of the capabilities that allowed them to do so is important for identifying policies that are likely to be immediately effective, while the business environment is being improved. This does not detract from the importance of the difficult reforms to improve the business environment. But identifying and implementing the relevant reforms may become easier if a larger number of better-performing businesses emerge and start demanding feasible and appropriate changes. Capable businesses are more likely to identify the policy reforms that would be most helpful for them, and they would also be more effective in demanding these reforms. Business environment reforms are quite difficult if most Nepali SMEs have low competitiveness and are not likely to be able to distinguish between within-firm and systemic constraints.

Section 2 describes our survey design. Section 3 summarizes the descriptive statistics of our sample and the distribution of some of the characteristics of greatest interest. Section 4 outlines some of the theories and evidence that we drew on to identify firm capabilities and characteristics associated with better performance. Section 5 describes the results of our analysis of the survey evidence. The conclusion outlines some of the implications for policy and research.

2. Survey Design

To make our study comparable with international data, we used the World Bank Enterprise Survey definitions of SMEs based on employee numbers. This definition is used in Nepal, but other definitions are also used, which can sometimes make comparisons difficult. In the World Bank definition, Micro Enterprises are defined as firms with fewer than 5 people, small enterprises employ between 5 to 20, medium enterprises between 20 and 99, and large enterprises employ 100 or more.

The vast majority of SMEs in Nepal, almost 90 percent, are micro firms and at the very small end of ‘small’ firms, employing less than 10 people. Micro, small and medium firms together account for 99 percent of all Nepali firms. This can be seen in Table 1, which shows the size distribution of firms in Nepal based on a survey of 60,185 firms in the National Industrial Survey of 2019/20. The survey was conducted by the Central Bureau of Statistics across all 77 districts of Nepal.

Table 1: Size Distribution of Firms in Nepal

Distribution of Firms in National Industrial Survey 2019/20			
WB SME Categorization	Employees	Firms	Percent
Small	<10	53,964	89.7%
	10-19	3,327	5.5%
Medium	20-49	1,488	2.5%
	50-99	617	1.0%
Large	100-199	446	0.7%
	200 and above	343	0.6%
Total		60,185	100.0%

Source: Nepal CBS National Economic Census 2018

As we are interested in potential longer-term drivers of growth, we were particularly interested in the ‘medium’ segment of SMEs. To collect adequate information on this segment, we decided not to reproduce this size distribution in our sample. That would have resulted in sampling too many very small firms. Firms employing fewer than 20 people in developing countries often lack the capital and technology to offer workers good wages and working conditions or to grow and become competitive. There are obvious exceptions, such as small firms with high levels of human capital, for instance providing financial, legal, or software services. These can have high productivity and wage levels even with 5 or 10 employees. But most micro and small firms in developing countries are not of this type because the level of *human capital* in these countries does not allow many such firms to exist. To earn moderately high wages, people need to work in firms with sufficient *physical capital*, and very small firms are unlikely to have this.

Medium-sized firms, and ‘small’ firms at the upper end of the small scale, are more likely to have the capital and capabilities necessary for achieving competitiveness in global markets while offering reasonable wages and working conditions. To detect sufficient variations of performance within medium-sized firms, we over-sampled this segment. In our sample of 352, 78 were medium-sized firms, amounting to 22.2% of the sample although they are only 3.5% of the population. This ensured that around a quarter of our sample was in the medium-sized category.

We stayed close to proportionality in terms of other characteristics, including the distribution across our four selected provinces, P3 (Bagmati), P2 (Madhesh), P5 (Lumbini), and P6 (Karnali). Of our 352 firms, 202 were in Bagmati, 71 in Lumbini, 49 in Madhesh, and 30 in Karnali, roughly reflecting the distribution of SMEs across these provinces. We maintained a rough parity across the three sectors of greatest interest (light manufacturing, agro-based industries, and tourism-related services): 106 firms were in agro-based industries, 112 in tourism-related services, and 134 in light manufacturing. Individual firms were then selected using purposive sampling.

Our survey team worked with indicative numbers of firms stratified by sector, size, and province. They then visited clusters of firms where these types of enterprises were likely to be found. Firm selection was purposive within each stratified category. We randomly selected firms of each type within known firm clusters that our teams visited. Sufficient time was allocated for the survey team to develop the trust of respondents, explain the long instrument and go through the many questions. Face-to-face surveys were then conducted with owners or top-level managers with the aid of an electronic survey platform. The distribution of sampled firms is shown in Table 2.

Our survey instrument used 118 questions with multiple answers that effectively provided data on 437 categories describing the *general characteristics* of the firm and its owners, a range of *performance characteristics*, and a large range of *capability characteristics*. The general characteristics help to distinguish types of firms, the inclusiveness or otherwise of entrepreneurship, and other firm characteristics. The two most important *performance characteristics* that we eventually used were employment growth rates and export status. Our survey also allowed us to describe a wide range of *capability characteristics* on different aspects of the firm’s organizational, technical, and marketing capabilities, engagement in learning by doing, strategies of buying in consultants and marketing advice, access to finance, the type of market they operate in, political access and so on. These are discussed further in Sections 4 and 5.

Table 2: Distribution of Sampled SMEs across Provinces and Sectors

Sector	Sub-sector	P3 (Bagmati)	P2 (Madhesh)	P5 (Lumbini)	P6 (Karnali)
Tourism	Restaurants	16		6	1
	Travel & Tours	16		1	1
	Adventure Sports & Travel	4			1
	Hotel (Guest House & Inn)	29	15	9	4
	Resorts	4	1	4	
Light Manufacturing	Brick Kiln	2	1	2	1
	Handicraft	16			1
	Wood Carvings and furniture	6	3	5	2
	Metal works	6	8	10	5
	Water tanks	3			
	Plastic products	10	1	2	
	Light construction materials	11	1	2	2
	Crusher, cement and other mines and mineral products	3	1	1	2
	Paper products (packaging)	3		1	
	Electrical equipment	1		1	
	Textile (felt, leather, cashmere, hemp)	13	1	1	
	Miscellaneous (water meter, ceramics)	3		3	
Agro-Processing	Spices	1		1	1
	Oil processing and herbs	3	1	1	
	Pickle	1		1	
	Dairy	8	1	2	1
	Plant Nursery	2	1	2	
	Poultry, livestock and fish	20	5	8	2
	Packed food	7		1	1
	Fruits, Vegetables, and fermented products	3	3	4	3
	Organic fertilizer		1		
	Feed	1	1		
	Grains	4	3	1	
	Mill	2			
	Coffee	2	1	1	1
	Bakery	2		1	1
	Beekeeping and honey	1		1	1

3. Descriptive Statistics of the Sample

The descriptive statistics in this section provide information on the background of owners, ethnic/caste inclusion in entrepreneurship, and the overall distribution of capabilities in our sample before we engage in our correlation analysis identifying specific capabilities associated with performance.

The number of **female-headed firms** in our sample was low: only 40 of our 352 respondents were female (Figure 1). However, the 11.4% share of female-headed firms in our sample is very similar to the 12% female ownership reported in World Bank studies but lower than the 30% female ownership reported in Nepal's national economic census (Irwin and Nada 2020: 80). It is possible that female ownership in the Nepal national statistics reflects a greater female ownership rate in micro-sized firms, which we under-sampled, while we over-sampled medium-sized firms where female ownership rates may be lower. It is also possible that many Nepali firms report female ownership for tax relief purposes while in reality effective owners and managers at the firm level are their male relatives (ILO 2018). Most of our female respondents were in Bagmati province: 30 of the 40 female-headed firms were located there.

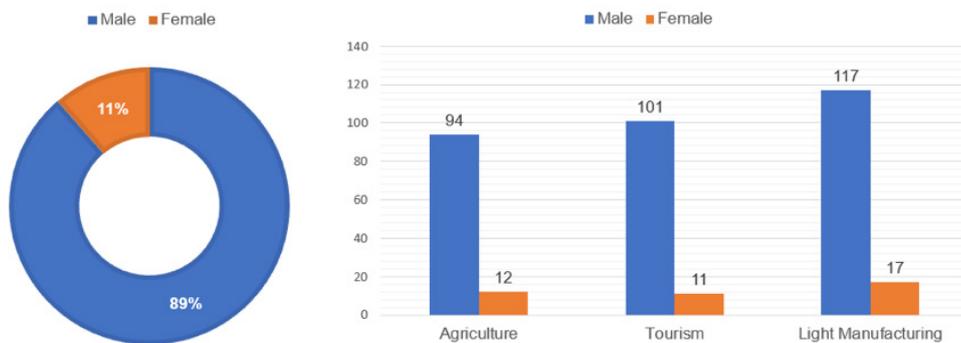


Figure 1: Gender distribution of SME entrepreneurs

The distribution of ownership across **castes and ethnicities** in the ownership of firms was Hill Brahmin and Terai upper caste 134, Hill Chhetri 52, Hill & Terai Dalit 8, Hill Janajati 43, Newari 54, Marwari 5, Muslim 9, OBC 41, Tharu 4, with 2 non-responses.

Neither the under-representation of women nor the over-representation of upper castes is surprising given the overall social context of Nepal. But equally, the fact that effective female ownership was above 10% (as measured by the respondent also being female in our survey) could also be read as a positive indicator of possibilities that have already emerged and that may further strengthen if SME development accelerates.

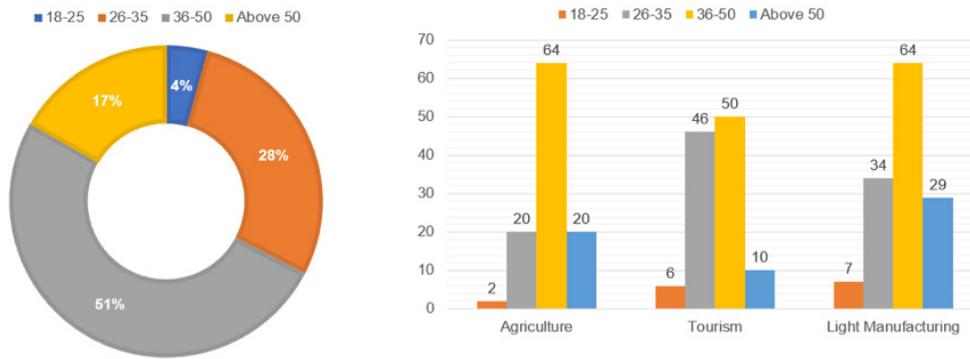


Figure 2: Age distribution of SME entrepreneurs

Most firm owners and managers (277 out of 352) were between 26 and 50 years old (Figure 2). The most common **type of firm** by far was ‘family-owned’ (Figure 3). A prior **family history in business** was the most likely family background of owners. Of the 253 respondents who answered this question, 114 said their family background was in business. Only 81 owners came from working families whose main income source had previously been employment. The ratio of owners from working families was higher in agro-based SMEs, with 36 out of 90 agro-based SME respondents reporting a prior working-class family background.

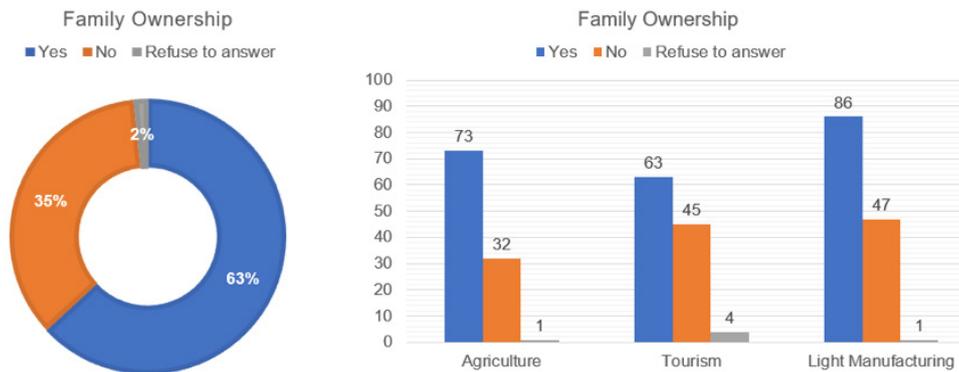


Figure 3: Family ownership is the dominant form of ownership

Most **firms were relatively young**. In our sample, 218 were set up *after* 2011. This could reflect a high failure rate of SMEs, so older SMEs were not visible simply because they have not survived. Older SMEs may also have disappeared by becoming large firms, but this is much less likely. Another possibility is that the period of stability after the second constituent assembly elections of 2013 was very conducive to SME growth and many new SMEs emerged. A steep acceleration of SME registration after 2014 is reported in the World Bank study (Irwin and Nada 2020: Figure 5). Tracking our SMEs over time would be necessary to assess their failure rate and average life expectancy, the extent to which SME growth accelerated after the end of the conflict, and whether that growth has recovered after the Covid shock.

The SMEs in our sample are like most other SMEs in developing countries: they operate in **product spaces and markets** that are already mature (see Table 2) rather than innovating entirely new technologies (OECD 2017: 11). The most likely route for SMEs to emerge and become competitive in developing countries is therefore by *imitating* the products and organizations of firms that already exist. Imitation is feasible if the skills and capabilities of owners and workers are close enough to the levels of already competitive firms. Being close

to these capabilities makes it feasible for the entrant to try and achieve *competitiveness* through knowledge transfer, learning by doing, and skill acquisition.

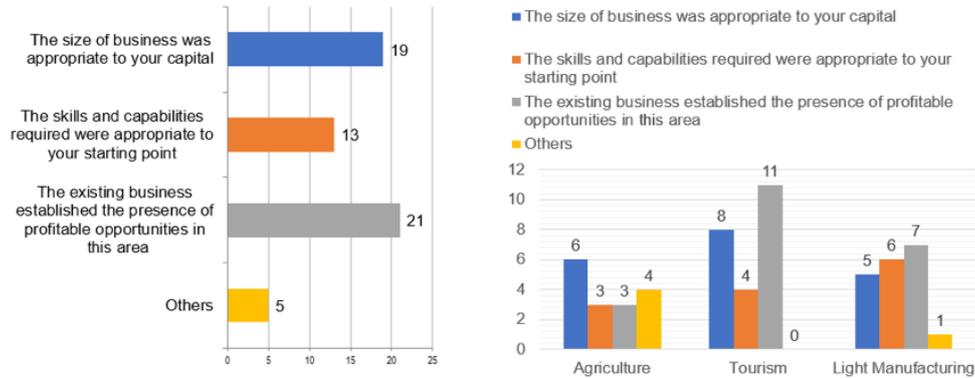


Figure 4: Conditions allowing firms to imitate successful businesses

Figure 4 shows that **imitating existing businesses** was the most common reason given for setting up the firm. Imitation was most important in the tourism and light manufacturing, much less so in agro-based industries. We interpret the last finding as saying that agro-based industries build on activities that individuals in the agricultural sector were already doing, rather than imitating the activities of a successful firm.

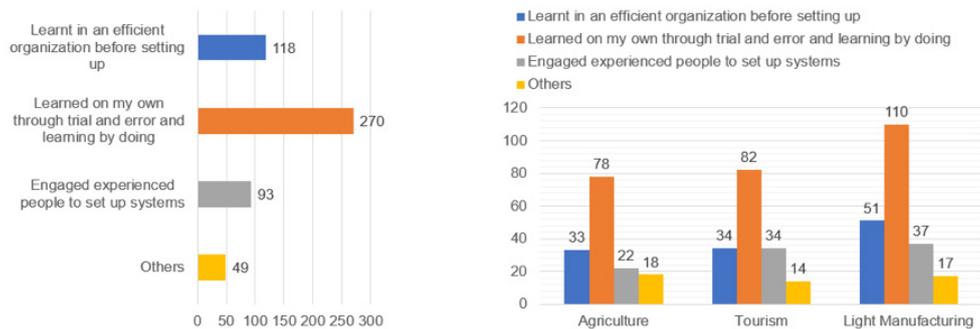


Figure 5: How organizational capabilities were acquired

Imitation is most likely to be effective if the imitating firm can employ individuals who have worked in other similar firms or if the entrepreneurs themselves have done so. This is an important way for the follower firm to learn how to imitate the organization and technologies of existing firms. However, Figure 5 shows most Nepali SMEs relied on trial and error and internal **learning by doing** to learn how to organize their business. Fewer than a third of **employed personnel with the experience of working in effective firms** elsewhere to help set up the firm. Only around a third had their **own experience of working in an efficient organization** before setting up the firm.

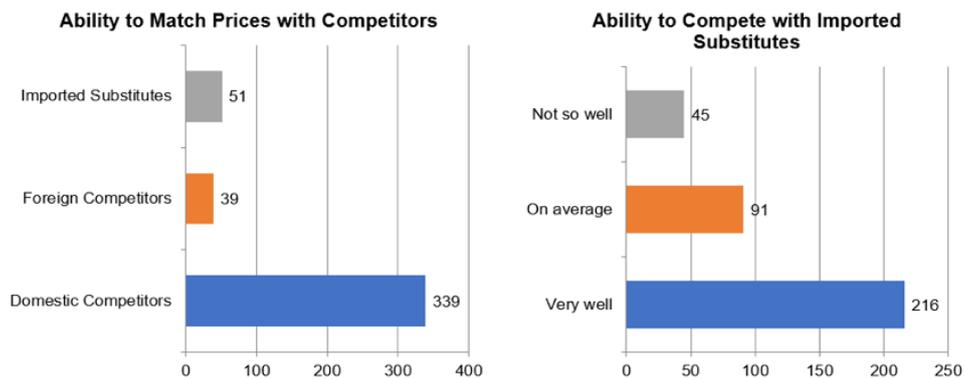


Figure 6: SME competitiveness

Most SMEs in our sample suffered from low competitiveness. Figure 6 shows that only 39 firms in our survey (19 in manufacturing) out of 352 said they were able to **match prices of foreign competitors** and only 51 (27 in manufacturing) could match prices with **imported substitutes**.

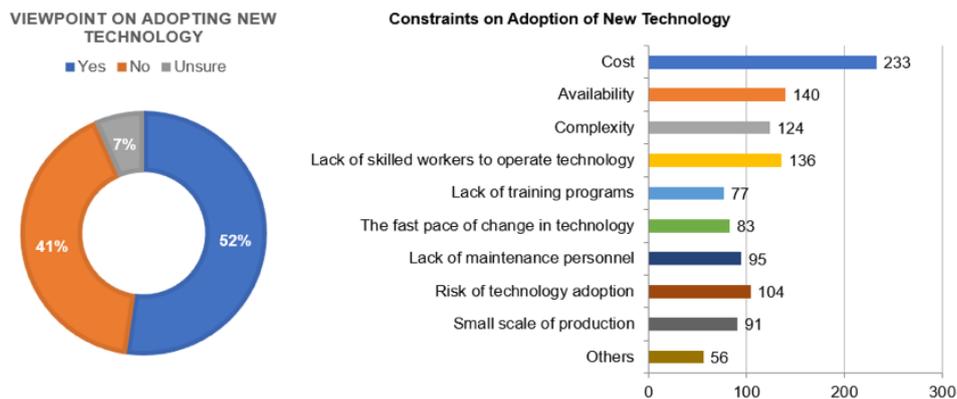


Figure 7: Constrained Technology Acquisition

Figure 7 shows that most firms in our sample report they would *like* to adopt new technologies but also identified many **constraints on technology acquisition**. As many as 233 firms thought the cost of adoption was too high and 104 thought the risks involved were too high. The costs and risks of technology adoption can be high for several reasons. We know the cost of finance is high in Nepal, as are tariffs on imported machines. But high costs and risks can also reflect the low organizational capabilities of firms, which make it difficult for them to use technologies efficiently. Firms that can use simpler technologies profitably are more likely to find superior technologies profitable. But firms that are not competitive with simpler technologies are more likely to find the risks and costs of upgrading prohibitive.

Around half of our firms produced goods or services that were **hard to imitate**, which can be interpreted as a measure of **market power**. Out of the 352 firms in our sample, 160 said their product or service was hard to imitate. Many Nepali SMEs are therefore operating in market niches where the location of the service or the specificity of the product gives them an advantage over competitors. However, accelerating growth will require developing Nepali SMEs that are competitive in standardized products like cashmere sweaters or plastic products that other domestic or international producers

are also providing. These products have larger markets but because the market power of producers is lower, higher organizational and technical capabilities are required to maintain competitiveness.

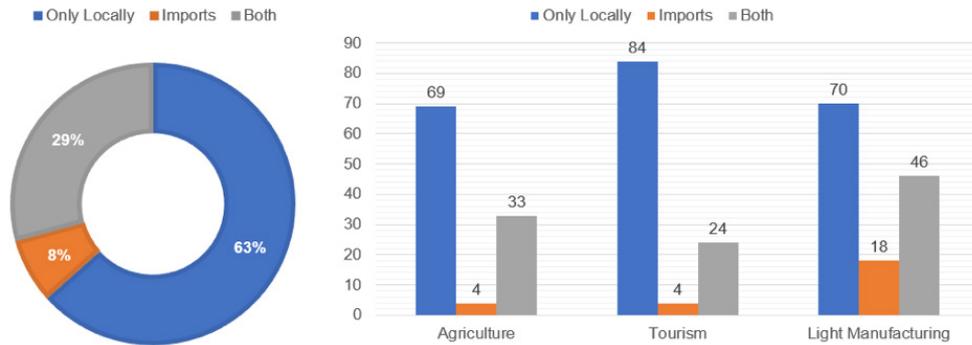


Figure 8: SME sourcing of supplies

Figure 8 shows the **limited market linkages between Nepali SMEs**. As many as 298 sold directly to final customers, including 107 firms operating in the tourism sector, which cater only to final consumers. At least within our sample, this indicates a weak integration of SMEs into local supply chains. While 223 firms reported local sourcing, this was mainly not from other SMEs, and 108 said they imported inputs because the supplies they needed were not available in the domestic market.

Interestingly, registered Nepali SMEs **do not find unregistered firms threatening**. It is often argued that unregistered firms are a threat to registered SMEs as they may undercut tax-paying firms and violate regulations. In many countries, policymakers have supported policies to make unregistered firms formalise, regardless of whether they have the capabilities of surviving after formalization. Our survey respondents were registered firms, but fewer than one-third (116) said unregistered firms were a threat to them. To the extent that our sample is representative, pushing for the formalization of unregistered firms is unlikely to be a driver of SME growth in Nepal. This finding is not surprising because the vast majority of unregistered firms in Nepal are micro-sized firms that do not directly compete with the types of firms we sample (UNESCAP 2020: Table 2). Forcing them to formalize may do more harm than good by forcing many to close down prematurely (Roy and Khan 2021).

Almost all our firms, 348 out of 352, reported having **bank accounts** though only 126 received bank **loans**. Since 2014 Nepal has made excellent progress in improving credit provision to the private sector (UNCTAD 2018: 90). However, 64% of our SMEs did not access bank credit, very similar to the 65% reported in the 2018 National Census (UNESCAP 2020: Table 5). The census also shows that 74% of Nepali MSMEs use mainly parental assets, savings, informal financing, or remittances to invest in their businesses. Bank financing is only available to 16% of start-ups (UNESCAP 2020: 7). However, as the UNESCAP study makes clear, the problem is not just on the supply side. There are also demand-side weaknesses on the part of MSMEs as they often do not maintain acceptable records of transactions and taxes required for accessing loans (UNESCAP 2020: 11-12). In addition, we would add that if the SME applying for a loan has low competitiveness and capabilities, this is also a demand-side weakness that would deter banks from lending.

An important finding of our survey is that **political power** and **access to politicians** are reported as important for business by many SMEs. As many as 136 of our respondents said winning a local government position was important. Of these 82 said this helped to access government contracts, 68 that it helped to bypass regulatory hurdles and 43 said a position was helpful to circumvent difficulties with registration.

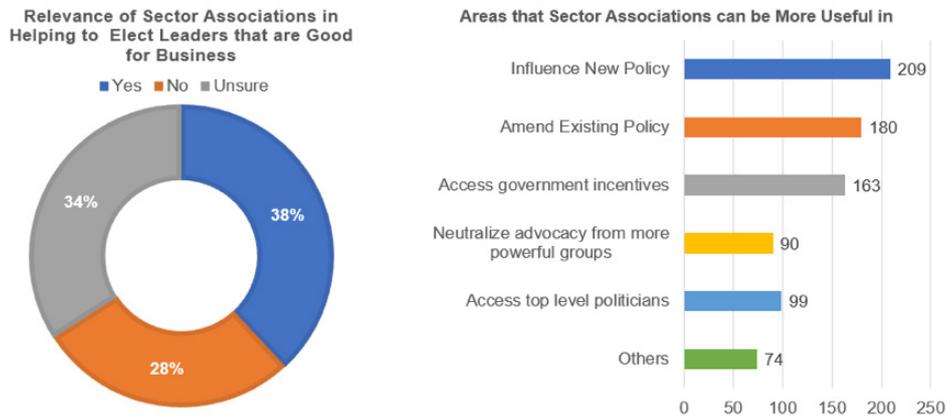


Figure 9: The usefulness of sector associations

A majority of our firms, 211, were members of **sector associations** and 102 said belonging to an association was helpful for their business. Sector associations were most helpful in lobbying for policies, accessing government incentives, and accessing politicians. A plurality of respondents also said sector associations play a role in helping to elect political leaders who were good for business. Sector associations are therefore playing an important role in Nepal in mediating business-government relationships.

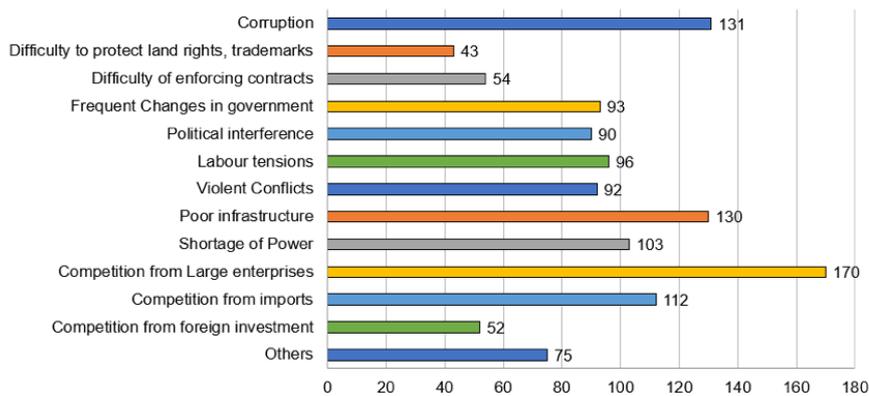


Figure 10: Constraints Identified by SMEs

Finally, Figure 10 summarizes the responses of firms to questions about **constraints on performance**. Multiple responses were allowed. The results are not surprising as the business environment problems in Nepal and other similar developing countries are well known. Competition from larger enterprises, corruption, poor infrastructure, political instability, political interference, conflicts with workers, contract enforcement problems, and competition from imports were amongst the frequently identified problems by our sample of SMEs.

4. Capabilities and Firm Performance: Theory and International Evidence

In this section, we discuss what theory and cross-country evidence says about the capabilities driving firm performance. These insights informed the design of our survey, as we wanted to collect evidence on the distribution of similar characteristics across Nepali SMEs.

An important factor that determines a firm's ability to grow relative to others is its competitiveness. **Competitiveness** describes the price and quality of its products or services relative to competitors. If other firms can sell products of the same quality at a lower price, or products of better quality at the same price, the firm will find it difficult to grow its market and may go out of business.

A firm may respond to this in a negative way, by underpaying its workers, evading taxes, or violating environmental or regulatory conditions. This may reduce its costs and enable it to sell at a competitive price even though its productivity is lower than its competitors. This is obviously not a desirable strategy. The positive alternative is to raise its productivity (the value of goods and services produced by each worker) so that competitiveness improves, and it can match or improve upon what is on offer from competitors.

Underlying a firm's competitiveness are factors that help it raise its productivity and/or improve the quality of its goods or services. These include, of course, the quality of its **capital** equipment and the **skills** of its workforce. These in turn depend on **access to finance** to make the necessary investments, and the **policy incentives, taxes and subsidies** that affect the cost of investments. But even if a firm has the capital, and a skilled workforce, it can still perform badly if its team does not work well *together* as an organization. A restaurant may have a skilled management team, a good chef, trained waiters, and modern kitchen equipment but if the staff does not work well together to reduce wastage, ensure supplies are always fresh, reduce waiting times for customers, and maintain quality, the restaurant may still fail. This is because many vital activities of even a small organization depend on collective behaviour, which is always more than the sum of its parts. An organization is not just a group of individuals and tools, it is also a collection of procedures and routines that link them together. These procedures and routines are the *organizational* structure of the firm. Together, the combination of organizational structures and the skills of the individuals operating these structures describe the **organizational capabilities** of the firm. Often the most important challenge is to achieve a high-enough level of organizational capabilities. Otherwise, the result may be low productivity and low competitiveness.

Organizational Capabilities: The internal organization of firms is widely recognized as a critical determinant of performance (Bloom, et al. 2013; Sutton 2012; Penrose 2009; Lall 2003, 2000, 1992). Organizational capabilities describe how well a firm operates as an

organism or system: how well its production processes have been set up so that work in one part is not slowed down because of delays in another, how ongoing production is monitored, who is responsible for different jobs, how these different tasks are coordinated, how is quality controlled, who is responsible for detecting problems and failures, what happens when failures are detected, and so on. Thus, organizational capabilities describe how well different actors within the firm *interact* with each other and with others outside the firm.

In contrast, *skills* describe the capabilities of *individuals*. Skills and organizational capabilities are related because the productivity of an individual within an organization depends not just on the skills of that individual, but also on how effectively the organization is working so that these skills are fully utilised. If skills describe the quality of musicians, organizational capabilities describe how well they work together as an orchestra.

Differences in organizational capabilities can result in huge differences in firm productivity. Even when firms are using similar machines, and the skills of their workers are not very different, there may be differences in productivity of 500 percent or more between them. Sutton's (2000) study of the Indian machine-tool industry found that the productivity of some machine-tool producers was 6 *times* higher than others, and the best productivity achieved by *any* Indian producer was half that of the least productive international firms. Clark and Wolcott (2012) using 1978 data show that output per worker-hour in cotton spinning in the US was 7.4 *times* higher than in Indian factories using the *same* machinery. Differences in skills cannot explain productivity differences of this magnitude in a relatively low-skill sector like spinning. These huge differences emerge because productivity is simply the total output of a firm over a day, month, or hour, divided by the number of workers. Organizational failures can easily result in big differences in output. For instance, if breakdowns of machines are not quickly fixed (perhaps because orders and inventories were not properly matched), or if products are rejected because quality control was poor, or if the sequence of orders was not properly managed so production stands idle for some of the time, output per worker may be very low for no fault of individuals or their skills.

Making the organization work smoothly is therefore more difficult than acquiring individual skills (Khan 2019, 2013a, 2013b, 2013c). Organizational capabilities only improve when all members of the team understand and adhere to routines, and collectively adapt them in response to problems and challenges. This is not the same as management skills. The individual skills of managers are related to, but different from, the collective organizational capabilities of a firm. A firm may have a skilled manager, but as a collective it may have low organizational capabilities if the team has not yet discovered, or is not yet practicing, the best ways of organizing their interactions.

In the empirical work of Sutton and others, organizations are compared by looking at the internal processes of firms that use similar technologies. Process analysis can identify differences in quality control, inventory management, personnel recruitment, management strategies and so on that can account for huge differences in productivity. As we are interested in relatively small firms, which use different technologies to produce different products, comparing their organizational processes directly made no sense. However, we know from the experimental work of Bloom et al. (2013) on the Indian textile industry, and the history of the automobile industry in India and the garments industry in Bangladesh (Khan 2013a) that the transfer of knowledge about effective organizational practices can significantly improve productivity and product quality in a firm.

SMEs can learn and implement systems to raise their organizational capabilities by bringing in personnel with the knowledge of organizational practices of more competitive firms. Alternatively, employees who have worked in competitive firms and understand organizational routines can set up new firms of their own producing the same products. The rapid expansion of the garments industry in Bangladesh heavily relied on these processes (Khan 2019). Learning organizational routines therefore involves *imitating the organizational systems* of more successful firms. Learning these specific details of organizational systems involves quite different knowledge transfer problems from learning general things about management systems that business service providers offer. The best way of setting up a sufficiently capable organization is usually to work in, or engage people who have worked in, better-performing firms producing *that* product, managing the same supply chains, and selling to similar markets with similar quality and delivery requirements.

In our survey, we asked a range of questions to assess whether owners themselves, or the people they employed when setting up the firm, had the practical experience of working in well-performing organizations producing similar products or services. We wanted to see if firms that had acquired practical organizational knowledge at the outset were better-performing firms.

Learning by doing is another way in which organizations can improve their organizational capabilities through trial and error. Learning by doing usually refers to the process through which *individuals* improve their skills by repeating an activity. But an organization can also engage in learning by doing to adapt *organizational routines* to raise productivity. But incremental learning and adaptation is likely to be difficult if the firm does not have a good organizational structure to begin with. Firms that are well-organized at the outset are likely to find learning by doing useful for incrementally improving efficiency. Firms that are poorly organized are likely to find it difficult to progress by relying mainly on learning by doing. Too much may need to be changed in their organization and is unlikely to be discovered by trial and error. In our survey we also asked questions about how important learning by doing was for the firm.

Skills: The technical skills of individuals are clearly important for productivity. The knowledge that we describe as skills is broadly of two quite different types. First, there is *codified* knowledge, which a person can learn by going to a class or reading a book. Technical knowledge of engineering or of accountancy is of this type. But in production processes, a much more important type of knowledge is *tacit* knowledge. This is the know-how that a person gains by engaging in the actual activity of production. Tacit knowledge cannot come from classrooms or technical advisers. It comes from working with people with that *specific* know-how and learning by working with them (Khan 2019, 2013a).

In our field trips, we found Nepali SMEs had serious problems acquiring know-how about processes like how to fertilize fish to maximize yields. The technical advice they received from government officials advising on fisheries was typically codified knowledge that told them what they should do in a technical sense, but not how to precisely do it in practice. These practical questions included things like how exactly to time the process, how to hold the fish, what to do afterward, and so on. Trying to implement this codified technical advice was frustrating and did not achieve good results. One SME finally solved the problem by getting practitioners who worked in similar SMEs in India to come and show them how

to do it. The learning-by-doing that followed finally resulted in the tacit knowledge being transferred to the Nepali SME, which is now successfully engaging in this business.

Other SMEs said they found the most effective way of gaining relevant know-how was not via skills training classes but through YouTube videos demonstrating how the *specific* task they were struggling with was actually done. This could be, for instance, a specific stage in making concrete tiles, where they were not getting good results. Several SMEs said that their most useful learning came from watching videos on YouTube and then trying to replicate that. These experiences are not surprising. For many important production-level skills, learning from workers in more successful firms, or even observing videos showing how they do their tasks is a more effective way of learning. They are powerful demonstrations of the difference between codified and tacit knowledge (Khan 2019). It is the difference between reading a cookbook and hearing a lecture on cooking versus working with a great chef or at least watching a video of the chef in action.

The interdependence between individual skills and organizational capabilities is a further complicating factor. When managers in low-productivity firms are asked why firm productivity is low, they often say it is because their workers are not sufficiently skilled. They are usually much less aware of the much bigger productivity differences caused by the organizational deficiencies of their firms. They are generally even less knowledgeable about how to begin correcting these deficiencies by imitating the organizational structures of more efficient firms (Khan 2019). Thus, asking managers why the productivity of their firm is low is not a good enough strategy to understand the real constraints. Managers may not know how more efficient firms are organized, particularly if the more efficient firms are in another country.

Employing skills when organizational capabilities are low may fail to achieve any productivity growth. For instance, a firm that has poor control over its finances may think this can be resolved by employing a skilled accountant. But if its internal systems for getting information to the accountant in time, or to ensure other actors respond to the analysis provided by the accountant are not there, the accountant may not add much to the productivity of the firm. Similarly, skilling up production line workers may have no effect on productivity if the production line is slow because inventory management systems are weak, or orders have not been managed properly. One consequence, which we observed in the Bangladesh garment sector, is that firms with low organizational capabilities may actively avoid hiring skilled workers because the latter are more expensive but do not add sufficiently to the productivity of the firm (Khan, et al. 2019). Even in smaller firms without production lines, organizational weaknesses may mean that skilled workers are not adding as much value as they should.

To understand the types of skills acquisition strategies associated with better performance, we asked our firms about their skills strategies. Did they hire or use the services of skills trainers, did they employ people from more successful firms, and did they engage in learning by doing?

Access to Finance. Access to finance is important because future earnings depend on investments in capital equipment, skills, and organization-building. SMEs are known to be at a disadvantage in getting access to finance in every country (Beck, et al. 2008; Beck and Demirguc-Kunt 2006; Cressy 2002; Schiffer and Weder 2001). There is also evidence that improving access to finance, for instance by easing collateral requirements, helps small and

medium businesses access loans (World Bank 2013). However, improving access to finance will only help firms raise their productivity if they have the knowledge to use the money to improve their skills and capabilities to achieve competitiveness.

As the UNESCAP (2020) study pointed out for Nepal, insufficient access to finance has both supply-side and demand-side causes. If SMEs lack organizational capabilities and skills, easier access to finance may paradoxically have counterproductive effects. Unless SMEs manage to develop their missing skills and capabilities using finance, they may find that they cannot make their investments turn a profit and may eventually face bankruptcy, even if their growth temporarily accelerates as they scale up activities. This is a particularly serious problem if SMEs are not aware of the factors constraining their competitiveness, particularly if their competitors are in other countries and they do not know how more competitive firms are organized. Improving access to finance, for instance by relaxing collateral requirements or mandating banks to lend a certain percentage to SMEs may therefore have positive or negative effects depending on the effectiveness of complementary policies to raise capabilities and skills.

A systematic review of 280 publications on SME financing from 1986 to 2020 found a noteworthy increase in research on 'novel' financial arrangements like crowdsourcing and bootstrapping (using only personal finances or operating revenue) relative to research on conventional sources of credit like banks or trade credit (Rao, et al. 2021). Much of the research published in the top journals studied in the review focus on developed countries where financial markets are deeper and better developed. Nevertheless, this finding is interesting because it shows the difficulty SMEs face, even in developed markets, in gaining access to conventional financing. Typically, SMEs are not just borrowing to finance investments in capital equipment, but also to finance improvements in their competitiveness by investing in their organizational structures and skills. This is obviously riskier for conventional banks to finance unless they have very deep knowledge of the borrower and confidence in their strategies. That is why many creative SME entrepreneurs in advanced countries are increasingly using crowdfunding or using other innovative financial products to directly access investors who have confidence in that entrepreneur.

Similar problems of accessing bank finance are faced by SME entrepreneurs in developing countries, but it is important to understand why developing countries are different. Neither novel SME entrepreneurs nor a broad base of risk-taking investors exists in large enough numbers in developing countries for direct forms of financing like crowd-sourced funding to become significant very rapidly. Here, money has to be raised to finance the development of capabilities in SMEs that provide everyday products and services that many others are already providing, and where the typical SME entrepreneurs are not charismatic individuals with novel products. A combination of traditional forms of financing combined with effective strategies to improve organizational capabilities and skills is likely to be the most promising way forward. We asked firms about their access to bank finance when they set up, and subsequently, their access to collateral, and whether they had benefited from preferential loans that came with subsidies on the interest rate or other favourable conditions.

Product Specificity and Market Power. The type of product or service a firm provides is also important for understanding its competitiveness. Some products or services are **difficult to copy** because the seller has some specific advantage that is hard to replicate, like a locational advantage or some specific product that others cannot produce so easily.

These firms have *market power* because they can price a little higher than if their product could be easily imitated. In contrast, products or services that are more standardised and easier to copy and sell in more competitive markets. This difference matters because organizational capabilities are more demanding for products that are **standardised**, as competition is more intense. In contrast, firms that provide specialized or niche products face lower competition. They can be somewhat inefficient and still survive.

SMEs providing specific products that are harder to copy therefore have a built-in competitive advantage. On the other hand, these types of products face two disadvantages. First, non-standardised products like tailored suits usually have a more limited overall demand, which limits employment and profit growth. Conversely, non-specific products like garments face more intense competition but often have very large markets including export markets. If SMEs can achieve competitiveness in products in competitive markets, they can grow much faster than if they supplied very specialized products. Secondly, when firms provide goods and services in competitive markets, an imitator does not necessarily eat into their customer base because competitive markets typically include export markets. Firms imitating existing firms in competitive markets add value and employment to the country, while imitators of firms providing very specific products may be taking customers away from existing firms. Thus, SMEs that provide very specific products and those that compete in competitive markets have different advantages and are important in different ways.

A coffee shop in Thamel, for instance, has a locational advantage given that tourists who already come to Nepal are drawn to the tourist shops in the area. The Thamel coffee shop does not need to have the best quality coffee in the world at that price to get a lot of customers. But as coffee shops multiply in Thamel, they eat into each other's customer base. In contrast, developing a tourist service industry that can attract tourists who are not already coming to Nepal is more difficult. These firms have to match the price and quality of experience tourists find in other attractive regional countries, including the price and quality of coffee. Tourism service providers who can attract new customers from the global tourist market have to achieve international levels of capabilities and competitiveness, but they can eventually access many more customers.

Nepal has specific products in a number of areas, including tourism. Its dependence on tourism is shown by the fact that in 2019, 29.4 percent of its total export earnings came from international tourism (though this temporarily shrank to 13.4 percent during the pandemic).³ Nepal's overall exports are not high, so this large number gives a misleading idea of its market power. An important policy question is how much market power Nepal's geography gives its tourism service providers. Destinations have different attractions, but high-paying tourists may look at the overall experience, and not be willing to accept lower quality or higher prices relative to competitors despite the specific attractions of Nepal's geography. In other words, as Nepal tries to scale up even its distinctive and differentiated products, it may find it needs to rapidly achieve international standards of comparators in the tourism sector.

We asked our firms whether their products or services were easy to copy or not, to understand the extent to which better SME performance was associated with market power in Nepal.

3 <https://data.worldbank.org/indicator/ST.INT.RCPT.XP.ZS?locations=NP>

5. Capabilities and Performance: Our Survey Evidence

Our survey collected data on several performance indicators. Data on sales or profits were not sufficiently robust given the different qualities of recall and record-keeping across SMEs. In contrast, average annual employment growth rates could be more reliably estimated based on the owners' recall of their initial and current levels of employees. We measured SME performance in two ways: the rate of growth of employment and export success. For employment growth, we defined a better-performing firm as one that achieved an annual rate of growth of employment higher than the median for that group. This method split each group of firms into a set of higher-growth firms (HGFs) and lower-growth firms (LGFs). We did this for all firms together, small and medium firms separately, each sector separately, and small and medium firms separately within each sector. We then identified significant characteristics distinguishing each group of HGFs from the corresponding LGFs by assigning firms in the first group a value of 1 and those in the second group a value of 0 and correlating this variable with firm capabilities and other characteristics. By design, half of the firms overall and in each sector and size category are classified as HGFs in each correlation.

For export performance, better-performing firms are defined as those that reported success in exporting, again broken down by size and sector. Only 19 of our 352 firms reported export activities. Despite the small number, we looked for the characteristics associated with exporting firms relative to others of the same type, using the same technique of assigning higher-performance firms (in this case exporters) a value of 1 and others a value of 0. Each correlation therefore identified characteristics that were significantly associated with the better-performing group relative to its comparator (and hence these characteristics would be significantly associated with an opposite sign with the comparator's lower-performance group).

As our firms produced many different types of products and services, one objection to using employment growth as a performance measure is that differences in *demand* for different products could result in different employment growth rates, rather than differences in firm capabilities. This does not necessarily undermine our approach because we want to identify characteristics of firms that can enter more dynamic, higher growth areas. These capabilities would be the ones required for stronger SME performance, even if performance was differentiated by products. But in fact, we are unlikely to be picking up differences between products or services because we define higher-growth firms as the top half of firms in relatively large groups. This deliberately averages out many of the differences across product types given the wide variety of products and services that our surveyed firms produce (see Table 2).

A second objection may be that the employment growth may depend on the maturity of the firm, with early-stage firms recording higher employment growth as they approached their equilibrium size. This is a possibility, but since most Nepali SMEs are very young, life-cycle effects should not be very significant. Moreover, both these confounding factors should result in *weaker* observed associations between better performance and firm capabilities. In the extreme case, if the HGFs in every group happened to be there mainly because of accidents of product choice, firm age, or other unrelated effects, we should not find any distinguishing features in the capability characteristics of better-performing firms. But we do, which suggests that the confounding factors at best weakened the underlying associations between firm capabilities and performance. Better-performing SMEs have characteristics that are aligned with theoretical expectations. This suggests that as a preliminary exercise, our simple methods achieved a good enough separation of higher from lower performance firms to identify at least some of the interesting differences in their characteristics.

In our capability characteristics, we record a large number of managerial, organizational, skills-related, financial, and political capabilities. We collected responses on 437 characteristics (based on 118 questions and associated sub-questions). Not all of them elicited a significant number of responses and many were not significantly associated with performance. For reasons of space, we do not report all the variables and associations. The variables of greatest interest are shown in Table 3.

Table 3: Performance and Capability Characteristics of Firms

Performance Characteristics	Definition
HGF	Firms with average annual employee growth rates higher than the median growth rate in that category
Export	Firms reporting exports
Capability Characteristics	Definition
Had previous experience in sector before	The firm owner had previous work experience in the sector before setting up their own business
Skills and capabilities required were appropriate	The firm owners entered the sector because they knew their skills and capabilities were sufficient to be successful
Learnt in an efficient organization before setting up	The firm owners learnt the business in a competitive organization before setting up their own firm using the successful firm as a model
Engaged experienced people to set up systems	The firm employed experienced people to set up internal organizational systems at the time the firm was set up
Borrowing from BFIs at inception	The firm had borrowed from formal banks or financial institutions when it set up
Have working capital loans	The firm subsequently borrowed from banks for its working capital requirements
Factors allowing firm to become competitive: Learning by Doing	Owner believed learning how to manage the business better over time was a factor allowing the firm to become more competitive
Factors allowing firm to become competitive: Partnerships with other firms	Partnerships (domestic + foreign) were a factor that allowed the firm to become more competitive
Factors allowing firm to become competitive: Hiring of trainers	Hiring trainers for skills upgrading was a factor allowing the firm to become more competitive
Factors allowing firm to become competitive: Experienced partners	The inclusion of experienced partners in the business allowed the firm to become more competitive
Devised way to compete	The firm was <i>aware</i> of their gap with competitive firms and devised ways to improve competitiveness
Use of Software (for any operational purpose)	Firm used any kind of software in its operations
Customer involvement	The firm involved customers in the process of improving quality and/or matching consumer needs
Difficult to Copy product	Firm produces products that are difficult to copy (a measure of market power)
Good Road network	The firm was located close to good quality road networks connecting them to markets
Have registered Trademarks	The firm has registered trademarks / IP etc.
Land & building for collateral	The firm possessed land and buildings that were used as collateral
Have Bank loan	The firm accessed bank loans at any point
Government incentives tied with bank loans	The firm received government incentives tied with bank loans (preferential interest rates or other subsidies)
Paid for market research	The firm paid for market research to discover opportunities or prices
Paid for research on competitors' strategies	The firm paid for market research to discover competitor strategies
Political support (any form)	The firm had access to politicians or bureaucrats to solve problems
Have access to Local Level politicians	Firm reported local level leaders were important for their operations and had access to them
Have access to Provincial Level politicians	Firm reported provincial level political leaders were important for their operations and had access to them
Have access to Federal Level politicians	Firm reported federal level political leaders were important for their operations and had access to them

Method: Our correlations involve dichotomous variables, which can be categorized either as binary variables or having properties of two-point ordinal data. For robustness, the results of three different types of correlations are reported: Spearman's rank, tetrachoric and Pearson's. Spearman's rank correlation is a non-parametric measure appropriate for ordinal variables with two or more ranks (Verhulst and Neale 2021). Unlike Pearson's, it does not require data to be normally distributed (Khamis 2008). The tetrachoric correlation is also used when measuring associations between dichotomous or binary variables (Juras and Pasarić 2006). Reassuringly, the results of all three methods show comparable patterns and significance of association between the variables being studied. We report the Spearman figures below and the tetrachoric and Pearson correlations are reported in appendix A and B for completeness, together with associated significance levels.

The correlations of interest are those that are not only of the expected sign but also statistically significant. The significance level tells us the likelihood that the correlation found in our sample would also be observed in the population of firms from which the sample was drawn. Following convention, two stars means there is only a 5% chance that there is no association in the actual population. These are the strongest correlations. Correlations with one star are ones where there is a 10% chance that there is no correlation in the population. These are the two correlations of interest. Correlations without stars can be largely ignored because the probability of a zero correlation is higher than 10% (the exact probability is given in the p-values in the tables).

Correlations do not, of course, necessarily establish causality. It does not follow that if we could strengthen the capabilities *associated* with success, firms would necessarily become more successful. Some other factor may have influenced both performance and associated capabilities in the same direction. Or the causation may be in the opposite direction, for instance, better firm performance could lead to the acquisition of some of the associated capabilities. Establishing causality with sufficient confidence would require experimental trials in programmes supporting SMEs to assess what works, and only then scaling these up. But correlations are of value because they help identify variables of interest that may be useful to investigate in trials to see if they do indeed have causal effects on performance. Conversely, if there is no evidence of associations between performance and particular capabilities, we should be wary of policies seeking to strengthen these capabilities without compelling evidence to the contrary.

Table 4 shows associations between capability characteristics and higher growth based on Spearman's correlations for all firms, and then small firms and medium firms separately. The numbers in the HGF and LGF categories in each case are reported at the top of the relevant columns. In Tables 5, 6, and 7, firms are then disaggregated by sector (manufacturing, agro-based industries and tourism-related), and further disaggregated by size. Tables 8, 9, and 10 look at exporting firms, first at all exporting firms, and then disaggregated into manufacturing and agro-based industries and disaggregated by size. We first present the tables showing the correlations, followed by a discussion of the results in the next subsection.

Spearman Correlations

Table 4: Capability Characteristics of Higher-Growth Firms

Capability Characteristics	All Firms N = 352 HGF = 176 LGF = 176		Small N = 274 HGF = 137 LGF = 137		Medium N = 78 HGF = 40 LGF = 38	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Learnt in an efficient organization before setting up	0.0843	0.115	0.100*	0.0979	0.00990	0.932
Engaged experienced people to set up systems	0.1482**	0.00530	0.1749**	0.00370	0.212*	0.0625
Borrowing from BFIs at inception	0.1499**	0.00480	0.1272**	0.0354	0.103	0.371
Have working capital loans	0.1210**	0.0232	0.1546**	0.0104	0.0727	0.527
Factors allowing firm to become competitive: Learning by Doing	0.1393**	0.00890	0.2150**	0.000300	0.207*	0.0685
Factors allowing firm to become competitive: Hiring of trainers	0.1664**	0.00170	0.0903	0.136	0.0385	0.738
Factors allowing firm to become competitive: Inclusion of experienced partners	0.0902*	0.0912	0.0756	0.212	0.216*	0.0572
Devised way to compete	0.0926*	0.0826	0.0248	0.683	0.2878**	0.0106
Difficult to Copy product	0.1671**	0.00170	0.1195**	0.0481	0.3078**	0.00610
Good Road network	0.0937*	0.0793	0.1555**	0.00990	0.0877	0.445
Have registered Trademarks	0.0981*	0.0661	0.0498	0.412	-0.179	0.117
Land and buildings for collateral	0.1261**	0.0179	0.0988	0.103	0.0738	0.521
Market price research	-0.0377	0.481	-0.1301**	0.0313	0.0759	0.509
Competitors strategy research	0.0872	0.102	-0.0231	0.703	0.216*	0.0572
Have access to Local Level politicians	0.1643**	0.00200	0.2117**	0.000400	0.0907	0.430
Have access to Provincial Level politicians	0.1211*	0.0231	0.111*	0.0673	0.0175	0.879
Have access to Federal Level politicians	0.0996*	0.0621	0.0775	0.201	0.0200	0.862

Note: Correlations of these characteristics are with a variable which takes the value of 1 for HGFs and 0 for LGFs.

** is significant at the 5% level

* is significant at the 10% level

Table 5: Capability Characteristics of Higher-Growth Firms in Agro-Based Industries

Capability Characteristics	All N = 106 HGF = 53 LGF = 53		Small N = 83 HGF = 44 LGF = 39		Medium N = 23 HGF = 12 LGF = 11	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0	1	0.0268	0.810	0.4393**	0.0360
Factors allowing firm to become competitive: Inclusion of experienced partners	0.2225**	0.0219	0.148	0.182	0.371*	0.0815
Use Software (any operational purpose)	0.0969	0.323	-0.0385	0.730	0.4223**	0.0447
Difficult to Copy product	0.3595*	0.000200	0.2662*	0.0150	0.4808*	0.0202

Table 6: Capability Characteristics of Higher-Growth Firms in Manufacturing

Capability Characteristics	All N = 134 HGF = 67 LGF = 67		Small N = 97 HGF = 49 LGF = 48		Medium N = 37 HGF = 19 LGF = 18	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.2144**	0.0129	0.2284**	0.0244	0.0293	0.863
Learnt in an efficient organization before setting up	0.169*	0.0508	0.2254**	0.0264	0.0904	0.595
Engaged experienced people to set up systems	0.1836**	0.0337	0.155	0.131	0.227	0.176
Borrowing from BFIs at inception	0.3170**	0.000200	0.2874**	0.00430	0.243	0.148
Have working capital loans	0.2101**	0.0148	0.2370**	0.0194	0.4078**	0.0122
Factors allowing firm to become competitive: Hiring of trainers	0.147*	0.0904	0.0967	0.346	0.3799**	0.0204
Use Software (any operational purpose)	0.3172**	0.000200	0.106	0.299	-0.0855	0.615
Have registered Trademarks	0.2838**	0.000900	0.154	0.132	-0.190	0.260
Land and buildings for collateral	0.3043**	0.000400	0.3003**	0.00280	0.4808**	0.00260
Have Bank loan	0.2370**	0.00580	0.2466**	0.0149	0.4064**	0.0126
Government incentives tied with bank loans	0.149*	0.0856	0.138	0.179	0.165	0.330
Market price research	-0.101	0.247	-0.182*	0.0799	0	1
Have access to Local Level politicians	0.1807**	0.0367	0.3386**	0.000700	0.3278**	0.0476
Have access to Provincial Level politicians	0.2091**	0.0153	0.147	0.151	0.3389**	0.0402
Have access to Federal Level politicians	0.1903**	0.0276	0.169*	0.0989	0.227	0.177

Table 7: Capability Characteristics of Higher-Growth Firms in Tourism Sector

Capability Characteristics	All N = 112 HGF = 58 LGF = 54		Small N = 94 HGF = 48 LGF = 46		Medium N = 18 HGF = 9 LGF = 9	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0.2484**	0.00830	0.2723**	0.00790	0	1
Factors allowing firm to become competitive: Learning by Doing	0.3556**	0.000100	0.3399**	0.000800	0.6202**	0.00600
Factors allowing firm to become competitive: Hiring of trainers	0.2251**	0.0170	0.136	0.191	-0.224	0.372
Use Software (any operational purpose)	0.0495	0.604	0.0417	0.690	-0.5345**	0.0223
Good Road network	0.158*	0.0970	0.2039**	0.0487	0	1
Have registered Trademarks	0.0546	0.564	0.0226	0.829	-0.408*	0.0739
Have access to Local Level politicians	0.163*	0.0858	0.193*	0.0622	-0.111	0.661

Table 8: Capability Characteristics of Exporting Firms

Capability Characteristics	All N = 352 Export = 19 Non-export = 333		Small N = 274 Export = 10 Non-export = 264		Medium N = 78 Export = 9 Non-export = 69	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.0991*	0.0633	0.0468	0.441	0.2317**	0.0413
Learnt in an efficient organization before setting up	0.0434	0.417	-0.0573	0.345	0.2679**	0.0177
Engaged experienced people to set up systems	-0.0861	0.107	-0.0263	0.665	-0.2264**	0.0463
Borrowing from BFIs at inception	-0.0990*	0.0635	0.00380	0.950	-0.3612**	0.00120
Factors allowing firm to become competitive: Learning by Doing	-0.0884*	0.0976	-0.0742	0.221	-0.159	0.165
Customer involvement	0.0984*	0.0651	0.0613	0.312	0.195*	0.0874
Difficult to copy product	0.0781	0.143	0.0820	0.176	0.0401	0.727
Government incentives tied with bank loans	0.1945**	0.000200	0.1509**	0.0124	0.2909**	0.00980

Note: Correlations of these characteristics are with a variable that takes the value of 1 for exporting firms and 0 for non-exporting firms

Table 9: Capability Characteristics of Exporting Firms in Agro-based industries

Capability Characteristics	All N = 106 Export = 7 Non-export = 99		Small N = 83 Export = 4 Non-export = 79		Medium N = 23 Export = 3 Non-export = 20	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Skills and capabilities required were appropriate	0.184*	0.0595	0.3315**	0.00220	-0.0826	0.708
Engaged experienced people to set up systems	0.0760	0.439	0.2137**	0.0481	-0.210	0.374
Borrowing from BFIs at inception	-0.129	0.189	-0.0469	0.674	-0.371*	0.0815
Factors allowing firm to become competitive: Learning by Doing	0.172*	0.0779	0.146	0.179	0.176	0.457
Factors allowing firm to become competitive: Firm Partnerships	0.0718	0.464	0.2236**	0.0385	-0.210	0.374
Factors allowing firm to become competitive: Inclusion of experienced partners	0.166*	0.0895	-0.0293	0.789	0.327	0.160
Use Software (any operational purpose)	0.179*	0.0667	0.105	0.346	0.230	0.291
Difficult to copy product	0.2868**	0.00290	0.2635**	0.0161	0.310	0.149
Have registered Trademarks	0.143	0.144	-0.0136	0.903	0.405*	0.0555
Government incentives tied with bank loans	0.3301**	0.000500	0.3427**	0.00150	0.358*	0.0936

Table 10: Capability Characteristics of Exporting Firms in Manufacturing

Capability Characteristics	All N = 134 Export = 12 Non-export = 122		Small N = 97 Export = 6 Non-export = 91		Medium N = 37 Export = 6 Non-export = 31	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.2329**	0.00680	0.164	0.110	0.3301**	0.0460
Engaged experienced people to set up systems	-0.1937**	0.0249	-0.160	0.119	-0.268	0.109
Borrowing from BFIs at inception	-0.111	0.201	0.0569	0.580	-0.4520**	0.00500
Factors allowing firm to become competitive: Learning by Doing	-0.3117**	0.000200	-0.3200**	0.00140	-0.281	0.0914
Use Software (any operational purpose)	0.157	0.0699	0.00120	0.991	0.236	0.160
Customer involvement	0.2999**	0.000400	0.2648**	0.00880	0.3432**	0.0375
Government incentives tied with bank loans	0.125	0.151	-0.0599	0.560	0.319*	0.0542

Summary of Findings

A. CHARACTERISTICS OF HIGHER-GROWTH FIRMS

Organizational capabilities

Theory and cross-country evidence suggest that setting up a firm with good organizational and technical knowledge at the outset is a determinant of success. Once the initial set up has happened, further adaptation of systems takes place continuously through ongoing trial and error and adaptation processes. Learning by doing can further improve organizational structures and technical capabilities.

Our survey shows that ***engaging experienced people from other firms at the time the firm was set up*** was the single most significant factor associated with higher growth. This characteristic is significant when we look at all firms together, and also when we do the same for small firms and medium firms separately. It is also strongly associated with higher growth in the group of all manufacturing firms and all firms in tourism-related services as well as in the group of medium-sized agro-based industries. The significance of this association across all firms, and in so many different subgroups of firms, makes us confident that this association is indeed significant.

As we discussed in the last section, transferring organizational know-how to new firms at the outset has been an important determinant of success in other regional contexts. The validation of this expectation in our survey suggests that policy should seriously examine how to transfer practical organizational knowledge of operating a competitive SME of that type to new entrants. The relevant knowledge here is not general managerial knowledge or business support (we will later look at the significance of buying consultancy services). What seems to be important instead is the *specific* organizational knowledge of delivering a particular product or service that comes from experience in a firm of a particular type. These linkages are a little more difficult than delivering general business services, but the additional gain may be very large. It is certainly something that should be tested further in the field.

Owners learning in a competitive organization of the same type before setting up their own firm is another route through which organizational knowledge is transferred. But in Nepal it was only associated with success in small firms and that too, quite weakly. However, in manufacturing, success was significantly associated with prior owner experience for the group of all manufacturing and small manufacturing firms, but not for medium-sized manufacturing firms. These mixed results are not surprising. Nepal does not already have many competitive SMEs that can serve as incubators for potential local entrepreneurs to acquire organizational knowledge, particularly knowledge about running larger competitive SMEs. However, hiring experienced personnel from neighbouring countries is a possibility and successful SMEs appear to have relied on this route to transfer the initial organizational and technical knowledge.

Similarly, the ***inclusion of partners with experience of working in successful firms*** was important in some groups of firms and not others. It was associated with higher growth when all firms were pooled, and in medium-sized firms, but not in small firms. It was not significant when manufacturing and tourism were looked at separately, but it was

important in the agro-industrial sector. These weaker associations suggest that the prior experiences of owners and partners were not decisive in the Nepal context, possibly for the reasons discussed earlier, namely that not many competitive SMEs exist that can serve as entrepreneurial incubators for new firms.

Learning by doing as a mechanism through which competitiveness was improved was significantly associated with higher growth in all firms, as well as in small and medium firms separately. As discussed earlier, learning by doing can refer to both organizational learning as well as individual learning of skills and techniques. It was not possible to separate the two aspects of learning by doing in our survey questions. However, when we disaggregate firms by sector, we get a more complex picture. Learning by doing was strongly associated with growth in tourism-related SMEs. It was not significantly associated with higher growth in manufacturing or agro-industrial SMEs.

These findings too are not surprising. Most Nepali SMEs engage in some learning by doing: 270 out of our 352 said it was important for their success. But the association with success is weaker than getting experienced people to set up the firm. Learning by doing is a riskier way of discovering competitive organizational structures unless the firm was quite efficiently set up, to begin with. If there are too many organizational and technical weaknesses, learning by doing is unlikely to result in a competitive outcome. The weaker associations between learning by doing and performance are therefore not surprising, even if learning-by-doing is an important process and often effective.

Individual Skills

The results of firms **investing in skills training** show mixed results and the association disappears in many subgroups of firms. The hiring of trainers is significantly associated with higher growth when all firms are pooled, but the effect disappears when we look at small and medium-sized firms separately. This weakens our confidence in the strength of the association. Within manufacturing, it was significantly associated with success only in the case of medium-sized manufacturing firms. It was also significant for tourism SMEs, but not for small and medium-sized tourism SMEs separately. Hiring trainers was not associated with performance in any segment of agro-industrial SMEs.

These anomalous results suggest that training is only effective in some types of firms. Our prior theoretical expectation is that skills training is likely to be more effective in firms that already have sufficient organizational capabilities to put trained workers to full use (Khan 2019). The anomalous associations in our survey could reflect the fact that skills training is being picked up as significant in subgroups of firms that happened to be stronger in their organizational capabilities. This would result in a positive association with growth in some groups of firms, but not systematically for all firms in any sector or size category.

Innovation and Research

Self-reported innovation and research characteristics of firms were not associated with growth. This is not at all surprising given that Nepal is a developing country and SME growth has to be largely based on successful imitation.

Registered trademarks were not very significant, showing a weak association with better performance when all firms are pooled, but the association disappears when we look at small

or medium firms separately. Registered trademarks were significant for all manufacturing firms pooled together, but the association disappears when we look at small and medium manufacturing firms separately. These mixed results suggest that the association is weak.

Investments in *market research* or in *discovering competitors' strategies* were **not** associated with better performance in general and for most segments of SMEs. Investing in consultants or other processes to discover competitor strategies was weakly associated with higher-growth in medium-sized SMEs, but the effects disappear when manufacturing, agro-based industries and tourism services are looked at separately. This result is important because these were the only business services that the typical SMEs in Nepal appear to purchase, and at least in our sample, the firms that purchased these services were not distinguished by better performance.

A firm's self-reported *ability to innovate to devise new ways to compete with competitors* was associated with better performance for all pooled firms and medium-sized firms but not small firms. The association disappeared when we looked at sectors separately.

These anomalous observations about the limited significance of innovations to remain competitive against competitors are interesting. It suggests that Nepali SMEs are generally operating in fragmented markets and niche sectors. In the next section, we discuss the issue of product specificity and market fragmentation in Nepali markets.

Market Power and Product Specificity

The weak association of success with indicators of competitive effort makes more sense when we look at another characteristic of successful Nepali SMEs. This is the product-specificity of many products or services. A product or service is *specific* if it is not easy for other firms to copy or imitate the product. Examples would be a restaurant in a prime location for tourists, an agro-based firm that produces a specific product for nearby hotels, an engineering operation that provides or repairs specific parts for a bigger firm, and so on.

Interestingly, *product specificity* was a very significant characteristic associated with all high-growth Nepali SMEs, as well as small and medium SMEs looked at separately. The significance is lower when sectors are looked at separately, but it is significant for all sizes of agro-industrial SMEs.

The fact that some element of product specificity is associated with high-growth Nepali SMEs is consistent with Nepal having successful firms in niche markets but not yet a broad base of firms competitively producing standardized products ('commodities') like garments or shoes.

This can also help explain some of the weak associations between high growth and learning by doing, or skills training. If success is to some extent related to producing niche products, then productivity and efficiency may be less important for sustaining growth. Productivity and efficiency become important when there is more intense competition.

We expect the product specificity advantage will become less important as Nepal moves into more generalized production of competitively produced products and services, as it must if it is to access wider markets.

Financing and Access to Finance

Borrowing from banks at inception is associated with higher growth when all firms are pooled, and for small firms, but not for medium-sized firms. At the sectoral level, it was only important in the manufacturing sector, but only for all manufacturing firms and small manufacturing firms, not for medium-sized manufacturing firms.

Access to ***working capital loans*** is also associated with better performance. It is significant for all firms, and all small firms, but not for all medium-sized firms. The significance is lower when sectors are looked at separately: it is there for manufacturing firms, but not in the other two sectors.

Preferential loans with different types of government subsidies built into the interest rate were not associated with success when all firms are pooled. However, it shows up as significant for the pooled group of manufacturing firms (but not small and medium-sized manufacturing firms separately). The association is therefore weak, but interest rate subsidies turn out to be much more significant for exporting firms as we will discuss later.

Possession of land or buildings as collateral was significantly associated with better performance for manufacturing firms of all sizes, and not in other sectors.

The anomalous results for the different financing capability indicators suggest that access to finance does not operate as a constraint on its own. Firms that were able to overcome organizational and learning constraints were more likely to have higher growth than firms that only had collateral and finance but did not have other capabilities necessary for improving productivity. These factors can explain why the association between performance and finance is weaker on its own.

Infrastructure

Being ***located near good road networks*** was associated with higher growth for all firms, and all small firms, but not medium-sized firms. This is probably because few medium-sized firms would be located far from road networks anyway, and the more successful ones would not be distinguished by this characteristic. At the sectoral level, access to good roads is only significantly associated with higher growth for tourism-related SMEs.

The ***use of software*** was only associated with better performance in manufacturing firms, but not in other sectors or size groups, and not for all firms pooled together. This too is not surprising given the overall weakness of Nepali SMEs and the relatively simple production processes they use. A poorly organized firm or a firm engaged in simple production processes may not necessarily gain a significant growth advantage by using the software.

Political Access

Political access turned out to be a very important characteristic associated with higher growth across our sample.

Access to local politicians was significantly associated with higher growth when all firms are pooled. At a sectoral level access to local politicians is most strongly associated with higher-growth manufacturing firms, when all manufacturing firms are pooled, and also when small and medium manufacturing firms are looked at separately. For tourism-related

SMEs, access to local politicians was the only political access that was significantly associated with higher growth. No type of political access was important for agro-based SMEs.

Access to provincial politicians was significantly associated with higher growth in all firms and all small firms. It was significantly associated with higher growth in all manufacturing firms and particularly significant for medium-sized manufacturing firms. High-growth SMEs in other sectors were not associated with access to provincial politicians. The importance of provincial sphere is clearly important for coordination, and we are not surprised that the association is therefore strongest for medium-sized manufacturing firms. As other research we are doing on the political settlement of Nepal shows, the provincial sphere is critical for making federalism effective. Strengthening the information and coordination that provincial politicians and the provincial sphere can offer SMEs, particularly medium-sized manufacturing SMEs, can be a win-win approach for simultaneously strengthening the critical provincial sphere of governance and the performance of SMEs.

Access to federal politicians was weakly associated with higher growth in the pooled sample of all firms but disappeared in small and medium firms looked at separately. At a sectoral level, it was only significant for manufacturing firms, but not for medium-sized manufacturing firms looked at separately.

B. CHARACTERISTICS OF EXPORTING FIRMS

Very few firms reported export success. Only 19 firms in our sample were exporting, of which 10 were small and 9 were medium-sized. Nevertheless, by looking at characteristics that differentiated this group from other SMEs we found some further interesting associations.

Organizational Capabilities and Skills

Some characteristics of successful exporting SMEs were similar to high-growth ones. **Previous experience of owners in the sector** distinguished exporting firms from other firms, and the association was more significant for medium-sized exporting firms. At the sectoral level, this was significant for manufacturing exporters, and again particularly for medium-sized manufacturing exporters.

Learning in another successful firm before setting up own firm was significant for medium-sized exporting firms, but not others.

Engaging people from more successful firms to set up the firm was not significant except in small exporting firms. The weaker associations of engaging personnel with experience with export success probably reflect the characteristics of our small sample. We know from the last two correlations that successful medium-sized exporters had owners with experience in other firms, so they did not need to hire people from more competitive firms to help set up their firms. Nevertheless, these characteristics together suggest that exporters are similar to high-growth firms in benefiting from properly setting up their initial organizations with the help of experienced people from similar firms, whether as employees or as owners.

In contrast to high-growth firms, **Learning by Doing** was not significant or even *negatively* associated with export firms relative to other SMEs. **Skills training and trainers** were not significantly associated with any segment of exporting firms.

We interpret these findings as follows. Keeping in mind the very small sample of exporting firms, this sample may have had sufficiently experienced owners at the outset (shown by the first set of associations) and did not need learning by doing or the employment of other experienced people to set up the firm. These findings are therefore likely to be characteristics of this specific small sample.

Market Power and Product Specificity

Having *specific and hard-to-copy products* is less significant as a characteristic of exporters. It is not significant for all exporting firms taken together and not significant for manufacturing exporters. But it was significantly associated with agro-industry exporters and particularly small-sized agro-industry exporters. The latter was clearly in niche markets, but the overall results support our expectation that market power cannot be relied on by developing countries' exporting SMEs as a source of an advantage given that developing countries do not generally produce high-technology products and services.

Financing and Access to Finance

Borrowing from banks at inception was *negatively* associated with exporting firms relative to the average SME. This is true for all export firms together, but also for manufacturing and agro-industrial SMEs looked at separately. This association is likely to be spurious and probably due to our small sample of exporting SMEs appearing to have high capability owners at the outset who were possibly less reliant on bank credit than the average SME.

A correlation that was a real discovery was the finding that the *strongest single variable associated with all exporting firms, in all size categories and in both agro-based industries and manufacturing was access to preferential loans*. These are loans where government incentives are linked to bank loans in the form of lower interest rates. This association is very interesting. There are two contrary but plausible explanations with different policy implications.

First, it is possible that exporting firms were more productive and competitive than the other SMEs, to begin with. As a result, they were more likely to access preferential loans and convert these into profitable export activities.

But secondly, it is more likely that Nepali SMEs face significant competitive disadvantages when they try to export. This could be because of lower capabilities and competitiveness, but also higher transportation and transaction costs, an unfavourable exchange rate, and so on. If so, exporting success requires access to explicit or hidden subsidies and almost all exporting firms appear to have access to such subsidies.

The implication of the second possibility is that exporting firms are not yet sufficiently competitive with reference to their competitors, particularly given the other pricing disadvantages that they face. In the longer term, successful exporting may require substantial improvements in organizational capabilities and productive efficiency even if the immediate path into exporting is based on different types of subsidies. The policy implications of the two alternative explanations are obviously different. The general characteristics of Nepali SMEs suggest that the second possibility is more plausible.

Value Chains and Customer Involvement

Customer involvement as a factor that led to product improvements was significant for all exporting firms and medium-sized ones, and at the sectoral level, it was significantly associated with all sizes of manufacturing export firms. This is an indication of the importance of supply chain upgrading, with international buyers helping SME suppliers improve their products and maintain quality.

Political Access

In stark contrast to high-growth domestic market-oriented firms, *political access* was *not* a distinguishing characteristic of exporting firms. This does not mean that exporting firms were not politically connected. It simply means that they were not more politically connected than the average non-exporting firm.

6. Conclusions

The analysis in this paper offers an evidence-based starting point for designing policies to support SME development in Nepal. Higher-growth Nepali SMEs demonstrate that it is possible to achieve better firm performance in Nepal despite weaknesses in the overall business environment. Our survey identified some of the most important capabilities and characteristics *associated* with better SME performance in Nepal. This is an important first step in designing effective support strategies for SME development in Nepal.

The identification of important characteristics of better-performing SMEs in Nepal does not *prove* that strengthening these characteristics will improve overall SME performance. Policies to support SMEs in Nepal need to trial interventions to strengthen some of these capabilities to establish the *efficacy* of specific policies before they are scaled up. Our research is important as a first step in helping to narrow down the identification of the types of interventions that are likely to be effective for trialling and scaling up to support SME development in Nepal.

- 1) Setting up firms with sound organizational and technical knowledge at the outset was the characteristic most strongly associated with high growth. This is consistent with international evidence on the importance of strong organizational capabilities for achieving competitiveness. Higher-growth Nepali SMEs were more likely to employ *personnel from successful firms of the same type when setting up the firm* and were more likely to have *owners with experience of working in successful firms*. The policy implication is that support policies for SMEs should seek to provide organizational and technical support when firms are being set up using *personnel with direct experience working in a similar type of SME*. This is more challenging than the provision of general business support services, but there is little evidence of general business services being associated with success.
- 2) Investments in *skills training* have mixed associations with better performance and are only associated with better performance in some groups of firms and not others. Evidence from other countries also shows that skills training is only likely to raise productivity and competitiveness if a firm already has sufficient organizational capabilities to use these skills profitably. Our conversations with SME owners in Nepal show that some of the most important types of technical skills required by SMEs involve *tacit knowledge* of actual processes, and these are best supplied by personnel from other SMEs with direct knowledge of processes. We came across successful SMEs that acquired the requisite tacit knowledge using experienced workers from similar SMEs in India or by watching YouTube videos of practical processes that they were unable to otherwise master. As with organizational knowledge, *tacit knowledge about technical processes is best transferred by personnel with direct experience of working in successful SMEs delivering the same product or service*.
- 3) Higher-growth Nepali SMEs are more likely to have *market power* because their products or services were *hard to copy*. This is not necessarily a problem for already existing SMEs, but for Nepal to break into broader markets *requires strategies for raising the*

competitiveness of firms providing more standardized products and services. This includes the tourist industry where Nepal needs to increasingly draw tourists who are not already committed to visiting Nepal. This is likely to involve matching or improving upon the price and quality offered by regional competitors in tourism.

- 4) *Access to finance* was associated with higher growth but the relationships were less strong than we might expect. *Initial access to loans and subsequent access to working capital was associated with higher growth in the pooled sample of firms and in small firms*, but not medium-sized firms. Firm capabilities were probably more important for medium-sized firms so that simply getting access to finance was not sufficient for high growth. From a policy perspective, *combining access to finance with effective strategies for improving organizational capabilities and skills is likely to be necessary.*
- 5) Finally, the *political access of SMEs to local and provincial government officials* was significantly associated with high growth. Conversations with SME owners suggest that local and provincial governments are important in providing access to information about government support programmes and advice on how to navigate complicated procedures. *Developing the provincial government's capabilities for coordinating support to SMEs could be a very important way of working in alignment with the already existing SME demand for information and support from provincial governments.*

Despite the small number of exporting firms in our survey, we identify a few characteristics that distinguished exporting firms from others.

- 6) The *prior experience of owners working in successful firms* was strongly associated with export success. This again highlights the *importance of setting up the firm with strong organizational capabilities.* We picked up *weaker learning by doing effects*, but we believe this is explained by the stronger initial organizational capabilities in our small sample of exporting firms.
- 7) *Access to preferential (government incentive-backed) loans* was the strongest distinguishing characteristic of almost every category of export-oriented firms. This was not the case with higher-growth firms. The most likely interpretation is that *Nepali exporters are not yet sufficiently competitive and need different types of subsidies to offset their lower productivity*, and other systemic disadvantages like high transport costs, overvalued exchange rates, and so on. Further research on the prices and qualities of exporting firms would be necessary to show how important access to different types of subsidies is for export success.
- 8) *Customer input* was a significant characteristic of exporting firms, but this was not a factor in the average high-growth firm. *Buyer/customer/OEM engagement with suppliers is one of the productivity-enhancing advantages of insertion into global value chains.* International customers can set quality benchmarks and provide technical assistance to meet these standards. The development of these links is a practical way of incrementally enhancing firm competitiveness. But most Nepali SMEs will need to have support to develop sufficient capabilities and competitiveness to enter exporting value chains in the first place.

Appendix A – Tetrachoric Correlations

Table A.1: Capability Characteristics of All Higher-Growth Firms

Capability Characteristics	All N = 352 HGF = 176 LGF = 176		Small N = 274 HGF = 137 LGF = 137		Medium N = 78 HGF = 40 LGF = 38	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Learnt in an efficient organization before setting up	0.136	0.142	0.162	0.126	0.0161	1
Engaged experienced people to set up systems	0.2488**	0.00760	0.2941**	0.00560	0.350*	0.0798
Borrowing from BFIs at inception	0.2354**	0.00670	0.2013**	0.0473	0.161	0.497
Have working capital loans	0.1904**	0.0305	0.2417**	0.0146	0.117	0.638
Factors allowing firm to become competitive: Learning by Doing	0.2198**	0.0121	0.3345**	0.000600	0.329*	0.0956
Factors allowing firm to become competitive: Hiring of trainers	0.3005**	0.00260	0.171	0.183	0.0633	0.809
Factors allowing firm to become competitive: Inclusion of experienced partners	0.219	0.137	0.189	0.317	0.506	0.109
Devised way to compete	0.152	0.104	0.0418	0.785	0.4398**	0.0132
Difficult to Copy product	0.2615**	0.00240	0.189*	0.0635	0.4650**	0.0122
Good Road network	0.155	0.101	0.2592**	0.0144	0.141	0.485
Have registered Trademarks	0.160*	0.0843	0.0841	0.493	-0.278	0.174
Land and buildings for collateral	0.2033**	0.0240	0.158	0.131	0.125	0.607
Market price research	-0.0977	0.638	-0.393*	0.0602	0.162	0.712
Competitors strategy research	0.255	0.171	-0.0771	1	0.506	0.109
Have access to Local Level politicians	0.2659**	0.00290	0.3412**	0.000700	0.147	0.477
Have access to Provincial Level politicians	0.2348**	0.0333	0.224*	0.0980	0.0308	1
Have access to Federal Level politicians	0.208*	0.0885	0.173	0.285	0.0362	1

Note: Correlations of these characteristics are with a variable which takes the value of 1 for HGFs and 0 for LGFs.

** is significant at the 5% level

* is significant at the 10% level

Table A.2: Capability Characteristics of Higher-Growth Firms in Agro-based industries

Capability Characteristics	All N = 106 HGF = 53 LGF = 53		Small N = 83 HGF = 44 LGF = 39		Medium N = 23 HGF = 12 LGF = 11	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0	1	0.0473	1	1*	0.0932
Factors allowing firm to become competitive: Inclusion of experienced partners	1*	0.0566	1	0.496	1	0.217
Use Software (any operational purpose)	0.154	0.425	-0.0639	0.810	0.673*	0.0686
Difficult to Copy product	0.5362**	0.000400	0.4111**	0.0253	0.6947**	0.0361

Table A.3: Capability Characteristics of Higher-Growth Firms in Manufacturing

Capability Characteristics	All N = 134 HGF = 67 LGF = 67		Small N = 97 HGF = 49 LGF = 48		Medium N = 37 HGF = 19 LGF = 18	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.3357**	0.0208	0.3603**	0.0343	0.0461	1
Learnt in an efficient organization before setting up	0.267*	0.0747	0.3532**	0.0365	0.144	0.737
Engaged experienced people to set up systems	0.305*	0.0525	0.257	0.174	0.378	0.269
Borrowing from BFIs at inception	0.4811**	0.000400	0.4435**	0.00670	0.372	0.194
Have working capital loans	0.3252**	0.0235	0.3643**	0.0255	0.6040**	0.0201
Factors allowing firm to become competitive: Hiring of trainers	0.259	0.136	0.172	0.453	0.6613**	0.0422
Use Software (any operational purpose)	0.5158**	0.000400	0.200	0.413	-0.135	0.743
Have registered Trademarks	0.4642**	0.00180	0.281	0.191	-0.294	0.330
Land and buildings for collateral	0.4658**	0.000700	0.4569**	0.00410	0.7184**	0.00510
Have Bank loan	0.3770**	0.0100	0.4059**	0.0228	0.5965**	0.0217
Government incentives tied with bank loans	0.371	0.165	0.378	0.362	0.352	0.604
Market price research	-0.268	0.441	-1	0.117	-0.0197	1
Have access to Local Level politicians	0.297*	0.0565	0.5488**	0.00130	0.517*	0.0789
Have access to Provincial Level politicians	0.4808**	0.0304	0.341	0.268	1	0.105
Have access to Federal Level politicians	0.448*	0.0547	0.441	0.204	0.456	0.340

Table A.4: Capability Characteristics of Higher-Growth Firms in Tourism Sector

Capability Characteristics	All N = 112 HGF = 58 LGF = 54		Small N = 94 HGF = 48 LGF = 46		Medium N = 18 HGF = 9 LGF = 9	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0.2484**	0.00830	0.2723**	0.00790	0	1
Factors allowing firm to become competitive: Learning by Doing	0.3556**	0.000100	0.3399**	0.000800	0.6202**	0.00600
Factors allowing firm to become competitive: Hiring of trainers	0.2251**	0.0170	0.136	0.191	-0.224	0.372
Use Software (any operational purpose)	0.0495	0.604	0.0417	0.690	-0.5345**	0.0223
Good Road network	0.158*	0.0970	0.2039**	0.0487	0	1
Have registered Trademarks	0.0546	0.564	0.0226	0.829	-0.408*	0.0739
Have access to Local Level politicians	0.163*	0.0858	0.193*	0.0622	-0.111	0.661

Table A.5: Capability Characteristics of Exporting Firms

Capability Characteristics	All N = 352 Export = 19 Non-export = 333		Small N = 274 Export = 10 Non-export = 264		Medium N = 78 Export = 9 Non-export = 69	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.249*	0.0869	0.136	0.514	0.448*	0.0631
Learnt in an efficient organization before setting up	0.0850	0.520	0.206	0.366	-1	1
Engaged experienced people to set up systems	0.112	0.457	-0.189	0.503	0.5048**	0.0267
Borrowing from BFIs at inception	-0.284	0.178	-0.0880	1	-1*	0.0544
Factors allowing firm to become competitive: Learning by Doing	-0.277*	0.0918	0.0113	1	-1.0000**	0.00230
Customer involvement	-0.00430	1	0.0400	1	-0.132	0.715
Difficult to copy product	-0.224	0.146	-0.214	0.327	-0.314	0.262
Government incentives tied with bank loans	0.0162	1	0.0136	1	-0.0132	1

Note: Correlations of these characteristics are with a variable that takes the value of 1 for exporting firms and 0 for non-exporting firms

Table A.6: Capability Characteristics of Exporting Firms in Agro-based industries

Capability Characteristics	All N = 106 Export = 7 Non-export = 99		Small N = 83 Export = 4 Non-export = 79		Medium N = 23 Export = 3 Non-export = 20	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Skills and capabilities required were appropriate	0.491	0.187	0.710*	0.0946	-1	1
Engaged experienced people to set up systems	0.162	0.675	-0.0893	1	0.547	0.209
Borrowing from BFIs at inception	0.130	0.633	0.377	0.204	-1	1
Factors allowing firm to become competitive: Learning by Doing	-0.358	0.250	-0.136	1	-1	0.217
Factors allowing firm to become competitive: Firm Partnerships	0.301	0.421	0.136	1	1	0.539
Factors allowing firm to become competitive: Inclusion of experienced partners	1*	0.0959	1	0.291	1	1
Use Software (any operational purpose)	0.131	0.511	0.401	0.264	-1	1
Difficult to copy product	0.248	0.285	0.317	0.339	-0.0243	1
Have registered Trademarks	0.339	0.294	-1	1	0.451	0.356
Government incentives tied with bank loans	0.264	0.419	0.251	0.580	0.0943	1

Table A.7: Capability Characteristics of Exporting Firms in Manufacturing

Capability Characteristics	All N = 134 Export = 12 Non-export = 122		Small N = 97 Export = 6 Non-export = 91		Medium N = 37 Export = 6 Non-export = 31	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.4914**	0.0111	0.385	0.184	0.605*	0.0752
Engaged experienced people to set up systems	-1.0000**	0.0363	-1	0.182	-1	0.162
Borrowing from BFIs at inception	-0.259	0.235	0.139	0.676	-1.0000**	0.00800
Factors allowing firm to become competitive: Learning by Doing	-0.6919**	0.000400	-1.0000**	0.00280	-0.538	0.180
Use Software (any operational purpose)	0.329	0.0908	0.00350	1	0.468	0.206
Customer involvement	1.0000**	0.000300	1.0000**	0.0109	1*	0.0645
Government incentives tied with bank loans	0.316	0.186	-1	1	0.576	0.115

Appendix B – Pearson's Correlations

Table B.1: Capability Characteristics of All Higher-Growth Firms

Capability Characteristics	All N = 352 HGF = 176 LGF = 176		Small N = 274 HGF = 137 LGF = 137		Medium N = 78 HGF = 40 LGF = 38	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Learnt in an efficient organization before setting up	0.0843	0.115	0.100*	0.0979	0.00990	0.932
Engaged experienced people to set up systems	0.1482**	0.00530	0.1749**	0.00370	0.212*	0.0625
Borrowing from BFIs at inception	0.1499**	0.00480	0.1272**	0.0354	0.103	0.371
Have working capital loans	0.1210**	0.0232	0.1546**	0.0104	0.0727	0.527
Factors allowing firm to become competitive: Learning by Doing	0.1393**	0.00890	0.2150**	0.000300	0.207*	0.0685
Factors allowing firm to become competitive: Hiring of trainers	0.1664**	0.00170	0.0903	0.136	0.0385	0.738
Factors allowing firm to become competitive: Inclusion of experienced partners	0.0902*	0.0912	0.0756	0.212	0.216*	0.0572
Devised way to compete	0.0926*	0.0826	0.0248	0.683	0.2878**	0.0106
Difficult to Copy product	0.1671**	0.00170	0.1195**	0.0481	0.3078**	0.00610
Good Road network	0.0937*	0.0793	0.1555**	0.00990	0.0877	0.445
Have registered Trademarks	0.0981*	0.0661	0.0498	0.412	-0.179	0.117
Land and buildings for collateral	0.1261**	0.0179	0.0988	0.103	0.0738	0.521
Market price research	-0.0377	0.481	-0.1301**	0.0313	0.0759	0.509
Competitors strategy research	0.0872	0.102	-0.0231	0.703	0.216*	0.0572
Have access to Local Level politicians	0.1643**	0.00200	0.2117**	0.000400	0.0907	0.430
Have access to Provincial Level politicians	0.1211*	0.0231	0.111*	0.0673	0.0175	0.879
Have access to Federal Level politicians	0.0996*	0.0621	0.0775	0.201	0.0200	0.862

Note: Correlations of these characteristics are with a variable which takes the value of 1 for HGFs and 0 for LGFs.

** is significant at the 5% level

* is significant at the 10% level

Table B.2: Capability Characteristics of Higher-Growth Firms in Agro-based industries

Capability Characteristics	All N = 106 HGF = 53 LGF = 53		Small N = 83 HGF = 44 LGF = 39		Medium N = 23 HGF = 12 LGF = 11	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0	1	0.0268	0.810	0.4393**	0.0360
Factors allowing firm to become competitive: Inclusion of experienced partners	0.2225**	0.0219	0.148	0.182	0.371*	0.0815
Use Software (any operational purpose)	0.0969	0.323	-0.0385	0.730	0.4223**	0.0447
Difficult to Copy product	0.3595*	0.000200	0.2662*	0.0150	0.4808*	0.0202

Table B.3: Capability Characteristics of Higher-Growth Firms in Manufacturing

Capability Characteristics	All N = 134 HGF = 67 LGF = 67		Small N = 97 HGF = 49 LGF = 48		Medium N = 37 HGF = 19 LGF = 18	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.2144**	0.0129	0.2284**	0.0244	0.0293	0.863
Learnt in an efficient organization before setting up	0.169*	0.0508	0.2254**	0.0264	0.0904	0.595
Engaged experienced people to set up systems	0.1836**	0.0337	0.155	0.131	0.227	0.176
Borrowing from BFIs at inception	0.3170**	0.000200	0.2874**	0.00430	0.243	0.148
Have working capital loans	0.2101**	0.0148	0.2370**	0.0194	0.4078**	0.0122
Factors allowing firm to become competitive: Hiring of trainers	0.147*	0.0904	0.0967	0.346	0.3799**	0.0204
Use Software (any operational purpose)	0.3172**	0.000200	0.106	0.299	-0.0855	0.615
Have registered Trademarks	0.2838**	0.000900	0.154	0.132	-0.190	0.260
Land and buildings for collateral	0.3043**	0.000400	0.3003**	0.00280	0.4808**	0.00260
Have Bank loan	0.2370**	0.00580	0.2466**	0.0149	0.4064**	0.0126
Government incentives tied with bank loans	0.149*	0.0856	0.138	0.179	0.165	0.330
Market price research	-0.101	0.247	-0.182*	0.0799	0	1
Have access to Local Level politicians	0.1807**	0.0367	0.3386**	0.000700	0.3278**	0.0476
Have access to Provincial Level politicians	0.2091**	0.0153	0.147	0.151	0.3389**	0.0402
Have access to Federal Level politicians	0.1903**	0.0276	0.169*	0.0989	0.227	0.177

Table B.4: Capability Characteristics of Higher-Growth Firms in Tourism Sector

Capability Characteristics	All N = 112 HGF = 58 LGF = 54		Small N = 94 HGF = 48 LGF = 46		Medium N = 18 HGF = 9 LGF = 9	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Engaged experienced people to set up systems	0.2484**	0.00830	0.2723**	0.00790	0	1
Factors allowing firm to become competitive: Learning by Doing	0.3556**	0.000100	0.3399**	0.000800	0.6202**	0.00600
Factors allowing firm to become competitive: Hiring of trainers	0.2251**	0.0170	0.136	0.191	-0.224	0.372
Use Software (any operational purpose)	0.0495	0.604	0.0417	0.690	-0.5345**	0.0223
Good Road network	0.158*	0.0970	0.2039**	0.0487	0	1
Have registered Trademarks	0.0546	0.564	0.0226	0.829	-0.408*	0.0739
Have access to Local Level politicians	0.163*	0.0858	0.193*	0.0622	-0.111	0.661

Table B.5: Capability Characteristics of Exporting Firms

Capability Characteristics	All N = 352 Export = 19 Non-export = 333		Small N = 274 Export = 10 Non-export = 264		Medium N = 78 Export = 9 Non-export = 69	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.0991*	0.0633	0.0468	0.441	0.2317**	0.0413
Learnt in an efficient organization before setting up	0.0434	0.417	-0.0573	0.345	0.2679**	0.0177
Engaged experienced people to set up systems	-0.0861	0.107	-0.0263	0.665	-0.2264**	0.0463
Borrowing from BFIs at inception	-0.0990*	0.0635	0.00380	0.950	-0.3612**	0.00120
Factors allowing firm to become competitive: Learning by Doing	-0.0884*	0.0976	-0.0742	0.221	-0.159	0.165
Customer involvement	0.0984*	0.0651	0.0613	0.312	0.195*	0.0874
Difficult to copy product	0.0781*	0.143	0.0820	0.176	0.0401	0.727
Government incentives tied with bank loans	0.1945**	0.000200	0.1509**	0.0124	0.2909**	0.00980

Note: Correlations of these characteristics are with a variable that takes the value of 1 for exporting firms and 0 for non-exporting firms

Table B.6: Capability Characteristics of Exporting Firms in Agro-based industries

Capability Characteristics	All N = 106 Export = 7 Non-export = 99		Small N = 83 Export = 4 Non-export = 79		Medium N = 23 Export = 3 Non-export = 20	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Skills and capabilities required were appropriate	0.184*	0.0595	0.3315**	0.00220	-0.0826	0.708
Engaged experienced people to set up systems	0.0760	0.439	0.2137**	0.0481	-0.210	0.374
Borrowing from BFIs at inception	-0.129	0.189	-0.0469	0.674	-0.371*	0.0815
Factors allowing firm to become competitive: Learning by Doing	0.172*	0.0779	0.146	0.179	0.176	0.457
Factors allowing firm to become competitive: Firm Partnerships	0.0718	0.464	0.2236**	0.0385	-0.210	0.374
Factors allowing firm to become competitive: Inclusion of experienced partners	0.166*	0.0895	-0.0293	0.789	0.327	0.160
Use Software (any operational purpose)	0.179*	0.0667	0.105	0.346	0.230	0.291
Difficult to copy product	0.2868**	0.00290	0.2635**	0.0161	0.310	0.149
Have registered Trademarks	0.143	0.144	-0.0136	0.903	0.405*	0.0555
Government incentives tied with bank loans	0.3301**	0.000500	0.3427**	0.00150	0.358*	0.0936

Table B.7: Capability Characteristics of Exporting Firms in Manufacturing

Capability Characteristics	All N = 134 Export = 12 Non-export = 122		Small N = 97 Export = 6 Non-export = 91		Medium N = 37 Export = 6 Non-export = 31	
	Correlation coefficient	P-Value	Correlation coefficient	P-Value	Correlation coefficient	P-Value
Had previous experience in sector before	0.2329**	0.00680	0.164	0.110	0.3301**	0.0460
Engaged experienced people to set up systems	-0.1937**	0.0249	-0.160	0.119	-0.268	0.109
Borrowing from BFIs at inception	-0.111	0.201	0.0569	0.580	-0.4520**	0.00500
Factors allowing firm to become competitive: Learning by Doing	-0.3117**	0.000200	-0.3200**	0.00140	-0.281	0.0914
Use Software (any operational purpose)	0.157	0.0699	0.00120	0.991	0.236	0.160
Customer involvement	0.2999**	0.000400	0.2648**	0.00880	0.3432**	0.0375
Government incentives tied with bank loans	0.125	0.151	-0.0599	0.560	0.319*	0.0542

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