

# SMALL AND MEDIUM ENTERPRISE SURVEY MYANMAR 2015

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The questionnaire was developed in consultation and cooperation with the implementing organisations GIZ, KfW Development Bank and the German Metrology Institute (PTB), which are responsible for designing and implementing various interventions within the German-Myanmar programme on sustainable economic development.

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## **EXECUTIVE SUMMARY**

#### **Background and objectives**

Since the transition process began in 2011, the Government of Myanmar has started to implement wide-ranging reforms with the aim of reducing poverty and increasing economic growth. A key role has been assigned to the private sector, which is almost exclusively composed of small and medium-sized enterprises (SMEs).

During the first government consultations between Myanmar and Germany in 2012, a decision was taken to resume bilateral cooperation with a sustainable economic development programme that particularly focuses on strengthening SMEs. Within this programme, a number of projects on private and financial sector development, vocational education, quality infrastructure and the mining sector are being implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, KfW Development Bank, the National Metrology Institute (PTB) and the Federal Institute for Geosciences and Natural Resources (BGR) together with Myanmar partners.

DEval was asked to support the implementing teams with regard to impact-oriented planning. DEval also conducted a baseline study which will serve as the basis for project planning and an impact evaluation after implementation. Due to incomplete, outdated and poor quality data, it was almost impossible to rely on existing evidence, so the decision was made to conduct a comprehensive baseline study. Aside from qualitative key informant interviews and a banking study, a core element of the baseline study is this SME survey, which focuses on SMEs' access to finance, business conditions, qualification needs and recruitment of staff, and the demand for and use of business development services. In total, around 2,500 SMEs were surveyed in 11 cities in Myanmar, namely Bago, Kale, Lashio, Mandalay, Mawlamyine, Monywa, Pathein, Pyay, Sagaing, Taunggyi and Yangon.

With its large coverage, this survey is one of the few recent and comprehensive data sources on SMEs in Myanmar. In order to add value, major findings were compared to those from two other important and recent data sources, i.e. the Myanmar Business Survey 2014 conducted by the Organisation for Economic Co-operation and Development (OECD), the United Nations Economic and Social Commission for Asia and the

Pacific (UNESCAP) and the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) and the World Bank Myanmar Enterprise Survey 2014.

#### Methodological approach

The design and focus of the SME survey were derived from an overall baseline concept. A questionnaire was developed to define key indicators based on the programme's theory of change. Cities were then selected according to criteria such as growth potential, socio-economic and ethnic composition, high density of SMEs and sectoral distribution.

As all available national registries were considered to be incomplete or outdated and more information on the number and situation of unregistered enterprises was required, a two-step sampling procedure was chosen. During a first phase, a block screening approach was applied. Within every city, blocks with high economic activity were chosen and basic information on all existing enterprises was collected. Based on this list, a sampling frame was constructed. In a second step, SMEs were randomly selected and surveyed using a questionnaire, which was developed in conjunction with project implementing agencies and Myanmar business experts. Data collection took place between December 2014 and March 2015.

#### **Main findings**

#### General characteristics of SMEs surveyed

Almost all the enterprises surveyed are either micro-sized (67%) or small (31%). Findings differ from the OECD Business Survey, which generally identified larger firms (only 35% were micro firms). Around 21% of the firms surveyed are unregistered. Of those registered, a clear majority stated that they were registered with a City Development Committee (Department of Development Affairs). Most firms have been operating for 10 years or more. It cannot be concluded from the findings that the transition process in Myanmar has, as yet, led to many more business start-ups.

Only around 25% of firms, most of them manufacturers, are located in industrial zones (IZs). Starting up in, or moving to, an industrial zone does not seem to be an attractive prospect. The firms surveyed tend not to be organised in business or sector associations. This again clearly differs from the OECD's findings,

according to which almost half the firms surveyed are members of an association.

Most revenue is generated in local markets, although SMEs of all sizes sell to other regions. The European Union (EU) is neither a relevant trading partner nor an export destination.

#### Staff composition and qualifications

Around 20% of business owners surveyed are female. Women seem to be underrepresented in the labour force but are evenly deployed in all positions (management, skilled, unskilled). In a few sectors such as textiles and retail, business owners are more likely to be women.

While most business owners seem to be fairly satisfied with the performance and qualifications of their staff, the general lack of skilled labour is considered an obstacle.

There is very little knowledge about vocational education and hardly any cooperation between SMEs and institutions for technical and vocational education and training (TVET). Again, differences with the OECD Business Survey were identified; according to the OECD data, 41% of surveyed businesses had cooperated with a TVET institution in the past.

The DEval data also indicates that a vocational education certificate does little to increase a person's chances of being hired as a skilled worker.

The vast majority of staff, particularly in management positions, are recruited through personal acquaintances and referrals.

#### Financial needs and services

Only around 20% of SMEs have an outstanding loan. Customers and relatives or friends are clearly the most common source of finance. Key factors are trust and longstanding relationships. Larger firms also regularly apply for loans from commercial banks. Land and buildings are usually used to satisfy collateral requirements.

Most SMEs have considerable additional funding needs and plan to apply for loans for business expansion. Business owners also seem to be open towards other sources of finance, if available. They are particularly interested in subsidised government loans. Almost half the firms regularly interact with banks for simple services such as current accounts and money transfers. Based on their experience, most firms are satisfied with their bank. Nonetheless, a large number of SMEs state that they do not need regular services from a bank.

#### **Business** conditions

Most business owners think that market conditions and the regulatory framework have improved for SMEs in recent years and will improve further, with larger firms being more optimistic than micro enterprises. Accordingly, the clear majority of SMEs expect to be positively affected by these developments and anticipate an increase in revenues next year.

Lack of skilled workers, high labour turnover, political instability and prices of raw materials are seen as the main obstacles to the development of around one third of SMEs. The comparison with OECD data shows diverging results: Firms are much more pessimistic in their assessment of the business environment. In addition to a lack of skilled workers and political instability, corruption is emphasised as a major obstacle to business activity.

#### Business development services

Less than half the business owners interviewed know about business development services. The larger the enterprise, the more likely it is that the business owner will have heard about these services and made use of them.

In the future, medium-sized enterprises would be most interested in management training and business plan development, small firms in quality management and business training, and micro enterprises in start-up support.

#### Conclusions

This SME survey provides the necessary data for an impact evaluation following implementation of the German-Myanmar programme on sustainable economic development. It also aims to inform decision-making by the Myanmar Government and donor organisations. The final baseline report will aggregate findings from a variety of sources and thus deliver even more important information.

The analysis presented in this report clearly shows that different methodological approaches and sampling methods can lead to highly divergent results. While DEval chose a resource intensive block screening approach and did not rely on any existing registers to generate data as close to reality as possible, OECD used registers from associations together with the sampling and conference methods. This led to greater inclusion of larger formal sector companies affiliated with business associations.

The findings on staff composition and qualifications show that businesses are generally unfamiliar with the TVET system and usually rely on in-house training. However, the majority are satisfied with the qualifications and performance of their workers. This will most likely change with increased international competition and a stronger focus on exports. Strengthening the TVET system should thus be understood as an investment in the future, preparing Myanmar workers and SMEs to meet these expected requirements.

According to the findings on financial needs and services, businesses do not identify any urgent problems and deficits. Most businesses have access to finance when needed and those that regularly interact with a bank are satisfied with its competence and services. Nonetheless, an increasing future demand for capital was identified. Moreover, firms are familiar with and demand only very simple services from banks. It is expected that the increasing need for capital and growing awareness of other financial services will push up demand, which can then only be satisfied by a properly functioning banking sector.

When businesses were asked to assess their business environment, opinions were generally positive. Most firms expect an increase in revenue next year. This is a good starting point for the development of the private sector and thus the Myanmar economy as a whole. Nonetheless, it also became clear that the regulatory framework is not yet considered supportive and opinions are divided on whether this will change in the near future. The data indicates that support in creating a business-friendly environment and reducing existing business obstacles is needed and should be addressed by donors.

Lastly, the findings on experience with business development services show that some – especially larger – firms have heard about these services, but relatively few have ever made use of them, probably because these services are not available or because business owners often regard them as irrelevant to their enterprise. Again, the data suggests that SMEs need better access to information about these services if demand is to increase.

Overall, many firms are satisfied with their current situation and environment. However, when considering the rapid changes resulting from increased internationalisation and competitiveness, demand for skills and for financial and business development services will certainly grow. The international donor community should support capacity development and prepare institutions to provide these services to the private sector.

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**References** 

## ABBREVIATIONS

#### **ASEAN**

Association of Southeast Asian Nations

#### **BDS**

**Business Development Services** 

#### BGR

Bundesanstalt für Geowissenschaften und Rohstoffe/Federal Institute for Geosciences and Natural Resources

#### BMZ

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung/Federal Ministry for Economic Cooperation and Development

#### **CEval**

Centrum für Evaluation/Center for Evaluation

#### **DEval**

Deutsches Evaluierungsinstitut der Entwicklungszusammenarbeit/ German Institute for Development Evaluation

#### DICA

Directorate of Investment and Company Administration

#### DISI

Directorate of Industrial Supervision and Inspection

#### EU

European Union

#### GIZ

Deutsche Gesellschaft für Internationale Zusammenarbeit/ German technical cooperation

#### ITC

**Industrial Training Center** 

#### 17

Industrial Zone

#### KfW

Kreditanstalt für Wiederaufbau/ KfW Development Bank

#### **OECD**

Organisation for Economic Cooperation and Development

#### PTB

Physikalisch-Technische Bundesanstalt/National Metrology Institute

#### SME

Small and Medium Enterprise

#### STC

Skills Training Center

#### **TVET**

Technical and Vocational Education and Training

#### **UMFCCI**

Union of Myanmar Chambers of Commerce and Industry

#### UNDP

United Nations Development Programme

#### **UNESCAP**

United Nations Economic and Social Commission for Asia and the Pacific

#### WB

World Bank

1.

INTRODUCTION

"My administration has concentrated on bringing about economic reforms from the ground up because economic development for the country is possible only when the private enterprises that constitute 90% of the country's economy develop (...). It is crucial for the private sector to be able to appreciate and understand the pivotal role it plays because the success of a nation's economy can only be seen through the success of its private sector." (U Thein Sein, President of Myanmar, 24 Feb 2014)

The overarching goals of the wide-ranging reform process initiated by the Government of Myanmar since 2011 are to achieve countrywide sustainable economic growth and reduce poverty. To this end, the Myanmar and German Governments decided to resume bilateral cooperation, with a comprehensive programme in the area of sustainable economic development, in 2012.

According to the Myanmar Government, more than 90% of the Myanmar economy is composed of private companies, particularly small and medium enterprises (SMEs). Consequently, both governments have identified SMEs as the main target group for the German-Myanmar programme. The programme consists of several projects in the three key intervention areas: the private sector development, financial sector development and vocational education<sup>1</sup>:

- The technical cooperation project on private sector development supports key private and public actors in creating an enabling environment for businesses, especially for SMEs. It also aims to improve cooperation between these players and strengthen the capacities of selected governmental, private and civil society actors.
- Two projects (technical and financial cooperation) deal with financial sector development. Capacity development measures for the Central Bank of Myanmar focus on creating and enforcing a regulatory framework and building human resources throughout the banking sector. In addition, several commercial banks were selected for in-depth cooperation with the aim of expanding the financial services available to SMEs.
- Two projects (technical and financial cooperation) deal with technical and vocational education and training

(TVET). At the policy level, the Comprehensive Education Sector Review is a joint initiative led by the Government of Myanmar and involving numerous donor institutions. German cooperation particularly focuses on the TVET sector and thus supports the government in implementing reforms toward a labour market oriented TVET system. The new National Skills Standards Authority, which deals with standardisation and accreditation, receives support until it is fully operational. Furthermore, intensive cooperation with selected training institutions such as the Industrial Training Center in Sinde aims to support pilot measures for curriculum development and teacher training. It also introduces innovative approaches which will be tested and possibly transferred to other institutions and regions. The financial sector project will support these processes with investment in rehabilitation, extension and equipment.

To ensure a focus on results from the outset, the German Institute for Development Evaluation (DEval) was commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) to advise the implementing agencies (GIZ, KfW, PTB and BGR) on the development of the programme theory and indicators and to conduct a comprehensive baseline study. Baseline data is essential for measuring impact as it is necessary to compare the pre- and post-intervention situation. As the primary intention was to use partners' own evidence and data as far as possible, existing data sources in Myanmar that could be used in planning the interventions and the baseline study were assessed as a first step. However, the level of reliable information on SMEs and the general environment for the private sector in Myanmar are poor. Existing national data sources are often of unreliable quality or very limited in scale and not able to satisfy the programme's information needs.

Efforts were also made to determine whether any relevant data on the three policy areas had already been collected, or whether donors planned to collect this data in the near future. It was found that various data collection activities were already under way. However, they did not meet the projects' information needs or provide comprehensive baseline data. For instance, existing or ongoing business surveys did not systematically include the perspective of the informal sector, which was

<sup>&</sup>lt;sup>1</sup> The programme comprises two additional smaller projects on strengthening quality infrastructure and sustainable development in the mining sector. These projects were planned later than the others. Due to their different scheduling and information needs, the survey only touches on them peripherally.

assumed to make up a significant share of SMEs in Myanmar and was therefore the main target group of the interventions. Moreover, none of the existing surveys are likely to undertake follow-up data collection – an important precondition for an impact evaluation. It was thus decided to conduct a SME survey as part of the overall baseline study.

The OECD-UNESCAP-UMFCCI Myanmar Business Survey 2014 and the World Bank Enterprise Survey 2014 were identified as the most meaningful and comprehensive current quantitative data sources. Although these surveys were planned and designed to meet different information needs, some overlaps in research interests and questions were identified. Despite their different approaches and samples, it was decided to compare results wherever possible and useful. The purpose is, on the one hand, to contribute to a more comprehensive picture of existing data on the business sector and, on the other hand, to identify congruent findings, but also contradictions which might indicate the need for additional research. It should be borne in mind, however, that this survey - unlike any other existing Myanmar business survey – is the only one that is not based on any register, but uses an approach which promises to generate an unbiased view of SMEs in Myanmar.

This report presents the results from the SME survey, which comprised standardised face-to-face interviews among approximately 2,500 SMEs in 11 cities². Data collection took place between December 2014 and March 2015. The aim of the survey was to systematically capture the situation of both formal and informal businesses with regard to access to finance, recruitment practices and staff qualifications, experience with business development services and assessment of the business environment. This SME survey primarily serves as information for the planning of development interventions and as a basis for impact monitoring after implementation of the German-Myanmar programme. It can also used by the Government of Myanmar, donor agencies and other institutions for programming decisions and further research.

The report will first present the methodological approach chosen for this SME survey (Chapter 2) and then continue with the presentation of the findings (Chapters 3 to 7).

The results from the comprehensive baseline study will be presented in a separate report, as the SME survey is only one of several instruments used to gather information. The survey collected quantitative data on the programme's main indicators, covering all key intervention areas from the perspective of business owners. Key informant interviews (expert panel) were also conducted to collect complementary qualitative data from government and donor representatives, academics and sector experts. For both data collection instruments, follow-up surveys will be conducted in around four years to measure and explain changes over time (see also Chapter 2 and Annex I). A banking survey was also conducted to address specific questions relating to this sector. Due to major changes in the TVET projects, no other data collection has taken place in this sector yet, but will be done in the near future.

2.

METHODOLOGICAL APPROACH AND DATA

#### 2.1

#### Approach and sampling procedure

During the planning of the German-Myanmar programme on sustainable economic development, different projects were assigned to the various implementing organisations. Result models and indicators were developed in conjunction with the first project teams (private sector development, financial sector development and vocational education).

In order to collect data about the projects' socio-economic and political conditions and indicators, a baseline concept was developed, which will also be used for an impact evaluation. With this approach, valid data for a methodologically sound and robust impact evaluation will be built up; this is unusual for many development cooperation projects.

The baseline concept was used to design data collection instruments, including this SME survey. The survey forms the first round of a business panel, and a follow-up survey is planned in around four years using the same design and including the same respondents. The main benefit of this longitudinal design is that it provides SME-related information on changes over time.

The decision to undertake this survey was made after consultation with other organisations that were planning business surveys in Myanmar. It was concluded that these surveys would not provide the data required as baseline information for the planned interventions, primarily for the following reasons:

- (i) It would not have been possible to generate specific data to inform the indicators of the German-Myanmar programme on sustainable economic development.
- (ii) After the first interviews with Myanmar experts and donor representatives, it became clear that no ongoing research project had attempted to systematically include the perspective of the informal sector, although this was assumed to make up a significant share of SMEs in Myanmar and was the main target group of the interventions.

(iii) It was emphasised that existing company registers held by local and national authorities or associations are generally incomplete and inaccurate, suggesting that using any of these registers was likely to produce biased results.

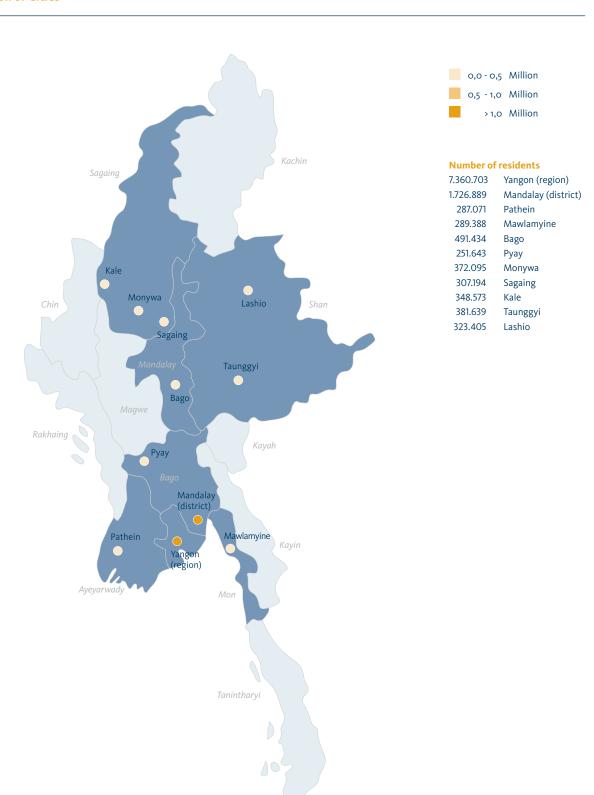
It was intended to conduct the survey in cooperation with a local university or research institution as DEval generally aims to support and strengthen local partners' capacities to undertake evaluations and research studies themselves whenever possible. This survey would have been a great opportunity for such cooperation as it would have allowed close cooperation, thereby building up know-how in the partner institution. However, due to administrative and legal restrictions in Myanmar, it was not possible to work with a university or local research institution for this first SME survey. A suitable local partner firm was therefore contracted instead. This ensured local expertise and allowed close cooperation during the planning and implementation of the survey in order to ensure the highest possible data quality.

To decide on an overall approach and sampling procedure, it was first assessed which data sources and firm registries were available. Moreover, meetings with authorities and business experts showed that there was very little current data available on small and medium enterprises in Myanmar and various registers at local or national level were incomplete and/or inaccurate.<sup>3</sup> Moreover, using a registry would not have allowed the systematic inclusion of information on informal businesses. As a result, a two-step approach was necessary. Before starting the actual survey, a list of businesses had to be compiled. During the listing of firms, a block screening approach was used to construct the sampling frame (see Annex I for more details).

Preparations for the survey then started with the selection of cities and work on the questionnaire. Survey cities were selected so as to reflect the socio-economic and ethnic composition of the country and the sectoral distribution of businesses in Myanmar. Further selection criteria were growth potential and high densities of SMEs. Based on these criteria, the following eleven cities were selected: Bago, Kale, Lashio, Mandalay, Mawlamyine, Monywa, Pathein, Pyay, Sagaing, Taunggyi and Yangon.

<sup>&</sup>lt;sup>3</sup> Even if firms can be located based on the information held in the company register, the number of firms that are non-operational is considerable, meaning that records do not take into account the status of the business (UNDP, 2014).

Figure 1: Selection of Cities



The questionnaire was developed in consultation with the project teams of the German implementing organisations responsible for designing and implementing the German-Myanmar programme on sustainable economic development together with the Myanmar partner institutions. In addition, several Myanmar business experts were consulted for feedback on the suitability of the content and phrasing of questions within the Myanmar context. Moreover, key questions were discussed with the OECD-UMFCCI-UNESCAP Myanmar Business Survey<sup>4</sup> team (referred to as OECD Business Survey in the following text) and included in both questionnaires.

As it was decided not to use any existing registries, the first phase of the survey focused on compiling a complete list of firms in selected areas. During the listing of firms, a block screening approach was used in order to construct the sampling frame. The idea of the block screening approach is that enumerators are deployed to one block in an area of a city with a high density of SMEs. All establishments that resemble a business are then screened using a short questionnaire. The

questionnaire collects basic information about the firm, which is then used to generate the sampling frame. Due to delays in obtaining all the necessary permits for data collection, the block screening was conducted successively in all cities between spring and autumn 2014.

In the second step, firms were randomly selected for inclusion in the survey. The exact number of firms in each township was determined according to the firm listing from the first phase. According to the number of firms falling into different (economic) sectors, location (inside or outside industrial zones) and company size (micro, small or medium), a stratified sample was drawn. Due to the small number of medium-sized firms, all medium enterprises identified during the firm listing were included in the sample. In addition, substitute firms were identified in case of non-response.<sup>5</sup>

In total 2,519 SMEs were surveyed between December 2014 and March 2015. The following table shows the sample distribution per city.

Table 1: Sample size per city					
City	No. of SMEs in blockscreening	No. of sample SMEs	No. of SMEs included in analysis	Inhabitants per city <sup>6</sup>	
Pyay, Bago Division	344	150	150	910,902	
Monywa, Sagaing Division	722	200	197	757,358	
Mandalay, Mandalay Division	1,346	450	428	6,165,723	
Lashio, Shan State	292	150	149	621,248	
Kale/Kalay, Sagaing Division	76	50	50	509,368	
Taunggyi, Shan State	267	150	148	1,701,338	
Sagaing, Sagaing Division	274	199	199	520,591 (district)	
Sagaing, Sagaing Division	274	199	199	520,591 (district)	
Mawlamyine, Mon State	89	70	69	1,232,221	
Bago, Bago Division	355	200	200	1,770,785 (district)	
Pathein, Ayeyarwady Division	178	100	100	1,630,716	
Yangon, Yangon Division	1,965	800	800	7,360,703	
Total	5,908	2,519	2,490		

<sup>4</sup> The survey is part of the OECD's Multi-Dimensional Country Review (MDCR) on Myanmar. MDCRs are a new tool for tailoring broad OECD expertise to the realities of developing economies. More information can be accessed at http://www.oecd.org/dev/mdcr.htm

<sup>5</sup> Any SMEs which could not be interviewed were replaced by another enterprise from the same sector (services or manufacturing) and location (inside or outside industrial zones). As all medium enterprises identified during the firm listing were included in the sample, they were replaced by small enterprises in cases of non-response.

<sup>6</sup> Most recent data published by the Department of Population - MIP, 2015. For Yangon and Mandalay only figures for the district and regional level are available. The numbers were not used to construct a sample size per city, but were included for reference purposes to gain a better understanding of the overall city sizes.

At the time the block screening and survey were conducted, Myanmar's new law containing a definition of SMEs had not yet been adopted. A decision was therefore taken to survey SMEs with 5-99 employees, in line with the official definition used for the World Bank Enterprise Surveys (20157). The One Pager Business Census 2013-2014 on Myanmar by the United Nations Development Programme (UNDP), which was conducted in 179 townships where most registered firms operate, also found that in 100 of the townships surveyed, no firm with 100 or more employees existed. Only 10 townships had more than 10 firms with a workforce larger than 100, whereas the vast majority of firms had between 1 and 15 employees (UNDP, 2014, p. 8). Due

to this result and the fact that the majority of firms identified during the block screening had fewer than 50 employees, it was decided to gear the definition used for data analysis toward the official OECD definition as it further differentiates between micro (1-9), small (10-49) and medium-sized enterprises (50-249) (OECD, 2005).

As a result, the following definitions for micro, small-sized and medium-sized enterprises were applied in this analysis:

Table 2: Definition of SMEs applied in this SME survey			
Category	Definition SMEs		
Micro enterprise	5-9		
Small enterprise	10-49		
Medium enterprise	50-99		

Due to changes in the number of workers between the first phase (block screening) and the second phase (conduct of the full interviews), some enterprises no longer complied with this definition (5-99 employees) as they had lost or gained staff. These firms were excluded from the analysis, leaving a total of 2,490 firms (see Table 1).

Annex I gives a more detailed insight into the approach, the instruments applied and the quality control structure, including insights into experience that may be relevant to similar surveys in Myanmar in future. At this point, the team would also like to emphasise the enormous importance of the various measures undertaken to assure high validity and reliability of the data. Annex II presents additional graphs and tables on calculations made when analysing relevant questions and relationships.

#### 2.2

#### Strengths and weaknesses of the data

During the preparation and implementation of the survey, great emphasis was placed on gathering high quality data. DEval was responsible for organising enumerator training courses and prepared a comprehensive enumerator manual, which was used during data collection. A highly qualified team was selected for the implementation of the survey. Its members were fully briefed about the questionnaire before undertaking field work, and were supported and supervised by team leaders and DEval staff during data collection. Back translations of documents ensured that mistakes and misinterpretations were avoided or eliminated. Random checks of completed questionnaires by the survey supervisors and double data entry ensured the quality of the data collected.

<sup>7</sup> The WB Enterprise Survey is a firm-level survey of a representative sample of an economy's private sector. The surveys cover a broad range of business environment topics including access to finance, corruption, infrastructure, crime, competition, and performance measures using a global methodology. More information can be accessed under http://www.enterprisesurveys.org.

As explained earlier, a decision was taken not to use any existing company registers due to doubts and negative feedback about their quality and completeness. Consequently, this survey is the only current Myanmar business survey that is not based on any register but uses a block screening approach. This approach was chosen as it promised to generate an unbiased overview of SMEs in Myanmar, irrespective of whether they were registered with a government authority or were members of a sector or business association. However, there are a number of weaknesses inherent in this approach: cities were selected according to the criteria described above. Within those cities, the blocks with most economic activities were selected. The data presented in this report therefore only provides an accurate overview of SMEs in areas of Myanmar with higher economic activity. It is not representative of Myanmar as a whole or of individual cities. The same applies to existing surveys. However, the approach of this survey was chosen to provide a more accurate picture than other approaches. In this context, it is also noteworthy that firms which had already been interviewed by OECD-UM-FCCI-UNESCAP or the World Bank were excluded during the block screening process. However, among 5,908 firms contacted during the block screening, only 24 (around 0.4%) indicated that they had participated in any prior survey.

Anyone planning surveys in Myanmar should note that this approach requires more time and resources than using existing registers and that sufficient time should also be allowed to acquire all the necessary permits from national and local authorities.

#### 2.3

#### **Data analysis**

Experience from numerous business surveys (e.g. Cant and Wiid, 2013, and Ihua, 2009) showed that certain variables are of particular relevance in this context. These variables are the key factors guiding the analysis.

The guiding hypothesis is that the situation of firms in Myanmar differs according to their size (micro versus small versus medium enterprises), their location (11 cities covered by the survey)

and the branches in which they are active (manufacturing and services). Bivariate and multivariate data analysis methods were applied, controlling for possible intervening factors. A more detailed description of the methods used in the analysis can be found in Annex I. Since the data analysis aims to provide information of relevance to the implementation of partner programmes in the areas of vocational education and financial and private sector development and also concerns other cross-cutting issues regarding the business environment in Myanmar, other relationships between variables were examined and will be described in other chapters.

To validate the results from the present survey, they were compared to those from the OECD Business Survey. Due to the different approaches (block screening versus use of existing registries, snowball and conference method<sup>8</sup>) and a selection of different survey cities (selection of 11 cities based on defined criteria versus inclusion of all state/regional capitals), the samples of this survey and the OECD Business Survey differ as regards company size, registration with government authorities, membership of business associations and geographical location. As shown in Table 3, according to the DEval data, micro enterprises (5-9 employees) constitute the vast majority (approximately 67%) of SMEs, followed by small enterprises with 10-49 employees (31%). Only 2% can be regarded as medium-sized (50-99 employees). The OECD Business Survey, which was conducted among approximately 3,000 non-representative businesses in the capitals of all states/regions in Myanmar, found a different distribution, even when adapting the sample to the same definition of enterprise sizes (see Table 3). Here, the share of medium-sized enterprises is larger (10%), while the share of micro enterprises is smaller (approximately 38%). The variance is most likely due to the different sampling strategies. The OECD Business Survey relied on the UMFCCI membership register as well as on convenience, snow-balling and seminar sampling methods. Using the register to identify firms in combination with the seminar sampling method – which relies on contacting enterprises through institutional or human networks/associations - may have caused a bias towards larger enterprises.

<sup>8</sup> In a snowball sampling approach, subjects already surveyed identify potential additional informants. A seminar or conference sampling method approaches potential informants through human or institutional networks or associations, such as chambers of commerce. In a seminar/workshop-like event, the survey is presented, questions are answered and the questionnaires are filled out (Soans and Abe, 2015).

Table 3: Comparison of samples according to firm size				
		DEval SME Survey	OECD Business Survey	OECD Business Survey (without large medium enterprises)
Firm size	Micro (5-9)	67%	35%	38%
	Small (10-49)	31%	49%	53%
	Medium (50-99)	2%	9%	10%
	Medium (100-249)	-	6%	-
Registered with government	Micro (5-9)	74%	84%	84%
authority	Small (10-49)	89%	88%	88%
	Medium (50-99)	96%	93%	93%
	Medium (100-249)	-	96%	-
	Total	79%	87%	87%
Membership of business association	Micro (5-9)	3%	34%	34%
	Small (10-49)	6%	45%	45%
	Medium (50-99)	7%	59%	59%
	Medium (100-249)	-	69%	-
	Total	4%	44%	42%
Sample size		n = 2,490	n = 2,241	n= 2,097

Source: Authors' compilation based on DEval and OECD Business Survey

In this report, initial comparisons were made using the two complete samples (DEval and OECD Business Survey).

As both surveys are not representative and differ in their sampling approaches, discrepancies in results are to be expected. Thus, if congruent results can be identified according to the data of both or all three surveys9, they are considered to be validated. Whenever the results of both surveys are conflicting, the analysis investigated whether the differences in results are attributable to the sample differences. To do this, this survey aligned both samples as far as possible in a step-by-step approach by excluding non-private businesses from the OECD Business Survey (as the DEval survey only interviewed private firms), non-registered and micro enterprises (as the DEval survey had a larger share of these), firms active in sectors other than manufacturing and services (as the DEval survey only covered these two sectors) and companies which are members

of business associations (as the OECD Business Survey had recruited many of its firms through these associations) and focusing only on those cities which are covered in both surveys. Because conflicting results were expected to converge when applying this method; different sampling approaches were controlled for (see Annex II for more information and a detailed comparison of the two samples when controlling for key variables). However, a possible problem with this approach is that only a very small sample remains as the basis for comparison, which does not allow any significant interpretation. Results obtained from such analysis will not be discussed in the main report but are presented in Annex II. Controlling for possible explanatory variables by aligning the two survey samples did not fully explain differences in results. The full baseline report, which will be published later in 2015, will therefore pick up on these points and explain diverging results by including other data sourced through qualitative collection or secondary data.

<sup>9</sup> In fact, the OECD and DEval surveys touch upon a range of similar aspects as compared to the World Bank Enterprise Survey. As a result, comparisons are often only possible between the DEval and OECD Business Survey.

3.

GENERAL COMPANY CHARACTERISTICS

The aim of this chapter is to provide background information and a comprehensive overview of general characteristics of SMEs in Myanmar. While some of the collected data comprises standard company information such as size, age, sector and branch, other questions focus on aspects such as the percentage of informal businesses, affiliation with a business or sector association, and marketing channels for products and services. This information was included to satisfy the specific needs of the interventions to be implemented within the German-Myanmar programme on sustainable economic development.

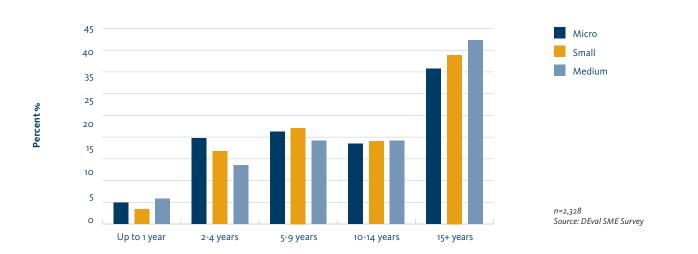
## The majority of enterprises are micro and small-sized and started operating 10 or more years ago

As shown in the previous chapter, the DEval SME Survey first assessed the distribution of company sizes. It found that the majority of firms are micro (67%) and small (31%). Only 2% are medium firms. The OECD Business Survey, however, identified larger companies on the whole. Only around 38% of firms identified in that survey are micro-sized, whereas around

10% are medium-sized. The variance is most likely due to the different sampling strategies, as explained in Chapter 2. In the DEval data, the relationship between company size and membership of an association is very weak, although significant (see Table 16 in the Annex). However, the relationship in the OECD data is moderate and significant, with smaller enterprises being members less often than larger ones. This suggests that using the registers of associations leads to greater inclusion of larger firms.

Secondly, business representatives were asked how long their firm had been operating. A clear majority of firms have been operating for more than 10 years and some for 15 years (see Figure 2). This was borne out by the OECD Business Survey. Only around 23% of all firms had started operating within the last 4 years. It thus seems that the transition and liberalisation process in Myanmar has not yet led to a significant increase in the number of private SMEs.

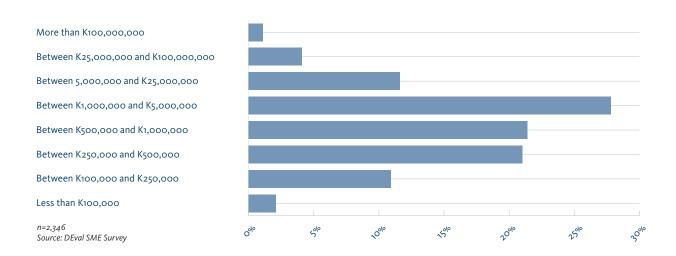
Figure 2: Age of business



In order to find out more about SMEs' turnover and revenue, the original plan was to collect information on annual turnover. However, expert feedback and pre-tests showed that financial literacy and poor accounting in small firms made it impossible to collect reliable data at this level. Instead, business owners were asked for their average monthly revenue. It was felt that this question would be easier for them to answer and would

thus produce the most reliable results. The majority of businesses surveyed reported revenue between 1 and 5 million kyat in a typical month in the year before the survey (see Figure 3). As expected, the data shows that larger enterprises have larger revenue: For micro enterprises, the median is 500,000-1 million kyat; for small enterprises, it lies in the 1-5 million range and for medium enterprises between 5 and 25 million kyat.

Figure 3: Revenue in a typical month, in percent



Moreover, the survey aimed to enhance understanding of the sectoral distribution of SMEs. Since the survey was implemented in urban areas with a relatively high level of economic activity, only firms from the manufacturing and service sectors were included. The survey did not include the agricultural sector which, although of great relevance to Myanmar, is concentrated in rural rather than urban areas. According to the sample from the DEval SME Survey, the majority of firms (54%) are engaged in manufacturing, whereas the OECD found that the majority of firms operate in the service sector (57%) and only around 43% focus on manufacturing. According to the UNDP Business Census, which gathered basic information about firms registered with the main national authorities, a full 83% of firms operate in the manufacturing sector. Findings presented in the following sections show that these discrepancies can to some extent be explained by the stronger inclusion of registered companies in the OECD survey and registers used by UNDP. Nonetheless, this does not fully explain these significant differences. Further research will be needed to obtain representative findings on the percentage of firms in the manufacturing and service sectors in Myanmar.

With regard to the different branches in the two sectors, the DEval data shows that most economic activity by manufacturing firms focuses on machinery and equipment, vehicles and metal products, and food, beverages or tobacco/cheroots (both 12%), and textile and/or shoes (10%) (see Figure 4). Within the service sector, the main branches are restaurants and hotels (16%) and retail (14%). Despite the fact that most firms operate in the manufacturing sector, restaurants/hotels and retail are the main branches identified (Figure 5).

Figure 4: Business activity in the manufacturing sector and its branches, in percent of complete sample

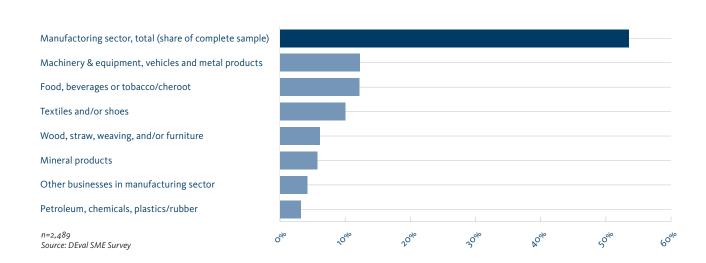
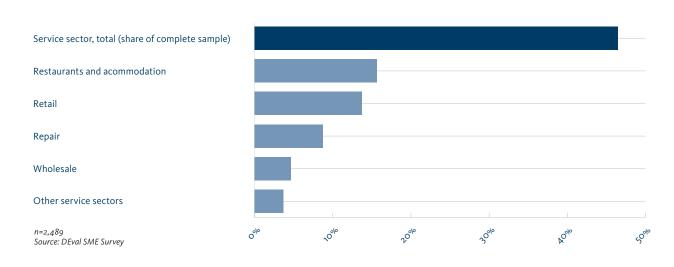


Figure 5: Business activity in the service sector and its branches, in percent of complete sample



Please note: Figure 4 and 5 show the distribution across the complete sample. Figure 4 presents the manufacturing and Figure 5 the service sector.

#### Most firms are registered with a government authority

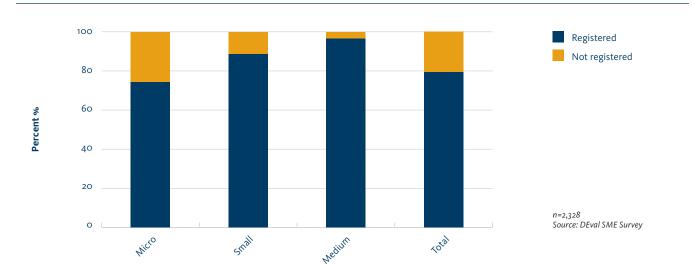
There are hardly any recent sources that systematically cover unregistered firms in Myanmar. The approach adopted for this survey was chosen inter alia to probe this question, gain a better

understanding of the percentage of unregistered firms within the private sector and identify their problems and needs as compared to registered firms. Of all the businesses surveyed, more than 21% stated that they are not registered with any government authority; they thus belong to the informal sector. In the OECD Business Survey (based on the definitions of SMEs used in this report), around 13% of firms indicated that they had not registered yet (see Figure 58 in the Annex). This shows that the block screening approach adopted in the DEval survey led to stronger inclusion of unregistered micro enterprises. Interestingly, the share of registered and unregistered firms is similar in both surveys. Only with regard to medium-sized firms

is the share of unregistered firms in the DEval sample smaller as compared to the OECD survey (4% versus 7%).

Within the complete sample, around 80% of firms are registered. Nonetheless, large variations were found when the sizes of these firms were investigated. The vast majority of medium-sized enterprises but only 74% of micro businesses are registered (see Figure 6).

Figure 6: Registration with government authority, in percent



Further analysis showed that aside from company size, company registration also varies depending on the branch and location (see Table 17, Figure 58 and Figure 59 in the Annex). According to DEval's data, the majority of firms across both sectors and

most branches are registered, except for textiles where only 35% of firms said that they were registered. The registration level is especially high (above 90%) in the food and beverage industry and among restaurants and hotels (see Table 4).

Table 4: Registration of firms in different sectors and branches, in percent			
	Not registered	Registered	
Manufacturing sector	26%	74%	
Food, beverages or tobacco/cheroot	9%	91%	
Petroleum, chemicals, plastics/rubber	13%	87%	
Textiles and/or shoes	65%	35%	
Mineral products	30%	70%	
Machinery & equipment, vehicles and metal products	17%	83%	
Wood, straw, weaving, and/or furniture	26%	74%	
Other businesses in manufacturing sector	10%	90%	
Service sector	15%	85%	
Restaurants and hotels	7%	93%	
• Wholesale	14%	86%	
• Retail	14%	86%	
• Repair	26%	74%	
Other service sectors	21%	79%	

n = 2,489

Source: DEval SME Survey

It is interesting to note in this context where firms usually register their business. The vast majority are registered at municipal level with a City Development Committee (84%, see Table 5), while registrations with the Directorate of Industrial Supervision and Inspection (DISI) are found much less frequently (29%). The Directorate of Investment and Company Administration was rarely mentioned (0.2%). A substantial number

of all enterprises (14%) are registered with other government authorities, while the additional registers considered, e.g. for the UNDP One Pager Census (Myanmar Investment Commission and Small Scale Industrial Department), were rarely mentioned by any enterprise interviewed; however, the Internal Revenue Department was mentioned several times (4.16%).

Table 5: Overview of government authorities where businesses are registered, in percent					
	Micro	Small	Medium	Total	
Directorate of Investment and Company Administration (DICA)	0.1	0.3	1.9	0.2	
Directorate of Industrial Supervision and Inspection (DISI)	25.4	33.8	46.3	28.8	
City Development Committee	82.2	87.2	77.8	83.9	
Other	14.2	13.7	22.2	14.2	

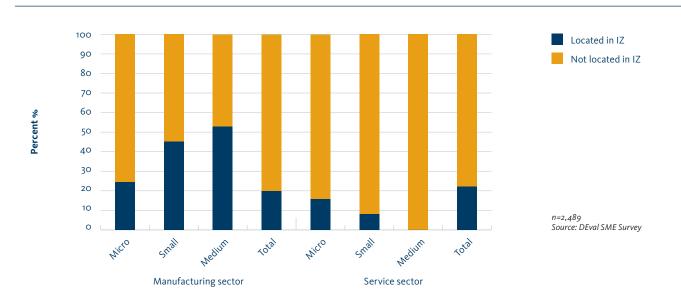
NB: Multiple answers were possible. n = 1,973 Source: DEval SME Survey

## Most enterprises - also in the manufacturing sector - are located outside Industrial Zones

The Government of Myanmar has established 19 Industrial Zones (IZs) surrounding major cities in Myanmar since 1995 with the aim of boosting industrial development. When the selected cities were surrounded by an IZ, the survey was conducted within and outside this zone. In all cities except for Bago, IZs were therefore also visited to assess the relevance of industrial zones to local economic activities now that 20 years have passed since their introduction. Depending on the sectors and branches to be targeted by specific interventions, these findings will be helpful in assessing whether the relevant firms mainly operate in or outside industrial zones.

It was found that most firms operate outside the IZs. If only those cities with an IZ are considered, it was found that more than 75% of firms are located outside the zone. As expected, the differentiation between sectors shows that the share of manufacturing enterprises situated in industrial zones is larger than the share of service enterprises, especially for small and medium-sized businesses (see Figure 7). The correlation is, however, only moderate (see Table 17 in the Annex). On average, the businesses located in an industrial zone have been there for approximately 12 years. Of those businesses currently not located in an IZ, very few were located in an IZ earlier (0.2%). There does not seem to be any tendency, at present, for firms located in cities to move into industrial zones or vice versa.

Figure 7: Location in industrial zone, differentiated by sector and size of enterprise, in percent



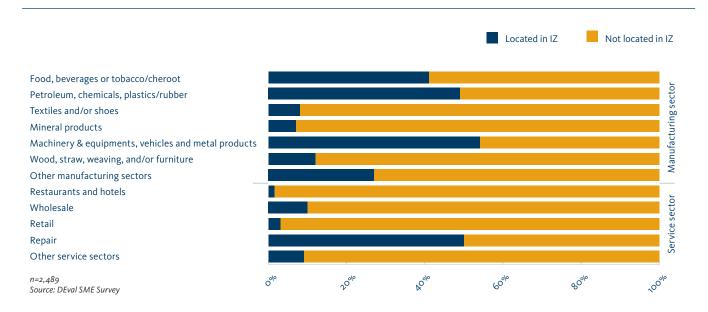
Further analysis also showed that the branch in which it operates influences the probability of an enterprise being located in an IZ (see Table 17 in the Annex). Firms located in an IZ mainly operate in the machinery and metal products (30%) or the food, beverages or tobacco/cheroot sectors (23%) (see Table 6). The

highest share of enterprises located in industrial zones can be found in the machinery/equipment/vehicles and metal products (manufacturing) sector and the repair branch (service sector) (see Figure 8).

Table 6: Branches present in industrial zones, in percent			
		Location in IZ	
Manufacturing sector	Machinery & equipment, vehicles and metal products	30	
	Food, beverages or tobacco/cheroot	23	
	Petroleum, chemicals, plastics/rubber	7	
	Other manufacturing sectors	5	
	Textiles and/or shoes	3	
	Wood, straw, weaving, and/or furniture	3	
	Mineral products	2	
Service sector	Repair	20	
	Wholesale	2	
	Retail	2	
	Other service sectors	1	
	Restaurants and hotels	1	

n = 2,489 Source: DEval SME Survey

Figure 8: Share of firms located in industrial zone or not, differentiated by branch, in percent



## Only a few firms are members of any business or sector association

As mentioned above, some information was primarily collected for the projects implemented within the German-Myanmar programme on sustainable economic development. One objective of the private sector development project is to strengthen business and sector associations. The following section focuses on findings relating to firms' membership of different associations. Chapter 7 will then present more detailed findings on businesses' experience with the services provided by the associations.

DEval's data shows that SME membership of an association is fairly uncommon. Hardly any firm surveyed is a member of a business or sector association: around 3% of micro, 6% of small and 7% of medium enterprises. In total, only around 4% (approximately 100 firms) reported that they were members of an association.

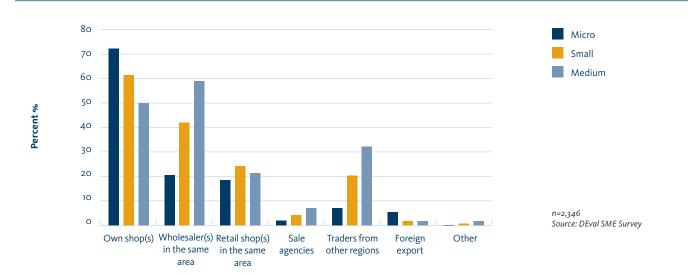
The questionnaire also investigated which specific associations the enterprises were affiliated with. Of those with membership, only 16 were found to be members of UMFCCI. More enterprises belonged to small sector-based associations targeting specific trades or products (e.g. gems, rice, gold/silver/bronze, salt).<sup>10</sup>

Discrepancies with the findings of the OECD Business Survey are striking, but not too surprising because of the different sampling strategies chosen for the two surveys. According to the OECD data, around 56% of enterprises are members of a business or sector association, with a full 59% of them belonging to UMFCCI. As explained earlier, this high representation of businesses affiliated with an association is due to the sampling approach, which was based inter alia on the UMFCCI membership registry. The block screening approach was chosen by DEval as it was assumed to give a better picture of the reality since it systematically included registered and non-registered firms and aimed to prevent a certain bias that might be caused by using registries of associations or specific authorities. When using such registers to draw a sample for a survey, distortions of results are very likely to occur.

## Most SMEs distribute their products and services through their own shops or wholesalers in the same region

For sustainable economic development and an increase in trade activities, firms must have adequate access to marketing channels and make use of them. The DEval survey found that the main marketing channel for micro and small enterprises are their own shop(s) and wholesalers in the same region (see Figure 9). In general, micro enterprises tend to trade within their local areas, whereas small and medium enterprises also market their goods and services through traders from other regions, which is not surprising. However, regional trade seems to be relevant to all SMEs, particularly medium-sized (32%) but also small (20%) and micro enterprises (7%).

Figure 9: Main marketing channels, in percent

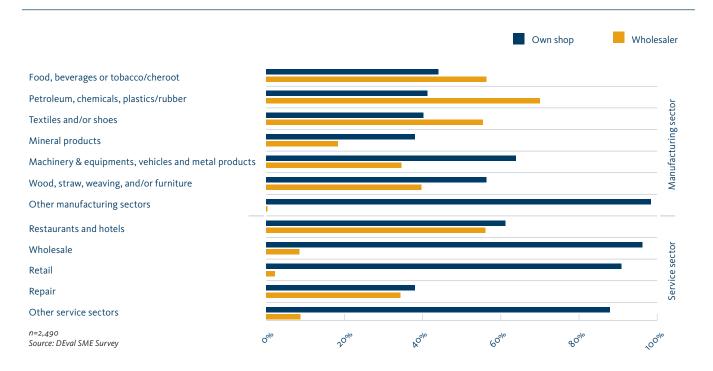


Exports to foreign countries are largely irrelevant to the firms surveyed: only around 4% of SMEs stated that they exported at all.

Firms from different branches also display different utilisation patterns with regard to the other marketing channels analysed. The utilisation of their own shops or wholesalers as marketing channels seems to be largely influenced by the branch in which

the enterprise operates. Deeper analysis would be necessary to rule out confounding factors, but it seems likely that the service sector in general makes more use of its own shops than the manufacturing sector or that businesses working in wholesale more often make use of their own shops than other branches in the service sector (see Figure 10).

Figure 10: Use of own shops and wholesales per sector, in percent



Moreover, no strong and significant relationship between the firm's size and a specific marketing channel (see Table 19, Table 20, Table 21, Table 22 in the Annex) or between registration of the enterprise and marketing channels was found.

#### Small enterprises do not hold international quality certificates

While promoting increased trade with other regions, quality standards and certification for Myanmar products will become more important. Among all the firms surveyed, however, only one enterprise holds international quality certification (ISO9001). As a result, it is to be concluded that SMEs are not

yet in a position to prove that they produce in accordance with international standards, which clearly hinders their chances of exporting to foreign markets such as the EU and the United States. Without any capacities to achieve quality certification in line with international standards within Myanmar, enterprises will find it almost impossible to export to other regions. This finding was also confirmed by the OECD Business Survey. However, 4% of firms and 19% of medium-sized enterprises with a workforce of at least 100 stated that they hold international quality certificates. Larger firms are also more likely to have the financial resources to seek certification abroad.

#### Main findings on enterprise characteristics

The sample of enterprises surveyed can be described as follows:

- Almost all firms (98%) in the DEval sample are micro (67%) or small-sized (31%). Other available sources also found that the majority of firms are micro and small-sized. However, they generally found larger firms and especially a bigger share of medium-sized firms.
- The differences are most likely caused by different sampling strategies.
- The sampling approach chosen for this survey does not rely on existing partial or incomplete registers.
   The analysis of diverging results with other surveys suggests that the chosen block screening approach leads to more realistic results.
- Around 50% of SMEs started operating 10 or even 15 years ago. A quarter of identified firms were founded less than five year ago.
- According to the data of this survey, SMEs are fairly
  evenly distributed amongst the manufacturing and
  service sector. This finding is not congruent with other
  surveys that found that either the manufacturing or
  service sector is larger. Existing data does not allow
  any fully representative conclusions on the sectoral
  distribution of SME in Myanmar.
- The typical annual revenue of SMEs ranges between 1 and 5 million kyat.
- Irrespective of firm size and branch, the vast majority (80%) of surveyed firms

- are registered with a government authority, mostly
  a City Development Committee (Department of Development Affairs). Other registers from government
  authorities or associations include only a minority of
  firms.
- The sample consists of 21% informal businesses with the highest share among micro enterprises (around 26%). Of those unregistered, almost 70% work in the manufacturing sector, especially in textiles and shoe production.
- SME membership of a business or sector association is uncommon. Only 4% of surveyed firms are affiliated with any association. Three quarters of firms in the manufacturing and service sector operate from outside industrial zones. Most firms within IZ operate in machinery and equipments, vehicles and metal products, food/beverages or tobacco/cheroot and repair.
- Micro and small enterprises regard their own shops as their most important marketing channel, whereas wholesalers in the same region are most relevant to medium enterprises. Only a few firms have exported to other regions yet. Export to foreign countries only plays a marginal role.
- The surveyed firms do not hold any international quality certificates.

4.

## STAFF COMPOSITION AND QUALIFICATIONS

This chapter deals with the composition of staff working in SMEs and training needs identified by business owners. One major intervention area of the German Myanmar programme on sustainable economic development is vocational education and training. In order to support adequate policy reforms, to improve the labour market orientation of TVET programmes and to assist graduates to find adequate employment, it is important to learn about existing businesses' staff composition and recruitment processes and about business owners' opinions on the qualifications and weaknesses of their staff and graduates of formal and informal vocational education.

## The majority of workers are employed full-time and most SMEs expect to keep their number of staff stable or even to increase their workforce

With regard to overall staff composition, the survey particularly aimed to find out about working conditions and staff qualifications, gender representation and potential future needs for additional staff. Permanent full-time employees constitute the largest part of the workforce in the DEval sample, with an approximate average of six permanent full-time employees in micro enterprises, 16 in small enterprises and 53 in medium-sized enterprises. When comparing these findings with the OECD Business Survey, the number of full-time staff is quite similar. However, firms generally indicated larger numbers of part-time and non-permanent staff, irrespective of their size (see Table 23 in the Annex for a list of employees by firm size for both surveys).

When decomposing the group of permanent full-time employees according to their position within the firm, by far the largest share are hired as semi-skilled and unskilled workers (71% in micro enterprises, 85% in small enterprises and 93% in medium-sized enterprises) (see Figure 60 in the Annex). To assess the future demand for workers, the survey investigated whether

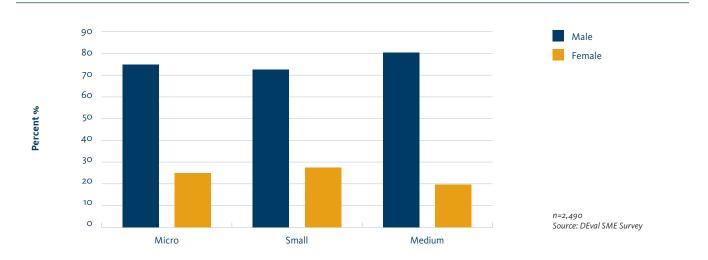
SMEs expected to reduce their workforce, keep it stable or even increase it. Most enterprises surveyed expect to keep their number of staff stable (94% of SMEs with regard to management staff, 85% for professionals and other skilled workers, and 58% for semi-skilled and unskilled workers). However, there is also a considerable share of SMEs (39%) which see potential for increasing their workforce, especially their semi- and unskilled workers (see Figure 61 in the Annex).

To determine whether certain branches, firm sizes or regions are more likely to expect an increase in their skilled or unskilled staff, a further analysis of the data was conducted. The identified differences are moderate but significant (see Table 25 and Table 26 in the Annex). The differences across firm sizes are a bit stronger than regional differences regarding their expectations of increasing their staff. Generally, the results suggest that firms expect a stable or even improving economic performance. Unsurprisingly, small and medium-sized enterprises are more likely to expect an increase in their skilled and unskilled staff and thus see more potential to expand their business as compared to micro enterprises.

## Most business owners and employees are male, but there is a significant share of females in all positions

All programme interventions are supposed to actively promote gender equality. In order to learn whether gender imbalances prevail, the analysis of the data also paid attention to this question. Three quarters of business owners in the DEval sample are male (in total, approx. 74%). Interestingly, the share of men and women owning a business does not vary much according to firm size (see Figure 11). These findings largely coincide with those of the OECD Business Survey. However, the OECD data suggests that the gap increases even more with business size as there were only around 7% female business owners in enterprises with more than 100 employees.

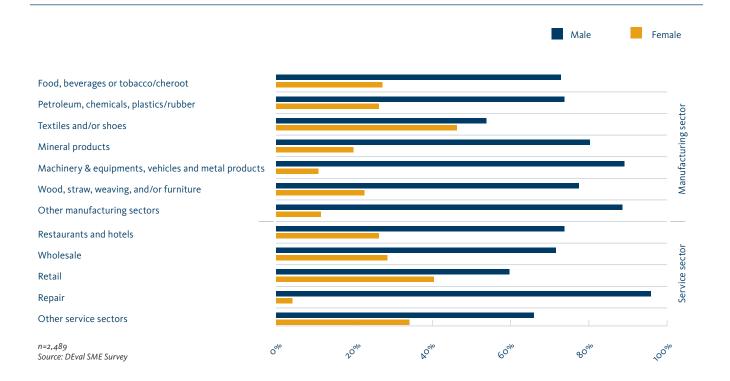
Figure 11: Gender of business owner



It was further analysed whether gender imbalances across regions or branches could be observed. While some regional differences do indeed exist, they are rather weak and do not allow any significant conclusions to be drawn regarding regional gender imbalances. Different branches also show considerable differences with regard to the share of female business owners

(see Figure 12). Again, the effects are not strong. However, it is noteworthy that the data indicates certain sectors where female owners are represented more strongly than in others; this is the case in the textile and retail branches – as in other countries - whereas firms from the repair and machinery branches are more likely to have male owners (see Table 27 in the Annex).

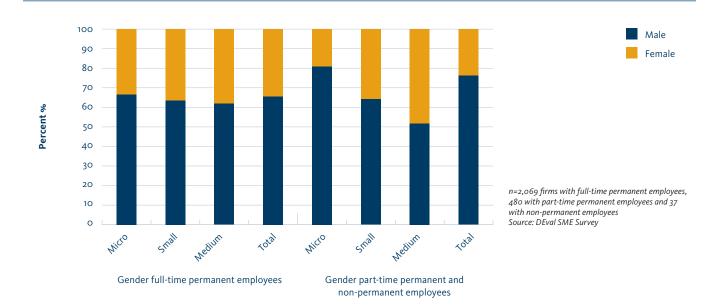
Figure 12: Share of male and female business owners per branch, in percent



When differentiating employees by gender, it becomes clear that there is little gender imbalance. The share of female employees is quite evenly balanced across all firm sizes at around 34%. Only among non-permanent employees is the share of men noticeably larger, especially in micro- and small-sized firms.

It is also interesting to note that an overwhelming majority of both male and female staff – more than 83% – work full-time, whereas only around 1% are secondary workers with non-permanent employment (see Figure 13).

Figure 13: Gender of employees, in percent



When further decomposing the functions of male and female permanent employees, it was found that although the number of permanent female employees is smaller, the share of male and female employees working as either management staff, professional/skilled or semi-skilled/unskilled employees is not that dissimilar (see Figure 14). Based on this finding, it does not

appear that women are strongly disadvantaged when it comes to the general workforce. Nonetheless, their participation in the labour market seems to be generally lower and their representation is rather small among business owners.



Figure 14: Share of male and female employees in different functions, in percent

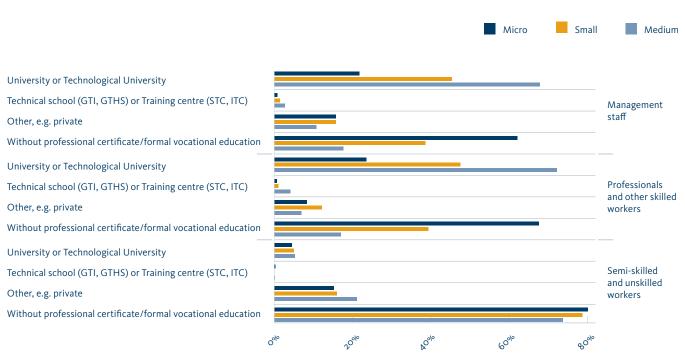
Most staff are either unskilled or studied at university level; obtaining qualifications through vocational training is not prevalent and is an unfamiliar concept to many firms

This survey aimed to identify qualification needs among SME staff and existing collaboration with the TVET system, as one major objective of interventions in the field of vocational education and training is to create a more labour market oriented TVET system. A first step was therefore to analyse the educational background of the surveyed SMEs' current staff.

When looking at the qualifications of management, skilled and unskilled workers, it was found that particularly in micro enterprises, the majority of workers did not undergo any vocational education. Medium-sized enterprises seem to be more likely to recruit staff according to their qualifications. The majority of management and professional staff graduated from a university or technical college whereas most semi- or unskilled workers do not hold a degree. Interestingly, about 5% of semi- and unskilled workers were trained at university level irrespective of the size of the enterprise. It thus seems that someone with university education is not per se regarded as qualified, but might be hired as a semi- or unskilled worker if he or she does not possess the required skills. Moreover, hardly any workers graduated from a technical school or training centre (see Figure 15), even in cities

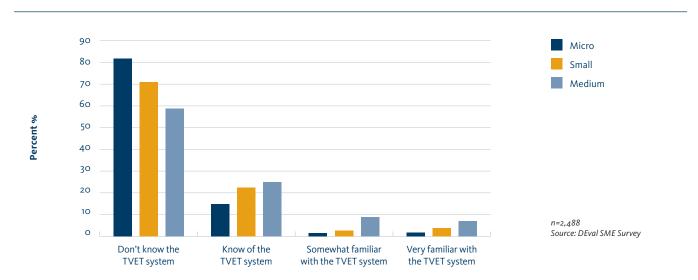
where training centres are located or are at least close by (e.g. Pyay, Mandalay, Monywa). Only two firms, one from Pyay and one from Mandalay, indicated that some of their management staff were trained at a skills training centre (STC) or industrial training centre (ITC). Hardly any of the firms indicated that their skilled or unskilled staff were trained in this type of facility. This finding is also consistent with those of the OECD Business Survey, where on average only 4% of staff has a TVET education or diploma/certificate (see Figure 62 in the Annex). Hence, it can be concluded that only a fraction (on average around 0.28%) of workers underwent a formal TVET programme at a public or private institution. Accordingly, TVET graduates only make up a small share of workers within SMEs. A TVET degree is not a relevant factor for the recruitment of staff in any position. This is also confirmed by the fact that the majority of business representatives surveyed (78%) are not familiar with Myanmar's TVET system (see Figure 16).

Figure 15: Qualifications of current staff, in percent



n=2,490 (firms employing management), 1,365 (firms employing skilled workers), 2,448 (firms employing unskilled workers) Source: DEval SME Survey

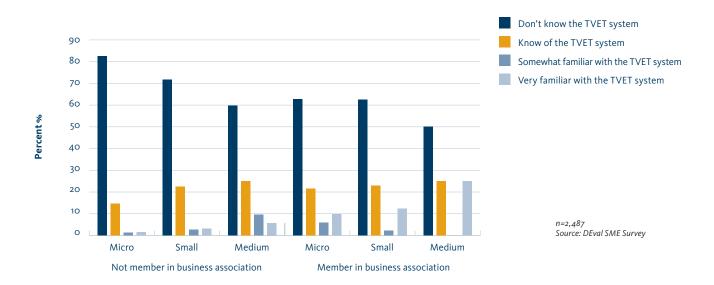
Figure 16: Familiarity with TVET system, in percent



To assess whether firms of a particular size or in a certain branch or region might be more familiar with the TVET system than others, further analyses were conducted, which revealed a few weak but significant correlations suggesting that, as expected, some – especially larger – firms have better access to

information due to their location in Yangon or obtain information through business and sector associations (see Figure 17). However, much better and systematic access to information on vocational education and training institutions is needed to increase SMEs' awareness of TVET.

Figure 17: Knowledge of the TVET system differentiated by firm size and membership of business associations



Surprisingly and in contrast to the SMEs' lack of knowledge of the TVET system, almost 40% of micro enterprises and more than half of small (52%) and medium-sized enterprises (66%) have heard about 'skill standards', a process being developed by the National Skill Standards Authority under the Ministry of Labour, which standardises sets of specific skills needed for certain occupational groups. It is supported by GIZ and was launched at the Association of Southeast Asian Nations (ASEAN) level in 2012. In fact, the assumption before data collection was that the concept of skill standards - which was explained to respondents on request during the interview – is still unfamiliar. The question was mainly included with a view to pre- and post-intervention comparison at a later date. Therefore, the survey did not include any additional questions on this issue that would help us to explain this finding, but it may be an interesting reference point for further investigation.

In order to better determine existing staff qualification needs, it was also asked how business representatives assess the skills of

their workers. In micro and small enterprises, the feedback on unskilled workers was similar and sometimes even better than on skilled workers. In general, however, it is not surprising that skilled workers are considered more qualified than unskilled ones. Most business representatives are very or at least fairly happy with their skilled workers' performance in the areas of practical skills, work efficiency and communication. The rating of the qualifications of unskilled workers is slightly worse when compared to skilled staff, but is still very positive overall. Generally, feedback on theoretical skills was poorest (see Figure 18 and Figure 19). For both skilled and unskilled workers, practical skills score higher than theoretical skills.

Further analysis showed that there are only weak or moderate correlations between the rating of skilled and unskilled workers in the different categories and the size of the enterprises interviewed (see Table 30 in the Annex), indicating that there are no large differences in the assessments of micro, small and medium-sized enterprises. It also revealed only small and moderate

regional differences, which do not allow any conclusions to be drawn about regional variations in workers' qualifications (see Table 31, Table 32, Table 33 and Table 34 in the Annex). It is surprising that business representatives highlight theoretical know-how as the most prevalent gap in the qualifications of skilled and unskilled workers. Especially with regard to unskilled workers, one would not assume that theoretical know-how is expected from them. Nonetheless, the comparatively poor rating in this area suggests that business representatives see the strongest need for training/upskilling in this area.

Figure 18: Rating of skilled workers by business representatives, in percent

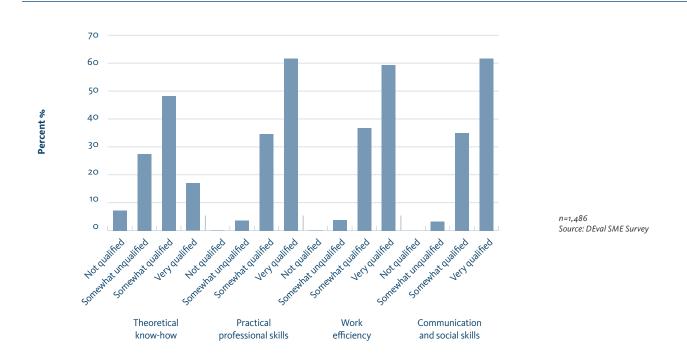
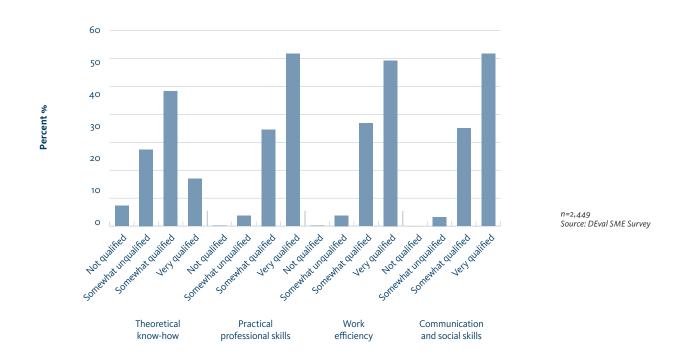


Figure 19: Rating of unskilled workers by business representatives, in percent



# Collaboration with TVET institutions is very limited whereas most SMEs provide in-house training for their staff

As mentioned earlier, the activities in the field of TVET aim to improve labour market orientation and thus anticipate interaction and cooperation between the private sector and the TVET system. According to DEval's data, such cooperation is still very uncommon. Amongst all the enterprises surveyed, less than 1% (14 in total) indicated that they have ever cooperated with a TVET institution, reflecting SMEs' lack of familiarity with the TVET system.

Discrepancies with the OECD Business Survey are quite striking. According to the OECD data, around 41% of businesses surveyed had cooperated with an institution to provide training. The largest share had cooperated with private vocational training providers (15%), UMFCCI (5%) and government agencies (6%). Medium-sized enterprises were more likely than micro and small enterprises to cooperate with private and public TVET institutions and vocational/technical high schools. Given that a large number of the businesses surveyed belonged to UMFCCI or another business association, it can also be assumed that UMFCCI is more likely to be contacted as an intermediary by

TVET institutions looking for private sector partners. Correlations between business association membership and collaboration with these training institutions are, however, very weak and statistically insignificant (see Table 35 in the Annex).

Considering the significant share of employees without any qualifications and the limited cooperation with TVET institutions but also the rather high level of satisfaction with workers' qualifications, it is not surprising that the majority of firms provide in-house training for their staff (see Figure 20). Data from the OECD Business Survey also shows that when businesses experience a lack of skilled workers, they mainly organise in-house training (89% of all businesses which had experienced a skills shortage in the past) (see Figure 63 in the Annex).

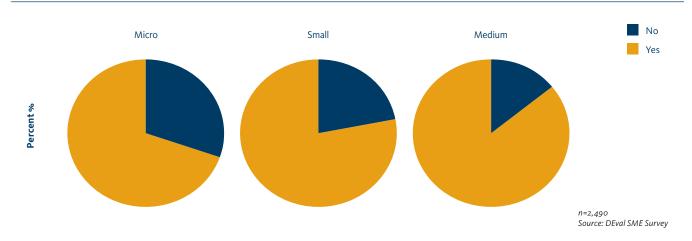


Figure 20: Share of SME providing in-house trainings for their staff

# Business owners consider the general quality of professional vocational education in Myanmar to be good to very good

Apart from the familiarity with the TVET system, it is also important for its development to assess the business representatives' opinions regarding the quality of technical schools and training centres in comparison with other education institutions such as universities. Congruent with the information that a high number of interviewees were not familiar with the TVET system (78%), a fairly large number of them were unable to give an opinion on the quality of education programmes. While most had an opinion on university or college education, a comparatively high number were unable to assess the skills of graduates from training centres (about 38%) or technical schools (20%).

Of those who were able to answer the questions, a clear majority considers the quality of education and thus the qualifications of graduates to be good or very good. Expectations are poorest with regard to their practical skills and best for their communication and social skills across all types of school included (see Figure 21). Differences between the three institution types are not large, indicating that those business representatives who are familiar with all three institution types consider them to be of similar quality. This survey also analysed how firm size, location, sector, etc. might be related to the average ratings across all categories for the different graduates but found only small effects, which could not explain the variance in average ratings (see Table 36, Table 37, Table 38 in the Annex). Accordingly, none

of these factors influences business owners' assessment of graduates' qualifications.

When comparing the assessment of qualifications of graduates and current workers, it is also interesting that the level of practical skills is seen as a weakness of graduates. This accords with the general criticism that the Myanmar TVET and education system as a whole is too theoretical and is not effective in transferring relevant practical skills. This indicates that businesses consider themselves as being rather capable in transferring practical skills, but less so in providing theoretical knowledge. In this respect, it thus seems that schools are considered more capable.

Figure 21: Opinion of business owners on general qualification of graduates in Myanmar, in percent

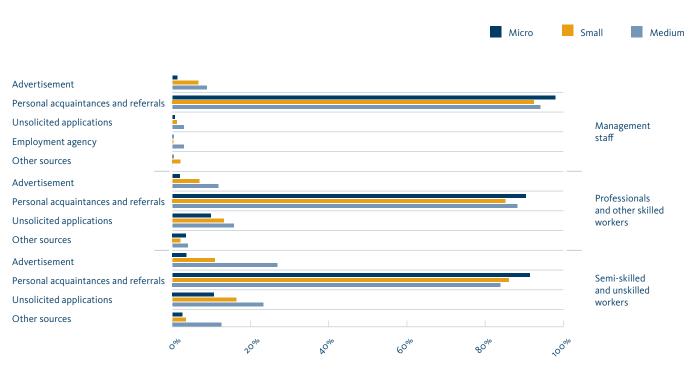


n=2,136 (firms rating university graduates), 1,504 (firms rating graduates from technical schools), 1,963 (firms rating graduates from training centers) Source: DEval SME Survey

#### Formal recruitment procedures are not yet relevant to SMEs

In line with the previous findings that workers are not always hired according to their education, and in relation to the lack of knowledge of the TVET system among business representatives, it was found that the most frequent way of recruiting new staff is through personal acquaintances, rather than being based on candidates' formal qualifications. Recruitment through personal networks is even more common for the recruitment of management staff than skilled and unskilled staff. Moreover, unsolicited applications are to some extent taken into consideration. Medium-sized enterprises in particular also recruit skilled and unskilled workers through advertisements (18%) or from other enterprises (4%) (see Figure 22).

Figure 22: Most commonly used channels for recruitment of new staff, in percent

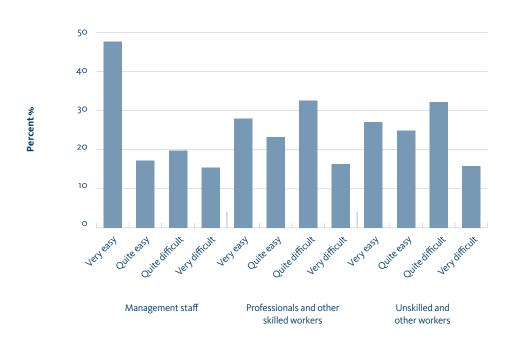


n=1,345 (firms recruiting management), 2,133 (firms recruiting skilled workers), 2,436 (firms employing unskilled workers) Source: DEval SME Survey

Most business owners state that it is fairly easy to find management staff (see Figure 23). Taking into consideration that the vast majority of management staff are recruited through personal acquaintances, it is to be assumed that usually only family members and close friends are considered for the few key positions within SMEs. Finding skilled and unskilled workers seems to be more difficult. This finding largely coincides with those of the OECD Business Survey. Further analysis was conducted to assess whether key variables such as firm size, affiliation with a business association, government registration or gender of the business owner have any influence on their impression as to whether recruiting management staff constitutes a problem. A few albeit very small correlations

were identified, suggesting that none of these factors can be regarded as explanatory variables (see Table 39, Table 40 and Table 41 in the Annex). As nearly half of the firms interviewed regard hiring skilled workers as quite or very difficult, there seems to be potential for graduates from vocational education programmes to find employment within SMEs. There is a need, therefore, to increase awareness and strengthen links between businesses and TVET institutions.

Figure 23: Difficulties in finding staff, in percent



n=2,397 (firms employing management), 2,219 (firms employing skilled workers), 2,470 (firms employing unskilled workers) Source: DEval SME Survey

# Main findings on staff composition and qualifications

- Regardless of firm size, three quarters of enterprises have male business owners. Women seem to be more likely to own a restaurant or a firm operating in the textile or retail sector than in repair or machinery.
- SMEs usually employ their staff on a full-time basis (91%). The majority of these workers are semi- or unskilled. Those SMEs that expect to recruit more staff in the upcoming year will mostly hire additional semi- or unskilled workers. For the selection of these workers, business owners will most likely not take into consideration whether applicants hold a relevant degree but will conduct their own in-house training to provide necessary practical skills.
- Women participate less in the labour market than men: on average, only 34% of employees of the firms surveyed are women.
- Amongst full-time permanent staff, the proportion of male and female employees is almost equal. Among part-time and non-permanent employees, the share of men preponderates. The share of women working in positions ranging from management and professional to skilled and unskilled is fairly consistent.

- Most workers do not hold a formal degree and have not completed any formal vocational education.
- Very few business owners are familiar with the Myanmar TVET system (4%). Less than 1% of SMEs have ever collaborated with any TVET institution, but more than 75% stated that they provide in-house training to their staff instead.
- Most business owners consider their workers to be qualified irrespective of the latter's educational background. Their strongest deficit is seen in the field of theoretical know-how, although graduates are perceived to have weak practical skills regardless of the type of school they attended.
- The vast majority of staff, particularly in management positions, are recruited through personal acquaintances es (95%). In this regard, business owners consider the recruitment of such staff as easiest.
- For the recruitment of skilled and unskilled workers, unsolicited applications and advertisements are also taken into consideration.
- Most potential for workforce expansion is seen for semi-skilled and unskilled workers, who – according to business owners – are also most difficult to recruit.

5.

# FINANCIAL NEEDS AND SERVICES

Another precondition for sustainable economic development is a properly functioning financial and banking sector. Access to finance is considered essential for successful private sector development and is therefore another key intervention area within Myanmar-German cooperation. This chapter presents findings on SMEs' current use of and future needs for financial services, experience with formal and informal loan sources and business representatives' satisfaction with existing financial services.

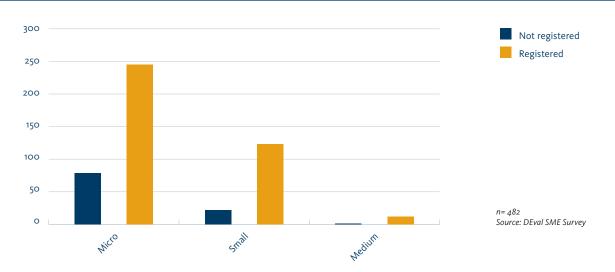
Only a minority of SMEs have an outstanding loan, which was usually obtained from family and friends or commercial banks and is used as working capital or for business expansion

Access to loans is important for private sector development as loans enable businesses to expand and invest even when their

own resources are not sufficient for this purpose. About 20% of all enterprises surveyed – irrespective of firm size – have an outstanding loan (see Figure 64).

The OECD Business Survey produced similar findings: around one third of surveyed firms had an outstanding loan. The clear majority are registered, with medium-sized firms having the highest share of registration. Only one out of 13 medium-sized enterprises with a current outstanding loan is not registered (see Figure 24). As only 20% of firms (482 enterprises) have an outstanding loan, the following information is provided in the form of totals, not percentages.



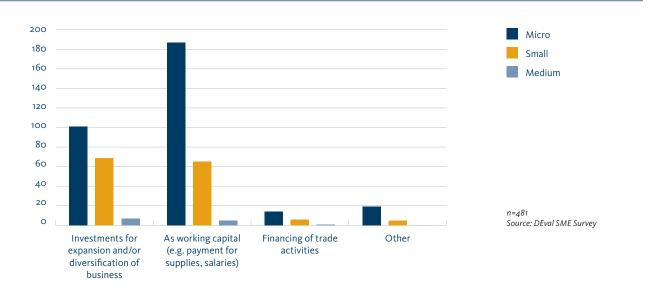


For micro enterprises, the loans mainly serve as working capital, i.e. they are used to pay for supplies or salaries. Small and medium-sized enterprises borrow mainly to expand their business (this applies to around 50% of small and medium-sized enterprises with a loan) or use loans as working capital (see Figure 25). These findings differ to some extent from those of the OECD Business Survey, where most micro (67%) and medium-sized enterprises (65%) stated that they require a loan to expand their business. Almost 40% of the latter also need it for investment in machinery (see Figure 65 in the Annex). The differences between the two surveys may be the result of the

different phrasing of the question: while the DEval survey asked only about the main purpose of a loan, the OECD Business Survey allowed multiple answers.

An analysis of the correlation between firm size and purpose of the loan shows only a weak and insignificant correlation (see Table 42 in the Annex). The size of a firm therefore does not allow any conclusions to be drawn about the purpose of its loan. Generally, the majority of SMEs need loans to expand their business or cover running costs.

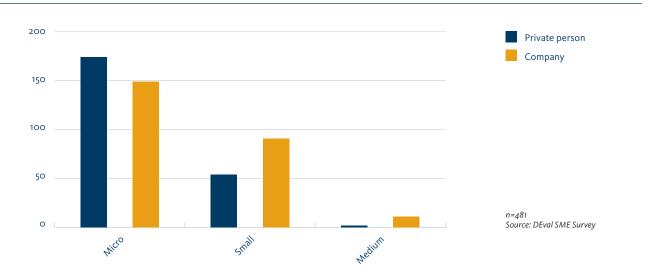
Figure 25: Purpose of outstanding loans, in total numbers



When the programme's financial sector project started cooperating with commercial banks, it was found that it is not always clearly documented whether a loan was used for private or business purposes. Accordingly, business owners were asked whether they took out the loans in their private capacity or on behalf of the firm. Indeed, many business owners and half the micro enterprises applied for their loans in a private capacity,

whereas loans for small and medium-sized enterprises were most often taken out on behalf of the firm (see Figure 26). As expected, loan size increases with firm size. On average, the largest outstanding loan obtained by micro enterprises was around 7,570,000 kyat, for small enterprises 43,140,000 kyat and for medium-sized enterprises 144,000,000 kyat.

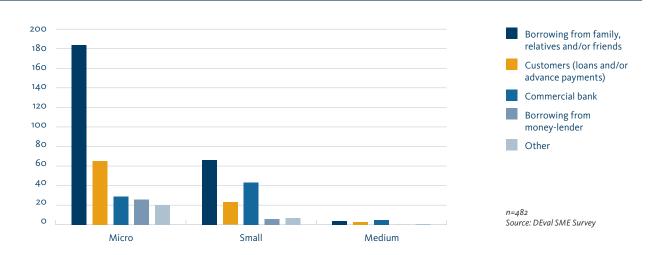
Figure 26: Identity of borrower, in total numbers



Aside from questions on the background of enterprises using loans, it is also important to understand which kind of funding sources were chosen and for what reasons, especially in a country like Myanmar, which still has a very weak formal banking sector. More than half the micro and small enterprises with an outstanding loan borrowed from their family and friends. However, commercial banks are also a frequent source

of finance: nearly a third of small enterprises and more than a third of medium-sized enterprises with outstanding loans stated that they had obtained their outstanding loans from a commercial bank (see Figure 27). This is quite surprising as it is usually emphasised that opportunities for SMEs to obtain loans from banks, especially outside the key cities Yangon and Mandalay, are very limited.

Figure 27: Overview of sources for loans by firm size, in total numbers



The factors which might impede or facilitate access to loans from formal sources<sup>11</sup> and especially from commercial banks were also investigated. A very strong relationship was found between the size of the loan and the likelihood of obtaining it from formal sources (see Table 43, Table 44 in the Annex). Accordingly, enterprises that request larger amounts but also older firms are more likely to apply for a loan from formal sources. Moreover, firms which have a preferred bank (referred to as 'house bank' in the following) are more likely to have obtained loans from formal sources, although it is not clear which came first: regularly utilising the services of a 'house bank' or obtaining a loan from a bank. There are some interesting and strong regional differences, with firms from Pyay, Monywa and Kale being more likely to borrow from formal sources than firms from Yangon. This may be due to the presence of a specific bank in the area, but is still surprising, given the limited spread of banks in Myanmar, as mentioned earlier.

Bivariate analysis had suggested a relationship between the size of a firm and the likelihood of it having obtained loans from a commercial bank. When controlling for different factors, it was found, however, that there was no significant correlation between firm size and commercial banks as a loan source. Instead, the size of the loan, regularly using the services of a 'house bank' and using the loan for business expansion (rather than to cover running costs) clearly increases the likelihood of a loan being obtained from a commercial bank (see Table 45 in the Annex). Moreover, there is a significant and strong correlation between the size of a loan and the purpose for what it is obtained. Larger loans are needed primarily for business expansion, i.e. for equipment or buildings and land, rather than as working capital (see Table 46 in the Annex). Nonetheless, it is interesting that the purpose and size of a loan, rather than firm size, appear to be the determining factor for choosing a commercial bank as a loan source. This is particularly relevant in the case of banks that plan to expand their SME portfolio.

<sup>&</sup>lt;sup>11</sup> Formal loan sources are commercial banks, cooperatives, microfinance institutions and subsidised loans from a government agency.

According to this survey, it is the firms which need larger amounts of money, rather than the larger firms, which are more interested in applying for loans from banks. However, as expected, medium-sized firms are more likely to need larger amounts than micro enterprises.

Aside from purpose, firm and loan sizes, the survey also investigated other reasons influencing the choice of a certain loan source among firms with an outstanding loan. For all three types of businesses, trust and long-term relationships are the most important motivation in borrowing from a particular source (see Figure 66 in the Annex). Small and medium-sized enterprises also considered which source provides the best interest rates. For micro enterprises, this criterion played a less significant role, most likely because they often borrow from informal sources such as relatives and customers to whom they would not need to pay high interest rates. In fact, 116 out of 319 micro enterprises with an outstanding loan reported that they do not pay interest at all. Medium-sized enterprises also consider location and accessibility when choosing their lender (see Figure 66 in the Annex).

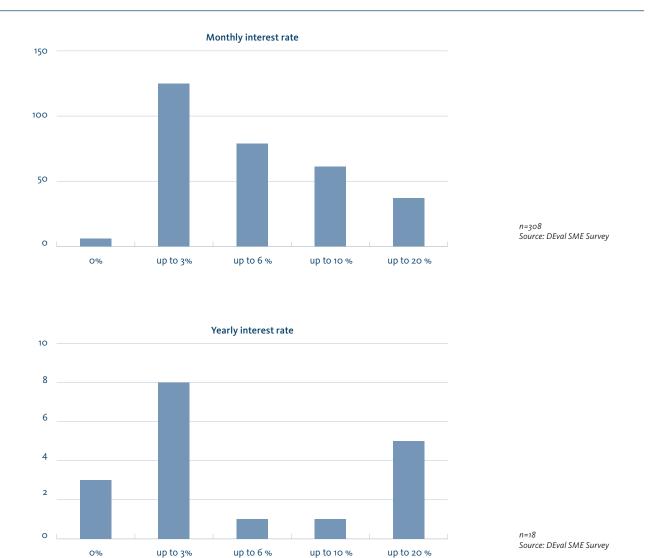
Generally, a strong correlation between certain reasons for choosing a loan and the source actually chosen (see also Table

49 in the Annex) was found. Those who borrow from banks, cooperatives or a government agency usually stated that interest rates are the most important reason, whereas for those who borrow from friends, family, other enterprises or customers, trust and relationships are more significant (see Figure 72 in the Annex).

Of the fairly small number of surveyed enterprises with an outstanding loan, about a third (156 out of 475) reported that they do not pay any interest on the loan. A strong correlation was observed between the size of the loan and whether interest has to be paid (see Table 44 in the Annex). Of these zero-interest loans, around half are granted by customers and slightly less than half by relatives and friends. They are usually granted to micro enterprises (116) and are modest in size, averaging around 9 million kyat (see Figure 67 and Figure 68 in the Annex). This is in line with previous findings: Businesses are more likely to apply for higher loans from commercial banks, and higher loans are less likely to be granted without interest.

The vast majority of business representatives who paid interest on their loans (317) stated that they pay them on a monthly base; very few pay an annual interest rate. Around two thirds of loans have interest rates of less than 3% (see Figure 28).

Figure 28: Monthly and yearly interest rates, in total numbers



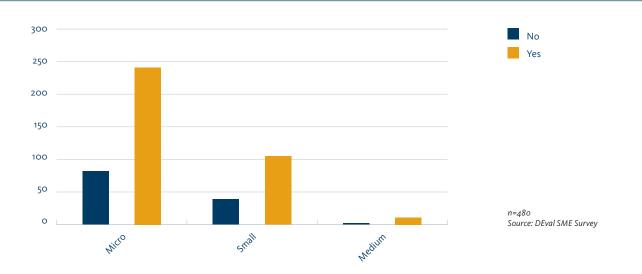
# Most SMEs obtained the loan they asked for, with minimal collateral and documentation requirements

After assessing which enterprises take out loans from which sources and for what purpose, the following section will focus on formal requirements that businesses have to fulfil in order to obtain a loan.

First of all, business representatives were asked whether they obtained the amount they had asked for when taking out the loan. Generally, the businesses stated that they did (see Figure 29). Even amongst medium-sized enterprises which usually

require larger amounts, nearly all stated that the full loan requested was granted to them. According to this survey, SMEs that take out a loan do not seem to have a problem obtaining the amount of financial support they ask for. However, the survey did not investigate whether any of the firms had applied for a loan and was rejected or had financial needs in the past and was unable to satisfy them.

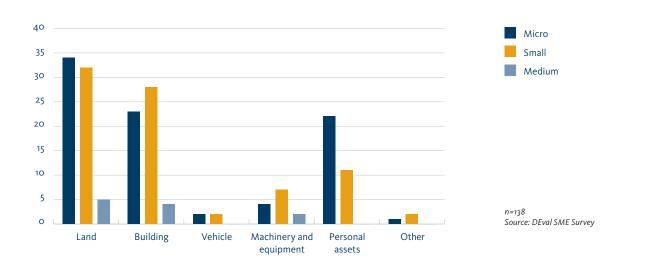
Figure 29: Number of enterprises which obtained the amout asked for, in total numbers



Moreover, business representatives were asked whether and what kind of collateral and documentation were requested when they applied for a loan. Of firms with an outstanding loan, only 134 (28%) were required to provide collateral (see Figure 69 in the Annex). Mainly land and buildings were used. Micro and small enterprises also provided personal assets as collateral, generally when borrowing from relatives/friends and customers (Figure 30). The OECD Business Survey showed comparable

results: When asked what kind of collateral was usually needed for loans, the majority of surveyed businesses stated that they had used land and buildings as collateral for both formal and informal sources of loans. Machinery and equipment were identified less often (by 10% of businesses for informal loans and by 5% of businesses for formal loans) (see Figure 70 in the Annex).

Figure 30: Type of collateral provided if collateral was required, in total numbers



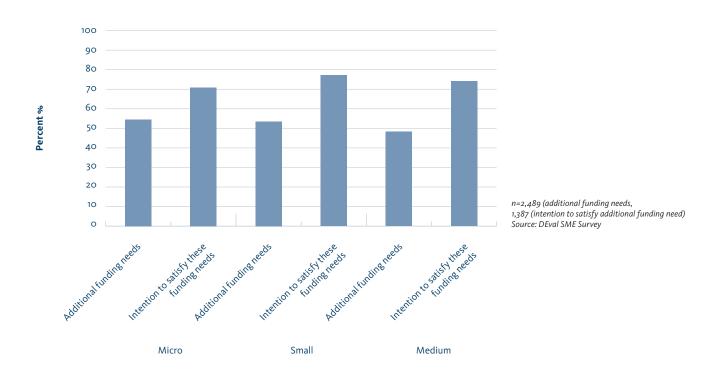
Despite low collateral requirements, a clear majority of firms with a loan (60%) had to provide some sort of documentation. However, here too, the requirements were found to be minimal. Most loan providers only asked about the purpose of the loan, although commercial banks also frequently asked for a business plan (see Figure 72 in the Annex). As noted above, there is a relationship between the size of the loan and the choice of a commercial bank, meaning that the requirement for a business plan may also be due to the higher loan amount.

Further analysis showed a strong and significant correlation between the requirement for collateral and documentation and the source of loan (see Table 47 in the Annex). As expected, formal sources, particularly commercial banks, which were the second most frequent source identified, are more likely to ask for collateral and documentation than informal sources. Since the majority of firms surveyed obtained loans from informal sources, particularly family and friends, such requirements were generally not relevant to most firms with an outstanding loan.

### Many SMEs have further funding needs and plan to apply for loans

While the previous section focused on outstanding loans, the following section deals with future financial needs. Interestingly, future needs are much higher than past needs. Only 20% of firms surveyed have an outstanding loan, but around 54% of all enterprises surveyed reported that they have additional funding needs. Around 73% of this group indicated that they intend to satisfy these needs (see Figure 31). It is interesting to note that, again, very little difference can be observed across firm sizes.

Figure 31: Share of enterprises with additional funding needs and intention to satisfy them, in percent



The average funding need for all types of SMEs is several times greater than the average amount of the largest current outstanding loans (see Table 7). Higher additional funding needs correlate moderately and significantly with expected revenue

increases (see Table 49 in the Annex). As it was not investigated whether businesses had funding needs in the past which they could not satisfy, it cannot be determined whether these higher future funding needs are in fact unsatisfied needs from the past

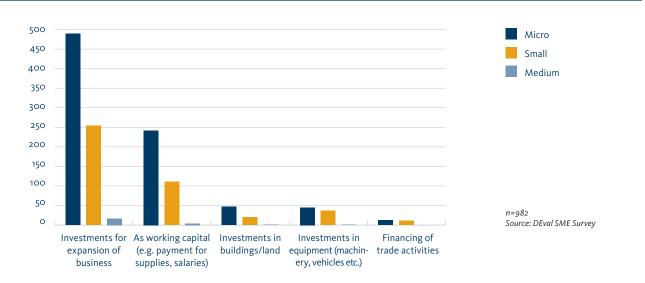
or new needs resulting from a changed economic environment. Nonetheless, the finding suggests that firms expect a positive development in revenues, such that their additional funding needs can be satisfied.

Table 7: Mean size of outstanding largest loans and additional funding needs, in thousand kyat					
	Micro	Small	Medium		
Outstanding largest loans	7,571.91	43,137.68	144,000		
Additional funding needs	22,918.34	79,380.41	531,666.7		

n = 474 (outstanding loan), 1,344 (additional funding needs) Source: DEval SME Survey

This assumption is further supported when looking at the main intended purpose of this additional funding: enterprises mainly want to obtain it for expansion of their business (see Figure 32).

Figure 32: Purpose of additional funding needs, in total numbers



Interestingly, irrespective of their size, most firms that plan to satisfy their additional funding needs would prefer to use subsidised loans from government agencies than loans from commercial banks or loans from family and friends. Most medium-sized firms prefer loans from commercial banks (6 out of 20) or would also consider subsidised government loans (5 out of 20) (see Figure 33). Only those firms that had previously taken loans from family and friends or commercial banks

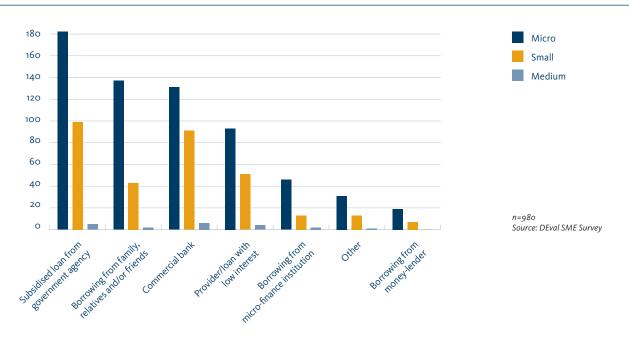
indicated most frequently that they wish to borrow from the same source in the future. For nearly all others, subsidised loans from government agencies were the preferred choice (see Table 50 in the Annex).

This is quite astonishing given that hardly any of the firms had obtained subsidised government loans in the past. This finding may reflect the increased availability of such loans and high

additional funding needs which generally increase the tendency to choose a formal source. Business owners were also asked whether they would be interested in loans from the sources shown in Figure 33. If they were unfamiliar with a particular source, it was explained to them. It might thus also be the case that these loans are not yet available for everyone, but they would be considered an attractive and preferred choice once available. Previous analysis showed that trust, interest rates

and accessibility, as well as size of the loan, were key criteria influencing the decision in favour of a certain loan source. As future funding needs are comparatively high, subsidised loans from a government agency as a formal source thus seem to be regarded as a reliable source. Moreover, commercial banks are an increasingly popular formal source of finance. Family and friends as an informal source are still relevant, especially for micro-enterprises, but much less so than in the past.

Figure 33: Source for additional loans, in total numbers



Note: "Provider/loan with low interest" was not a given category but specified by many respondents under "other sources" and thus indicates that the business owner's decision is mainly influenced by interest rates and not by a particular preferred source. The numbers presented here for the usage of this services are thus presumably much lower than if it would have been specified as an independent category.

In the past, fairly strict restrictions applied to formal sources with regard to the maturity of loans. Accordingly, business representatives were also asked about the maturity of existing loans and what their preferred loan conditions in terms of maturity for future loans would be. And indeed: while the majority of

enterprises only received a loan with a maturity of less than one year, most would prefer a maturity of one to three years (micro and small enterprises) or even more than three years in the future (see Figure 34 and Figure 35).

Figure 34: Maturity of outstanding loans, in total numbers

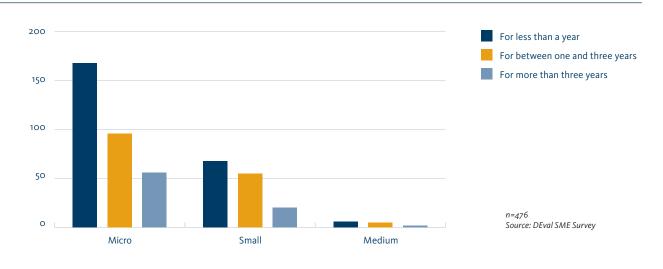
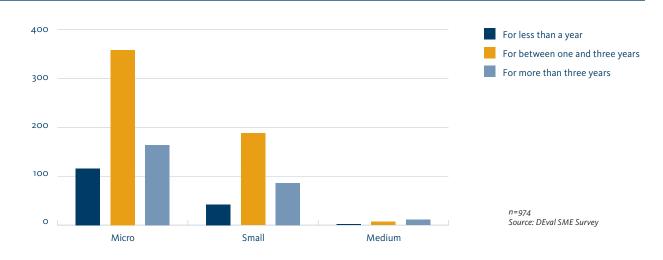


Figure 35: Preferred maturity for additional funding, in total numbers

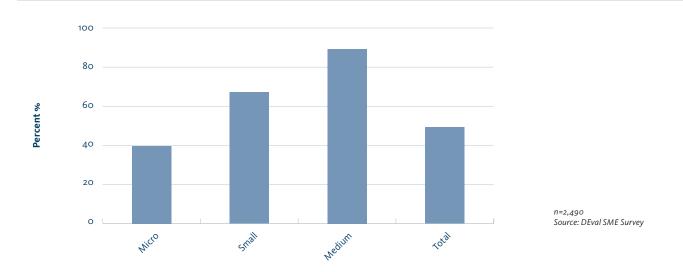


Many SMEs use their 'house banks' for basic banking services and are satisfied with them. The majority, however, does not see the need for a 'house bank' to provide regular services

The final sections of this chapter look at SMEs' experience and opinions with regard to banks. As the financial sector development project particularly focuses on strengthening the formal sector and supports banks in providing financial services for SMEs, it is important to learn more about the perspective of this potential group of clients.

In order to better understand what share of businesses has some level of experience in interacting with a bank, business representatives were asked whether they have a preferred bank/'house bank' (defined as one particular bank which is consulted regularly for day to day transactions or any specific service. Interestingly, almost half of all businesses surveyed reported having a 'house bank'. The share is largest among medium-sized enterprises (approximately 89%) and lowest among micro enterprises (around 40%) (see Figure 36).

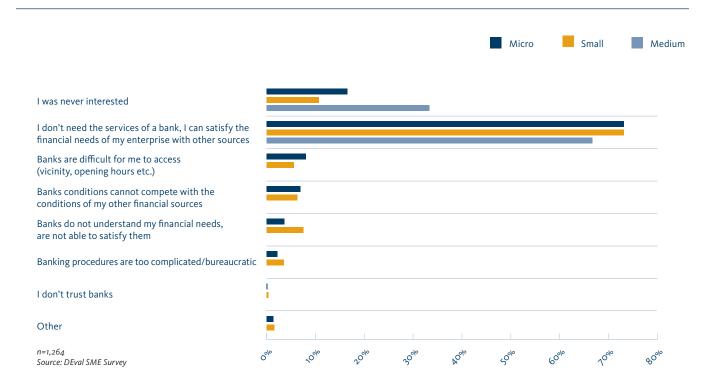
Figure 36: Share of enterprises using a 'house bank', in percent



When analysing the relevant data, a couple of important factors can be identified. The size of the firm makes a difference, with small and medium-sized enterprises being more likely to have a 'house bank'. Regional differences are also evident, with firms from Bago being more likely to have a 'house bank' than those from Yangon. Firms in Sagaing are less likely to have one. Despite the assumption that most services are available in Yangon where most banks are located, this is not an obvious conclusion, according to the data. Registered businesses and those affiliated

with a business or sector association are more likely to have a 'house bank' (see Table 51 in the Annex for full regression results). The main reason reported for not having a 'house bank' is that the business does not need its services or has never been interested. Other reasons such as lack of access, banks' lack of competitiveness compared with other financial sources, lack of understanding of financial needs and complicated banking procedures are less important; lack of trust does not seem to be a relevant factor (see Figure 37).

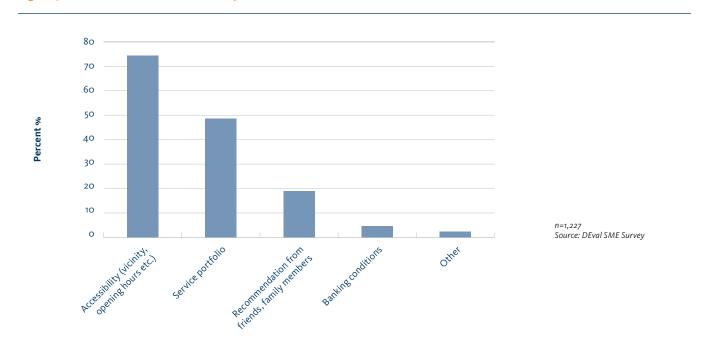
Figure 37: Reasons for not having a 'house bank', in percent



Those businesses which choose to use one specific bank do so mainly because of its accessibility, followed by its service

portfolio and recommendations from friends or family (Figure 38).

Figure 38: Reason for choice of bank, in percent

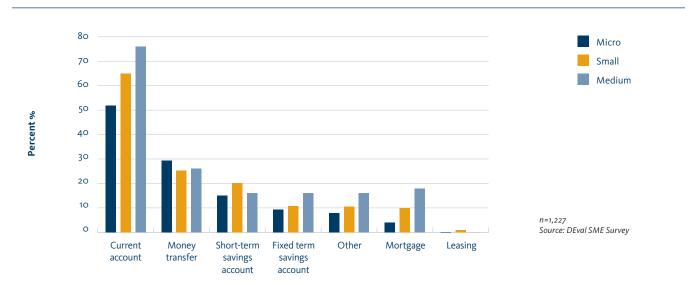


When asked about the services used from the 'house banks', the majority of firms reported that they use very limited and simple banking services, mainly current accounts and money transfer services. Saving products (short-term and fixed-term savings accounts) are used much less (see Figure 39). Mortgages are rarely used. The previous assessment of banks' services and competence is thus based on SMEs' limited experience of a range of fairly simple financial services. This finding also explains why business representatives were rather reluctant to rate certain aspects of banks' lending conditions. Some firms indicated that banks' bureaucratic procedures, rather than specific conditions

such as interest rates and maturity, are regarded as the greatest obstacle when applying for a loan. However, this survey's data does not suggest that SMEs are reluctant to interact with banks or would generally not approach them for a loan if there was a need for it.

Findings from the OECD Business Survey are similar: Current accounts are the most frequently used financial product (around half of all businesses surveyed use them), followed by short-term savings accounts (around one fifth) (see Figure 73 in the Annex).

Figure 39: Financial services used by enterprises, in percent



Note: "Money transfer" was not a given category but specified by many respondents under 'other financial products'. The numbers presented here for the usage of these services are thus presumably much lower than if it had been specified as a separate category.

Ratings of the services used are mixed. The most frequently used services – current accounts and money transfer – are generally regarded as adequate. Mortgages and leasing are considered somewhat inadequate, especially by micro and small enterprises, which make very little use of these services

generally, but also in comparison to medium-sized enterprises (see Table 8).

Table 8: Average rating of financial services used					
	Micro	Small	Medium	Total	
Current account	2.82	3.04	2.89	2.91	
Short-term savings account	2.4	2.54	2.63	2.47	
Fixed-term savings account	2.34	2.49	2.81	2.42	
Mortgage	2.18	2.33	2.71	2.26	
Leasing	2.11	2.16	2.35	2.14	
Money transfer	3.2	3.36	3.26	3.26	

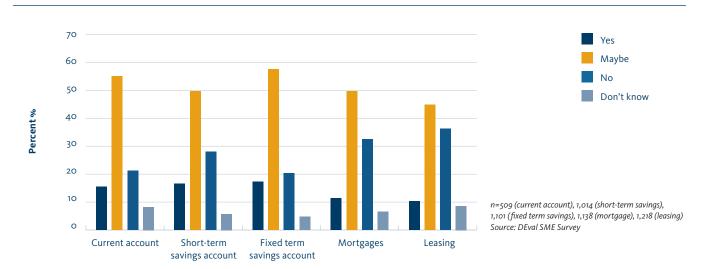
1 = not adequate, 2 = somewhat inadequate, 3 = rather adequate, 4 = adequate

n = 1,016 (current account), 700 (short-term savings), 614 (fixed-term savings), 583 (mortgage), 519 (leasing), 217 (money transfer)
Source: DEval SME Survev

Further analysis showed that firms' own experience of using banking services such as current accounts, savings accounts and mortgages seem to be the strongest influencing factor for rating financial services more positively, with partly large effects (see Table 54, Table 55, Table 56, Table 57 and Table 58 in the Annex for full regression results). It can be concluded that financial services are better than their already fairly positive reputation among SMEs. In line with this finding, this survey's data suggests that the most prevalent reason for not making use of financial services is the perceived lack of need for them, not

unfavourable terms and conditions (stated by more than 90% of firms). This is further confirmed by the finding that the majority of enterprises not using certain financial service do not seem to show any interest in possibly using any of these new services in the future, even if they were available on favourable terms and conditions (see Figure 40). The limited use of financial services by SMEs will probably continue even if conditions become more attractive. This is only likely to change once SMEs are convinced that they would benefit from a service that they do not currently regard as relevant to their business.

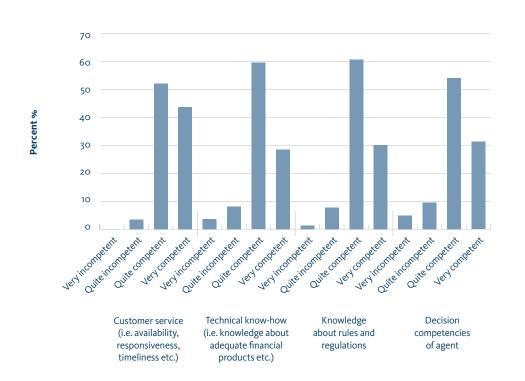
Figure 40: Future use of financial services not used yet, in percent



Considering that enterprises that reported having a 'house bank' utilise a very limited range of services and do not expect to make more use of any other financial services, it is not surprising that the general feedback on banks' performance and services is positive. Business representatives view their bank

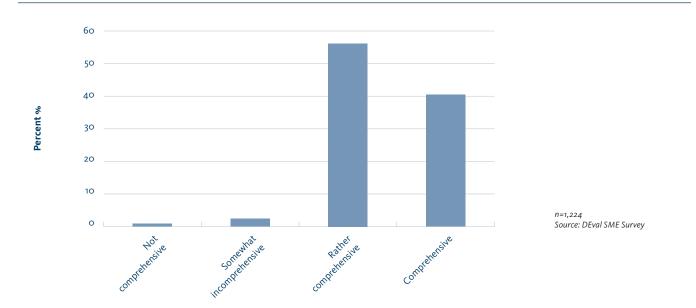
as quite to very competent, especially with regard to customer service (see Figure 41). The vast majority of firms also consider banks' range of financial services to be comprehensive (see Figure 42).

Figure 41: Rating of banks' competence, in percent



n=1,223 (Customer services), 1,202 (Technical know-how), 1,218 (Knowledge rules and regulations), 1,169 (Decision competencies) Source: DEval SME Survey

Figure 42: Rating range of banks' services, in percent



Further analysis did not identify many significant correlations that would help to explain which types of businesses regard their bank's services as more or less competent and which may be relevant influencing factors apart from a few minor regional and branch-specific differences (see Table 52 in the Annex for full regression results). Very few regional differences in the assessment of banking services were identified (see Table 53 in the Annex).

# Main findings on financial needs and services

- Only around 20% of SMEs have an outstanding loan, irrespective of firm size. The purpose of the loan, however, varies depending on the type of business.
   Micro firms use existing loans as working capital rather than for investment. Small and medium-sized firms use loans for both.
- Generally, banks and money lenders as sources of loans play a marginal role. Customers and relatives or friends are the most common source of finance.
- Informal lenders often do not ask for any interest or collateral
- The majority of firms received the amount of money they had asked for.
- While most owners of small and medium-sized businesses take loans on behalf of the company, owners of micro enterprises tend to apply for loans in a private capacity.
- The larger the company loan, the more often collateral and supporting documents such as business plans are required. Land and buildings are usually used to satisfy collateral requirements. Medium-sized firms regularly use machinery and equipment as collateral.
- Reasons for choosing a source of finance are usually trust and longstanding relationships followed by interest rates. For medium enterprises, convenience is also an important factor.

- Approximately half the enterprises with an outstanding loan were granted it for less than three years, a third for even less than one year.
- 50% of SMEs declared that they had considerable further funding needs, mostly to expand the business.
   The majority of these firms plan to apply for a loan.
- An increasing number of SMEs also seem to be considering other sources of finance, particularly subsidised loans from a government agency or commercial bank.
   SMEs are mainly interested in longer loan periods from one to three or more years.
- Around 70% of the SMEs which do not use one particular bank state that they do not need any regular services from banks. Registered medium-sized firms that are members of a business or sector association are most likely to have a 'house bank'.
- Business owners who had experience with a bank consider their adviser to be fairly competent and regard
  the range of services provided as quite comprehensive.
  Direct experience with a certain financial service
  seems to be the main factor for a positive opinion
  about a certain financial service.
- The majority of SMEs that regularly interact with a bank merely use very few basic services such as current accounts and money transfers.

6.

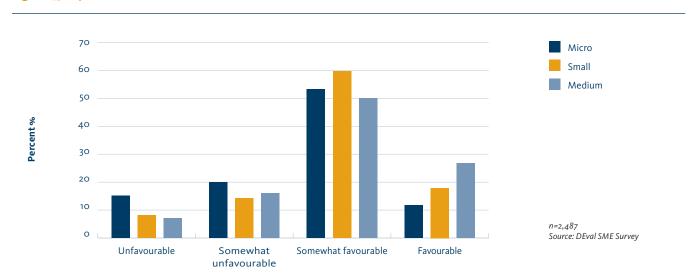
**BUSINESS CONDITIONS** 

Since the start of Myanmar's transition, many changes and reforms have been initiated. Above all, the government has focused on economic reforms and private sector development. The German-Myanmar programme on sustainable economic development pursues a multidimensional approach to support these reforms. It advises and supports the government, relevant intermediary actors such as banks and associations and, of course, SMEs. It is important to understand how these general conditions, adopted and imposed by policy-makers and other organisations, are perceived by SMEs and whether they are indeed perceived as supportive. Due to the longitudinal design of this survey, which aims to capture the situation before and after the intervention, it is possible to assess whether SMEs' perceptions have changed over time and whether objectives such as the anticipated minimisation of obstacles and challenges to business development have been achieved. This chapter presents findings on businesses' perception of market conditions, the regulatory framework and obstacles to business development.

Business representatives are optimistic about the further improvement of market conditions and business development

Business representatives were asked to assess the current market conditions and whether they have changed in recent years, and what they expect for the future. Many surveyed enterprises stated that the current market conditions are not yet ideal. However, the majority of surveyed firms (around two thirds) consider the market conditions to be fairly positive. When disaggregating the data according to firm size, some differences can be observed. Only 12% of micro firms, as compared with almost 27% of medium-sized firms, view market conditions as favourable. 15% of micro firms regard the situation as unfavourable, compared with only 7% of medium-sized enterprises (see Figure 43). For better comparability with the OECD Business Survey, its 6-point scale was adapted to this survey's 4-point scale ranging from 1 (unfavourable) to 4 (favourable). When comparing the results of the two surveys, the picture is almost reversed and thus much more negative in the OECD Business Survey: only 33% of the enterprises surveyed regard the business conditions in Myanmar as favourable or better, whereas 67% describe them as unfavourable or worse. The differences across firm size cannot be observed in the OECD sample (see Figure 44). Results from both surveys partly converge but still differ when the two samples are aligned as far as possible (see Figure 74 and Figure 75 in the Annex). Generally, findings presented in the following section will show that the firms surveyed by OECD were more negative in their assessment of overall conditions than the firms surveyed by DEval. Differences will be discussed in more detail, but the factors leading to the different results cannot be identified solely by analysis of this survey's data.

Figure 43: Opinion on current market conditions



70 Micro Small 60 Medium 50 Large medium Percent % 40 30 20 10 n=2,209 Source: OECD Business Survey Unfavourable Somewhat Somewhat favourable **Favourable** 

Figure 44: Opinion on current market conditions: OECD Business Survey with adapted scale

unfavourable

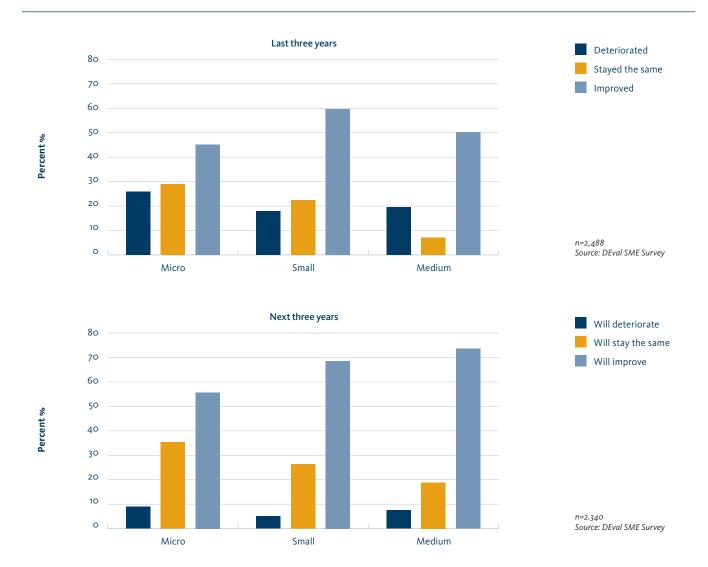
The DEval survey also probed for perceived changes in the past three years and expected changes in the future. When looking at the assessment of changes in the past, again, clear differences across firm sizes appear. Only 45% of micro firms state that market conditions improved in the past, compared with 60% of small and almost three quarters of medium-sized firms. With respect to expected future changes, variations according to firm size prevail. However, firms are generally much more optimistic. More than half the micro firms and, again, almost three quarters of medium-sized firms think market conditions will improve. Only a minority of firms expect the situation to worsen (see Figure 45).

Further analysis was conducted and even though only moderate relationships were found when controlling for other factors, several interesting aspects are still worth mentioning: the analysis confirms that smaller and medium-sized enterprises assess past, present and future market conditions significantly better than micro enterprises. This relationship between firm size and assessment is especially strong for past and future market conditions. Regional differences are also relevant as firms from Yangon rate market conditions considerably better than firms from other cities such as Monywa (past, present and future), Sagaing (past and present) or Taunggyi (past and present). More favourable ratings of the regulatory framework usually coincide with better ratings for market conditions, too. Exporting firms rate past and current market conditions worse

than non-exporters, while there is no negative effect for the expectation of improvement in the next three years (see Table 59, Table 60 and Table 61 in the Annex for full regression results).

As a result, it seems that small and medium-sized firms benefit more from recent developments than micro-sized firms and also did so in the past. Considering the discrepancies with the OECD data, where assessments are generally more negative, this is somewhat surprising as the OECD Business Survey included more large firms than the DEval sample and larger firms were, according to DEval's data, more positive in their judgement than smaller ones. Changes are also most apparent in Myanmar's commercial centre Yangon compared to smaller cities in other regions. It also seems plausible that exporting firms were more affected and limited in their trade activities than non-exporting firms when Myanmar was isolated from the international community. It is interesting that they are just as positive as other firms with regard to the improvement of conditions in the near future, which suggests that they are already benefiting from recent developments and expect this trend to continue.

Figure 45: Opinion on changing market conditions in the past and the next three years, in percent



The majority of SMEs do not only expect market conditions to improve overall but also expect to benefit from them in terms of increased revenue. This expectation prevails with only limited variations across firm size. Hardly any firm (less than 4%) expects any downward trend (see Figure 46).

Deeper analysis was conducted to identify which businesses are especially optimistic about their future revenues; firms from the manufacturing and service sector were considered separately. Although there is no significant difference between the revenue expectations of firms from the manufacturing and services sectors, both groups are considered separately in a

further analysis to allow within-sector comparison of different branches. Otherwise, revenue expectations in branches from the services sector would have been compared with branches from the manufacturing sector. The analysis confirms that no significant relationship between positive revenue expectations and firm size can be identified for the two sectors. For firms from the manufacturing sector, positive expectations regarding future economic conditions coincide with an increased likelihood to expect increasing revenues. Not surprisingly, some regional variations were also identified: Firms from Yangon are more likely to expect increasing revenues as compared to other cities, especially Mandalay, Pathein and Pyay. This suggests that

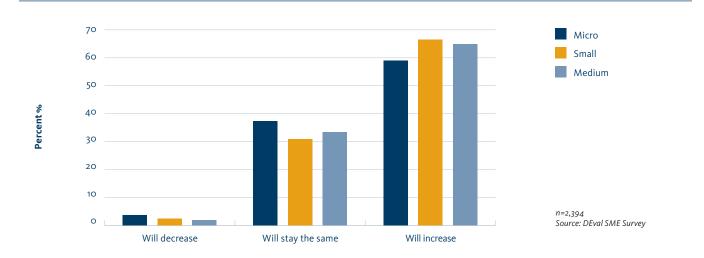
firms located in Myanmar's main commercial and industrial centre expect more positive developments for their business compared to firms located elsewhere. Moreover, this survey explored whether perceiving certain business obstacles as severe affects revenue expectations. However, no strong effects were identified (see Table 62 in the Annex).

It is interesting that, in the service sector, a positive relationship exists between expecting an increase in monthly revenues and a positive outlook with regard to future economic conditions and the firm's location in an industrial zone. As examined earlier in Chapter 3, IZs were established as special zones for industrial development and are supposed to mainly attract firms from the manufacturing sector. According to DEval's data, however, a significant relationship was identified only in relation to positive

revenue expectations and service firms located in an IZ. This finding suggests that the improvement of market conditions has not yet had noticeable effects for the industrial sector operating from IZs.

Another interesting finding is that despite the fact that a similar share of manufacturing and service firms indicated that corruption is an obstacle, firms in the service sector that perceive corruption as a severe problem are less likely to expect increasing revenues. This relationship was not identified for manufacturing firms. Only with regard to regional variations are the findings similar for both sectors. Not surprisingly, firms in Yangon are more likely to expect increasing revenues than those in other cities (see Table 63 in the Annex).



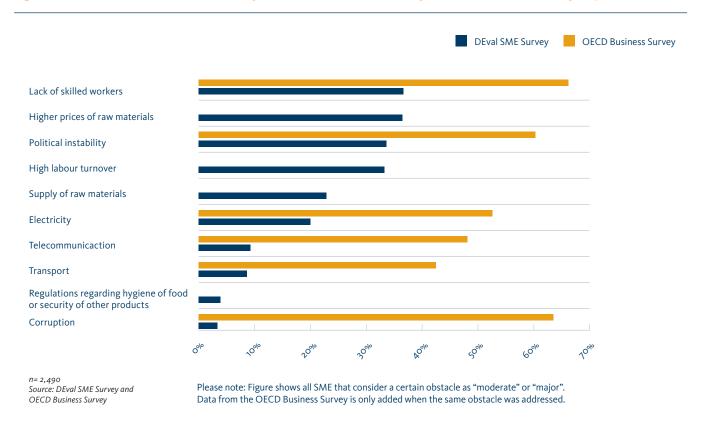


# Prices of raw materials, lack of skilled workers and labour turnover are the most pressing obstacles for SMEs

In order to improve market conditions, it is essential to understand the major obstacles SMEs are struggling with. This question was therefore addressed by this survey as well as by the OECD Business Survey. Interestingly, the results vary considerably. Respondents in this survey most often identified the lack of skilled workers and prices of raw materials (both 37%), political instability (34%) and labour turnover (33%) as an obstacle (Figure 47). Most firms in the OECD Business Survey also identified the shortage of skilled labour as an obstacle

(see Figure 76 in the Annex). These findings support previous findings presented in Chapter 4 which showed that half of the businesses surveyed indicated that it was very or quite difficult to recruit skilled workers. Nonetheless, if these results are viewed in relation to those presented in the previous chapters and the assessment of the overall conditions, business owners seem to be generally confident. Even if the figure below presents a prioritisation of obstacles, they do not seem to be seen as serious obstacles which threaten business performance overall.

Figure 47: Business obstacles as identified by SMEs in the DEval SME Survey and OECD Business Survey, in percent of firms



When looking further into the differences in results between the DEval SME Survey and the OECD Business Survey, it is very striking that the majority of enterprises surveyed by OECD stated that corruption was an obstacle (more than 60%), whereas only about 3% of the sample selected for this survey rated it as an obstacle. The World Bank Enterprise Survey also asked about business obstacles and found out that corruption was not regarded as a major constraint, as it was only mentioned by 9% of firms interviewed. For a better comparison between the DEval and OECD data, OECD's 6-point scale was again transformed into the 4-point scale used in the DEval survey (see Figure 48 and Figure 49).<sup>12</sup>

It would require further investigation and research to determine why the different samples produce such divergent feedback on the influence of corruption and such diverse assessments of market conditions, even after aligning the two samples (see Figure 48 and Figure 49 in the Annex). When looking into the other possible obstacles probed for, it is interesting to note that despite the current weak infrastructure in Myanmar, no mention was made of transportation, telecommunication or electricity as pressing obstacles in any of the two surveys.

<sup>&</sup>lt;sup>12</sup> The DEval SME Survey uses the scale 1 (no obstacle) to 4 (major obstacle). Only firms that stated 3 (moderate) or 4 (major) obstacles were used for this analysis. The OECD Survey uses 1 (very severe obstacle) to 6 (no obstacle). Only firms that stated 1, 2 or 3 were used for this analysis. The comparison only takes into consideration aspects that are included in both surveys.

Figure 48: Assessment of corruption as an obstacle

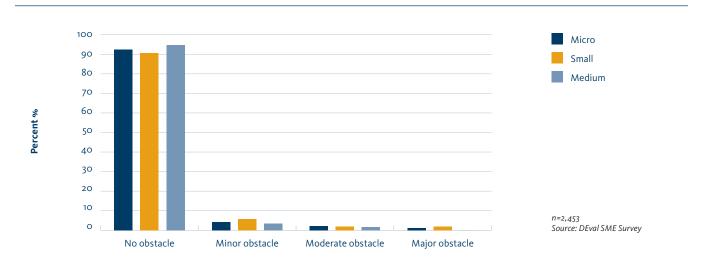
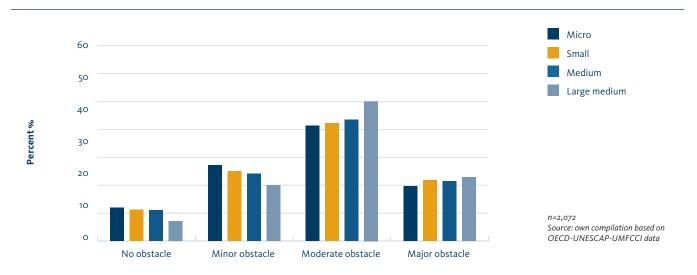


Figure 49: Assessment of corruption as an obstacle, data from OECD Business Survey adapted to rating scale used in DEval SME Survey



Because of the pronounced differences between the DEval SME Survey and the OECD Business Survey with regard to corruption as an obstacle, a deeper analysis was conducted with the DEval survey data. The effects of factors controlled for (firm size, sector, location, etc.) are only small (see Table 64 and Table 65 in the Annex) and do not adequately explain which firms consider

corruption to be a more pressing problem. Generally, however, it should be noted that capturing and assessing opinions on corruption is difficult. This is particularly true of a context like Myanmar where, despite dramatic changes and reforms in the recent years, freedom of expression and criticism of the government are still very sensitive issues. This topic will again

be addressed in the baseline report, which includes information from other qualitative data sources that might be helpful.

For the four obstacles which were mentioned most often (lack of skilled workers, high labour turnover, political instability and price of raw materials), further analysis was done in order to identify the firms which are most concerned about them. This analysis also considers the manufacturing and service sectors separately. The identified relationships are again weak for most aspects except for the price of raw materials. Not surprisingly, this problem is more often emphasised by firms operating in the manufacturing sector (see Table 66, Table 67, Table 68 in the Annex). It can thus be concluded that none of the factors controlled for, namely region, affiliation with a business or sector association, firm size, sector or branch, strongly influences whether a certain obstacle is considered problematical or not. Those obstacles identified affect all SMEs, irrespective of these characteristics. This supports the assumption that these obstacles are general problems.

Despite the indication that political instability may be a risk for businesses, government regulations are not considered a problem and expectations of future developments are rather positive

Business owners were also asked to assess the overall regulatory framework, i.e. government regulations and policies that affect their business. Interestingly, hardly any business representative stated that the regulatory framework was supportive. At the same time, the vast majority of surveyed firms consider the conditions to be 'somewhat supportive'. Accordingly, firms

across all sizes do not perceive the existing regulatory framework as destructive but signal a need for improvement (see Figure 50).

Again, business representatives were not only asked to assess the current framework but also to give an opinion about the past and future. More than half of the surveyed enterprises do not sense any changes in government regulations during the last three years. Very few identify any deterioration, whereas 42% think that regulations have improved. When looking at future expectations, the majority of firms think that the regulatory framework will improve, while around 40% think it will stay the same. Again, very few firms see a downside risk (see Figure 52 and Figure 51).

Not surprisingly, further analysis shows that the rating of the regulatory framework is related to the rating of market conditions, with significant but small differences. This applies to past, present and future assessments. For the assessment of past regulatory frameworks, some differences exist between branches. However, the largest differences relate to the location of the firms. For example, those from Sagaing consider more often than those from Yangon that the regulatory framework improved in the past or will improve in the future, while those from Bago express the opposite view (see Table 74, Table 75 and Table 76 in the Annex for full regression results). This may indicate that local governments are a relevant actor in shaping the regulatory framework for businesses.



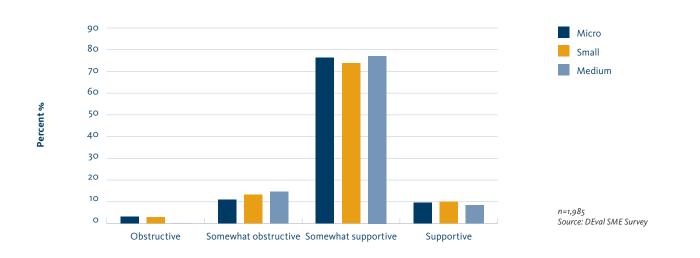


Figure 51: Opinions on development of regulations in past three years

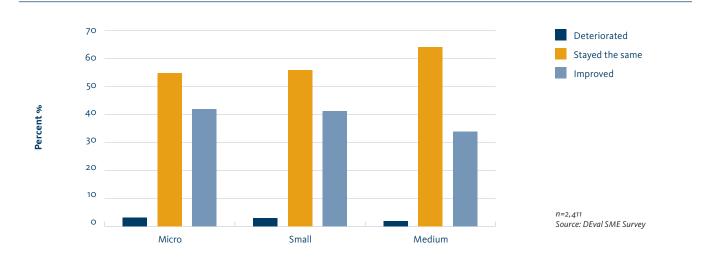
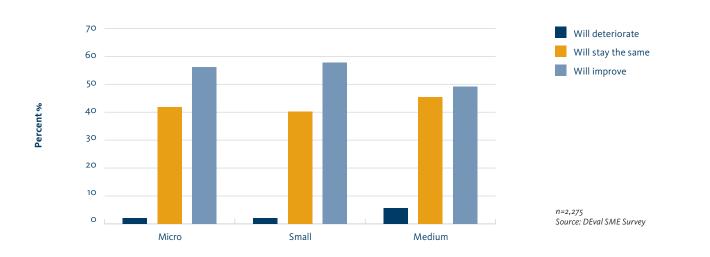


Figure 52: Expectations of the development of government regulations in next three years



## Main findings on business conditions

- Around two thirds of the SMEs surveyed view the current market conditions positively, although micro firms are more negative than larger firms. The findings of the OECD data are much more negative.
- Most business owners think market conditions have improved in recent years and will improve further in the future.
- Lack of skilled workers, high labour turnover and high prices of raw materials are seen as the main obstacles to the development of SMEs. Contrary to the OECD Business Survey, where corruption was rated as a very severe or severe obstacle by more than 40% of the enterprises. Corruption is not considered a major constraint by the business owners interviewed for this survey and the World Bank Enterprise Survey.
- Hardly any business representative describes the regulatory framework as supportive. However, three quarters state that it is at least 'somewhat supportive'.
- More than half the surveyed firms state that overall conditions have not changed in the last three years; 40% state that there have been improvements.
   Opinions are also divided on the issue of future developments: only half the firms expect the situation to improve.
- Around 62% of SMEs expect an increase in revenues in the next year. There is a significant positive relationship between positive expectations regarding business development and expected favourable developments of market conditions and the overall regulatory framework.

7.

# BUSINESS DEVELOPMENT SERVICES

Business development services (BDS), which include an array of business services such as training, consultancy, marketing, information, technology development and transfer or business linkage promotion, both strategic and operational, are another important tool to support SMEs. In particular, interventions that focus directly on the private sector also support and strengthen non-governmental organisations and intermediaries, e.g. business and sector associations and the SME Development Centre. Such organisations represent the interests of the private sector and provide advice and support to private enterprises on business development. Previously, no reliable data existed on the awareness and experience of SMEs with business development services, which is why this aspect has also been included in this survey. The following section presents findings on enterprises' previous experience with such services, but also indicates the areas in which more support is needed, according to business owners.

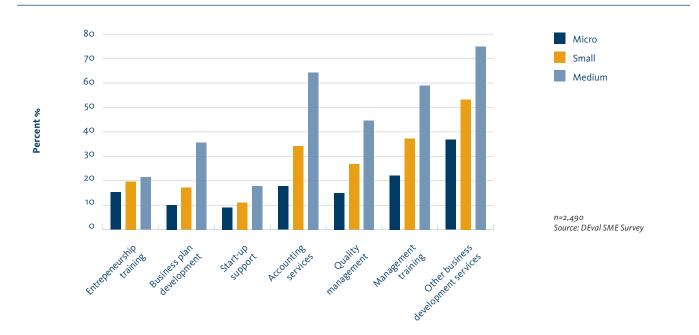
# Many medium-sized enterprises are already familiar with and make use of business development services

First, business representatives were asked whether they had heard of business development services before. Around 43% of the respondents stated that they are aware that business development services of some kind exist (see Figure 53).

Generally, it seems the larger the enterprise, the more likely it is that they know about the various services. Most interviewees had heard about support services in the fields of management and accounting (about 27% and 24%), followed by quality management (about 19%).

The effects of the various factors identified in the further analysis are fairly minor, but some still provide interesting insights: small and medium-sized businesses are more likely to be familiar with at least one of the business development services covered in the survey, as compared to micro enterprises. Familiarity with the TVET system also coincides with an increased likelihood of familiarity with these services. The largest regional differences can be observed between Taunggyi and Yangon, with firms from Taunggyi being more familiar with BDS and between Monywa and Yangon and firms from Monywa being less familiar. Interestingly, membership of a business or sector association does not correlate significantly with knowledge of development services (see Table 77 in the Annex). This finding suggests that, at present, contrary to assumptions, information on TVET and business development services is not primarily transferred through associations. There appear to be other relevant, regional actors and organisations. Further research is needed to identify them.

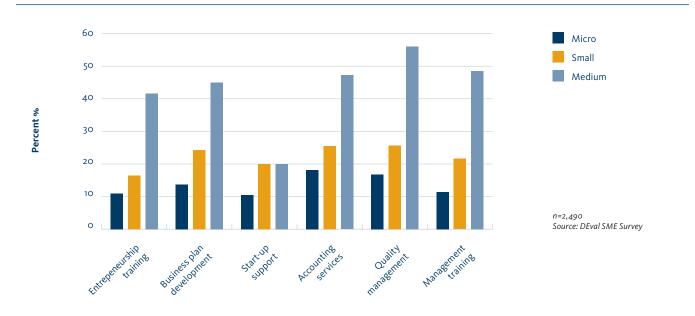




Despite the rather high share of business representatives that has heard about some form of BDS, only around 25% of these firms indicated that they had received any kind of support or training (11% of all businesses surveyed). Medium-sized enterprises made use of available business development services considerably more than other enterprises, except for start-up support (see Figure 54). This is confirmed in a deeper analysis of which factors correlate with participation in at least one of

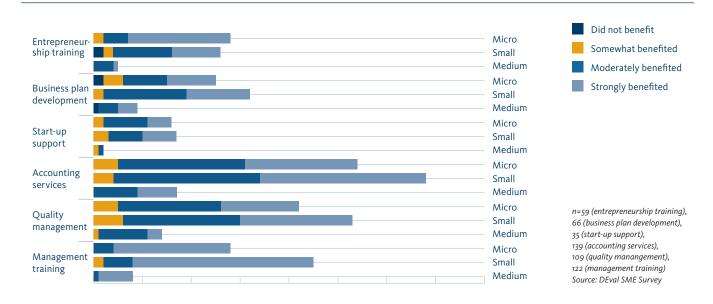
the business development services probed for. As regards firm size, small and medium-sized enterprises are more likely than micro enterprises to have participated in business development training, though the effect is rather small. Firms from Mandalay, Taunggyi and Lashio are somewhat more likely to have participated in training than firms from Yangon. Interestingly, participation is significantly higher among managers and staff than among business owners (see Table 78 in the Annex).

Figure 54: Share of total SMEs receiving support or attending training in different fields, in percent



Regardless of the type and area where support was received, all enterprises that received some kind of business support stated that they benefited from it (see Figure 55).

Figure 55: Businesses which benefited from business development services, in total numbers



SMEs which are familiar with but do not make use of business development services often regard them as irrelevant or feel that transaction costs are too high

As mentioned earlier, a rather large number of firms know about BDS, but do not make use of them. Accordingly, those firms were asked about their reasons for not doing so. The two most important reasons are the available services' perceived lack of relevance to the businesses' current conditions and high transaction costs during application (see Table 9). The only BDS

where differences could be determined is quality management training. Micro enterprises reported that they had not sought support in quality management because of high transaction costs, whereas small enterprises explained that they possessed this knowledge already and medium-sized enterprises did not find this type of training relevant to their current conditions. This also suggests that there was little need or pressure to comply with quality standards in the past.

Table 9: Most cited reasons for not attending business development service programmes, in percent						
Business development service programme	Most cited reason for not attending	% of firms citing this specific reason				
		Micro	Small	Medium		
Entrepreneurship training	Service is not relevant for my current conditions	48	52	43		
Business plan development	High transaction costs during application	42	38	36		
Start-up support	High transaction costs during application	40	41	38		
Accounting services	Service is not relevant for my current conditions	47	40	42		
Quality management	High transaction costs during application	31				
	Service is not relevant for my current conditions			36		
	I possess this knowledge already		34			
Management training	Service is not relevant for my current conditions	44	36	35		

Basis for percentages: Firms of different sizes that are familiar with a particular business development service but have not used it yet.

The next step was to identify those BDS which SMEs would be interested in. Because not all interviewees knew about the various key BDS, the interviewer briefly explained the services listed in the above table and asked which service would be considered beneficial for the particular business. Medium-sized enterprises were mostly interested in management training (48%) and

business plan development (35%). Micro and larger enterprises also expressed their need for start-up support (about 35% of all firms surveyed). Small enterprises also highlighted quality management support (36%) and entrepreneurship training (33%) as very important. Enterprises were also asked whether they could think of any other additional relevant business development support that would be important for them, but hardly any other needs were mentioned (see Figure 56).

Figure 56: Business development services needed by SMEs



n=360 (entrepreneurship training), 255 (business plan development), 212 (start-up support), 457 (accounting services), 372 (quality management), 568 (management training) Source: DEval SME Survey

# Main findings on business development services

- 43% of SMEs are aware of business development services but only around one quarter makes use of them. Strong variations can be observed across firm sizes. Micro enterprises have less knowledge about BDS and make less use of these services compared with larger firms.
- Among the firms surveyed, those which belong to an association do not possess much more knowledge about business development services than those without any affiliation.
- For SMEs that had heard of BDS before, services in the field of accounting, quality management and management are the most familiar.

- The majority of firms that had attended some kind of training in the past consider it beneficial.
- SMEs that know about business development services but do not make use of them regard the services as irrelevant or transaction costs during application as too high.
- In the future, medium enterprises would be most interested in management training (48%) and business plan development (35%), small firms in quality management (36%) and entrepreneurship training (33%) and micro enterprises in start-up support (35%).

8.

CONCLUSIONS

This SME survey provided a number of interesting findings that serve as a baseline for an impact evaluation of the German-My-anmar programme on sustainable economic development and as information for decision-making by the Government of Myanmar, BMZ, the German implementing organisations and other donors. However, as not all the findings can be adequately explained on the basis of this quantitative SME survey, DEval conducted additional key informant interviews. Findings from both data sources will be presented and analysed within an overall baseline report which will also lead to an information gain.

A comparison of the findings of the OECD Business Survey (and to a limited extent the World Bank Enterprise Survey) with the findings of this survey reveals that different methodological approaches lead to different findings. Primarily using national authorities' or associations' company registers to draw up a sample proved to be problematical as this approach can result in the exclusion of unregistered enterprises, which then leads to under- or non-representation of the informal sector. This is a particular problem considering that, according to the OECD, more than 80% of the private sector operates informally (OECD, 2013) and very few of these enterprises are affiliated with any business association. The block-screening approach which was chosen for this survey systematically includes non-registered firms and thus the informal sector. It is thus assumed that findings are closer to reality.

Discrepancies between the OECD and DEval approach become most apparent when comparing the sizes of identified firms. While micro firms dominate the DEval sample (67%), they only make up 35% of the OECD sample. Moreover, medium-sized firms only make up a minor share of identified firms in the DEval SME Survey (2%) but up to 10% according to OECD. Obviously, the different sampling approaches also lead to significant differences with regard to SMEs' membership of business or sector associations. According to the DEval data, 4% of firms are members of an association as opposed to 40% in the OECD data. Findings on the sectoral distribution also differ. DEval found that sectoral distribution is fairly even, with slightly more firms operating in the manufacturing sector (54%) and 48% in the service sector. The OECD, however, found that the majority

of firms (57%) operate in the service sector and only 43% in manufacturing.

When looking into the sample in more detail, a number of additional characteristics can be identified:

- The sample includes only a small percentage of newly established firms. Only a quarter of firms surveyed were set up within the last five years. The liberalisation process which gradually started in 2011 has not, as yet, led to a significant increase in business start-ups. This seems to offer considerable scope for support and initiatives from the donor community.
- According to the DEval data, around half the firms surveyed operate in the manufacturing and service sectors. They are spread over a range of branches, indicating that Myanmar does not seem to depend solely on a few branches and developments in this field. Most SMEs were found in the restaurant and hotel branch (16%) and retail (14%). Within the manufacturing sector, two branches were identified most frequently: machinery, vehicles and metal (12%) and food, beverages and tobacco (12%). The other branches accounted for well below 10% of all firms.
- In the 1990s, the Government of Myanmar established local industrial zones to create business-friendly hubs for industrial development. These zones do not seem to be particularly appealing to SMEs. Three quarters of surveyed firms in the manufacturing and service sectors operate outside the industrial zones. Only within the machinery, vehicles and metal (30%), food, beverages and tobacco (23%) and repair (20%) branches have a large number of firms been established in IZs. Future studies on IZs are required to investigate how they can be made more appealing in order to attract more firms.
- Data from the DEval survey shows that SMEs are not generally organised in business or sector associations (4%).
   If these associations are to contribute to economic and private sector development in the future, they need to be much more attractive to firms. Possibly, SMEs were not their target group in the past or the few existing services provided through associations are currently not of any interest to SMEs. There is clear potential for development in this field.

• Another important finding of the survey is that micro and small enterprises regard their own shops as their most important marketing channel, whereas wholesalers in the same region are most relevant to medium-sized enterprises. The EU is not a relevant partner or an export destination. None of the businesses surveyed indicated that they exported to the EU. Only a few firms sell to other regions at present. This coincides with the fact that hardly any firm has achieved international recognised quality certification and shows that the Myanmar economy is currently poorly prepared for exporting products or services. It seems very likely that there is not only a lack of quality management systems and quality certification, but also a lack of awareness among businesses about export opportunities, as well as a lack of business contacts, strategies and sales channels. This is another important area for development, especially with regard to private sector support.

#### Staff composition and qualifications

Three quarters of the business owners in the sample, regardless of firm size, are male. If only full-time permanent employees are considered, the picture changes. Here, a balance between male and female workers emerges. Interestingly, among the part-time permanent employees and especially among the non-permanent employees, men outnumber women. This is astonishing because women in many countries work part-time due to family obligations or take on non-permanent employment as casual labour. This does not seem to apply to Myanmar. The same holds true for the professional status of men and women. The proportion of men and women working in management positions, as professionals or skilled workers and as semi- or unskilled workers is broadly similar.

Most of the employees have no professional qualifications or formal vocational education. This is not surprising, since TVET institutions train only a very small percentage of all employees. There are very few graduates of technical schools or training centres (STC, ITC) working as management staff, as professionals or skilled workers or as semi-skilled or unskilled workers. A broad field of action for the promotion of vocational education was thus identified. However, employers are generally satisfied

with their employees' qualifications. Business representatives rated the skilled workers' theoretical know-how moderately (50% somewhat, 18% very qualified), but still mainly positively. Almost all employers are content with their skilled workers' practical skills. The same applies to their attitude to work and their communication and social skills. Employers are not as content with their unskilled workers but most still rate them positively to very positively.

Thus, one might question the relevance of interventions in the field when almost everyone is satisfied with the present employee skills level. It is possible that the employees are sufficiently qualified to offer products and services which are currently being provided for the local market. In an increasingly competitive and international market, however, the situation is likely to change. It is unlikely that the skills level will be sufficient for export-oriented enterprises or for enterprises supplying larger markets. TVET therefore has to be seen as an investment in the future. Moreover, half the enterprises in the survey state that recruiting skilled workers is 'quite' or 'very' difficult. Myanmar's expected positive economic development may well intensify these problems and increase the need for a better-qualified workforce. Currently, enterprises offer in-house training to satisfy their skills-related needs. There is a need to investigate whether and in what way they might be open to cooperation with TVET schools, which are currently unfamiliar to many firms. Certainly, some effort has to be made in convincing them to do so, especially because employers usually recruit their staff via personal acquaintances and do not pay attention to formal education or degrees.

#### Financial needs and services

Firms not only need qualified staff for economic development; they also need access to finance. Accordingly, financial needs and firms' experience with the formal banking sector were also assessed.

The DEval survey showed that only 20% of SMEs, irrespective of firm size, have an outstanding loan. The purpose of the loan clearly varies. Micro firms mainly use loans as working capital (e.g. to pay for supplies and salaries) and less for investment

(e.g. expansion or diversification of their business). Amongst small and medium-sized firms, both reasons are relevant.

Generally, banks and money lenders do not currently play an important role. Micro and small firms mainly borrow from friends and relatives. Among micro enterprises, it is also common to borrow from customers. This is less the case for small firms, which would rather consult banks for loans. As reasons for choosing a particular source of finance, trust and longstanding relationships followed by interest rates are most relevant. The maturity of loans is usually less than three years; for one third, the maturity is less than one year. Obtaining a loan, however, does not seem to constitute a problem. Most firms, including micro enterprises, state that they obtained the amount requested.

When looking into future financial needs, it can be determined that – regardless of firm size – half the firms have additional funding needs (mainly to expand their business). The majority of these firms also plan to satisfy these funding needs. Subsidised loans from a government agency were emphasised as the preferred source of finance aside from traditional sources (family, friends and banks). It is interesting to note that apart from the source of the loan, businesses are also interested in low interest rates and loan maturities of one to three or more years.

This is particularly relevant to loan creditors planning to support SMEs. Firms are interested in loans with low interest rates and seem to be willing to rely on sources other than family and friends.

Regular interactions with banks are rather common. 40% of micro, more than 60% of small and more than 80% of medium enterprises indicated that they have a 'house bank'. Of those without a 'house bank', around three quarters state that they do not need regular services from a bank. Those with a 'house bank' are satisfied with its services. When being asked about customer services, most business representatives consider knowledge of suitable financial services, awareness of rules and regulations and agents' decision-making skills to be satisfactory. Most enterprises are satisfied with the range of services provided by their 'house bank'.

As the feedback on banks' performance and services is generally positive, the question arises as to why it should be necessary for donors to support and advise the financial sector on broadening its services for SMEs. One reason lies in the services that are generally used by SMEs at the moment. SMEs only use current accounts, money transfers and saving accounts and most of them plan to make use of these services in the future. Around 60% of firms surveyed would also be interested in mortgages or leasing.

The financial sector will first need to create a certain level of demand by developing new services. According to the data from this survey, most firms are satisfied with the quality and diversity of the available financial services. Firms have access to finance when needed and do not identify any significant deficits in the current financial sector.

As concluded in the previous section on qualification needs, the situation may also change rapidly in the finance sector due to the anticipated growth of the Myanmar economy. More capital will be needed for the expansion of the manufacturing and service sectors. Then new financial models and financial services will be of growing interest to businesses, especially when joint ventures with foreign firms and exports become more relevant. Financial sector development, however, must not take place without bearing in mind the needs of the private sector. A demand for financial innovation must first be created and trust between banks and businesses needs to be established before firms start to increasingly request financial services from banks.

#### **Business conditions**

In order to support firms in their economic development, it is also important to understand the context in which they operate. Accordingly, business representatives were asked to assess their current business environment. Around two thirds of the firms surveyed consider the current market conditions to be 'favourable' or at least 'somewhat favourable'. Micro enterprises view the situation much more negatively than medium-sized firms. The OECD Business Survey paints a rather different picture: Around two thirds of firms, irrespective of size, state that market conditions are 'unfavourable' or 'somewhat

unfavourable'. This may also be caused by the different sampling approaches chosen for the two surveys and clearly shows that different approaches can lead to diverging results. As mentioned earlier, drawing up a sample mainly on the basis of firm registers is seen as problematical in the Myanmar context and leads to under-representation of micro firms (67% in the DEval Survey and 35% in the OECD Sample) and the informal sector. It is thus assumed that the findings of the DEval Survey are closer to reality

Since the beginning of the liberalisation process, the Government of Myanmar has initiated a number of economic reforms which have apparently led to an improvement of the market situation, especially for small and medium enterprises. Less than half the micro enterprises, almost 60% of small firms and a full three quarters of medium firms reported an improvement in market conditions. Expectations regarding future changes are similar except that again, half the micro and three quarters of small firms think conditions will improve. This positive view is supported by an expected increase in revenues in the upcoming year. Hardly any of the firms surveyed expect revenues to decrease.

It can thus be concluded that SMEs generally consider the current conditions, opportunities in the past three years and expectations for the next three years to be positive. These are good preconditions for economic development in Myanmar and signal a willingness on the part of firms to invest and expand.

In order to support firms in their development, the DEval SME Survey also investigated the main business obstacles. Again, significant differences between the DEval and OECD surveys can be identified. More than one third of the firms surveyed by DEval highlight the following main obstacles:

- Lack of skilled workers,
- High labour turnover,
- Political instability, and
- Prices of raw materials.

The OECD Survey partially included the same aspects in its questionnaire. When comparing the results on the aspects included in both surveys, the OECD reveals a different picture.

Around 60% of firms stated that the main business obstacles were

- Lack of skilled workers,
- Corruption,
- · Political instability, and
- To a lesser extent transport.

Corruption and transport are not generally viewed as business obstacles (3% and 9%). When using the DEval data as the basis, political instability is considered a problem, but the lack of qualified staff, staff fluctuation and prices of raw materials are equally or even more worrying factors for businesses. At least the problems of skills and employment can be addressed by international donors and especially by the BMZ-funded vocational education projects.

Aside from market conditions and business obstacles, business owners were also asked to assess the overall regulatory framework, which also strongly influences market developments. The DEval data shows that hardly any firm thinks the regulatory framework is supportive. However, firms do not consider it obstructive either. Almost three quarters of the firms surveyed, irrespective of size, think the regulatory framework is 'somewhat supportive'. In this regard, it seems that not much has changed since the beginning of the reform process. More than half the firms surveyed stated that nothing has changed during the last three years. In contrast to the positive expectations regarding the future development of market conditions and revenues, expectations are not as positive for the regulatory framework. Around 40% of firms do not think regulations will change, and only around half of them expect improvements. Nonetheless, hardly anyone expects any downside developments.

Overall, this is not a bad starting point for economic development in Myanmar. However, opinions and feedback from business owners show that the regulatory framework is currently not very supportive and future expectations are ambivalent. This means that there is a clear need for action, with particular scope for the German-Myanmar private sector development project to support this process.

#### **Business development services**

It is not only the regulatory framework that is important for the economic development of enterprises; so too are formal commercial structures such as business and sector associations and other organisations such as the SME Development Centre. The DEval survey therefore analysed to what extent such organisations are visible and whether they offer business development services, but especially whether enterprises use them and think they were beneficial.

Only about 40% of the enterprises interviewed stated that they were aware that business development services of some form exist, but only around a quarter make use of them.

Regardless of the type and sector in which support was received, the vast majority of enterprises that received some kind of business support stated that they benefited from it.

When asked for the reasons why a familiar service was not used, firms usually stated that it was irrelevant to their business or transaction costs were too high.

Business representatives did not identify any need for further business development support. Only around one third of firms are interested in the various services. Medium firms give priority to management training, whereas micro and small firms are more interested in start-up and entrepreneurship training, if available. There is also interest in accounting and quality management support.

It seems there is latent interest in such services, but no appropriate supply yet. Again – as in the other areas analysed – it is important to first ensure and promote a specific service in order to increase demand for it. A more detailed study is needed to determine which firms and branches actually use BDS and which associations or institutions are able to provide these services or need to be supported in developing and providing them.

9.
ANNEXES

# Annex I: Detailed approach, instruments, quality control

This baseline survey of small and medium-sized enterprises is part of a broader baseline study to collect data on the situation of small and medium-sized enterprises for the purpose of monitoring and evaluating the German-Myanmar programme on sustainable economic development.

The SME Baseline Survey forms the first round of a business panel. All surveys will cover the same firms in each township. The main benefit of the longitudinal design is to provide SME-related information on changes over time. The decision to undertake this survey was made after consultation with other organisations that were planning business surveys in Myanmar. It was concluded that these surveys would not provide the data required as baseline information for the planned interventions, primarily for the following reasons:

- (i) It would not have been possible to generate specific data to inform the indicators of the German-Myanmar programme on sustainable economic development.
- (ii) After the first interviews with Myanmar experts and donor representatives, it became clear that no ongoing research project had attempted to systematically include the perspective of the informal sector, although this was assumed to make up a significant share of SMEs in Myanmar and was the main target group of the interventions.
- (iii) It was emphasised that existing company registers held by local and national authorities or associations are generally incomplete and inaccurate, suggesting that using any of these registers was likely to produce biased results.

The following will present the main work steps and elaborate on the chosen methodological approaches and instruments in a chronological order:

#### Overall approach chosen

At the beginning of the process, it was assessed which data sources and firm registries were available. Moreover, meetings with authorities and business experts showed that very little current data on small and medium enterprises was available in Myanmar. It became apparent that the private sector is comprised of a very large share of unregistered firms. Some sources suggested that between 60% and 90% of firms were not registered. However, when the project was planned, there was no reliable data available to back up this information. In 2013, Volume 1 of the OECD Multidimentional Country Review stated that 83% of firms in Myanmar are informal (OECD, 2013). Due to intransparent processes and responsibilities of authorities, existing information is not collected/saved centrally and the various local and national registers are incomplete and/or inaccurate.<sup>13</sup> In order to ensure the quality and completeness of the register used for this survey, with systematic inclusion of information on informal businesses, a two-step approach was necessary. Before starting the actual survey, cities were selected and a list of businesses for these cities was compiled. During the listing of firms, a so-called block screening approach was used to construct the sampling frame. The idea of the block screening approach is that enumerators are deployed to one block in an area of a city with a high level of economic activity and a high density of SMEs. All establishments that resemble a business are then screened and requested to answer a short questionnaire. The questionnaire collects basic information about the firm. This was later used to generate the sampling frame.

#### Selection of cities

The survey cities were selected so as to reflect the socio-economic and ethnic composition of the country and the sectoral distribution of firms in Myanmar. Further selection criteria were growth potential in the near to medium future and high densities of SMEs. In total, 11 cities were selected:

- Lashio is a major town in North Shan on the route to China.
- Kalay has some growth potential due to its location on the route to India.
- Magway is a major city, centrally located on the Irrawaddy River.
- Monywa is one of the largest cities in the northwest of Myanmar.
- Sagaing, 20 km to the southwest of Mandalay on the opposite bank of the river, forms an extension axis to Mandalay.
- Mandalay and Yangon are the two major economic hubs of Myanmar.

<sup>&</sup>lt;sup>13</sup> Even if firms can be located based on firm registers, the number of firms that are non-operational is considerable, meaning that records do not take a business's current status into account (UNDP, 2014).

- Pyay, which is located about 290 kilometres north of Yangon in the Irrawaddy Region, has been expanding in recent years in terms of government services and business.
- Taunggyi, the capital of Shan State, is expanding rapidly due to high in-migration and is a major economic centre.
- Mawlamyine is the capital and largest city of Mon State.
- Pathein is an important port city and the capital of the Ayeyarwady Region.
- Bago, the capital of Bago Region, is located only 80 kilometres north-east of Yangon.

With regard to the selection of the survey cities, the team benefited from discussions with Prof. Dr. Frauke Kraas who has been working on Myanmar since the 1990s and, during the implementation of the SME Baseline Survey, has been conducting a study on the socio-economic potential of regional cities Mawlamyine, Pyay, Saging and Taunggyi.

According to UNDP (2014), 84% of all operating firms are found in only seven states/regions of Myanmar – Yangon, Mandalay, Ayeyarwady, Sagaing, Bago, Shan and Mon. The SME Baseline Survey also covers the major cities in these seven regions. Accordingly, existing data and research support the selection of the 11 cities on the basis of the chosen criteria.

#### Development of the questionnaire

This panel survey will be used for an impact evaluation of the projects implemented within the German-Myanmar programme on sustainable economic development and will provide information on the objectives and result indicators jointly agreed with the partner institutions. The questionnaire was therefore developed in consultation with the GIZ, PTB and KfW project teams. Moreover, several Myanmar business experts were consulted for feedback on the content and phrasing of questions.

Prior to conducting the survey, it was assessed whether cooperation with another institution or donor agency that was planning surveys on the Myanmar business sector was feasible. DEval and the team which prepared the OECD-UNESCAP-UM-FCCI Myanmar Business Survey 2014 agreed to cooperate.

Several key questions that were of interest to both research projects were proposed for inclusion in the two questionnaires.

Before carrying out the survey, several rounds of pre-tests were conducted by the survey manager and a DEval team member in selected enterprises in Yangon and Bago. This proved to be valuable, as it helped to identify questions that were unclear, required significant explanation from the businesses' perspective or made respondents feel uncomfortable. They also helped to identify misleading or incorrect translations. After each round, questions were rephrased, including pre-coded answers, until the questionnaire was deemed to flow smoothly. A second round of pre-tests took place as part of the enumerator training. It helped to refine the existing questions and pre-tested any questions that were added after the first pre-test.

#### *Translation of the questionnaire*

The survey was conducted in Myanmar language. Translation turned out to be more challenging than expected because many terms cannot be easily translated from English to Myanmar. In order to identify the most difficult terms, a back translation approach was chosen. Several independent interpreters translated the questionnaire from English to Myanmar and then back from Myanmar to English. Together with the interpreters, it was determined which terms needed further clarification and more accurate translation. During the training workshop with the whole survey team, several issues regarding appropriate translation again arose and further adjustments became necessary.14 Translation was thus an important aspect, because it was more difficult and complex than it may be in other languages. Sufficient time and feedback loops should therefore be reserved especially when surveys are to be implemented with a larger team of enumerators and misinterpretation of terms and questions could lead to a significant decrease in the quality of data.

#### How the sample was drawn

Based on the list of firms that was compiled after the block screening, businesses were randomly selected for inclusion in the survey. The exact number of businesses in each township was determined according to the firm listing. Based on the number of businesses falling into the various (economic) sectors,

location categories (inside or outside industrial zones) and firm size groups (small or medium), a stratified sample was drawn. Due to the small number of medium-sized firms, all medium enterprises identified during the firm listing were included in the sample. In addition, substitute firms were identified in case of non-response.<sup>15</sup>

In total 2,520 businesses were surveyed. The following table shows the distribution per city.

Table 10: Sample size per c	ity	
Cluster	City	No. of sample SMEs
Central	Pyay, Bago Division	150
Central	Monywa, Sagaing Division	200
Central	Sagaing, Sagaing Division	200
Central	Mandalay, Mandalay Division	450
Central	Lashio, Shan State	150
Central	Kale, Sagaing Division	50
Central	Taunggyi, Shan State	150
	Sub-total	1,350
Southern	Mawlamyine, Mon State	70
Southern	Bago, Bago Division	200
Southern	Pathein, Ayeyarwady Division	100
Southern	Yangon, Yangon Division	800
	Sub-total	1,170
	Total	2,520

At the time the block screening and survey were conducted, Myanmar's new law containing a definition of SMEs had not yet been adopted. A decision was therefore taken to survey SMEs with 5-99 employees, in line with the official definition used for the World Bank Enterprise Surveys (2015<sup>16</sup>). The One Pager Business Census 2013-2014 on Myanmar by the United Nations Development Programme (UNDP), which was conducted in 179 townships where most registered firms operate, also found that in 100 of the townships surveyed, no firm with 100 or more employees existed. Only 10 townships had more than 10 firms with a workforce larger than 100, whereas the vast majority of

firms had between 1 and 15 employees (UNDP, 2014, p. 8). Due to this result and the fact that the majority of firms identified during the block screening had fewer than 50 employees, it was decided to gear the definition used for data analysis toward the official OECD definition as it further differentiates between micro (1-9), small (10-49) and medium-sized enterprises (50-249) (OECD, 2005).

The following table gives an overview of the final definitions used for this survey as well as the OECD and World Bank one which will be used for comparison:

<sup>15</sup> Any SMEs which could not be interviewed were replaced by another enterprise from the same sector (services or manufacturing) and location (inside or outside industrial zones). As all medium enterprises identified during the firm listing were included in the sample, they were replaced by small enterprises in cases of non-response.

<sup>16</sup> The WB Enterprise Survey is a firm-level survey of a representative sample of an economy's private sector. The surveys cover a broad range of business environment topics including access to finance, corruption, infrastructure, crime, competition, and performance measures using a global methodology. More information can be accessed under http://www.enterprisesurveys.org.

Table 11: Overview of SME definitions according to numbers of employees				
Category	Definition applied for World Bank Enterprise Survey	Definition applied for OECD Business Survey	Definition applied for DEval SME Survey	
Micro enterprise		1-9	5-9	
Small enterprise	1-19	10-49	10-49	
Medium enterprise	20-99	50-249	50-99	
Large enterprise	100+	249+	100+ (not included)	

Due to changes in the number of workers between the first phase (block screening) and the second phase (conduct of the full interviews), some enterprises no longer complied with this definition (5-99 employees) as they had lost or gained staff. These firms were excluded from the analysis. The following table shows the distribution of enterprises included in the analysis:

Table 12: Enterprises included into data analysis	
City	No. of SMEs included in analysis
Yangon	800
Mandalay	428
Pathein	100
Mawlamyine	69
Bago	200
Pyay	150
Monywa	197
Sagaing	199
Kale	50
Taunggyi	148
Lashio	149
Total	2,490

Businesses that had already been included in the OECD Business Survey were excluded from the DEval sampling frame. In total, only 24 firms that were identified during the block screening indicated that they had already been interviewed by the OECD Business Survey on Businesses.

#### Composition of team

Two DEval staff were responsible for designing and testing the instruments and for overall management, quality control and data analysis. The survey was conducted in cooperation with

a consortium composed of Mekong Economics Ltd. (MKE) and Survey, Research & Consultancy Services

L Sein Tun & Associates Co. Ltd. (SRCS) as local partner. They were contracted via an open tender. An MKE employee was responsible for general coordination and administration processes. An MKE auditor reviewed all the completed questionnaires for errors and conferred with the survey and data entry team if necessary.

Implementation and data entry were undertaken by a SRCS team consisting of a team leader who was the contact person for all survey teams and led the efforts to obtain permits from local authorities during the block screening and survey process. There were four survey teams, including one survey manager and four to five enumerators, enabling data to be collected in up to four cities at a time. Moreover, a database manager liaised with an additional team based in Yangon that was responsible for timely data entry, thus ensuring a smooth work process.

#### Quality assurance processes

Because the survey was conducted with a rather large team, training was provided for all team members to ensure that everyone was aware of his or her responsibilities, codes of conduct, logistical arrangements and procedures and replacement protocol. The team learned about the content of the questionnaire and how to fill it in. In a first round, questions were explained and discussed. An enumerator manual provided in English and Myanmar explained all the processes and questions and was to be used by every team member to check on possible queries that might arise during the survey. The team practised working with the manual as part of the training. In some cases, the manual was amended during the training to clarify terms and questions that had proved to be difficult or unclear during discussions and exercises. During at least one test interview in an enterprise, all enumerators practised how to conduct interviews and how to use the enumerator manual in a real-life situation. Afterwards, the group had the opportunity to ask questions and discuss their experiences.

The DEval team accompanied the survey teams during the first few days in the field. Despite intense preparations, it was still important to support the survey managers and check on the first completed questionnaires together. The first few survey days ended with a joint team meeting, where problems with completed questionnaires and questions from enumerators were discussed.

The questionnaires had to be filled in on paper. It was therefore essential to carefully manage the files. For other surveys, it should be noted that it is usually not possible to print additional copies of the questionnaire in the survey cities and townships. The survey manager therefore had to ensure that all documents

were forwarded to the data entry team. He was also responsible for the quality of data and therefore cross-checked completed questionnaires and conducted random verifications of entered data by calling or re-visiting the surveyed enterprise. The data were cleaned and entered in Yangon under the supervision of the data manager. For data entry, a double entry approach was used.

#### Data analysis

Analysis of the data aimed to provide an overview of the current situation of SMEs in Myanmar and relevant information for the implementation of partner programmes in the areas of vocational training, financial sector development and private sector development. To help partners identify areas of intervention and target groups, the size of firms (micro versus small versus medium enterprises), their location (11 cities covered by the survey) and the branches in which they operate (both in the manufacturing and service sectors) were guiding factors for the analysis. Bivariate and multivariate data analysis methods were applied, controlling for possible intervening factors.

For interval-scaled dependent variables such as ratings, linear regression was used to test the relationship between these and other key variables, while also controlling for possible intervening factors. These relationships were significant for being able to reject the null hypothesis, which means that there is no relationship between two variables. Techniques such as partial eta-squared helped to identify the relative strength of significant relationships. This standardised measure allowed a comparison of the effects of variables measured in different units. It lies between o and 1 and represents the proportion of total variation in the dependent variable attributable to that specific independent variable while excluding other factors from the total nonerror variation. Based on Cohen, the following thresholds are used:  $\eta_2 \ge 0.01$ = weak,  $\eta_2 \ge 0.06$  = medium,  $\eta_2 \ge 0.14$  = strong relationship.

For binary dependent variables such as whether a firm has a 'house bank' or not, logistic regression was used to test for significant relationships and then, again, a standardised measure was applied to identify the strength of this relationship. This standardised measure represents the change in the likelihood (in terms of its standard deviation) that the dependent variable changes from 0 to 1, when the independent variable increases by one standard deviation.

### Annex II: Additional tables and graphs

#### **Comparison of samples**

To validate the results from the present survey, they have been compared to those from the OECD-UNESCAP-UMFCCI survey (referred to as OECD Business Survey in the following text). Due to the different approaches (block screening versus use of existing registries, snowball and conference method) and a different selection of survey cities, the samples of this survey and the OECD Business Survey differ with regard to firm sizes, the firms' registration with government authorities, their membership of business associations and their geographical location (see Table 3).

In this report, first comparisons were made using the complete samples. However, whenever results of both surveys are conflicting, it was analysed whether the differences in results are attributable to the sample differences by aligning both samples, as far as possible, in a step-by-step approach.

First, unregistered firms were excluded from the sample as their share was higher in the DEval survey than in the OECD Business Survey. This left us with the following samples of micro, small and medium-sized enterprises:

Table 13: Comparison of subsample representing firms registered with a government authority only				
Firm size	DEval SME Survey	OECD Business Survey (all cities)	OECD Business Survey (only the 11 cities also covered in the DEval Survey, see Table 1)	
Micro (5-9)	63%	37%	35%	
Small (10-49)	35	53%	53%	
Medium (50-99)	3	10%	12%	

Another significant difference in both samples is that the DEval one contains a much higher share of micro enterprises than the OECD Business Survey. In some cases, differences in results

might be caused by the high representation of those firms. When looking only at registered firms and leaving out micro enterprises, the following distribution picture shows:

Table 14: Comparison of subsample representing small and medium-sized enterprises registered with a government authority				
Firm size	DEval SME Survey	OECD Business Survey (all cities)	OECD Business Survey (only the 11 cities also covered in the DEval Survey, see Table 1)	
Small (10-49)	93%	84%	82%	
Medium (50-99)	7%	16%	18%	
	n = 735	n = 1085	n = 780	

The last explaining factor that was taken into consideration was membership of a business or sector association. Due to the fact that a large number of firms sampled by the OECD Business Survey were listed in these registers, it was interesting to assess

whether disregarding those firms leads to more similar results. Table 15 thus shows the distribution of registered, small and medium-sized firms which are not members of a business or sector association.

Table 15: Comparison of subsample representing only private small and medium-sized enterprises registered with a government authority, without membership in a business or sector association				
Firm size	DEval SME Survey	OECD Business Survey (all cities)	OECD Business Survey (only the 11 cities also covered in the DEval Survey, see Table 1)	
Small (10-49)	93%		84%	
Medium (50-99)	7%		16%	
	n = 683		n = 318	

## **General Characteristics**

Figure 57: Share of firms which are members in a business association, in percent

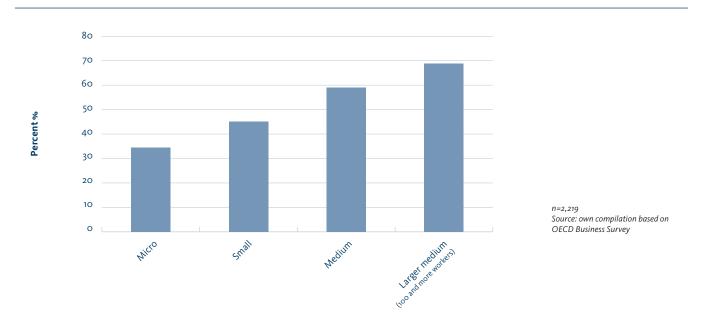
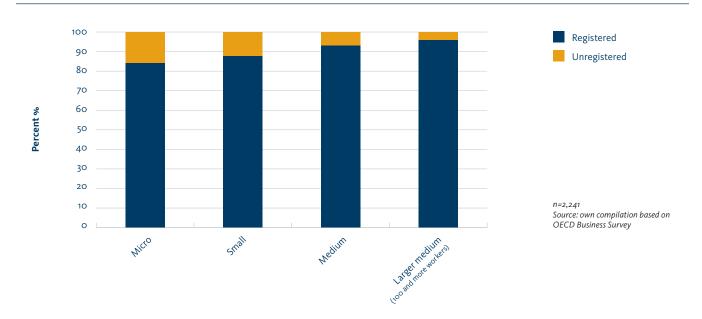


Table 16: Correlation between firm size and business association membership				
	DEval SME Survey	OECD Business Survey		
Business association membership and firm size	0.008***	0.1484***		

 $Significance\ levels:\ *p<0.1, **p<0.05, ***p<0.001\\ Cramer's\ V:\ o-o.1=weak\ correlation, >o.1-o.3=moderate\ correlation, >o.3=strong\ correlation$ 

Figure 58: Share of registered and unregistered firms differentiated by firm size, in percent



	Firm size	Sector	Branches	City	Registra- tion with	Workers	Age of business	Mem- bership	Location in	Monthly revenue
					govern- ment authority			business associa- tion	industrial zone	
Firm size	-	0.15***	0.22***	0.14***	0.17***		0.15	0.08***	0.12***	0.33***
Sector	0.15***	-	-	0.36***	0.14***		0.21***	0.06***	0.21***	0.07
Branches	0.22***	-	-	0.27***	0.41***		0.18***	0.15***	0.50***	0.15***
City	0.14***	0.36***	0.27***	-	0.41***		0.19***	0.14***	0.32***	0.13***
Registration with government authority	0.17***	0.14***	0.41***	0.41***	-		0.23***	0.07***	0.23***	0.28***
Workers						-	o.o3* (Pearson)			
Age of business	0.15	0.21***	0.18***	0.19***	0.23***	o.o3* (Pearson)	-	0.25***	0.29***	0.17**
Membership business association	0.08***	0.06***	0.15***	0.14***	0.07***		0.25***	-	0.08***	0.13***
Location in industrial zone	0.12***	0.21***	0.50***	0.32***	0.23***		0.29***	0.08***	-	0.09***
Monthly revenue	0.33***	0.07	0.15***	0.13***	0.28***		0.17**	0.13***	0.09***	-

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\*p<0.001 Cramer's V: 0-0.1=weak correlation, >0.1-0.3=moderate correlation, >0.3=strong correlation Source: DEval SME Survey

Figure 59: Registration of firms, differentiated by city

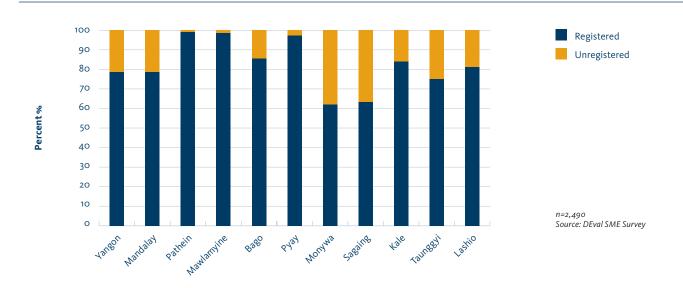


Table 18: Membership in business association, in percent						
Micro Small Medium Total						
Membership in business association	3.06	6.24	7.14	4.14		

N = 2,489 Source: DEval SME Survey

Table 19: Correlation betw	een key va	riables and different marke	ting chann	els, DEval	SME Surve	ey
	Firm Size	Registration with government authority	City	Sector	Branch	Membership business association
Own Shop	0.12***	0.09***	0.34***	0.47***	0.52***	0.08***
Wholesaler	0.24***	0.02***	0.24***	0.39***	0.52***	0.04**
Retail Shop	0.06***	0.11***	0.23***	0.3***	0.34***	0.03
Sale Agency	0.08***	0.09***	0.12***	0.14***	0.17***	0.04**
Traders from other regions	0.21***	0.03	0.19***	0.24***	0.31***	0.14***
Foreign export	0.08***	0.01	0.61***	0.19***	0.56***	0.05***
Other	0.07***	0.03	0.07	0.02	0.06	0.07***

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\*p<0.001 Cramer's V: o-0.1=weak correlation, o.1-0.3=moderate correlation, o.3=strong correlation Source: DEval SME Survey

Logistic regression	No. of obs	=	1328				
	LR chi2(21)	=	448.68				
	Prob > chi2	=	0.0000				
Log likelihood = -140.3682	Pseudo R2	=	0.6151				
	exporting	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Dependent variables							
Firm size (base=micro)	small	1.184904	.5028739	0.40	0.689	.5157424	2.722285
	medium	1.066131	1.177888	0.06	0.954	.1222875	9.294778
Age of business	age_business	.9473006***	.0163063	-3.15	0.002	.915874	.9798056
Registered with government authority	registered	5.03474***	1.73907	4.68	0.000	2.558351	9.908184
Membership in business association	member_bus_ass	1.222275	.6688717	0.37	0.714	.4181782	3.572533
Gender of business owner	male_owner	3.119088**	1.513134	2.34	0.019	1.205292	8.071664
Age of business owner	age_owner	1.003165	.0149723	0.21	0.832	.9742452	1.032944
ocation in industrial zone	location_IZ	.0366583***	.0257175	-4.71	0.000	.0092686	.1449871
City (base=Yangon)	Mandalay	4.013493**	2.827049	1.97	0.049	1.009132	15.96236
	Pathein	1	(omitted)				
	Mawlamyine	6.651831	8.088477	1.56	0.119	.6136195	72.10796
	Bago	.8432805	.9834472	-0.15	0.884	.0857605	8.291954
	Pyay	5.531824*	5.192684	1.82	0.068	.8787223	34.82452
	Monywa	1	(omitted)				
	Sagaing	175.1167***	115.2314	7.85	0.000	48.21856	635.9761
	Kale	1	(omitted)				
	Taunggyi	1	(omitted)				
	Lashio	1	(omitted)				
Manufacturing sector	sector_manu	11.24418***	8.70808	3.12	0.002	2.464412	51.30298
	_cons	.0001404	.0001735	-7.18	0.000	.0000125	.0015812

Table 21: Effect sizes for sig	nificant variables ide	entified in re	gression for i	independent	variable = 'e	xporting firn	n'
		b	z	P>z	e^b	e^bStdX	SDofX
Firm size (base=micro)	small	0.1697	0.400	0.689	1.185	1.083	0.468
	medium	0.0640	0.058	0.954	1.066	1.010	0.158
Age of business	age_business	-0.0541	-3.145	0.002	0.947	0.564	10.587
Registered with government authority	registered	1.6164	4.679	0.000	5.035	1.907	0.400
Membership in business association	member_bus_ass	0.2007	0.367	0.714	1.222	1.042	0.207
Gender of owner (base=male)	male_owner	1.1375	2.345	0.019	3.119	1.615	0.422
Age of owner	age_owner	0.0032	0.212	0.832	1.003	1.036	11.050
Location of business in industrial zone	location_IZ	-3.3061	-4.713	0.000	0.037	0.272	0.394
City (base=Yangon)	Mandalay	1.3897	1.973	0.049	4.013	1.798	0.422
	Mawlamyine	1.8949	1.558	0.119	6.652	1.424	0.186
	Bago	-0.1705	-0.146	0.884	0.843	0.948	0.311
	Pyay	1.7105	1.822	0.068	5.532	1.589	0.271
	Sagaing	5.1655	7.850	0.000	175.117	4.956	0.310
Manufacturing sector	sector_manu	2.4199	3.125	0.002	11.244	3.326	0.497

Table 22: Share of exporting firms in DEval SME Survey and OECD Business Survey						
DEval SME Survey OECD Business Survey						
Share of exporting firms	1.46%	11.65%				

n = 735 (DEval SME Survey), 309 (OECD Business Survey)

Adapted samples: only private, registered small and medium-sized enterprises which are not members of a business association and are situated in the 11 cities covered by the DEval SME Survey

## **Staff Composition and Recruitment**

	DEval SME Su	DEval SME Survey			OECD Business Survey			
	Micro	Small	Medium	Micro	Small	Medium (50-99)	Medium (100-249)	
Permanent full time employees	5	16	53	6	16	50	118	
Permanent part-time employees	0.59	2	9	4	10	30	69	
Non-permanent employees	0.07	0.06	1	3	10	28	57	
<b>Total</b>	6	18	63	6	20	63	150	
	n=2,490	n=2,490			n=2,241			

 ${\it Source: own compilation, DEval SME Survey and OECD Business Survey}$ 

Figure 60: Share of function of permanent employees

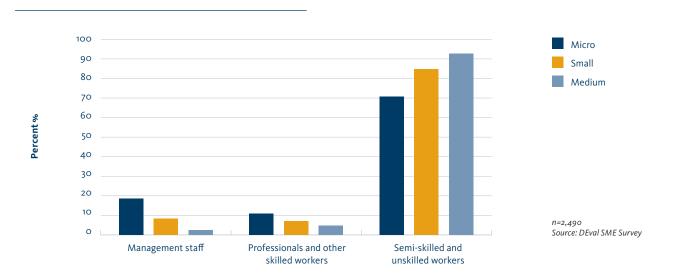


Figure 61: Development of staff in next 12 months

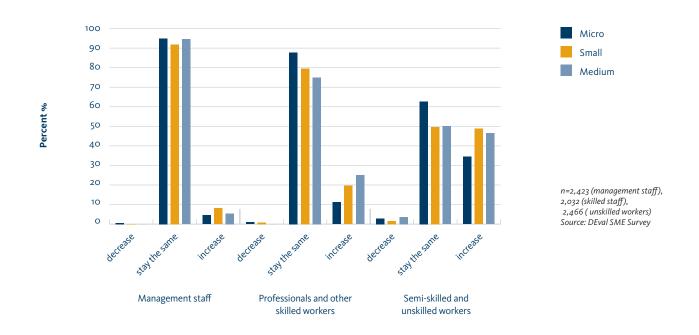


Table 24: Correlation expected development of staff with sector, branch city, firm size, opinion on current and future market conditions

	Development management staff upcoming year	Development skilled staff upcoming year	Development unskilled staff upcoming year
Sector	0.0242	0.0766***	0.0439*
Branch	0.0930***	0.1295***	0.0940***
City	0.2090***	0.1803***	0.1608***
Firm size	0.0552***	0.0859***	0.0987***
Opinion future market conditions	0.1056***	0.1364***	0.2530***
Opinion current market conditions	0.0743***	0.0725***	0.1192***

				Logistic regression	Number of obs	=	2024
					LR chi2(29)	=	158.09
					Prob > chi2	=	0.0000
				Log likelihood = -747.17991	Pseudo R2	=	0.0957
	skilled_increase	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
irm size (base=micro)	small	2.4874***	.3921703	5.78	0.000	1.826177	3.388039
	medium	3.513816***	1.342292	3.29	0.001	1.661945	7.42919
ranch (base=restaurant)	branch_food	.8038678	.2449549	-0.72	0.474	.4423908	1.460707
	branch_plastics	1.220005	.4897818	0.50	0.620	-5554423	2.679687
	branch_textiles	1.113347	.3409405	0.35	0.726	.6108951	2.029056
	branch_mineral	1.251485	.4445865	0.63	0.528	.6237905	2.510803
	branch_machinery	1.044417	.3057796	0.15	0.882	.5883866	1.853893
	branch_wood	1.18726	.4091331	0.50	0.618	.604254	2.332772
	branch_wholesale	.8867065	.3167893	-0.34	0.736	.4402256	1.786013
	branch_retail	.6584439	.1893385	-1.45	0.146	.3747589	1.156873
	branch_repair	.8213909	.2823321	-0.57	0.567	.4187658	1.611123
	branch_other_manu	.9993266	-3753317	-0.00	0.999	.4786402	2.086439
	branch_other_serv	1.773669*	.6139339	1.66	0.098	.8999937	3-49547
ity (base=Yangon)	Mandalay	3.26676***	.8553162	4.52	0.000	1.955475	5-457355
	Pathein	.5203487	.2553986	-1.33	0.183	.198841	1.361704
	Mawlamyine	1.657279	.6624327	1.26	0.206	.7571135	3.627691
	Bago	.4794829**	.1607367	-2.19	0.028	.2485567	.9249554
	Pyay	.8959162	.4617681	-0.21	0.831	.3262465	2.460305
	Monywa	.868101	.2448123	-0.50	0.616	.4994865	1.508748
	Sagaing	2.190699***	.6475166	2.65	0.008	1.227407	3.910001
	Kale	.9889998	.5378105	-0.02	0.984	.3406586	2.871263
	Taunggyi	1.996626***	.510177	2.71	0.007	1.210035	3.294544
	Lashio	1.554035	.4339241	1.58	0.114	.8990516	2.68619
egistered with government uthority	registered	.9195352	.1754044	-0.44	0.660	.6327015	1.336404
Member in business association	member_bus_ass	1.155232	.3712154	0.45	0.653	.6153877	2.168649
xporting firm	exporting	1.723205	.5854348	1.60	0.109	.8854276	3.353673
ocation in IZ	location_IZ	1.005463**	.2070893	0.03	0.979	.6715051	1.505508

Age of business	age_business	.9904321	.0067447	-1.41	0.158	.9773005	1.00374
Percentage of skilled workers in total workforce	percent_skilled	1.014706***	.0048618	3.05	0.002	1.005222	1.02428
	_cons	.0905432	.0249354	-8.72	0.000	.052776	.1553371

	Ь	Z	P>z	e^b	e^bStdX	SDofX
small	0.9112	5.780	0.000	2.487	1.524	0.463
medium	1.2567	3.290	0.001	3.514	1.211	0.152
branch_food	-0.2183	-0.716	0.474	0.804	0.931	0.326
branch_plastics	0.1989	0.495	0.620	1.220	1.036	0.180
branch_textiles	0.1074	0.351	0.726	1.113	1.033	0.306
branch_mineral	0.2243	0.631	0.528	1.251	1.055	0.240
branch_machinery	0.0435	0.148	0.882	1.044	1.013	0.298
branch_wood	0.1716	0.498	0.618	1.187	1.044	0.251
branch_wholesale	-0.1202	-0.337	0.736	0.887	0.974	0.222
branch_retail	-0.4179	-1.453	0.146	0.658	0.863	0.352
branch_repair	-0.1968	-0.572	0.567	0.821	0.946	0.280
branch_other_manu	-0.0007	-0.002	0.999	0.999	1.000	0.213
branch_other_serv	0.5731	1.656	0.098	1.774	1.116	0.191
Mandalay	1.1838	4.521	0.000	3.267	1.278	0.207
Pathein	-0.6533	-1.331	0.183	0.520	o.868	0.217
Mawlamyine	0.5052	1.264	0.206	1.657	1.089	0.170
Bago	-0.7350	-2.193	0.028	0.479	0.805	0.296
Pyay	-0.1099	-0.213	0.831	0.896	0.985	0.139
Monywa	-0.1414	-0.502	0.616	o.868	0.959	0.296
Sagaing	0.7842	2.653	0.008	2.191	1.263	0.298
Kale	-0.0111	-0.020	0.984	0.989	0.998	0.154
Taunggyi	0.6915	2.706	0.007	1.997	1.197	0.260
Lashio	0.4409	1.579	0.114	1.554	1.121	0.260
registered	-0.0839	-0.440	0.660	0.920	0.966	0.410
member_bus_ass	0.1443	0.449	0.653	1.155	1.028	0.193
exporting	0.5442	1.602	0.109	1.723	1.124	0.215
location_IZ	0.0054	0.026	0.979	1.005	1.002	0.407
age_business	-0.0096	-1.412	0.158	0.990	0.900	10.925
percent_skilled	0.0146	3.047	0.002	1.015	1.234	14.394

Table 26: Multiple regressi		· ·					
				Logistic regression	Number of obs	=	2454
					LR chi2(29)	=	167.84
					Prob > chi2	=	0.0000
				Log likelihood = -1558.4969	Pseudo R2	=	0.0511
	unskilled_increase	Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
irm size (base=micro)	small	1.938929***	.2098626	6.12	0.000	1.568307	2.397137
	medium	1.707795*	.5052247	1.81	0.070	.9563592	3.049654
ranch (base=restaurant)	branch_food	1.064398	.1928236	0.34	0.730	.7462813	1.518118
	branch_plastics	1.012283	.268959	0.05	0.963	.6013696	1.703971
	branch_textiles	1.254105	.2405176	1.18	0.238	.8611661	1.826337
	branch_mineral	1.070756	.2618381	0.28	0.780	.663042	1.729178
	branch_machinery	.9601918	.1759621	-0.22	0.825	.6704543	1.37514
	branch_wood	.8708444	.1891425	-0.64	0.524	.5689373	1.332959
	branch_wholesale	.9803312	.2236243	-0.09	0.931	.6269089	1.532997
	branch_retail	.9057605	.144908	-0.62	0.536	.6619634	1.239347
	branch_repair	.9001985	.1835033	-0.52	0.606	.6037024	1.342313
	branch_other_manu	.9126347	.2519179	-0.33	0.741	.5312962	1.567679
	branch_other_serv	1.107954	.2733198	0.42	0.678	.683187	1.796815
ity (base=Yangon)	Mandalay	.4883402***	.0652497	-5.36	0.000	.3758279	.6345355
	Pathein	.40556***	.1052766	-3.48	0.001	.2438358	.6745479
	Mawlamyine	.4140831***	.1374243	-2.66	0.008	.2160698	.7935624
	Bago	.8994568	.1555915	-0.61	0.540	.6408203	1.26248
	Pyay	.2760233***	.0632742	-5.62	0.000	.1761248	.4325846
	Monywa	.5957046***	.1049451	-2.94	0.003	.4217694	.8413696
	Sagaing	.921641	.2099318	-0.36	0.720	.5897592	1.440286
	Kale	.5979618	.1937569	-1.59	0.113	.3168543	1.128463
	Taunggyi	1.305035	-2475397	1.40	0.160	.8998412	1.892686
	Lashio	1.145637	.2193701	0.71	0.478	.7871481	1.667392
egistered with government uthority	registered	.810864*	.0992022	-1.71	0.087	.6379856	1.030588
Member in business association	member_bus_ass	1.240802	.2733834	0.98	0.327	.8056734	1.910935
xporting firm	exporting	.882024	.2516204	-0.44	0.660	.5042582	1.542794
ocation in IZ	location_IZ	.9977181	.1322551	-0.02	0.986	.7694397	1.293722

Age of business	age_business	.9870849***	.0041773	-3.07	0.002	.9789313	.9953063
Percentage of unskilled workers in total workforce	percent_unskilled	1.000548	.0036576	0.15	0.881	.9934049	1.007743
	_cons	.9092875	.2872187	-0.30	0.763	.4895874	1.688777

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.6621	6.118	0.000	1.939	1.358	0.462
medium	0.5352	1.809	0.070	1.708	1.083	0.149
branch_food	0.0624	0.345	0.730	1.064	1.021	0.326
branch_plastics	0.0122	0.046	0.963	1.012	1.002	0.177
branch_textiles	0.2264	1.181	0.238	1.254	1.070	0.300
branch_mineral	0.0684	0.280	0.780	1.071	1.016	0.231
branch_machinery	-0.0406	-0.222	0.825	0.960	0.987	0.327
branch_wood	-0.1383	-0.637	0.524	0.871	0.968	0.239
branch_wholesale	-0.0199	-0.087	0.931	0.980	0.996	0.211
branch_retail	-0.0990	-0.619	0.536	0.906	0.966	0.345
branch_repair	-0.1051	-0.516	0.606	0.900	0.971	0.283
branch_other_manu	-0.0914	-0.331	0.741	0.913	0.982	0.199
branch_other_serv	0.1025	0.416	0.678	1.108	1.020	0.189
Mandalay	-0.7167	-5.364	0.000	0.488	0.764	0.376
Pathein	-0.9025	-3-477	0.001	0.406	0.837	0.198
Mawlamyine	-0.8817	-2.657	0.008	0.414	0.873	0.154
Bago	-0.1060	-0.613	0.540	0.899	0.972	0.271
Pyay	-1.2873	-5.616	0.000	0.276	0.737	0.237
Monywa	-0.5180	-2.940	0.003	0.596	0.869	0.272
Sagaing	-0.0816	-0.358	0.720	0.922	0.978	0.271
Kale	-0.5142	-1.587	0.113	0.598	0.931	0.140
Taunggyi	0.2662	1.404	0.160	1.305	1.065	0.238
Lashio	0.1360	0.710	0.478	1.146	1.033	0.237
registered	-0.2097	-1.714	0.087	0.811	0.918	0.406
member_bus_ass	0.2158	0.979	0.327	1.241	1.044	0.200
exporting	-0.1255	-0.440	0.660	0.882	0.975	0.201
location_IZ	-0.0023	-0.017	0.986	0.998	0.999	0.414
age_business	-0.0130	-3.072	0.002	0.987	0.867	10.949
percent_unskilled	0.0005	0.150	0.881	1.001	1.009	15.547
constant	-0.0951	-0.301	0.763			

Logistic regression	Number of obs	=	2382				
	LR chi2(24)	=	235.72				
	Prob > chi2	=	o				
Log likelihood = -1246.825	Pseudo R2	=	0.0864				
	Logistic regression	Number of obs	=	2382			
Firm size (base=micro)	small	.9627304	.1052428	-0.35	0.728	.7770589	1.192767
	medium	1.54312	.5471582	1.22	0.221	.770161	3.091848
Age business	age_business	.9835077***	.0046881	-3.49	0.000	.974362	.9927392
Age owner	age_owner	1.009846**	.0048154	2.05	0.040	1.000452	1.019328
City (base=Yangon)	Mandalay	.8708973	.129878	-0.93	0.354	.650169	1.166562
	Pathein	.6309963*	.1682972	-1.73	0.084	.3741082	1.064281
	Mawlamyine	1.679693	.7641739	1.14	0.254	.688616	4.097159
	Bago	.8353835	.159919	-0.94	0.347	.5740356	1.215718
	Pyay	1.505266*	.368512	1.67	0.095	.9315932	2.432206
	Monywa	.5662898***	.1022913	-3.15	0.002	.3974501	.8068537
	Sagaing	1.181707	.3161856	0.62	0.533	.6994501	1.996472
	Kale	.5503084*	.1734977	-1.89	0.058	.2966503	1.020863
	Taunggyi	.709138	.1500775	-1.62	0.104	.4683686	1.073677
	Lashio	.6908468	.156343	-1.63	0.102	.4433529	1.0765
Branch (base=restaurant)	branch_food	1.078203	.2035901	0.40	0.690	.7446868	1.561088
	branch_plastics	.9147579	.2611583	-0.31	0.755	.5227486	1.600735
	branch_textiles	.4785938***	.0875059	-4.03	0.000	-3344519	.6848579
	branch_mineral	1.385309	.3940465	1.15	0.252	.7932775	2.419179
	branch_machinery	3.22713***	.7221426	5.24	0.000	2.081331	5.003707
	branch_wood	1.309797	.3133092	1.13	0.259	.8195824	2.093221
	branch_wholesale	1.052734	.2572078	0.21	0.833	.6521541	1.699368
	branch_retail	.5611438***	.0918455	-3.53	0.000	.4071489	.7733839
	branch_repair	11.12778***	4.284113	6.26	0.000	5.232412	23.66545
	branch_other_manu	2.597094***	.9093673	2.73	0.006	1.307498	5.158627
	branch_other_serv	.7298507	.1865174	-1.23	0.218	.4422876	1.204379
	_cons	2.400555	.5790106	3.63	0.000	1.496246	3.851415

	b	z	P>z	e^b	e^bStdX	SDofX
small	-0.0380	-0.347	0.728	0.963	0.983	0.462
medium	0.4338	1.223	0.221	1.543	1.067	0.149
age_business	-0.0166	-3.489	0.000	0.984	0.833	10.981
age_owner	0.0098	2.055	0.040	1.010	1.116	11.187
Mandalay	-0.1382	-0.927	0.354	0.871	0.949	0.377
Pathein	-0.4605	-1.726	0.084	0.631	0.913	0.197
Mawlamyine	0.5186	1.140	0.254	1.680	1.087	0.161
Bago	-0.1799	-0.940	0.347	o.8 <sub>35</sub>	0.952	0.271
Pyay	0.4090	1.671	0.095	1.505	1.101	0.236
Monywa	-0.5686	-3.148	0.002	0.566	0.857	0.271
Sagaing	0.1670	0.624	0.533	1.182	1.046	0.271
Kale	-0.5973	-1.894	0.058	0.550	0.920	0.139
Taunggyi	-0.3437	-1.624	0.104	0.709	0.922	0.237
Lashio	-0.3698	-1.634	0.102	0.691	0.916	0.238
branch_food	0.0753	0.399	0.690	1.078	1.025	0.325
branch_plastics	-0.0891	-0.312	0.755	0.915	0.984	0.177
branch_textiles	-0.7369	-4.030	0.000	0.479	0.802	0.300
branch_mineral	0.3259	1.146	0.252	1.385	1.078	0.232
branch_machinery	1.1716	5.236	0.000	3.227	1.469	0.328
branch_wood	0.2699	1.128	0.259	1.310	1.067	0.239
branch_wholesale	0.0514	0.210	0.833	1.053	1.011	0.211
branch_retail	-0.5778	-3.530	0.000	0.561	0.820	0.343
branch_repair	2.4094	6.258	0.000	11.128	1.974	0.282
branch_other_manu	0.9544	2.726	0.006	2.597	1.212	0.202
branch_other_serv	-0.3149	-1.232	0.218	0.730	0.942	0.188
constant	0.8757	3.631	0.000			

Table 28: Correlation between familiarity with TVET system and different key variables				
	Familiarity with TVET system			
Sector	o.o6 <sub>72</sub> ***			
Branch	0.0831**			
City	0.1422***			
Firm size	0.1102***			
Registration with government authorities 0.0525**				
Business association membership	0.1314***			

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\*p<0.001 Cramer's V: o-o.1=weak correlation, o.1-o.3=moderate correlation, >0.3=strong correlation Source: DEval SME Survey

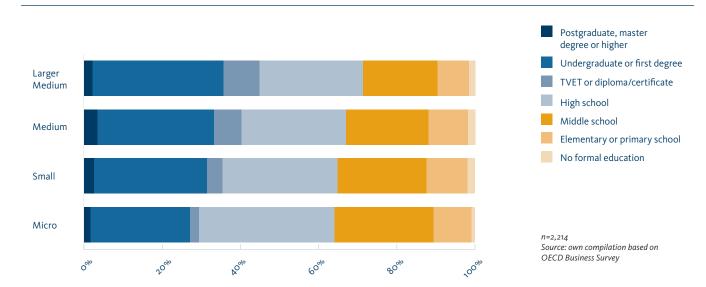
Table 29: Multiple regression results and effect sizes with familiarity with TVET as dependent variable							
Source	SS	df	MS	Number of obs	=	2485	
				F( 30, 2454)	=	6.45	
Model	71.8817825	30	2.39605942	Prob > F	=	0.0000	
Residual	911.506547	2454	.371437061	R-squared	=	0.0731	
				Adj R-squared	=	0.0618	
Total	983.38833	2484	.395889022	Root MSE	=	.60946	
	<b>q</b> 17	Coef.	Std. Err.	t	P>t	[95%	Conf.
Firm size (base=micro)							
	small	.1276125***	.0292082	4.37	0.000	.0703373	.1848876
Branch (base=restaurants)	medium	.3486598***	.0855985	4.07	0.000	.1808071	.5165125
	branch_food	.0012576	.0513219	0.02	0.980	0993811	.1018964
	branch_plastics	.1852803**	.077659	2.39	0.017	.0329964	.3375642
	branch_textiles	.0111902	.0556959	0.20	0.841	0980256	.120406
	branch_mineral	0037502	.0688837	-0.05	0.957	1388264	.131326
	branch_machinery	.0316187	.0515787	0.61	0.540	0695235	.132761
	branch_wood	.0571942	.0612559	0.93	0.351	0629243	.1773128
	branch_wholesale	.0002837	.0658292	0.00	0.997	1288028	.1293701
	branch_retail	.0086079	.0458811	0.19	0.851	0813617	.0985775
	branch_repair	.0764632	.0572085	1.34	0.181	0357188	.1886451
	branch_other_manu	.0807487	.0733764	1.10	0.271	0631374	.2246348

	branch_other_serv	.1656692**	.07181	2.31	0.021	.0248548	.3064837
City (base=Yangon)	Mandalay	0944696**	.0374601	-2.52	0.012	1679264	0210129
	Pathein	2881735***	.0676585	-4.26	0.000	4208471	1554998
	Mawlamyine	1087367	.0796957	-1.36	0.173	2650145	.0475412
	Bago	1834675***	.0506177	-3.62	0.000	2827253	0842097
	Pyay	.1904262***	.0555308	3-43	0.001	.0815342	.2993182
	Monywa	.0562319	.0510508	1.10	0.271	0438751	.156339
	Sagaing	01938	.059979	-0.32	0.747	1369947	.0982347
	Kale	0651947	.0905657	-0.72	0.472	2427878	.1123983
	Taunggyi	1190524**	.0556778	-2.14	0.033	2282328	009872
	Lashio	1735469***	.0564535	-3.07	0.002	2842484	0628454
Registered with government authority	registered	0222484	.0352418	-0.63	0.528	0913552	.0468584
Member in business association	member_bus_ass	.3205747***	.0627453	5.11	0.000	.1975355	.443614
Location in IZ	location_IZ	.0408002	.0376055	1.08	0.278	0329416	.1145421
Position of interviewpartner (base=owner)	manag_interviewpart- ner	.0955376**	.0390908	2.44	0.015	.0188833	.1721919
	staff_interviewpartner	.0669581	.10387	0.64	0.519	1367238	.2706399
	relative_interview- partner	.057906	.0445296	1.30	0.194	0294134	.1452255
Gender of interviewpartner (base=female)	gender_interview- partner	.0687357**	.0276304	2.49	0.013	.0145543	.122917
	_cons	1.192882	.0514527	23.18	0.000	1.091987	1.293777

variable	eta^2	% change eta^2	partial eta^2
small	.00721005	9.863803	.0077186
medium	.0062666	8.5731034	.00671538
branch_food	2.268e-07	.00031029	2.447e-07
branch_plastics	.00214999	2.9413161	.00231417
branch_textiles	.00001525	.02085905	.00001645
branch_mineral	1.120e-06	.0015316	1.208e-06
branch_machinery	.00014194	.19418435	.00015311
branch_wood	.00032928	.45047995	.00035512
branch_wholesale	7.013e-09	9.595e-o6	7.566e-09
branch_retail	.00001329	.01818836	.00001434
branch_repair	.00067475	.92310126	.00072743
branch_other_manu	.00045742	.62578464	.00049325

branch_other_serv	.00201036	2.7503025	.00216421
Mandalay	.00240218	3.2863378	.00258492
Pathein	.0068521	9.3741046	.00733821
Mawlamyine	.00070314	.96194082	.00075802
Bago	.00496219	6.7885918	.005325
Pyay	.00444167	6.0764835	.00476909
Monywa	.00045827	.6269427	.00049417
Sagaing	.00003943	.05394808	.00004254
Kale	.00019573	.26777151	.00021112
Taunggyi	.00172692	2.362532	.00185964
Lashio	.00356954	4.8833532	.00383626
registered	.00015054	.20594316	.00016238
member_bus_ass	.00985952	13.488454	.01052509
location_IZ	.00044461	.60825831	.00047945
manag_interviewpartner	.00225611	3.0865048	.00242812
staff_interviewpartner	.00015696	.21472973	.00016931
relative_interviewpartner	.00063872	.87380874	.00068861
gender_interviewpartner	.00233749	3.1978297	.00251548

Figure 62: Level of education of staff, OECD Business Survey



## Table 30: Correlation between firm size and rating of skilled and unskilled workers Firm size **Skilled workers** • their theoretical know-how 0.15\*\*\* • their practical professional skills 0.07\*\* • their work attitude 0.08\*\*\* • their communication and social skills 0.08\*\*\* **Unskilled workers** 0.06\*\* • their theoretical know-how • their practical professional skills 0.06\*\*\* • their work attitude 0.03 • their communication and social skills

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\*p<0.001  $Cramer's \ V: \ o-o.1=weak \ correlation, \ o.1-o.3=moderate \ correlation, \ >o.3=strong \ correlation$ Source: DEval SME Survey

Table 31: Multiple regression results and effect sizes with rating of skilled workers as dependent variable – manufacturing sector								
	Source	SS	df	MS	Number of obs	=	756	
					F( 27, 728)	=	9.50	
	Model	46.6431763	27	1.72752505	Prob > F	=	0.0000	
	Residual	132.418993	728	.181894221	R-squared	=	0.2605	
					Adj R-squared	=	0.2331	
	Total	179.062169	755	.237168436	Root MSE	=	.42649	
	rating_skilled	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.1168695***	.0393774	2.97	0.003	.0395626	.1941764	
	medium	.2378443***	.0809859	2.94	0.003	.0788505	.3968381	
Member in business association	member_bus_ass	1122166	.0683473	-1.64	0.101	2463979	.0219648	
Registered with government authority	registered	.095881**	.0433451	2.21	0.027	.0107847	.1809774	
Age of business	age_business	0008083	.0015007	-0.54	0.590	0037545	.0021379	
Share of skilled workers of total staff	percent_skilled	001485	.0011206	-1.33	0.186	0036851	.000715	

Familiarity with TVET	familiarity_TVET	0076818	.0240477	-0.32	0.749	0548928	.0395292
Gender of interviewpartner (base=female)	gender_interview- partner	.0182838	.0370628	0.49	0.622	054479	.0910466
Position of interviewpartner (base=owner)	manag_interviewpart- ner	.0367656	.0451451	0.81	0.416	0518644	.1253956
	staff_interviewpartner	.0289258	.1167193	0.25	0.804	2002208	.2580724
	relative_interview- partner	0096151	.0540126	-o.18	0.859	1156542	.0964239
City (base=Yangon)	Mandalay	5454175***	.061369	-8.89	0.000	6658987	4249363
	Pathein	1309975	.1033475	-1.27	0.205	3338921	.0718972
	Mawlamyine	5714532***	.0797716	-7.16	0.000	7280631	4148434
	Bago	1991491***	.0594873	-3-35	0.001	3159362	082362
	Pyay	7146612***	.117551	-6.08	0.000	9454405	4838819
	Monywa	0565374	.0591378	-0.96	0.339	1726383	.0595634
	Sagaing	1376639**	.0571796	-2.41	0.016	2499204	0254073
	Kale	.2185229	.1960637	1.11	0.265	1663949	.6034406
	Taunggyi	2894006***	.0788873	-3.67	0.000	4442744	1345269
	Lashio	3728887***	.0782164	-4-77	0.000	5264454	219332
Branch (base=Machinery, equipment, vehilces and other metal parts)	branch_food	0499367	.0503099	-0.99	0.321	1487066	.0488332
	branch_plastics	.0038193	.0782936	0.05	0.961	1498888	.1575275
	branch_textiles	.0290267	.0606577	0.48	0.632	0900582	.1481117
	branch_mineral	1167183*	.0659607	-1.77	0.077	2462141	.0127776
	branch_wood	1168733**	.0593656	-1.97	0.049	2334214	0003252
	branch_other_manu	176644**	.0705761	-2.50	0.013	3152009	038087
	_cons	3.508906	.0741029	47-35	0.000	3.363425	3.654387

variable	eta^2	% change eta^2	partial eta^2
small	.00894793	3.435092	.01195509
medium	.00876156	3.3635441	.011709
member_bus_ass	.00273833	1.0512398	.00368922
registered	.0049705	1.9081635	.00667643
age_business	.00029468	.11312736	.00039832
percent_skilled	.00178391	.68483954	.00240647
familiarity_TVET	.00010366	.03979346	.00014015
gender_interviewpartner	.00024721	.09490439	.00033418

manag_interviewpartner	.00067372	.25863901	.0009102
staff_interviewpartner	.00006239	.02395062	.00008436
relative_interviewpartner	.00003219	.01235812	.00004353
Mandalay	.0802372	30.802893	.09787994
Pathein	.00163208	.6265515	.0022021
Mawlamyine	.05212903	20.012225	.06584916
Bago	.01138475	4.3705808	.01516149
Pyay	.03754595	14.41381	.04831795
Monywa	.00092845	.35642933	.00125391
Sagaing	.00588807	2.2604188	.00789919
Kale	.00126187	.48442908	.00170344
Taunggyi	.01367098	5.2482618	.0181509
Lashio	.02308752	8.8632506	.03027468
branch_food	.0010008	.38420458	.00135149
branch_plastics	2.417e-06	.00092801	3.269e-06
branch_textiles	.00023262	.08930066	.00031445
branch_mineral	.0031807	1.221064	.00428265
branch_wood	.0039371	1.5114449	.00529571
branch_other_manu	.00636352	2.4429415	.00853159

Table 32: Multiple regression results and effect sizes with rating of skilled workers as dependent variable – service sector								
	Source	SS	df	MS	Number of obs	=	719	
					F( 25, 693)	=	9.46	
	Model	43.270338	25	1.73081352	Prob > F	=	0.0000	
	Residual	126.848229	693	.183042178	R-squared	=	0.2544	
					Adj R-squared	=	0.2275	
	Total	170.118567	718	.236933938	Root MSE	=	.42783	
	Source	ss	df	MS	Number of obs	=	719	
	rating_skilled	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.0680973*	.0407457	1.67	0.095	0119025	.1480972	
	medium	.1430128	.1383417	1.03	0.302	1286064	.414632	

Member in business association	member_bus_ass	.0280185	.0972315	0.29	0.773	1628851	.2189221
Registered with government authority	registered	.1051672**	.0508165	2.07	0.039	.0053945	.2049399
Age of business	age_business	.0011459	.0015812	0.72	0.469	0019586	.0042504
Share of skilled workers of total staff	percent_skilled	.0020608	.0017874	1.15	0.249	0014485	.0055701
Familiarity with TVET	familiarity_TVET	0102919	.027271	-0.38	0.706	0638357	.0432518
Gender of interviewpartner (base=female)	gender_interview- partner	0187692	.0353356	-0.53	0.595	0881469	.0506085
Position of interviewpartner (base=owner)	manag_interviewpart- ner	1329333***	.0490852	-2.71	0.007	2293069	0365598
	staff_interviewpartner	2276481	.1684354	-1.35	0.177	5583529	.1030568
	relative_interview- partner	3252299***	.0548957	-5.92	0.000	4330117	217448
City (base=Yangon)	Mandalay	458668***	.0670366	-6.84	0.000	5902872	3270487
	Pathein	0287361	.3097452	-0.09	0.926	6368876	.5794154
	Mawlamyine	5860666***	.0900392	-6.51	0.000	762849	4092843
	Bago	2157243***	.0534559	-4.04	0.000	3206793	1107693
	Pyay	7178016***	.0942026	-7.62	0.000	9027583	5328449
	Monywa	.014495	.0861504	0.17	0.866	154652	.1836421
	Sagaing	.2412844	.4353546	0.55	0.580	6134877	1.096057
	Kale	.0802549	.1143679	0.70	0.483	1442941	.304804
	Taunggyi	2511114***	.0510971	-4.91	0.000	3514352	1507877
	Lashio	2790598***	.0518867	-5.38	0.000	3809337	1771859
Branch (base=restaurant)	branch_wholesale	.0151352	.0585916	0.26	0.796	0999031	.1301735
	branch_retail	.1195198***	.042345	2.82	0.005	.03638	.2026596
	branch_repair	0496303	.0523266	-0.95	0.343	1523679	.0531073
	branch_other_serv	.1482815**	.0654728	2.26	0.024	.0197326	.2768303
	_cons	3.427805	.0790929	43-34	0.000	3.272514	3.583095

variable	eta^2	% change eta^2	partial eta^2
small	.00300536	1.181564	.00401436
medium	.00114985	.45206857	.00153972
member_bus_ass	.00008935	.03512662	.00011981
registered	.00460841	1.8118092	.00614246
age_business	.0005651	.22216979	.00075729
percent_skilled	.0014304	.56236521	.00191466

familiarity_TVET	.00015325	.06024929	.00020548
gender_interviewpartner	.00030357	.11935077	.00040696
manag_interviewpartner	.00789162	3.1026128	.01047276
staff_interviewpartner	.00196544	.77272025	.00262897
relative_interviewpartner	.03776621	14.847893	.04820733
Mandalay	.05037001	19.803111	.06327763
Pathein	9.261e-o6	.0036409	.00001242
Mawlamyine	.04558585	17.922208	.05761378
Bago	.01752289	6.8891745	.0229607
Pyay	.06247162	24.560897	.07730511
Monywa	.00003046	.01197527	.00004085
Sagaing	.0003305	.12993708	.00044304
Kale	.00052983	.20830349	.00071006
Taunggyi	.025986	10.21647	.03367667
Lashio	.0311231	12.236135	.04006737
branch_wholesale	.0000718	.02822711	.00009628
branch_retail	.00857187	3.370055	.01136524
branch_repair	.00096794	.38054836	.00129644
branch_other_serv	.00551888	2.1697635	.0073471

Table 33: Multiple regression results and effect sizes with rating of unskilled workers as dependent variable – manufacturing sector							
	Source	SS	df	MS	Number of obs	=	1289
					F( 27, 1261)	=	17.88
	Model	95.2350631	27	3.52722456	Prob > F	=	0.0000
	Residual	248.711795	1261	.197233779	R-squared	=	0.2769
					Adj R-squared	=	0.2614
	Total	343.946858	1288	.267039486	Root MSE	=	.44411
	rating_skilled	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0377434	.0311822	1.21	0.226	0234314	.0989181
	medium	.0881082	.0757569	1.16	0.245	0605152	.2367316
Member in business association	member_bus_ass	1630951***	.0561449	-2.90	0.004	2732429	0529474

Registered with government	registered	.0093008	.0338022	0.28	0.783	0570139	.0756154
authority	J		.,,,		.,,,,		.,,,,,,,
Age of business	age_business	.0006956	.0011769	0.59	0.555	0016132	.0030045
Share of unskilled workers of total staff	percent_unskilled	.0038597***	.0010127	3.81	0.000	.001873	.0058464
Familiarity with TVET	familiarity_TVET	.0017515	.01956	0.09	0.929	0366221	.0401252
Gender of interviewpartner (base=female)	gender_interview- partner	.033376	.0285092	1.17	0.242	0225548	.0893067
Position of interviewpartner (base=owner)	manag_interviewpart- ner	0664577*	.0387411	-1.72	0.087	1424618	.0095464
	staff_interviewpartner	0272103	.0935104	-0.29	0.771	2106635	.1562428
	relative_interview- partner	0282255	.0449838	-0.63	0.530	1164768	.0600258
City (base=Yangon)	Mandalay	3589588***	.0380194	-9-44	0.000	4335471	2843705
	Pathein	0678152	.0616885	-1.10	0.272	1888386	.0532082
	Mawlamyine	5666002***	.0802414	-7.06	0.000	7240216	4091788
	Bago	5001043***	.0556386	-8.99	0.000	6092588	3909498
	Pyay	3887999***	.0625431	-6.22	0.000	5114998	2660999
	Monywa	.1440123***	.045795	3.14	0.002	.0541696	.2338549
	Sagaing	.0872273*	.0490354	1.78	0.076	0089726	.1834273
	Kale	.2414085*	.1364606	1.77	0.077	0263063	.5091234
	Taunggyi	3586354***	.077836	-4.61	0.000	5113377	2059331
	Lashio	6009916***	.0774276	-7.76	0.000	7528926	4490905
Branch (base=Machinery, equipment, vehilces and other metal parts)	branch_food	0407497	.0392944	-1.04	0.300	1178394	.03634
	branch_plastics	0456531	.0575058	-0.79	0.427	1584706	.0671645
	branch_textiles	.0967868**	.0443845	2.18	0.029	.0097112	.1838623
	branch_mineral	0240373	.051906	-0.46	0.643	1258689	.0777942
	branch_wood	0298313	.0471355	-0.63	0.527	122304	.0626413
	branch_other_manu	1905668***	.0592772	-3.21	0.001	3068595	074274
	_cons	2.895967	.0960799	30.14	0.000	2.707473	3.084461

variable	eta^2	% change eta^2	partial eta^2
small	.00084015	.30342551	.00116051
medium	.00077567	.2801387	.00107154
member_bus_ass	.00483895	1.7476132	.00664736
registered	.00004341	.01567953	.00006004
age_business	.00020036	.07236187	.00027701
percent_unskilled	.00833051	3.0086109	.01138916
familiarity_TVET	4.598e-06	.00166066	6.359e-o6
gender_interviewpartner	.00078594	.28384502	.0010857
manag_interviewpartner	.00168747	.60944098	.0023282
staff_interviewpartner	.00004856	.01753604	.00006714
relative_interviewpartner	.00022577	.08153706	.00031212
Mandalay	.05111732	18.461312	.06602357
Pathein	.000693	.25028239	.00095745
Mawlamyine	.0285921	10.326199	.03803642
Bago	.04632956	16.732184	.06021199
Pyay	.02216072	8.0034703	.02973508
Monywa	.00567092	2.0480858	.00778137
Sagaing	.00181458	.65534549	.00250312
Kale	.00179465	.64814907	.0024757
Taunggyi	.01217405	4.3967291	.01655692
Lashio	.034549	12.477569	.0455996
branch_food	.0006167	.2227258	.00085212
branch_plastics	.00036142	.1305272	.00049956
branch_textiles	.00272684	.98481464	.00375682
branch_mineral	.00012298	.04441428	.00017004
branch_wood	.00022969	.08295322	.00031754
branch_other_manu	.00592665	2.1404434	.00812941

Table 34: Multiple regression results and effect sizes with rating of unskilled workers as dependent variable – service sector

	Source	SS	df	MS	Number of obs	=	1144
					F( 25, 1118)	=	10.67
	Model	61.722172	25	2.46888688	Prob > F	=	0.0000
	Residual	258.776954	1118	.231464181	R-squared	=	0.1926
					Adj R-squared	=	0.1745
	Total	320.499126	1143	.280401685	Root MSE	=	.48111
	Source	SS	df	MS	Number of obs	=	1144
	rating_skilled	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	0760554*	.0392845	-1.94	0.053	1531351	.0010242
	medium	0607382	.141357	-0.43	o.668	3380931	.2166168
Member in business association	member_bus_ass	1864954**	.0900736	-2.07	0.039	3632278	0097629
Registered with government authority	registered	0307116	.0434076	-0.71	0.479	115881	.0544579
Age of business	age_business	.0025226*	.0014358	1.76	0.079	0002945	.0053398
Share of skilled workers of total staff	percent_unskilled	.0055942***	.0013673	4.09	0.000	.0029115	.0082769
Familiarity with TVET	familiarity_TVET	.0363265	.0246846	1.47	0.141	012107	.0847599
Gender of interviewpartner (base=female)	gender_interview- partner	0448464	.0317523	-1.41	0.158	1071472	.0174544
Position of interviewpartner (base=owner)	manag_interviewpart- ner	0489618	.046026	-1.06	0.288	1392689	.0413452
	staff_interviewpartner	3320632**	.143371	-2.32	0.021	6133697	0507567
	relative_interview- partner	1288191**	.0522156	-2.47	0.014	2312707	0263675
City (base=Yangon)	Mandalay	2779332***	.0451301	-6.16	0.000	3664825	189384
	Pathein	.1939889	.0967265	2.01	0.045	.004203	.3837747
	Mawlamyine	3890827***	.0984741	-3.95	0.000	5822975	1958678
	Bago	335317***	.0546286	-6.14	0.000	4425032	2281309
	Pyay	3741721***	.0615975	-6.07	0.000	4950318	2533124
	Monywa	.1745455**	.0718751	2.43	0.015	.0335202	.3155707
	Sagaing	.3256042	.2823405	1.15	0.249	2283728	.8795812
	Kale	.1283361	.0823991	1.56	0.120	0333382	.2900104
	Taunggyi	1421628***	.0545431	-2.61	0.009	2491812	0351445

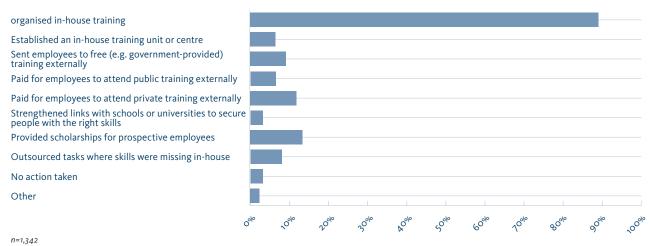
variable	eta^2	% change eta^2	partial eta^2
small	.00270692	1.4055955	.00334135
medium	.00013334	.06923587	.00016511
member_bus_ass	.00309598	1.6076193	.00381977
registered	.00036152	.18772253	.00044755
age_business	.00222937	1.1576273	.00275351
percent_unskilled	.0120901	6.2779162	.01475286
familiarity_TVET	.00156405	.81214871	.00193335
gender_interviewpartner	.00144066	.74807848	.0017811
manag_interviewpartner	.00081727	.42437677	.00101118
staff_interviewpartner	.00387414	2.0116921	.00477527
relative_interviewpartner	.00439559	2.2824569	.00541452
Mandalay	.02739082	14.222982	.03281087
Pathein	.00290482	1.5083614	.00358477
Mawlamyine	.01127448	5.8543976	.01377132
Bago	.02720996	14.12907	.03260128
Pyay	.02664856	13.837559	.03195014
Monywa	.0042591	2.2115826	.00524728
Sagaing	.00096048	.49874228	.00118816
Kale	.0017519	.90969421	.00216506
Taunggyi	.00490625	2.547623	.00603976
Lashio	.02148295	11.155258	.02591738
branch_wholesale	.00047451	.24639247	.00058734
branch_retail	.00476584	2.4747154	.00586793
branch_repair	.00366989	1.9056282	.00452464
branch_other_serv	.00096243	.49975279	.00119057

## Table 35: Correlation between membership in business association and collaboration with different training institutions, OECD Business Survey

	Membership in business association
Collaboration with vocational/technical high schools	0.0258
Collaboration with public vocational training institutes	0.0022
Collboration with private vocational training institutes	0.0171

Significance levels: \*p<0.1, \*\*p<0.05, \*\*\*p<0.001 Cramer's V: 0-0.1=weak correlation, 0.1-0.3=moderate correlation, >0.3=strong correlation Source: DEval SME Survey

Figure 63: Actions taken by SMEs that suffered from lack of skilled workers



Source: own compilation based on OECD Business Survey

Table 36: Multiple regression results and effect sizes with rating of university graduates as independent variable								
	Source	SS	df	MS	Number of obs	=	2100	
					F( 34, 2065)	=	9.24	
	Model	65.159533	34	1.91645685	Prob > F	=	0.0000	
	Residual	428.202699	2065	.207362082	R-squared	=	0.1321	
					Adj R-squared	=	0.1178	
	Total	493.362232	2099	.235046323	Root MSE	=	-45537	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.044798*	.0240861	1.86	0.063	0024376	.0920336	
	medium	0102108	.0751307	-0.14	0.892	1575507	.137129	
Member in business association	member_bus_ass	0426966	.0523807	-0.82	0.415	145421	.0600279	
Registered with government authority	registered	.0455581	.028884	1.58	0.115	0110867	.102203	
Age of business	age_business	0000127	.0009542	-0.01	0.989	0018841	.0018586	
Percentage of university graduates among staff	percent_manag_uni- versity	.0201889	.0171811	1.18	0.240	0135052	.053883	
	percent_skilled_uni- versity	.0194527	.0123336	1.58	0.115	0047348	.0436402	
	percent_unskilled_uni- versity	0015417	.0061238	-0.25	0.801	0135511	.0104678	
Familiarity with TVET	familiarity_TVET	0423864**	.016764	-2.53	0.012	0752625	0095102	
Gender of interviewpartner (base=female)	gender_interview- partner	0523443**	.0224689	-2.33	0.020	0964083	0082802	
Position of interviewpartner (base=owner)	manag_interviewpart- ner	0818377***	.0319166	-2.56	0.010	1444298	0192456	
	staff_interviewpartner	1020303	.0803574	-1.27	0.204	2596203	.0555596	
	relative_interview- partner	051232	.0377557	-1.36	0.175	1252752	.0228113	
Branch (base=Restaurants)	branch_food	017171	.0400052	-0.43	0.668	0956257	.0612838	
	branch_plastics	.0134262	.0588259	0.23	0.819	1019381	.1287904	
	branch_textiles	0284931	.0450148	-0.63	0.527	1167721	.059786	
	branch_mineral	0344923	.0596161	-0.58	0.563	1514061	.0824216	
	branch_machinery	.0138418	.0388514	0.36	0.722	0623502	.0900338	
	branch_wood	0180718	.0490797	-0.37	0.713	1143227	.0781792	
	branch_wholesale	.00013	.0506572	0.00	0.998	0992145	.0994745	
	branch_retail	0068797	.0368222	-0.19	0.852	0790923	.0653329	

	branch_repair	0252252	.0433761	-0.58	0.561	1102907	.0598403
	branch_other_manu	05157	.0639871	-0.81	0.420	177056	.073916
	branch_other_serv	.0482524	.0572446	0.84	0.399	0640108	.1605155
City (base=Yangon)	Mandalay	2190783***	.0311163	-7.04	0.000	280101	1580557
	Pathein	0659586	.0520938	-1.27	0.206	1681205	.0362033
	Mawlamyine	3790329***	.0698665	-5.43	0.000	516049	2420169
	Bago	1971759***	.0383018	-5.15	0.000	27229	1220618
	Pyay	3806759***	.0475045	-8.01	0.000	4738376	2875143
	Monywa	0564919	.0451473	-1.25	0.211	1450308	.0320471
	Sagaing	0607879	.0559243	-1.09	0.277	1704617	.048886
	Kale	1100531	.0783382	-1.40	0.160	2636831	.043577
	Taunggyi	4764034***	.0422833	-11.27	0.000	5593257	3934811
	Lashio	4320826***	.0430774	-10.03	0.000	5165622	347603
	_cons	3.220694	.0462427	69.65	0.000	3.130007	3.311381

variable	eta^2	% change in eta^2	partial eta^2
small	.00145395	1.1008698	.00167239
medium	7.763e-o6	.00587813	8.945e-o6
member_bus_ass	.00027926	.21144389	.00032165
registered	.00104564	.79171403	.0012033
age_business	7.453e-08	.00005643	8.587e-08
percent_manag_university	.00058034	.43941317	.00066821
percent_skilled_university	.00104555	.79165131	.00120321
percent_unskilled_university	.00002664	.02016905	.00003069
familiarity_TVET	.00268695	2.0344528	.00308627
gender_interviewpartner	.00228107	1.7271332	.00262129
manag_interviewpartner	.00276335	2.0923011	.00317375
staff_interviewpartner	.0006776	.51304853	.0007801
relative_interviewpartner	.00077389	.58595913	.00089086
branch_food	.00007743	.05862833	.00008921
branch_plastics	.00002189	.01657746	.00002523
branch_textiles	.0001684	.1275028	.00019398
branch_mineral	.0001407	.10652917	.00016208
branch_machinery	.00005335	.04039454	.00006146
branch_wood	.00005698	.04314673	.00006565

branch_wholesale	2.768e-09	2.096e-06	3.189e-09
branch_retail	.00001467	.01110893	.0000169
branch_repair	.00014214	.10762617	.00016375
branch_other_manu	.00027301	.20670962	.00031445
branch_other_serv	.00029863	.22610987	.00034395
Mandalay	.02083462	15.775151	.02344229
Pathein	.0006738	.51017756	.00077573
Mawlamyine	.01237029	9.3662935	.01405239
Bago	.01113867	8.4337624	.01267103
Pyay	.02699017	20.435888	.03015938
Monywa	.00065807	.49826473	.00075763
Sagaing	.00049659	.37599695	.00057183
Kale	.00082951	.62807117	.00095482
Taunggyi	.05335507	40.398353	.0579139
Lashio	.0422862	32.017438	.04645743

Table 37: Multiple regression variable	on results and effect	sizes with ra	ting of gradu	ates of tech	nical schools	as independ	ent
	Source	SS	df	MS	Number of obs	=	1931
					F( 34, 1896)	=	6.27
	Model	38.6240789	34	1.13600232	Prob > F	=	0.0000
	Residual	343.352876	1896	.181093289	R-squared	=	0.1011
					Adj R-squared	=	0.0850
	Total	381.976955	1930	.197915521	Root MSE	=	.42555
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=	small	.044798*	.0240861	1.86	0.063	0024376	.0920336
micro)	small	.0568196**	.0235185	2.42	0.016	.0106948	.1029444
	medium	.09976	.0708081	1.41	0.159	0391099	.23863
Member in business association	member_bus_ass	0906908*	.0533539	-1.70	0.089	1953294	.0139477
Registered with government authority	registered	.0042122	.0281128	0.15	0.881	050923	.0593474
Age of business	age_business	0008237	.0009295	-0.89	0.376	0026467	.0009993
Percentage of university graduates among staff	percent_manag_uni- versity	0102692	.0167312	-0.61	0.539	0430828	.0225443

percent_skilled_university        0078962         .0119426         -0.66         0.509        0313182         .015525           percent_unskilled_university        00034         .0058502         -0.06         0.954        0118136         .0111336           Familiarity with TVET         familiarity_TVET        0590089***         .0166371         -3.55         0.000        0916379        02637           Gender of interviewpartner (base=female)         gender_interview-partner        0356327         .021957         -1.62         0.105        0786952         .00742	
Familiarity with TVET         familiarity_TVET        0590089***         .0166371         -3.55         0.000        0916379        02637           Gender of interviewpartner (base=female)         gender_interview-partner        0356327         .021957         -1.62         0.105        0786952         .00742	6
Gender of interviewpartner (base=female)  gender_interview-partner 0356327 021957  -1.62  0.105 0786952  .00742	
(base=female) partner	799
	:97
Position of interviewpartner (base=owner)         manag_interviewpart- ner        0479143         .0317376         -1.51         0.131        1101587         .014330	<b>D1</b>
staff_interviewpartner1517274* .0777317 -1.95 0.051304176 .00072	<u>2</u> 12
relative_interview- partner .0206465 .0365809 0.56 0.5730510964 .09238	95
Branch (base=Restaurants)         branch_food         .0130414         .0388974         0.34         0.737        0632448         .08932	-77
branch_plastics .0229203 .0566398 0.40 0.6860881626 .134005	32
branch_textiles0617264 .0442263 -1.40 0.1631484638 .025011	1
branch_mineral0647085 .0582053 -1.11 0.2661788617 .04944	147
branch_machinery0080903 .0377848 -0.21 0.8300821944 .06601	38
branch_wood .0145732 .0469046 0.31 0.7560774168 .106563	33
branch_wholesale .0208246 .0498467 0.42 0.6760769356 .118584	<del>1</del> 7
branch_retail .0519716 .0361437 1.44 0.1510189139 .122857	71
branch_repair0332618 .0414913 -0.80 0.4231146351 .048111	15
branch_other_manu .0133502 .0626593 0.21 0.8311095383 .136238	37
branch_other_serv	6
City (base=Yangon)         Mandalay        2358249***         .0313561         -7.52         0.000        297321        174324	.88
Pathein1024018** .0491185 -2.08 0.03719873390060	697
Mawlamyine1936619*** .0681221 -2.84 0.0053272640600	597
Bago1004144*** .0361288 -2.78 0.006171270702955	58
Pyay3446007*** .0476537 -7.23 0.000438059825114	.16
Monywa2375285*** .0447264 -5.31 0.000325246614981	04
Sagaing0217936 .0565875 -0.39 0.700132774 .089180	68
Kale1444511 .0970932 -1.49 0.1373348718 .04596	97
Taunggyi3191159*** .0402362 -7.93 0.000398027824020	039
Lashio2014086*** .0406833 -4.95 0.0002811974121619	99
	97

variable	eta^2	% change in eta^2	partial eta^2
small	.00276721	2.7366656	.00306905
medium	.00094105	.93066115	.00104581
member_bus_ass	.00136981	1.3546852	.00152158
registered	.00001064	.010526	.00001184
age_business	.00037232	.3682115	.00041403
percent_manag_university	.0001786	.1766302	.00019865
percent_skilled_university	.00020726	.2049698	.00023052
percent_unskilled_university	1.601e-06	.00158352	1.781e-06
familiarity_TVET	.00596408	5.8982396	.00659125
gender_interviewpartner	.00124858	1.2347988	.00138711
manag_interviewpartner	.00108055	1.0686247	.00120066
staff_interviewpartner	.00180633	1.7863892	.0020055
relative_interviewpartner	.00015103	.14935866	.00016799
branch_food	.00005329	.05270508	.00005928
branch_plastics	.00007764	.07677871	.00008636
branch_textiles	.00092352	.91332154	.00102635
branch_mineral	.00058595	.57948411	.00065144
branch_machinery	.00002174	.02149509	.00002418
branch_wood	.00004577	.04526102	.00005091
branch_wholesale	.00008275	.0818319	.00009204
branch_retail	.00098024	.96942057	.00108932
branch_repair	.00030468	.30131631	.00033884
branch_other_manu	.00002152	.02128384	.00002394
branch_other_serv	.00069009	.68247211	.00076713
Mandalay	.02681641	26.520375	.02896879
Pathein	.00206058	2.0378316	.00228713
Mawlamyine	.00383158	3.7892788	.0042445
Bago	.00366227	3.6218397	.00405771
Pyay	.02479162	24.517934	.02684018
Monywa	.01337116	13.223548	.01465726
Sagaing	.00007032	.0695443	.00007822
Kale	.00104937	1.0377869	.00116605
Taunggyi	.02982136	29.492148	.03211068
Lashio	.01161953	11.49126	.01276166

Table 38: Multiple regression results and effect sizes with rating of graduates of training institutions as independent variable

	Source	SS	df	MS	Number of	=	1477
					obs		
					F( 34, 1442)	=	4.54
	Model	32.2942713	34	.949831507	Prob > F	=	0.0000
	Residual	301.668068	1442	.209201157	R-squared	=	0.0967
					Adj R-squared	=	0.0754
	Total	333.962339	1476	.226261747	Root MSE	=	·45739
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base= micro)	small	.0197547	.0289124	0.68	0.495	03696	.0764695
	medium	.131384	.0887175	1.48	0.139	0426452	.3054133
Member in business association	member_bus_ass	0996587	.0641441	-1.55	0.120	2254845	.0261671
Registered with government authority	registered	015549	.0345106	-0.45	0.652	0832454	.0521474
Age of business	age_business	0009088	.0011358	-0.80	0.424	0031367	.0013192
Percentage of university graduates among staff	percent_manag_university	0289011	.0223127	-1.30	0.195	0726699	.0148677
	percent_skilled_university	0235501	.0153862	-1.53	0.126	0537319	.0066317
	percent_unskilled_university	.0053354	.0068642	0.78	0.437	0081294	.0188003
Familiarity with TVET	familiarity_TVET	0012801	.0210589	-0.06	0.952	0425895	.0400293
Gender of interviewpartner (base=female)	gender_interview- partner	0601235**	.027142	-2.22	0.027	1133656	0068814
Position of interviewpartner (base=owner)	manag_interviewpart- ner	012785	.0393439	-0.32	0.745	0899624	.0643923
	staff_interviewpartner	2244104*	.1301301	-1.72	0.085	4796749	.0308541
	relative_interview- partner	172463***	.0435817	-3.96	0.000	2579534	0869726
Branch (base=Restaurants)	branch_food	.042269	.0483567	0.87	0.382	0525881	.1371261
	branch_plastics	.0497584	.0712945	0.70	0.485	0900937	.1896105
	branch_textiles	.1137537**	.0567171	2.01	0.045	.0024969	.2250105
	branch_mineral	003149	.073647	-0.04	0.966	1476158	.1413177
	branch_machinery	0051511	.0479754	-0.11	0.915	0992602	.088958
	branch_wood	.0367611	.0546768	0.67	0.501	0704936	.1440158
	branch_wholesale	.1107366*	.0591226	1.87	0.061	0052388	.2267121

	branch_retail	.0907714**	.0440164	2.06	0.039	.0044283	.1771145
	branch_repair	0594926	.0495368	-1.20	0.230	1566646	.0376794
	branch_other_manu	.0661818	.0733117	0.90	0.367	0776273	.2099908
	branch_other_serv	.0438087	.0679352	0.64	0.519	0894537	.1770711
City (base=Yangon)	Mandalay	.0356779	.0476425	0.75	0.454	0577782	.1291339
	Pathein	.1250943*	.0651076	1.92	0.055	0026215	.2528101
	Mawlamyine	0712581	.0758163	-0.94	0.347	2199802	.077464
	Bago	1911845***	.0403642	-4.74	0.000	2703633	1120056
	Pyay	.059988	.0657139	0.91	0.361	068917	.1888931
	Monywa	0453726	.0547332	-0.83	0.407	1527378	.0619926
	Sagaing	.1184953*	.0650665	1.82	0.069	0091398	.2461305
	Kale	008641	.1138554	-0.08	0.940	2319809	.2146988
	Taunggyi	3013384***	.0444948	-6.77	0.000	3886199	2140568
	Lashio	2018711***	.0465908	-4-33	0.000	293264	1104782
	_cons	3.133562	.0549074	57.07	0.000	3.025855	3.241269

variable	eta^2	% change in eta^2	partial eta^2
small	.00029244	.30242251	.00032365
medium	.00137383	1.4207089	.00151859
member_bus_ass	.00151211	1.5637074	.00167119
registered	.00012716	.13150371	.00014076
age_business	.00040104	.41472885	.00044378
percent_manag_university	.00105097	1.0868328	.00116213
percent_skilled_university	.00146753	1.5176054	.001622
percent_unskilled_university	.00037847	.391383	.00041881
familiarity_TVET	2.315e-o6	.00239369	2.562e-06
gender_interviewpartner	.00307376	3.1786478	.00339128
manag_interviewpartner	.00006615	.06840494	.00007322
staff_interviewpartner	.00186293	1.926501	.00205812
relative_interviewpartner	.00980956	10.144283	.01074303
branch_food	.00047863	.4949576	.00052958
branch_plastics	.00030513	.31554302	.00033768
branch_textiles	.00251982	2.6058071	.00278182
branch_mineral	1.145e-o6	.00118435	1.268e-o6
branch_machinery	7.222e-o6	.00746796	7.995e-o6

branch_wood	.00028316	.29282539	.00031338
branch_wholesale	.00219757	2.2725555	.00242692
branch_retail	.00266401	2.7549082	.00294052
branch_repair	.00090352	.93434639	.00099924
branch_other_manu	.0005105	.52792067	.00056483
branch_other_serv	.00026049	.26938289	.0002883
Mandalay	.0003513	.36328407	.00038875
Pathein	.00231248	2.3913861	.0025535
Mawlamyine	.00055336	.57224428	.00061223
Bago	.01405332	14.532857	.01531943
Pyay	.00052201	.53982531	.00057756
Monywa	.00043048	.44516887	.00047634
Sagaing	.00207756	2.1484533	.00229469
Kale	3.608e-06	.00373132	3.994e-06
Taunggyi	.02873136	29.711749	.03082662
Lashio	.01176022	12.161508	.01285186

Table 39: Multiple regression results and effect sizes with difficulty in finding management staff as dependent variable							
	Source	SS	df	MS	Number of obs	=	2381
					F( 32, 2348)	=	8.17
	Model	307.607962	32	9.61274881	Prob > F	=	0.0000
	Residual	2762.33408	2348	1.17646255	R-squared	=	0.1002
					Adj R-squared	=	0.0879
	Total	3069.94204	2380	1.28989161	Root MSE	=	1.0846
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	052898	.0536631	-0.99	0.324	1581301	.052334
	medium	0492893	.1533316	-0.32	0.748	3499687	.2513901
Member in business association	member_bus_ass	.1015547	.1169532	0.87	0.385	1277876	.3308969
Registered with government authority	registered	.0425735	.0632532	0.67	0.501	0814644	.1666114
Position of interview partner (base=owner)	manag_interviewpart- ner	.3293927***	.069993	4.71	0.000	.1921381	.4666473

	staff_interviewpartner	.2573331	.1851678	1.39	0.165	1057763	.6204425
	relative_interview- partner	.2539897***	.0821685	3.09	0.002	.0928595	.41512
Gender of interviewpartner (base=female)	gender_interview- partner	.0697287	.0500409	1.39	0.164	0284001	.1678576
Perception of lack of skilled workers as obstacle	lack_of_skilled_workers	.2168682***	.0207941	10.43	0.000	.1760914	.257645
Familiarity with TVET	familiarity_TVET	.0666124*	.0374152	1.78	0.075	0067579	.1399828
Age of business	age_business	.0001745	.002127	0.08	0.935	0039965	.0043455
City (base=Yangon)	Mandalay	.0494584	.0698482	0.71	0.479	0875123	.186429
	Pathein	3700594***	.1218325	-3.04	0.002	6089698	131149
	Mawlamyine	.3256898**	.1431771	2.27	0.023	.0449232	.6064564
	Bago	.2050183**	.09011	2.28	0.023	.0283149	.3817217
	Pyay	1584505	.1091079	-1.45	0.147	3724083	.0555072
	Monywa	.1247566	.090553	1.38	0.168	0528155	.3023287
	Sagaing	.2140279*	.1096844	1.95	0.051	0010605	.4291163
	Kale	.077876	.1611044	0.48	0.629	2380458	-3937977
	Taunggyi	0579048	.1015823	-0.57	0.569	2571051	.1412956
	Lashio	.2571879**	.101173	2.54	0.011	.0587902	.4555857
Branch (base=restaurants)	branch_food	0035076	.090908	-0.04	0.969	1817758	.1747606
	branch_plastics	.056823	.1374213	0.41	0.679	2126568	.3263028
	branch_textiles	.0487073	.1007982	0.48	0.629	1489554	.2463701
	branch_mineral	4204016***	.1264956	-3.32	0.001	6684562	172347
	branch_machinery	1895542**	.0884647	-2.14	0.032	3630312	0160772
	branch_wood	0124533	.1112551	-0.11	0.911	2306217	.2057151
	branch_wholesale	.0270219	.1190924	0.23	0.821	2065152	.2605591
	branch_retail	3173251***	.0842518	-3.77	0.000	4825407	1521095
	branch_repair	1076287	.0992028	-1.08	0.278	3021629	.0869056
	branch_other_manu	.060919	.1338932	0.45	0.649	2016422	.3234803
	branch_other_serv	.0681074	.131737	0.52	0.605	1902256	.3264404
	_cons	1.378208	.1095511	12.58	0.000	1.163381	1.593035

variable	eta^2	% change eta^2	partial eta^2
small	.00037237	.37162765	.00041367
medium	.0000396	.03952049	.00004401
member_bus_ass	.00028895	.28837411	.00032102
registered	.0001736	.17325833	.0001929
manag_interviewpartner	.00848723	8.4702994	.00934422
staff_interviewpartner	.00074013	.73865366	.00082187
relative_interviewpartner	.00366159	3.6542867	.00405285
gender_interviewpartner	.00074408	.74259931	.00082626
lack_of_skilled_workers	.04168284	41.599669	.0442736
familiarity_TVET	.00121468	1.2122554	.00134812
age_business	2.580e-06	.00257438	2.867e-06
Mandalay	.00019214	.191756	.00021349
Pathein	.00353561	3.5285592	.00391395
Mawlamyine	.00198294	1.9789823	.00219891
Bago	.00198375	1.9797941	.00219981
Pyay	.00080821	.80659573	.0008974
Monywa	.00072739	.72594223	.00080774
Sagaing	.00145915	1.4562351	.00161901
Kale	.00008954	.08936603	.00009951
Taunggyi	.00012452	.12427196	.00013837
Lashio	.00247639	2.4714519	.00274461
branch_food	5.705e-07	.00056936	6.340e-07
branch_plastics	.00006552	.06539145	.00007281
branch_textiles	.00008948	.0893025	.00009944
branch_mineral	.00423278	4.2243386	.00468211
branch_machinery	.00175944	1.7559315	.00195155
branch_wood	4.802e-06	.00479194	5.336e-o6
branch_wholesale	.00001973	.01968999	.00002193
branch_retail	.00543624	5.4253923	.00600533
branch_repair	.00045108	.45018226	.00050106
branch_other_manu	.00007933	.07917159	.00008816
branch_other_serv	.00010243	.1022242	.00011382

branch_textiles	.0430133	.0973877	0.44	0.659	1479694	.2339961
branch_mineral	3174467***	.1216898	-2.61	0.009	5560872	0788062
branch_machinery	1372811	.0882351	-1.56	0.120	3103151	.0357529
branch_wood	0973586	.1058792	-0.92	0.358	3049936	.1102764
branch_wholesale	1074584	.1137477	-0.94	0.345	3305241	.1156073
branch_retail	336081***	.0821073	-4.09	0.000	4970981	175064
branch_repair	1277332	.0970583	-1.32	0.188	3180699	.0626035
branch_other_manu	.0107412	.1258566	0.09	0.932	2360706	.2575531
branch_other_serv	0854493	.124965	-o.68	0.494	3305127	.159614
_cons	1.738126	.1054181	16.49	0.000	1.531395	1.944857

variable	eta^2	% change eta^2	partial eta^2
small	.00173097	1.6845222	.00192549
medium	2.721e-06	.00264813	3.033e-06
member_bus_ass	.0000781	.07600298	.00008704
registered	.00077222	.75150337	.00085992
manag_interviewpartner	.00336532	3.2750198	.00373672
staff_interviewpartner	.00049258	.47936047	.00054869
relative_interviewpartner	.00135903	1.3225605	.00151238
gender_interviewpartner	.00130549	1.2704606	.00145289
lack_of_skilled_workers	.05554537	54.054923	.05829772
familiarity_TVET	.00024054	.23408333	.00026801
age_business	.00067241	.65436939	.00074886
Mandalay	.00895363	8.7133776	.00988045
Pathein	.00005965	.05805181	.00006648
Mawlamyine	.00068038	.66212077	.00075772
Bago	.00005578	.05428764	.00006217
Pyay	.00051395	.50016307	.00057249
Monywa	.00095281	.9272448	.00106081
Sagaing	.00017888	.17408338	.00019933
Kale	.00040824	.39728755	.00045479
Taunggyi	.00048499	.47197928	.00054025
Lashio	.00001986	.0193229	.00002213
branch_food	.00001842	.01792268	.00002053
branch_plastics	.00006437	.06264475	.00007174

branch_textiles	.00008055	.07838554	.00008976
branch_mineral	.00280985	2.7344557	.00312188
branch_machinery	.00099951	.97269458	.00111275
branch_wood	.00034912	-33975479	.00038895
branch_wholesale	.00036851	.35861858	.00041054
branch_retail	.00691791	6.7322779	.00765119
branch_repair	.00071514	.69595316	.00079641
branch_other_manu	3.007e-06	.0029268	3.352e-o6
branch_other_serv	.00019306	.18787897	.00021512

	Source	SS	df	MS	Number of obs	=	2454
					F( 32, 2421)	=	7.89
	Model	252.788951	32	7.89965473	Prob > F	=	0.0000
	Residual	2423.66908	2421	1.00110247	R-squared	=	0.0944
					Adj R-squared	=	0.0825
	Total	2676.45803	2453	1.09109581	Root MSE	=	1.0006
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	0568564	.0486875	-1.17	0.243	1523299	.038617
	medium	0866348	.1412453	-0.61	0.540	3636089	.1903393
Member in business association	member_bus_ass	0189173	.1043069	-0.18	0.856	2234572	.1856227
Registered with government authority	registered	.1070888*	.0573506	1.87	0.062	0053725	.2195502
Position of interviewpartner (base=owner)	manag_interviewpart- ner	0295554	.0641378	-0.46	0.645	1553261	.0962152
	staff_interviewpartner	2378714	.1705557	-1.39	0.163	5723218	.0965789
	relative_interview- partner	0949618	.0736551	-1.29	0.197	2393954	.0494717
Gender of interviewpartner (base=female)	gender_interview- partner	0329459	.0455137	-0.72	0.469	1221957	.0563038
Perception of lack of skilled workers as obstacle	lack_of_skilled_workers	.2215395***	.0189774	11.67	0.000	.1843259	.2587532
Familiarity with TVET	familiarity_TVET	0122316	.0332671	-0.37	0.713	0774665	.0530032
Age of business	age_business	.0031871	.0019425	1.64	0.101	0006221	.0069963

City (base=Yangon)	Mandalay	2409592***	.0623017	-3.87	0.000	3631293	118789
	Pathein	0371272	.1122302	-0.33	0.741	2572044	.18295
	Mawlamyine	5510443***	.1319293	-4.18	0.000	8097503	2923382
	Bago	0732649	.0830129	-o.88	0.378	2360487	.0895188
	Pyay	3005249***	.0930731	-3.23	0.001	483036	1180138
	Monywa	.0861888	.083436	1.03	0.302	0774245	.2498021
	Sagaing	2970813***	.0993746	-2.99	0.003	4919493	1022132
	Kale	.1037182	.1485709	0.70	0.485	1876211	.3950575
	Taunggyi	1548587*	.093596	-1.65	0.098	3383953	.0286778
	Lashio	.0003854	.0932103	0.00	0.997	1823948	.1831656
Branch (base=restaurants)	branch_food	1848149**	.0826234	-2.24	0.025	3468349	022795
	branch_plastics	0745329	.1250507	-0.60	0.551	3197504	.1706845
	branch_textiles	0455506	.0919814	-0.50	0.620	225921	.1348198
	branch_mineral	2426902**	.1142586	-2.12	0.034	466745	0186354
	branch_machinery	2550191***	.0802581	-3.18	0.002	4124008	0976375
	branch_wood	4154742***	.1016174	-4.09	0.000	6147404	216208
	branch_wholesale	2522103**	.1086567	-2.32	0.020	4652801	0391404
	branch_retail	4210767***	.0761981	-5.53	0.000	5704969	2716566
	branch_repair	3723567***	.0901611	-4.13	0.000	5491576	1955559
	branch_other_manu	2268034*	.1209178	-1.88	0.061	4639165	.0103097
	branch_other_serv	2284067*	.1182673	-1.93	0.054	4603223	.0035089
	_cons	2.163612	.0996952	21.70	0.000	1.968115	2.359109

variable	eta^2	% change eta^2	partial eta^2
small	.00051009	.54006417	.00056297
medium	.00014072	.14899012	.00015537
member_bus_ass	.0000123	.01302601	.00001359
registered	.00130416	1.3808068	.00143811
manag_interviewpartner	.00007943	.08409436	.0000877
staff_interviewpartner	.00072756	.77032194	.0008028
relative_interviewpartner	.00062174	.65828333	.00068612
gender_interviewpartner	.00019599	.20751047	.00021639
lack_of_skilled_workers	.05097385	53.969669	.05329067
familiarity_TVET	.00005057	.05353773	.00005584
age_business	.00100689	1.066066	.00111067

Mandalay	.00559507	5.9238976	.00614069
Pathein	.00004093	.04333961	.0000452
Mawlamyine	.00652542	6.9089314	.00715447
Bago	.00029135	.30847585	.00032164
Pyay	.0038997	4.1288909	.00428797
Monywa	.00039913	.4225864	.00044056
Sagaing	.00334286	3.5393236	.00367794
Kale	.00018229	.19300238	.00020126
Taunggyi	.00102394	1.0841194	.00112946
Lashio	6.394e-09	6.770e-06	7.061e-09
branch_food	.00187148	1.9814724	.00206242
branch_plastics	.00013287	.14068393	.00014671
branch_textiles	.00009173	.09711998	.00010129
branch_mineral	.0016875	1.7866804	.00186004
branch_machinery	.00377647	3.9984181	.00415303
branch_wood	.00625273	6.620214	.00685754
branch_wholesale	.00201526	2.1336963	.00222051
branch_retail	.01142228	12.093584	.0124565
branch_repair	.00637967	6.7546161	.00699579
branch_other_manu	.00131594	1.3932822	.00145109
branch_other_serv	.0013951	1.4770964	.00153824

## **Financial needs**

Figure 64: Enterprises with outstanding loans, in percent

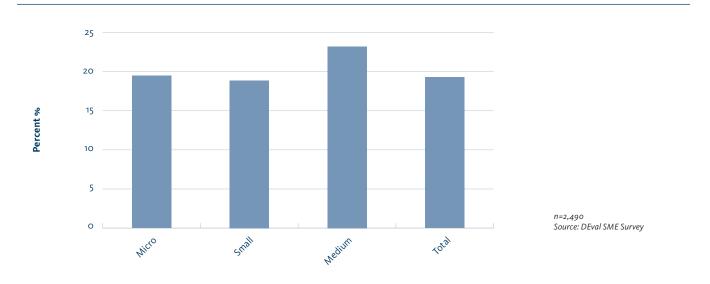
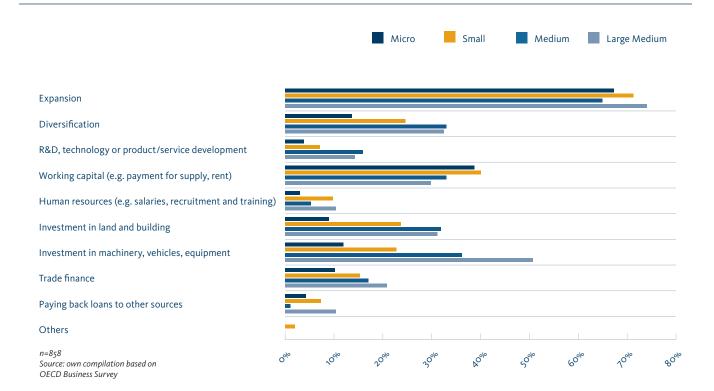


Figure 65: Purpose of outstanding loans, in percent



## Table 42: Correlation of firm size and purpose of loan taken Firm size Purpose of loan 0.1319

 $Significance\ levels: *p < 0.1, **p < 0.05, ***p < 0.001\\ Cramer's\ V:\ o - o.1 = weak\ correlation,\ o.1 - o.3 = moderate\ correlation,\ > o.3 = strong\ correlation$ Source: DEval SME Survey

Table 43: Correlation source of loan with firm size, city and branch				
Source of loan				
Firm size	Cramer's V = 0.2242***			
City	Cramer's V = 0.2296***			
<b>Branch</b> Cramer's V = 0.2326***				

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\* p<0.001 Cramer's V: 0-0.1=weak correlation, 0.1-0.3=moderate correlation, >0.3=strong correlation Source: DEval SME Survey

Table 44: Multiple Regression with source of loan=formal as dependent variable							
Logistic regression	Number of obs	=	464				
LR chi2(34)	=	193.06					
Prob > chi2	=	0.0000					
Log likelihood = -140.02678	Pseudo R2	=	0.4081				
	Formal loan source	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.072666	.4016857	0.19	0.851	.5148863	2.234691
	medium	.1570276*	.1718261	-1.69	0.091	.0183889	1.340899
Male owner	male_owner	1.067908	.4249686	0.17	0.869	.4895564	2.329513
Loan as private person	private_person	.5885042	.2253475	-1.38	0.166	.2778505	1.246488
Size of loan (in thousand)	size_loan_thousand	1.000024***	5.63e-o6	4.31	0.000	1.000013	1.000035
Age of business	age_business	1.030641**	.015118	2.06	0.040	1.001432	1.060702
Housebank	housebank	3.654144***	1.529894	3.10	0.002	1.608459	8.301592
Registered with government authority	registered	1.530201	.7842589	0.83	0.407	.5603901	4.178366
Member in business association	member_bus_ass	2.592599	1.507362	1.64	0.101	.8295428	8.102741

City (base-Yangon)         Pathein         1,71959         1,65664         0,45         0,654         4,290499         3,845681           City (base-Yangon)         Pathein         1,71939         1,65606         0,11         0,099         .077161         17,78208           Mawlamyine         2,383838         2,019825         1,00         0,316         .4404566         12,69417           Bago         7931082         3,043606         -0,36         0,715         ,2280492         2,78267           Montywa         8,69116*         2,598051         1,86         0,064         9290482         14,66618           Montywa         8,97778****         6,144652         3,21         0,001         2,347373         34,33649           Lack         13,00056***         16,30765         2,05         0,041         1,17068         85,9393           Lashio         1,711671         2,074629         -1,46         0,145         0,195103         1,841346           Purpose of loan (base-working capital)         Expansion         3,419308***         1,28731         3,26         0,001         1,63148         2,149539           Land, buildings         3,610057         4,187365         1,11         0,26         3,97486         35,4084								
Mawlamyine         2,358983         2,019825         1,00         0,316         4,404,566         12,65417           Bago         7,731082         5,043606         -0,36         0,715         1,228,0492         2,758,267           Pyay         3,69116*         2,598,051         1,86         0,064         ,9290,482         1,46518           Monywa         8,97778****         6,144652         3,21         0,001         2,347373         34,33649           Sagaing         1,043203         9539337         0,05         0,963         1,737826         6,262261           Kale         13,00196**         16,30765         2,05         0,041         1,112618         151,9303           Taunggyi         .6987591         5508,881         -0,45         0,649         ,1490409         3,276043           Lashio         .771621         .2074629         -1,46         0,145         .0159103         1,841346           Purpose of loan (base-working         Expansion         3,415308***         1,287351         3,26         0,001         1,63148         7,49539           Land_buildings         3,610057         4,187365         1,11         0,268         3,716989         35,06201           Equipment         4,599		Mandalay	1.284519	.7186664	0.45	0.654	.4290499	3.845681
Bago	City (base=Yangon)	Pathein	1.171359	1.625606	0.11	0.909	.077161	17.78208
Pyay   3,6916*   2,598051   1,86   0.064   .9290482   14,66518		Mawlamyine	2.358983	2.019825	1.00	0.316	.4404566	12.63417
Monywa   8,977781***   6.144652   3.21   0.001   2.347373   34.33649		Bago	.7931082	.5043606	-0.36	0.715	.2280492	2.758267
Sagaing   1.043203   .95393377   0.05   0.963   .1737826   6.262261     Kale   13.00156**   16.30765   2.05   0.041   1.112618   1519303     Taunggyi   .6987591   .5508481   -0.45   0.649   .1490409   3.276043     Lashio   .1711621   .2074629   -1.46   0.145   .0159103   1.841346     Purpose of loan (base-working   Expansion   3.415308***   1.287351   3.26   0.001   1.63148   7.149539     Land_buildings   3.610057   4.187365   1.11   0.268   .3716989   35.06201     Equipment   4.599542   4.789698   1.47   0.143   .5974786   35.40844     Trade_activities   .9221439   .8060557   -0.09   0.926   .1662472   5.114969     Other   1   (omitted)     Branch (base=restaurants)   branch_food   3.97018   3.761848   1.46   0.146   .6198054   25.43029     branch_ublesse   12.71646**   12.82953   2.52   0.012   1.76034   91.86206     branch_mineral   12.73071**   15.25056   2.12   0.034   1.216659   133.2098     branch_wood   4.017151   4.116643   1.36   0.175   5.3390576   29.93651     branch_wood   4.017151   4.116643   1.39   0.163   5.5596987   31.14241     branch_repair   2.695585   2.822158   0.95   0.344   3.463241   20.98086     branch_other_manu   7.773893**   7.556842   1.88   0.061   .9151418   56.2269     branch_other_serv   2.240196   2.828554   0.64   0.523   .188594   26.60997		Pyay	3.69116*	2.598051	1.86	0.064	.9290482	14.66518
Kale		Monywa	8.977781***	6.144652	3.21	0.001	2.347373	34.33649
Taunggyi 6.6987591 5.5508481 -0.45 0.649 1.490409 3.276043  Lashio 1.711621 2.2074629 -1.46 0.145 0.059103 1.841346  Purpose of loan (base=working capital)  Expansion 3.415308*** 1.287351 3.26 0.001 1.63148 7.149539  Land_buildings 3.610057 4.187365 1.11 0.268 3.716989 35.06201  Equipment 4.599542 4.789698 1.47 0.143 5.974786 35.40844  Trade_activities 9.9221439 8.060557 -0.09 0.926 1.662472 5.114969  Other 1 (omitted)  Branch (base=restaurants) branch_food 3.97018 3.761848 1.46 0.146 0.146 .6198054 25.43029  branch_plastics 4.946888 6.932169 1.14 0.254 3.73416 77.1147  branch_textiles 12.71646** 12.82953 2.52 0.012 1.76034 91.86206  branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098  branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wood 4.07151 4.116643 1.36 0.175 5.390576 29.93651  branch_retail 1.076406 1.078388 0.07 0.941 1.510799 7.669117  branch_retail 1.076406 1.078388 0.07 0.941 1.510799 7.669117  branch_other_manu 7.173893** 7.536842 1.88 0.061 9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 1.88594 2.660997		Sagaing	1.043203	-9539337	0.05	0.963	.1737826	6.262261
Lashio .1711621 .2074629 -1.46 0.145 .0159103 1.841346  Purpose of loan (base=working capital)  Land_buildings 3.610057 4.187365 1.11 0.268 .3716989 35.06201  Equipment 4.599542 4.789698 1.47 0.143 .5974786 35.40844  Trade_activities .9221439 .8060557 -0.09 0.926 .1662472 5.114969  Other 1 (omitted)  Branch (base=restaurants) branch_food 3.97018 3.761848 1.46 0.146 .6198054 25.43029  branch_plastics 4.946888 6.932169 1.14 0.254 .3173416 77.1147  branch_textiles 12.71646** 12.82953 2.52 0.012 1.76034 91.86206  branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098  branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117  branch_other_serv 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_serv 2.240196 2.888554 0.64 0.523 .188594 26.60997		Kale	13.00156**	16.30765	2.05	0.041	1.112618	151.9303
Purpose of loan (base=working capital)         Expansion         3.415308***         1.287351         3.26         0.001         1.63148         7.149539           Land_buildings         3.610057         4.187365         1.11         0.268         .3716989         35.06201           Equipment         4.599542         4.789698         1.47         0.143         .5974786         35.40844           Trade_activities         .9221439         .8060557         -0.09         0.926         .1662472         5.114969           Other         1         (omitted)		Taunggyi	.6987591	.5508481	-0.45	0.649	.1490409	3.276043
Land_buildings 3.610057 4.187365 1.11 0.268 .3716989 35.06201  Equipment 4.599542 4.789698 1.47 0.143 .5974786 35.40844  Trade_activities .9221439 .8060557 -0.09 0.926 .1662472 5.114969  Other 1 (omitted)  Branch (base=restaurants) branch_food 3.970118 3.761848 1.46 0.146 .6198054 25.43029  branch_plastics 4.946888 6.932169 1.14 0.254 .3173416 77.1147  branch_textiles 12.71646** 12.82953 2.52 0.012 1.76034 91.86206  branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098  branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651  branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		Lashio	.1711621	.2074629	-1.46	0.145	.0159103	1.841346
Equipment 4.599542 4.789698 1.47 0.143 .5974786 35.40844  Trade_activities .9221439 .8060557 -0.09 0.926 .1662472 5.114969  Other 1 (omitted)  Branch (base=restaurants) branch_food 3.97018 3.761848 1.46 0.146 .6198054 25.43029  branch_plastics 4.946888 6.932169 1.14 0.254 .3173416 77.1147  branch_textiles 12.71646** 12.82953 2.52 0.012 1.76034 91.86206  branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098  branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651  branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117  branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		Expansion	3.415308***	1.287351	3.26	0.001	1.63148	7.149539
Trade_activities		Land_buildings	3.610057	4.187365	1.11	0.268	.3716989	35.06201
Branch (base=restaurants)         branch_food         3.97018         3.761848         1.46         0.146         .6198054         25.43029           branch_plastics         4.946888         6.932169         1.14         0.254         .3173416         77.1147           branch_textiles         12.71646**         12.82953         2.52         0.012         1.76034         91.86206           branch_mineral         12.73071**         15.25056         2.12         0.034         1.216659         133.2098           branch_machinery         10.43242**         9.486995         2.58         0.010         1.755183         62.00798           branch_wood         4.017151         4.116643         1.36         0.175         .5390576         29.93651           branch_wholesale         4.174969         4.28041         1.39         0.163         .5596987         31.14241           branch_retail         1.076406         1.078388         0.07         0.941         .1510799         7.669117           branch_other_manu         7.173893***         7.536842         1.88         0.061         .9151418         56.2369           branch_other_serv         2.240196         2.828554         0.64         0.523         .188594         26.60997		Equipment	4.599542	4.789698	1.47	0.143	.5974786	35.40844
Branch (base=restaurants)         branch_food         3.97018         3.761848         1.46         0.146         .6198054         25.43029           branch_plastics         4.946888         6.932169         1.14         0.254         .3173416         77.1147           branch_textiles         12.71646**         12.82953         2.52         0.012         1.76034         91.86206           branch_mineral         12.73071**         15.25056         2.12         0.034         1.216659         133.2098           branch_machinery         10.43242**         9.486995         2.58         0.010         1.755183         62.00798           branch_wood         4.07151         4.116643         1.36         0.175         .5390576         29.93651           branch_wholesale         4.174969         4.28041         1.39         0.163         .5596987         31.14241           branch_retail         1.076406         1.078388         0.07         0.941         .1510799         7.669117           branch_other_manu         7.173893**         7.536842         1.88         0.061         .9151418         56.2369           branch_other_serv         2.240196         2.828554         0.64         0.523         .188594         26.60997     <		Trade_activities	.9221439	.8060557	-0.09	0.926	.1662472	5.114969
branch_plastics		Other	1	(omitted)				
branch_textiles 12.71646** 12.82953 2.52 0.012 1.76034 91.86206  branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098  branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651  branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117  branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997	Branch (base=restaurants)	branch_food	3.970118	3.761848	1.46	0.146	.6198054	25.43029
branch_mineral 12.73071** 15.25056 2.12 0.034 1.216659 133.2098 branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798 branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651 branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241 branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117 branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086 branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369 branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_plastics	4.946888	6.932169	1.14	0.254	.3173416	77.1147
branch_machinery 10.43242** 9.486995 2.58 0.010 1.755183 62.00798  branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651  branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117  branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_textiles	12.71646**	12.82953	2.52	0.012	1.76034	91.86206
branch_wood 4.017151 4.116643 1.36 0.175 .5390576 29.93651 branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241 branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117 branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086 branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369 branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_mineral	12.73071**	15.25056	2.12	0.034	1.216659	133.2098
branch_wholesale 4.174969 4.28041 1.39 0.163 .5596987 31.14241  branch_retail 1.076406 1.078388 0.07 0.941 .1510799 7.669117  branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086  branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369  branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_machinery	10.43242**	9.486995	2.58	0.010	1.755183	62.00798
branch_retail       1.076406       1.078388       0.07       0.941       .1510799       7.669117         branch_repair       2.695585       2.822158       0.95       0.344       .3463241       20.98086         branch_other_manu       7.173893**       7.536842       1.88       0.061       .9151418       56.2369         branch_other_serv       2.240196       2.828554       0.64       0.523       .188594       26.60997		branch_wood	4.017151	4.116643	1.36	0.175	.5390576	29.93651
branch_repair 2.695585 2.822158 0.95 0.344 .3463241 20.98086 branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369 branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_wholesale	4.174969	4.28041	1.39	0.163	.5596987	31.14241
branch_other_manu 7.173893** 7.536842 1.88 0.061 .9151418 56.2369 branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_retail	1.076406	1.078388	0.07	0.941	.1510799	7.669117
branch_other_serv 2.240196 2.828554 0.64 0.523 .188594 26.60997		branch_repair	2.695585	2.822158	0.95	0.344	.3463241	20.98086
		branch_other_manu	7.173893**	7.536842	1.88	0.061	.9151418	56.2369
_cons		branch_other_serv	2.240196	2.828554	0.64	0.523	.188594	26.60997
		_cons	.0025722	.0029413	-5.21	0.000	.0002735	.0241914

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.0701	0.187	0.851	1.073	1.033	0.460
medium	-1.8513	-1.692	0.091	0.157	0.737	0.165
male_owner	0.0657	0.165	0.869	1.068	1.028	0.419
private_person	-0.5302	-1.385	0.166	0.589	0.767	0.500
size_loan_thousand	0.0000	4.313	0.000	1.000	4.125	5.8e+o4
age_business	0.0302	2.058	0.040	1.031	1.412	11.442

housebank	1.2959	3.095	0.002	3.654	1.905	0.497
registered	0.4254	0.830	0.407	1.530	1.191	0.412
member_bus_ass	0.9527	1.639	0.101	2.593	1.269	0.250
Mandalay	0.2504	0.448	0.654	1.285	1.103	0.391
Pathein	0.1582	0.114	0.909	1.171	1.018	0.113
Mawlamyine	0.8582	1.002	0.316	2.359	1.175	0.188
Bago	-0.2318	-0.364	0.715	0.793	0.924	0.341
Pyay	1.3059	1.855	0.064	3.691	1.336	0.222
Monywa	2.1948	3.207	0.001	8.978	1.745	0.254
Sagaing	0.0423	0.046	0.963	1.043	1.015	0.341
Kale	2.5651	2.045	0.041	13.002	1.304	0.103
Taunggyi	-0.3584	-0.455	0.649	0.699	0.899	0.296
Lashio	-1.7651	-1.456	0.145	0.171	0.671	0.226
Expansion	1.2283	3.259	0.001	3.415	1.811	0.484
Land_buildings	1.2837	1.107	0.268	3.610	1.236	0.165
Equipment	1.5260	1.465	0.143	4.600	1.220	0.130
Trade_activities	-0.0811	-0.093	0.926	0.922	0.983	0.208
branch_food	1.3788	1.455	0.146	3.970	1.557	0.321
branch_plastics	1.5988	1.141	0.254	4.947	1.232	0.130
branch_textiles	2.5429	2.520	0.012	12.716	1.959	0.264
branch_mineral	2.5440	2.124	0.034	12.731	2.044	0.281
branch_machinery	2.3449	2.579	0.010	10.432	2.186	0.334
branch_wood	1.3906	1.357	0.175	4.017	1.430	0.257
branch_wholesale	1.4291	1.394	0.163	4.175	1.422	0.246
branch_retail	0.0736	0.073	0.941	1.076	1.024	0.318
branch_repair	0.9916	0.947	0.344	2.696	1.300	0.264
branch_other_manu	1.9704	1.876	0.061	7.174	1.706	0.271
branch_other_serv	0.8066	0.639	0.523	2.240	1.154	0.177
constant	-5.9630	-5.215	0.000			

Table 45: Multiple Regression with source of loan=commercial bank as dependent variable							
Logistic regression	Number of obs	=	397				
LR chi2(32)		=	187.43				
Prob > chi2		=	0.0000				
Log likelihood = -98.688982	Pseudo R2	=	0.4871				
	loan_source_commer- cial_bank	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.119029	.4830468	0.26	0.794	.4801829	2.607811
	medium	.1483636	.1890429	-1.50	0.134	.0122106	1.802674
Male owner	male_owner	1.596108	.7763582	0.96	0.336	.6152223	4.140881
Loan as private person	private_person	.6462044	.2890548	-0.98	0.329	.2689166	1.552824
Size of loan (in thousand)	size_loan_thousand	1.000025***	5.91e-06	4.28	0.000	1.000014	1.000037
Age of business	age_business	1.063055***	.0200276	3.25	0.001	1.024518	1.103042
Housebank	housebank	4.547503***	2.626656	2.62	0.009	1.465938	14.10686
Registered with government authority	registered	3.258981	2.728865	1.41	0.158	.6314504	16.81994
Member in business association	member_bus_ass	1.535752	1.033584	0.64	0.524	.4106286	5-743713
	Mandalay	.8992585	.5774222	-0.17	0.869	.2554584	3.165548
City (base=Yangon)	Pathein	1.092265	1.505585	0.06	0.949	.0732869	16.27908
	Mawlamyine	3.467699	3.16563	1.36	0.173	.5794116	20.7537
	Bago	.5263459	.3844609	-o.88	0.380	.1257548	2.203017
	Pyay	5-795451**	4.567377	2.23	0.026	1.236682	27.15917
	Monywa	2.165208	1.858948	0.90	0.368	.4024364	11.64936
	Sagaing	1	(omitted)				
	Kale	17-33571**	24.21827	2.04	0.041	1.121501	267.9685
	Taunggyi	.6099819	.5448143	-0.55	0.580	.1059385	3.512207
	Lashio	.4592014	.5934023	-0.60	0.547	.0364787	5.780523
Purpose of loan (base=working capital)	Expansion	2.971981**	1.341041	2.41	0.016	1.227326	7.196678
	Land_buildings	.8620006	1.616883	-0.08	0.937	.0218213	34.05137
	Equipment	5.561786	6.736911	1.42	0.157	.5178048	59.73962
	Trade_activities	.5501021	.6243781	-0.53	0.599	.0594717	5.088338
	Other	1	(omitted)				
Branch (base=restaurants)	branch_food	8.46076*	10.62227	1.70	0.089	.722349	99.09955
	branch_plastics	8.646232	14.09413	1.32	0.186	.3542361	211.0381
	branch_textiles	22.5711**	31.29418	2.25	0.025	1.490688	341.7582

branch_mineral	1	(omitted)				
branch_machinery	14.38643**	17.77744	2.16	0.031	1.276778	162.1028
branch_wood	5.692865	7.935963	1.25	0.212	.3704585	87.48271
branch_wholesale	11.09376*	14.69288	1.82	0.069	.8274164	148.7419
branch_retail	2.683338	3-437737	0.77	0.441	.217854	33.05106
branch_repair	4.176324	6.087479	0.98	0.327	.2399214	72.6975
branch_other_manu	25.41894**	35.5215	2.32	0.021	1.643058	393.244
branch_other_serv	5.062081	8.012866	1.02	0.306	.2274813	112.6451
_cons	.0002015	.0003359	-5.11	0.000	7.69e-06	.0052834

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.1125	0.261	0.794	1.119	1.055	0.475
medium	-1.9081	-1.497	0.134	0.148	0.731	0.164
male_owner	0.4676	0.961	0.336	1.596	1.220	0.426
private_person	-0.4366	-0.976	0.329	0.646	0.807	0.492
size_loan_thousand	0.0000	4.284	0.000	1.000	4.817	6.2e+o4
age_business	0.0611	3.246	0.001	1.063	1.987	11.233
housebank	1.5146	2.622	0.009	4.548	2.086	0.485
registered	1.1814	1.411	0.158	3.259	1.589	0.392
member_bus_ass	0.4290	0.637	0.524	1.536	1.114	0.252
Mandalay	-0.1062	-0.165	0.869	0.899	0.958	0.409
Pathein	0.0883	0.064	0.949	1.092	1.011	0.122
Mawlamyine	1.2435	1.362	0.173	3.468	1.296	0.208
Bago	-0.6418	-0.879	0.380	0.526	0.792	0.363
Pyay	1.7571	2.230	0.026	5.795	1.521	0.239
Monywa	0.7725	0.900	0.368	2.165	1.234	0.273
Kale	2.8528	2.042	0.041	17.336	1.375	0.112
Taunggyi	-0.4943	-0.553	0.580	0.610	0.855	0.317
Lashio	-0.7783	-0.602	0.547	0.459	0.840	0.224
Expansion	1.0892	2.414	0.016	2.972	1.706	0.491
Land_buildings	-0.1485	-0.079	0.937	0.862	0.975	0.171
Equipment	1.7159	1.417	0.157	5.562	1.273	0.141
Trade_activities	-0.5977	-0.527	0.599	0.550	0.877	0.219
branch_food	2.1354	1.701	0.089	8.461	2.081	0.343
branch_plastics	2.1571	1.323	0.186	8.646	1.355	0.141

branch_textiles	3.1167	2.248	0.025	22.571	2.422	0.284
branch_machinery	2.6663	2.158	0.031	14.386	2.585	0.356
branch_wood	1.7392	1.248	0.212	5.693	1.550	0.252
branch_wholesale	2.4064	1.817	0.069	11.094	1.890	0.265
branch_retail	0.9871	0.770	0.441	2.683	1.400	0.341
branch_repair	1.4294	0.981	0.327	4.176	1.500	0.284
branch_other_manu	3.2355	2.315	0.021	25.419	1.891	0.197
branch_other_serv	1.6218	1.025	0.306	5.062	1.363	0.191
constant	-8.5095	-5.106	0.000			

Та	Table 46: Correlation size of outstanding loan and its purpose			
		Size of outstanding loan		
Pu	rrpose of outstanding loan	0.4454***		

Significance levels: \*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.001Cramer's V: 0 - 0.1 = weak correlation, 0.1 - 0.3 = moderate correlation, > 0.3 = strong correlation Source: DEval SME Survey

Figure 66: Reasons for choice of source by firm size, in total numbers

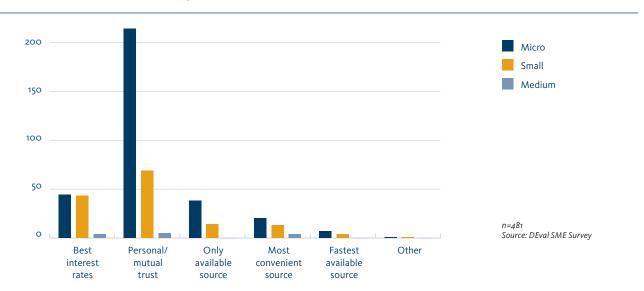


Figure 67: Sources of loans without interest, in total numbers

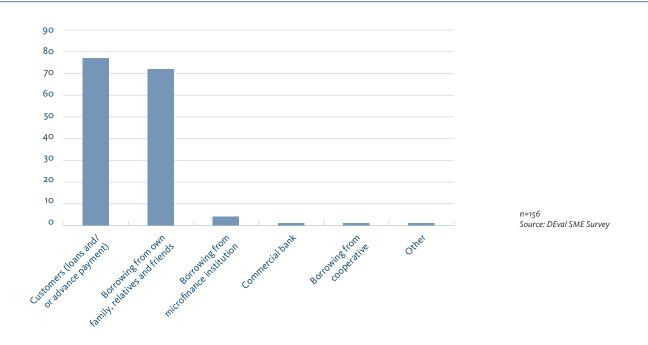


Table 47: Correlation source of loan and different factors			
	Source of Loan		
Reasons for choosing a loan	0.3098***		
Documentation required for loan	0.3068***		
Collateral requirements	0.7108***		

Significance levels: \*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.001Cramer's V: 0 - 0.1 = weak correlation, 0.1 - 0.3 = moderate correlation, > 0.3 = strong correlation Source: DEval SME Survey

Table 48: Correlation between 0% interest and loan source and size of loan				
No interest on loan				
Loan source	0.6054***			
Size of loan	0.4340**			

Significance levels: \* p<0.1, \*\* p<0.05, \*\*\*p<0.001 Cramer's V: 0-0.1=weak correlation, 0.1-0.3=moderate correlation, >0.3=strong correlation Source: DEval SME Survey

Figure 68: Outstanding loans with and without interest, in total numbers

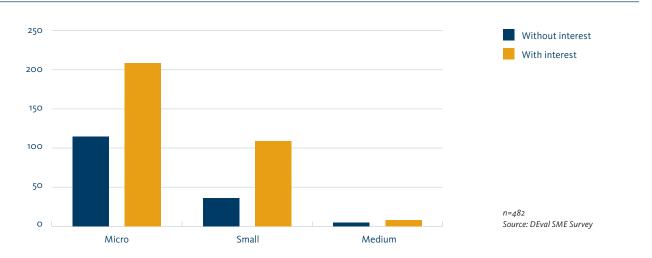


Figure 69: Necessity to provide collateral, in total numbers

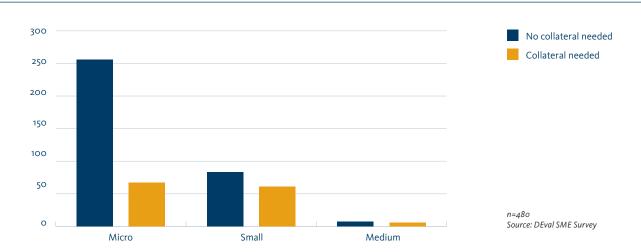
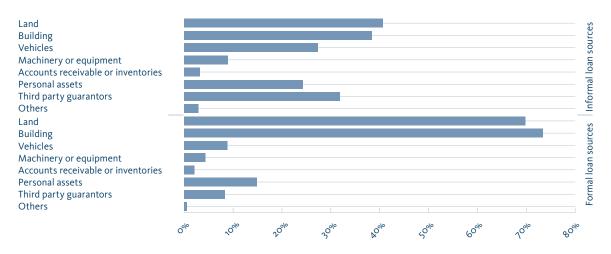


Figure 70: Collateral required for formal and informal loans, OECD Business Survey



n=1,284 (formal loans), 1,222 (informal loans) Source: own compilation based on OECD Business Survey

Figure 71: Reasons for choosing a particular source for money by source of loan, in total numbers

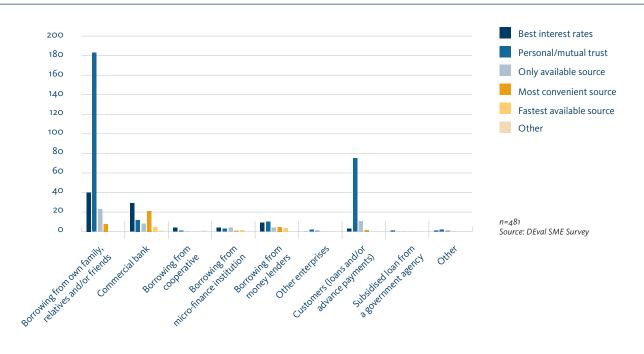


Figure 72: Type of documentation needed for a loan from different loan providers, in total numbers

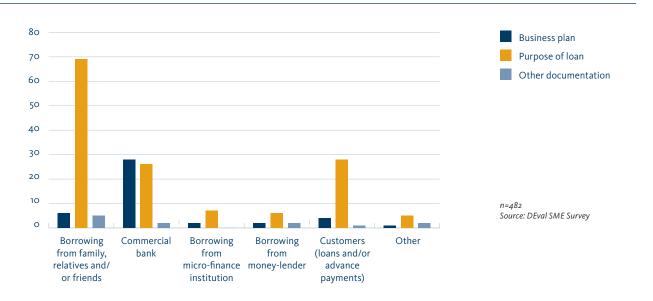
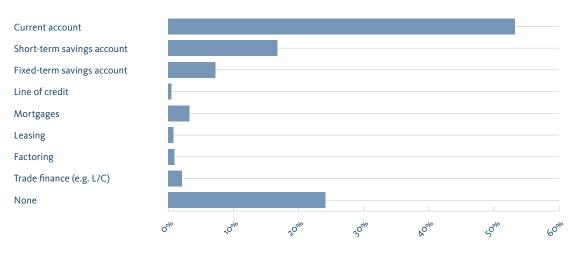


Figure 73: Use of banking services, in percent



n=2,241 Source: own compilation based on OECD Business Survey

## Table 49: Correlation of size additional funding needs with economic outlook Size of additional funding needs ${\bf Expectation}\ {\bf of}\ {\bf improving}\ {\bf market}\ {\bf conditions}$ 0.2136 Expectation of increasing monthly revenue 0.2374\*\*

 $Significance\ levels:\ *p<0.1,\ **p<0.05,\ ***p<0.001\\ Cramer's\ V:\ o-0.1=weak\ correlation,\ o.1-0.3=moderate\ correlation,\ >0.3=strong\ correlation$ Source: DEval SME Survey

Tab	le 50: Sourc	es of exist	ing and add	litional fun	iding, in pe	rcent					
		Sources of e	xisting loans								
		Borrowing from own family, relatives and friends	Commercial bank	Borrowing from Coopera- tive	Borrowing from mi- cro-finance institution	Borrowing from money lenders	Other enterprises	Customers (loans and/ or advance payment)	Subsidized loan from a govern- ment agency	Other	Total
	Enterprise and private savings (retained earnings)	1.85	0	0	0	0	0	0	0	0	1.04
	Borrowing from family, relatives and/or friends	30.25	2.5	0	0	4-35	50	2.22	0	0	18.34
	Commer- cial bank	21.6	52.5	0	10	13.04	0	22.22	0	33-33	24.57
nal loans	Borrowing from Cooperative	0	0	0	0	0	0	2.22	0	0	0.35
Preferred sources of additional loans	Borrowing from Mi- cro-finance institution	6.17	2.5	0	30	0	0	2.22	0	0	5.19
referred sour	Borrowing from money lenders	2.47	5	0	10	13.04	0	0	0	0	3.46
	Customers (loans and/ or advance payments)	0.62	0	0	0	0	0	20	0	0	3.46
	Contribu- tions from sharehold- ers (stock/ equity)	0	0	33-33	0	0	0	0	0	0	0.35
	Subsidized loan from a govern- ment agency, e.g. SMIDB, MARDB	20.37	10	66.67	40	43.48	0	28.89	100	33-33	23.53
	Other	0.62	5	0	0	4-35	0	0	0	33-33	1.73
	Provider/ loan with low interest	16.05	22.5	0	10	21.74	50	22.22	0	0	17.99
	N	162	40	3	10	23	2	45	1	3	162

	Logistic regression	Number of obs	=	2475			
		LR chi2(29)	=	518.93			
		Prob > chi2	-   <u>-</u>	0.0000			
	Log likelihood =	Pseudo R2	=				
	-1455.7659	r seudo K2	_	0.1513			
	housebank	Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	2.766432***	.2856835	9.85	0.000	2.25953	3.387051
	medium	11.80524***	5.320308	5.48	0.000	4.880465	28.55543
Branch (base=Restaurant)	branch_food	1.968361***	.3588046	3.72	0.000	1.377027	2.813629
	branch_plastics	1.275518	.3382519	0.92	0.359	.7585044	2.144939
	branch_textiles	1.530725**	.3114153	2.09	0.036	1.027368	2.2807
	branch_mineral	1.325448	.3430986	1.09	0.276	.7980409	2.201407
	branch_machinery	1.501163**	.2578476	2.37	0.018	1.072065	2.102009
	branch_wood	1.779862**	.398061	2.58	0.010	1.1482	2.759021
	branch_wholesale	2.693357***	.6741068	3.96	0.000	1.649115	4.398827
	branch_retail	2.077637***	.3402304	4.47	0.000	1.507225	2.863921
	branch_repair	.8845784	.1754322	-0.62	0.536	.5996855	1.304816
	branch_other_manu	2.196095**	.6077904	2.84	0.004	1.276654	3-777717
	branch_other_serv	.9523407	.2469215	-0.19	0.851	.5729201	1.583035
City (base=Yangon)	Mandalay	.6964667***	.0941449	-2.68	0.007	.5343664	.9077401
	Pathein	.8732547	.2091936	-0.57	0.572	.5460473	1.396534
	Mawlamyine	1.361831	.3800687	1.11	0.268	.7880694	2.353326
	Bago	4.155381***	.8585994	6.89	0.000	2.771613	6.230016
	Pyay	1.107071	.2187559	0.51	0.607	.7515867	1.630692
	Monywa	.7341549*	.1352938	-1.68	0.094	.5115923	1.053541
	Sagaing	.5252539**	.1309169	-2.58	0.010	.3222638	.856105
	Kale	1.749506*	.5477007	1.79	0.074	.9471918	3.231415
	Taunggyi	2.643002***	.5475211	4.69	0.000	1.761017	3.966718
	Lashio	2.160762***	.4288305	3.88	0.000	1.464453	3.188149
Registered with government authority	registered	2.224129***	.2896523	6.14	0.000	1.723084	2.87087
Member in business association	member_bus_ass	2.678522***	.6916744	3.82	0.000	1.614692	4.443252
Age of owner	age_owner	.9935129	.0044631	-1.45	0.147	.9848038	1.002299
Age of business	age_business	1.016013***	.004833	3.34	0.001	1.006584	1.02553

Male owner	male_owner	.97265	.1050234	-0.26	0.797	.7871305	1.201895
Exporting firm	exporting	.4605211*	.1499131	-2.38	0.017	.2433092	.8716469
	_cons	.2413157	.0617543	-5.56	0.000	.146136	.3984868

	b	z	P>z	e^b	e^bStdX	SDofX
small	1.0176	9.854	0.000	2.766	1.599	0.462
medium	2.4685	5-477	0.000	11.805	1.444	0.149
branch_food	0.6772	3.715	0.000	1.968	1.247	0.325
branch_plastics	0.2434	0.918	0.359	1.276	1.044	0.177
branch_textiles	0.4257	2.093	0.036	1.531	1.136	0.300
branch_mineral	0.2818	1.088	0.276	1.325	1.067	0.232
branch_machinery	0.4062	2.365	0.018	1.501	1.143	0.328
branch_wood	0.5765	2.578	0.010	1.780	1.148	0.239
branch_wholesale	0.9908	3.959	0.000	2.693	1.233	0.211
branch_retail	0.7312	4.465	0.000	2.078	1.285	0.343
branch_repair	-0.1226	-0.618	0.536	0.885	0.966	0.282
branch_other_manu	0.7867	2.842	0.004	2.196	1.172	0.202
branch_other_serv	-0.0488	-0.188	0.851	0.952	0.991	0.188
Mandalay	-0.3617	-2.676	0.007	0.696	0.872	0.377
Pathein	-0.1355	-0.566	0.572	0.873	0.974	0.197
Mawlamyine	0.3088	1.107	0.268	1.362	1.051	0.161
Bago	1.4244	6.894	0.000	4.155	1.472	0.271
Pyay	0.1017	0.515	0.607	1.107	1.024	0.236
Monywa	-0.3090	-1.677	0.094	0.734	0.920	0.271
Sagaing	-0.6439	-2.583	0.010	0.525	0.840	0.271
Kale	0.5593	1.787	0.074	1.750	1.081	0.139
Taunggyi	0.9719	4.692	0.000	2.643	1.259	0.237
Lashio	0.7705	3.882	0.000	2.161	1.201	0.238
registered	0.7994	6.138	0.000	2.224	1.383	0.405
member_bus_ass	0.9853	3.815	0.000	2.679	1.216	0.199
age_owner	-0.0065	-1.449	0.147	0.994	0.930	11.187
age_business	0.0159	3.340	0.001	1.016	1.191	10.981
male_owner	-0.0277	-0.257	0.797	0.973	0.988	0.436
exporting	-0.7754	-2.382	0.017	0.461	0.856	0.201
constant	-1.4216	-5.555	0.000			

	Source	SS	df	MS	Number of obs	=	1159
					F( 27, 1131)	=	2.67
	Model	22.3000758	27	.825928734	Prob > F	=	0.0000
	Residual	349.291814	1131	.308834495	R-squared	=	0.0600
					Adj R-squared	=	0.0376
	Total	371.59189	1158	.320891096	Root MSE	=	-55573
	rating_services_hous- bank	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0263464	.0365385	0.72	0.471	0453445	.0980373
	medium	.0061363	.0872916	0.07	0.944	1651354	.177408
Gender Interviewpartner	gender_interview- partner	.0026682	.03629	0.07	0.941	068535	.0738715
Position interviewpartner (base=owner)	manag_interviewpart- ner	0447545	.0475496	-0.94	0.347	1380498	.0485407
	staff_interviewpartner	1205932	.1267549	-0.95	0.342	3692944	.128108
	relative_interview- partner	.0396469	.0651573	0.61	0.543	0881958	.1674896
Branch (base=Restaurants)	branch_food	0009425	.0645852	-0.01	0.988	1276628	.1257779
	branch_plastics	.0881758	.1018396	0.87	0.387	1116401	.2879916
	branch_textiles	.0247124	.076577	0.32	0.747	1255365	.1749612
	branch_mineral	.0407713	.1049626	0.39	0.698	1651721	.2467146
	branch_machinery	113935*	.0670671	-1.70	0.090	245525	.017655
	branch_wood	.0716997	.0817594	0.88	0.381	0887174	.2321169
	branch_wholesale	02607	.0789721	-0.33	0.741	1810182	.1288783
	branch_retail	0138108	.0616735	-0.22	0.823	1348182	.1071965
	branch_repair	.0420884	.0811279	0.52	0.604	1170897	.2012666
	branch_other_manu	0384869	.0967343	-0.40	0.691	2282858	.151312
	branch_other_serv	.1879537	.1010811	1.86	0.063	0103739	.3862813
City (base=Yangon)	Mandalay	0190897	.0529563	-0.36	0.719	1229934	.084814
	Pathein	0553541	.0872443	-0.63	0.526	226533	.1158249
	Mawlamyine	.4448452***	.1060697	4.19	0.000	.2367297	.6529607
	Bago	.0373847	.0572722	0.65	0.514	0749871	.1497565
	Pyay	0272187	.070231	-0.39	0.698	1650165	.1105791
	Monywa	.1339768	.0700599	1.91	0.056	0034852	.2714388

Sagaing	2541677**	.0926727	-2.74	0.006	4359975	072338
Kale	.005117	.1109881	0.05	0.963	2126488	.2228827
Taunggyi	0387514	.0686588	-0.56	0.573	1734643	.0959615
Lashio	.279014***	.0722732	3.86	0.000	.1372094	.4208185
_cons	3.179179	.0586128	54.24	0.000	3.064177	3.294181

variable	eta^2	% change eta^2	partial eta^2
small	.00043212	.72004495	.00045949
medium	4.107e-06	.00684368	4.369e-06
gender_interviewpartner	4.493e-06	.00748682	4.780e-06
manag_interviewpartner	.00073628	1.2268756	.00078267
staff_interviewpartner	.00075227	1.2535328	.00079966
relative_interviewpartner	.00030772	.51275878	.00032726
branch_food	1.770e-07	.0002949	1.883e-07
branch_plastics	.00062305	1.0382081	.00066239
branch_textiles	.00008655	.14422863	.00009207
branch_mineral	.0001254	.2089578	.00013339
branch_machinery	.00239858	3.9968191	.00254522
branch_wood	.00063917	1.0650725	.00067952
branch_wholesale	.00009057	.1509221	.00009634
branch_retail	.00004168	.06944846	.00004434
branch_repair	.00022369	.37273824	.00023791
branch_other_manu	.00013156	.21922198	.00013994
branch_other_serv	.00287357	4.7882979	.00304771
Mandalay	.000108	.17996283	.00011488
Pathein	.00033457	-55749931	.0003558
Mawlamyine	.01461823	24.358732	.01531337
Bago	.00035413	.59009093	.00037659
Pyay	.00012483	.20801523	.00013279
Monywa	.00303934	5.0645339	.00322296
Sagaing	.00625168	10.417331	.00660687
Kale	1.767e-06	.00294367	1.879e-06
Taunggyi	.00026475	.44116553	.00028158
Lashio	.01238674	20.640346	.01300617

Table 53: Multipe regressio	n with rating of rang	e of services	of 'house ba	nk' as depen	dent variabl	e	
	Source	SS	df	MS	Number of obs	=	1223
			F( 27, 1195)	=	2.79		
	Model	24.1226149	27	.893430182	Prob > F	=	0.0000
	Residual	382.959969	1195	.320468593	R-squared	=	0.0593
			Adj R-squared	=	0.0380		
	Total	407.082584	1222	.333128137	Root MSE	=	.5661
	<b>957</b>	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	0666652*	.0362327	-1.84	0.066	137752	.0044217
	medium	106028	.0870709	-1.22	0.224	276857	.0648009
Gender Interviewpartner	gender_interview- partner	.0144899	.0358931	0.40	0.687	0559306	.0849105
Position interviewpartner (base=owner)	manag_interviewpart- ner	0786283*	.0470552	-1.67	0.095	1709483	.0136917
	staff_interviewpartner	0389755	.1257541	-0.31	0.757	2856989	.2077479
	relative_interview- partner	.1665174***	.0634637	2.62	0.009	.0420047	.2910301
Branch (base=restaurant)	branch_food	.1299383**	.0633951	2.05	0.041	.0055603	.2543163
	branch_plastics	.0363878	.1026102	0.35	0.723	1649284	.237704
	branch_textiles	.118453	.0756478	1.57	0.118	0299642	.2668703
	branch_mineral	.0129632	.1012936	0.13	0.898	1857699	.2116964
	branch_machinery	.0001437	.0666526	0.00	0.998	1306254	.1309128
	branch_wood	.0971038	.0791889	1.23	0.220	0582609	.2524686
	branch_wholesale	.0351166	.0775307	0.45	0.651	1169949	.1872281
	branch_retail	.0016302	.0604192	0.03	0.978	1169094	.1201697
	branch_repair	0552864	.0801657	-0.69	0.491	2125677	.1019948
	branch_other_manu	.0215811	.0968808	0.22	0.824	1684944	.2116565
	branch_other_serv	.1423633	.0982178	1.45	0.147	0503352	.3350618
City (base=Yangon)	Mandalay	.0626901	.0533756	1.17	0.240	0420303	.1674104
	Pathein	0400338	.0883455	-0.45	0.651	2133633	.1332957
	Mawlamyine	.4764336***	.1034987	4.60	0.000	.2733742	.679493
	Bago	.1106719**	.0559712	1.98	0.048	.000859	.2204847
	Pyay	.1271056*	.069476	1.83	0.068	0092029	.2634142
	Monywa	.2085792***	.0710187	2.94	0.003	.069244	-3479144
	Sagaing	.1797647*	.091934	1.96	0.051	0006054	.3601347

Kale	.2663956**	.1127884	2.36	0.018	.0451102	.487681
Taunggyi	0450349	.065599	-0.69	0.493	173737	.0836672
Lashio	.1799691**	.0707576	2.54	0.011	.0411461	.3187921
_cons	3.265313	.0574835	56.80	0.000	3.152533	3.378093

variable	% change eta^2	eta^2	partial eta^2
small	.00266501	4-4973533	.00282488
medium	.00116734	1.9699527	.00123933
gender_interviewpartner	.0001283	.21650687	.00013636
manag_interviewpartner	.00219809	3.7093968	.0023311
staff_interviewpartner	.00007562	.12761471	.00008038
relative_interviewpartner	.00541965	9.1459622	.00572803
branch_food	.00330725	5.5811636	.00350325
branch_plastics	.000099	.16706703	.00010522
branch_textiles	.0019302	3.2573231	.00204758
branch_mineral	.00001289	.02175818	.00001371
branch_machinery	3.660e-09	6.177e-o6	3.891e-09
branch_wood	.00118372	1.9975854	.0012567
branch_wholesale	.0001615	.2725456	.00017165
branch_retail	5.731e-07	.00096712	6.092e-07
branch_repair	.00037442	.63185992	.00039785
branch_other_manu	.00003906	.0659221	.00004152
branch_other_serv	.00165394	2.7911103	.00175503
Mandalay	.00108596	1.8326231	.00115304
Pathein	.00016165	.27280156	.00017181
Mawlamyine	.01668161	28.151151	.01742343
Bago	.00307785	5.1940448	.00326105
Pyay	.00263489	4.4465267	.00279304
Monywa	.00679046	11.459288	.00716647
Sagaing	.00300995	5.0794553	.00318934
Kale	.00439165	7.4111553	.00464659
Taunggyi	.00037103	.62612962	.00039424
Lashio	.00509275	8.5942939	.00538439

Table 54: Multiple regres					Number of		1015
	Source	SS	df	MS	obs obs	=	1015
					F(30,984)	=	28.49
	Model	452.921232	30	15.0973744	Prob > F	=	0.0000
	Residual	521.449211	984	.52992806	R-squared	=	0.4648
					Adj R-squared	=	0.4485
	Total	974.370443	1014	.960917597	Root MSE	=	.72796
	q54a2	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0309027	.0530368	0.58	0.560	0731754	.1349809
	medium	1381814	.1180662	-1.17	0.242	3698718	.093509
Gender Interviewpartner	gender_interview- partner	.0015821	.0506126	0.03	0.975	097739	.1009032
Position interviewpartner (base=owner)	manag_interviewpart- ner	1668102**	.0682005	-2.45	0.015	3006453	0329751
	staff_interviewpartner	3138374*	.1800461	-1.74	0.082	6671559	.0394812
	relative_interview- partner	.0366449	.088922	0.41	0.680	1378537	.2111435
Registration government authority	registered	.0027478	.0774678	0.04	0.972	1492732	.1547688
Membership business association	member_bus_ass	0040457	.1030697	-0.04	0.969	2063075	.198216
Branch (base=restaurants)	branch_food	.3123076***	.0907037	3-44	0.001	.1343127	.4903025
	branch_plastics	.2294602	.1416378	1.62	0.106	0484867	.5074071
	branch_textiles	.2700639**	.1120217	2.41	0.016	.050235	.4898927
	branch_mineral	.3525717**	.1484986	2.37	0.018	.0611615	.643982
	branch_machinery	.2151408**	.0966352	2.23	0.026	.025506	.4047756
	branch_wood	.3192588***	.1080638	2.95	0.003	.1071968	.5313208
	branch_wholesale	.1532185	.1119031	1.37	0.171	0663776	.3728146
	branch_retail	.1925668**	.0838954	2.30	0.022	.0279324	.3572012
	branch_repair	.1926691*	.1101473	1.75	0.081	0234814	.4088197
	branch_other_manu	.2124458	.1475139	1.44	0.150	0770322	.5019238
	branch_other_serv	.2873635**	.1384794	2.08	0.038	.0156145	.5591124
City (base=Yangon)	Mandalay	.0048154	.0846603	0.06	0.955	16132	.1709509
	Pathein	.0505472	.1172039	0.43	0.666	179451	.2805455
	Mawlamyine	4570012***	.1472018	-3.10	0.002	7458667	1681357

	Bago	1510079**	.0754451	-2.00	0.046	2990598	002956
	Pyay	.0212049	.1365996	0.16	0.877	2468552	.289265
	Monywa	.1563035	.0964991	1.62	0.106	0330643	.3456713
	Sagaing	-1.027044***	.1650722	-6.22	0.000	-1.350978	7031098
	Kale	.1576222	.1523235	1.03	0.301	1412941	.4565385
	Taunggyi	.0789755	.0916015	0.86	0.389	1007813	.2587323
	Lashio	.2428868***	.0939473	2.59	0.010	.0585266	.427247
Use of current account	use_account	1.317759***	.056531	23.31	0.000	1.206823	1.428694
	_cons	1.82812	.1079535	16.93	0.000	1.616274	2.039965

variable	eta^2	eta^2	partial eta^2
small	.00018464	.03972229	.0003449
medium	.00074497	.16026639	.00139011
gender_interviewpartner	5.314e-07	.00011432	9.930e-07
manag_interviewpartner	.00325359	.69994644	.00604287
staff_interviewpartner	.00165247	-355497	.00307828
relative_interviewpartner	.00009236	.01987023	.00017256
registered	6.842e-07	.0001472	1.279e-06
member_bus_ass	8.380e-07	.00018027	1.566e-06
branch_food	.00644775	1.3871052	.01190471
branch_plastics	.00142741	.30707921	.00266014
branch_textiles	.00316098	.68002226	.00587187
branch_mineral	.0030658	.65954546	.00569606
branch_machinery	.00269568	.57992139	.00501185
branch_wood	.00474699	1.0212207	.00879215
branch_wholesale	.0010196	.21934747	.00190159
branch_retail	.00286536	.61642605	.00532565
branch_repair	.00166406	.35799008	.0030998
branch_other_manu	.00112804	.24267484	.0021034
branch_other_serv	.00234199	.50383328	.00435714
Mandalay	1.760e-06	.00037853	3.288e-o6
Pathein	.00010116	.02176231	.00018899
Mawlamyine	.00524205	1.1277242	.00970019
Bago	.00217886	.46873898	.00405487
Pyay	.00001311	.00281947	.00002449

Monywa	.00142687	.30696207	.00265913
Sagaing	.02105344	4.5292311	.03785101
Kale	.00058236	.12528378	.00108701
Taunggyi	.00040427	.08697079	.00075484
Lashio	.00363523	.78204736	.00674689
use_account	.29552253	63.575826	.3557564

	Source	SS	df	MS	Number of obs	=	699
					F( 30, 668)	=	10.21
	Model	247.761724	30	8.25872415	Prob > F	=	0.0000
	Residual	540.129549	668	.808577169	R-squared	=	0.3145
					Adj R-squared	=	0.2837
	Total	787.891273	698	1.12878406	Root MSE	=	.89921
	q54b2	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0278979	.0788966	0.35	0.724	1270173	.1828132
	medium	.2092348	.1894044	1.10	0.270	1626648	.5811344
Gender Interviewpartner	gender_interview- partner	.0603135	.0746726	0.81	0.420	0863078	.2069348
Gender Interviewpartnerpartner (base=owner)	manag_interviewpart- ner	0298935	.1081377	-0.28	0.782	2422242	.1824372
	staff_interviewpartner	6657766	.5388783	-1.24	0.217	-1.723876	.3923225
	relative_interview- partner	.1444819	.1299898	1.11	0.267	1107559	.3997196
Registration government authority	registered	0323735	.1129922	-0.29	0.775	2542361	.1894891
Membership business association	member_bus_ass	.0884035	.1518615	0.58	0.561	20978	.3865869
Branch (base=restaurant)	branch_food	.2614607*	.1345011	1.94	0.052	0026352	.5255565
	branch_plastics	.3360973	.2461208	1.37	0.173	1471662	.8193608
	branch_textiles	.4411568**	.1840758	2.40	0.017	.07972	.8025937
	branch_mineral	.40465*	.2265167	1.79	0.074	0401204	.8494205
	branch_machinery	.2290845	.1513183	1.51	0.131	0680323	.5262012

	branch_wood	.3924283***	.1502752	2.61	0.009	.0973597	.687497
	branch_wholesale	.180188	.1501604	1.20	0.231	1146551	.4750311
	branch_retail	.4073884***	.114687	3.55	0.000	.1821979	.6325789
	branch_repair	.3423478**	.1551923	2.21	0.028	.0376244	.6470712
	branch_other_manu	.2790292	.2193008	1.27	0.204	1515727	.709631
	branch_other_serv	.1886456	.1830815	1.03	0.303	170839	.5481302
City (base=Yangon)	Mandalay	0336685	.1476942	-0.23	0.820	3236693	.2563323
	Pathein	.2143083	.2964135	0.72	0.470	367706	.7963226
	Mawlamyine	581445***	.2012653	-2.89	0.004	9766336	1862563
	Bago	.0707031	.0996852	0.71	0.478	1250308	.2664371
	Pyay	.2467429	.2419734	1.02	0.308	228377	.7218628
	Monywa	.2141456	.2422177	0.88	0.377	261454	.6897452
	Sagaing	-1.384876***	.4877879	-2.84	0.005	-2.342659	4270945
	Kale	.1300864	.2907067	0.45	0.655	4407225	.7008952
	Taunggyi	.149405	.1261546	1.18	0.237	0983022	.3971122
	Lashio	.3309721***	.1234169	2.68	0.008	.0886402	.5733039
Use of current account	use_short_savings	1.23915***	.0958402	12.93	0.000	1.050966	1.427334
	_cons	1.747038	.1511608	11.56	0.000	1.45023	2.043845

variable	eta^2	% change eta^2	partial eta^2
small	.00012832	.04080507	.00018714
medium	.0012524	.39826754	.00182355
gender_interviewpartner	.00066952	.21290902	.00097568
manag_interviewpartner	.00007842	.02493943	.00011439
staff_interviewpartner	.0015665	.4981533	.00227986
relative_interviewpartner	.00126784	.40317672	.00184599
registered	.00008424	.0267898	.00012287
member_bus_ass	.00034777	.11059364	.00050704
branch_food	.00387807	1.2332414	.00562516
branch_plastics	.00191376	.60858412	.00278385
branch_textiles	.00589451	1.8744754	.00852507
branch_mineral	.00327502	1.0414679	.00475458
branch_machinery	.00235214	.74798995	.00341936
branch_wood	.00699844	2.225529	.01010551
branch_wholesale	.00147773	.46992482	.00215095

branch_retail	.01294923	4.117901	.01853896
branch_repair	.00499402	1.5881154	.00723213
branch_other_manu	.0016614	.52833099	.00241764
branch_other_serv	.00108958	.34649059	.00158686
Mandalay	.00005333	.01695926	.00007779
Pathein	.00053646	.17059619	.00078193
Mawlamyine	.00856515	2.7237476	.01233987
Bago	.00051626	.16417363	.00075251
Pyay	.00106711	-33934515	.00155418
Monywa	.00080216	.25509032	.00116875
Sagaing	.00827209	2.6305548	.0119227
Kale	.0002055	.0653493	.00029967
Taunggyi	.00143939	·45773215	.00209525
Lashio	.00738054	2.3470397	.01065138
use_short_savings	.1715566	54.55562	.20016059

Table 56: Multiple regression using rating of fixed term savings account as dependent variable								
	Source	SS	df	MS	Number of obs	=	613	
					F( 30, 582)	=	6.27	
	Model	175.071814	30	5.83572715	Prob > F	=	0.0000	
	Residual	541.851514	582	.931016346	R-squared	=	0.2442	
					Adj R-squared	=	0.2052	
	Total	716.923328	612	1.17144335	Root MSE	=	.96489	
	q54c2	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.0716057	.0905959	0.79	0.430	106329	.2495405	
	medium	.2794939	.2054522	1.36	0.174	1240243	.683012	
Gender Interviewpartner	gender_interview- partner	.0975579	.0858757	1.14	0.256	0711062	.2662219	
Position interviewpartner (base=owner)	manag_interviewpart- ner	0156207	.1253237	-0.12	0.901	2617625	.2305211	
	staff interviewpartner	7428406	.7060347	-1.05	0.293	-2.129527	.6438457	

	relative_interview-	.050736	.1480744	0.34	0.732	2400892	.3415613
	partner	.0,0/,0	.1400/44	0.54	0./ )2	.2400092	.,4.,0.,
Registration government authority	registered	0283674	.1244491	-0.23	0.820	2727914	.2160566
Membership business association	member_bus_ass	0308456	.182777	-0.17	o.866	3898285	.3281373
Branch (base=restaurants)	branch_food	.0170244	.1559594	0.11	0.913	2892873	.3233362
	branch_plastics	.2070124	.2812752	0.74	0.462	3454256	.7594504
	branch_textiles	022456	.2264376	-0.10	0.921	4671905	.4222784
	branch_mineral	.1345806	.2490388	0.54	0.589	3545436	.6237048
	branch_machinery	.1429186	.1830666	0.78	0.435	216633	.5024702
	branch_wood	.0136419	.1665758	0.08	0.935	313521	.3408048
	branch_wholesale	2095911	.1747425	-1.20	0.231	5527939	.1336116
	branch_retail	.1463911	.1291679	1.13	0.258	1073009	.4000832
	branch_repair	.1785664	.1691372	1.06	0.292	1536272	.51076
	branch_other_manu	0909676	.283467	-0.32	0.748	6477106	.4657753
	branch_other_serv	.271474	.2067143	1.31	0.190	1345229	.6774709
City (base=Yangon)	Mandalay	.1781146	.178415	1.00	0.319	172301	.5285303
	Pathein	.8152644	.9824884	0.83	0.407	-1.11439	2.744919
	Mawlamyine	5457544***	.2121841	-2.57	0.010	9624941	1290146
	Bago	.194685*	.1093931	1.78	0.076	0201684	.4095384
	Pyay	.2112394	.3174363	0.67	0.506	4122208	.8346996
	Monywa	.4068687	.3082373	1.32	0.187	1985243	1.012262
	Sagaing	-1.301976	1.002469	-1.30	0.195	-3.270873	.6669205
	Kale	.1824955	.5798884	0.31	0.753	9564335	1.321424
	Taunggyi	.0430648	.1359191	0.32	0.751	2238868	.3100164
	Lashio	.2953667**	.133469	2.21	0.027	.0332272	.5575062
Use of fixed term savings account	use_long_savings	1.170305***	.1156424	10.12	0.000	.9431779	1.397433
	_cons	1.954168	.1704095	11.47	0.000	1.619475	2.28886

variable	eta^2	eta^2	partial eta^2
small	.00081127	.33221515	.00107223
medium	.0024033	.98415578	.00316972
gender_interviewpartner	.00167598	.68631717	.00221258
manag_interviewpartner	.00002018	.00826185	.00002669
staff_interviewpartner	.00143755	.58868127	.00189841
relative_interviewpartner	.00015246	.062433	.00020168
registered	.00006747	.02763096	.00008927
member_bus_ass	.00003699	.01514554	.00004893
branch_food	.00001547	.0063367	.00002047
branch_plastics	.00070342	.28805216	.00092983
branch_textiles	.00001277	.00523009	.0000169
branch_mineral	.00037924	.15530012	.00050152
branch_machinery	.00079149	.32411612	.00104612
branch_wood	8. <sub>7</sub> 10e-06	.0035667	.00001152
branch_wholesale	.00186824	.76504976	.00246577
branch_retail	.00166803	.68306367	.00220211
branch_repair	.00144746	.59273735	.00191147
branch_other_manu	.00013374	.05476584	.00017692
branch_other_serv	.00223975	.91718397	.00295466
Mandalay	.00129426	.53000221	.00170951
Pathein	.00089418	.36617036	.0011817
Mawlamyine	.00859119	3.5181149	.01123925
Bago	.0041131	1.6843249	.00541259
Pyay	.00057507	.23549293	.0007603
Monywa	.00226268	.92657212	.00298481
Sagaing	.00219053	.89702738	.00288991
Kale	.00012862	.05266915	.00017014
Taunggyi	.00013037	.05338583	.00017246
Lashio	.00635985	2.604375	.0083445
use_long_savings	.13299905	54.463436	.14963886

	Source	SS	df	MS	Number of	=	582
		1			obs		,
					F( 30, 551)	=	3.67
	Model	106.805813	30	3.56019377	Prob > F	=	0.0000
	Residual	534-534393	551	.970116866	R-squared	=	0.1665
					Adj R-squared	=	0.1212
	Total	641.340206	581	1.10385578	Root MSE	=	.98495
	q54d2	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.030235	.0967218	0.31	0.755	1597536	.2202237
	medium	.3199824	.2087408	1.53	0.126	0900427	.7300075
Gender Interviewpartner	gender_interview- partner	.0839571	.0904653	0.93	0.354	093742	.2616561
Position interviewpartner (base=owner)	manag_interviewpart- ner	.0923673	.1347574	0.69	0.493	1723338	.3570684
	staff_interviewpartner	-1.324915	1.01049	-1.31	0.190	-3.3098	.6599698
	relative_interview- partner	.2024982	.1504136	1.35	0.179	0929559	.4979524
Registration government authority	registered	1963434	.1346462	-1.46	0.145	460826	.0681393
Membership business association	member_bus_ass	.1462116	.1805373	0.81	0.418	2084139	.5008371
Branch (base=restaurants)	branch_food	.2194118	.158905	1.38	0.168	0927218	.5315454
	branch_plastics	.2907433	.3017184	0.96	0.336	3019157	.8834023
	branch_textiles	.2955599	.236737	1.25	0.212	1694576	.7605774
	branch_mineral	.3355564	.2818177	1.19	0.234	218012	.8891248
	branch_machinery	.3546141*	.1896557	1.87	0.062	0179225	.7271507
	branch_wood	.2461632	.1729004	1.42	0.155	0934614	.5857878
	branch_wholesale	0971115	.1930748	-0.50	0.615	4763642	.2821413
	branch_retail	.2250866	.1368721	1.64	0.101	0437685	.4939416
	branch_repair	.1935249	.1772114	1.09	0.275	1545676	.5416174
	branch_other_manu	0004906	.2846312	-0.00	0.999	5595856	.5586044
	branch_other_serv	.2614624	.2293638	1.14	0.255	1890719	.7119967
City (base=Yangon)	Mandalay	.2371558	.210511	1.13	0.260	1763464	.650658
	Pathein	.3567902	.5250116	0.68	0.497	674479	1.388059
	Mawlamyine	5207473**	.2171878	-2.40	0.017	9473646	09413

	Bago	.1392122	.111442	1.25	0.212	079691	.3581155
	Pyay	.6583994*	.388895	1.69	0.091	1054987	1.422297
	Monywa	.0111914	.3247996	0.03	0.973	6268056	.6491884
	Sagaing	-1.106379	1.027887	-1.08	0.282	-3.125435	.9126767
	Kale	.1759572	.7260249	0.24	0.809	-1.250158	1.602072
	Taunggyi	.238622	.1462483	1.63	0.103	0486504	.5258945
	Lashio	.434787***	.1389717	3.13	0.002	.1618079	.7077661
Use of current account	use_mortgage	.8373459***	.1566633	5.34	0.000	.5296154	1.145076
	_cons	1.897787	.1810739	10.48	0.000	1.542108	2.253467

variable	eta^2	eta^2	partial eta^2
small	.00014781	.08875655	.00017731
medium	.00355446	2.1343549	.00424656
gender_interviewpartner	.00130283	.78231188	.00156071
manag_interviewpartner	.00071067	.42673703	.00085194
staff_interviewpartner	.00260044	1.5614957	.00311033
relative_interviewpartner	.0027416	1.6462567	.00327862
registered	.00321647	1.9314055	.00384432
member_bus_ass	.00099212	-59574295	.00118894
branch_food	.0028839	1.7317061	.00344821
branch_plastics	.0014046	.84342243	.00168241
branch_textiles	.00235773	1.415754	.00282085
branch_mineral	.00214452	1.2877269	.00256642
branch_machinery	.0052883	3.1754814	.00630495
branch_wood	.00306612	1.8411256	.00366529
branch_wholesale	.00038267	.22978354	.00045892
branch_retail	.00409077	2.456395	.00488417
branch_repair	.00180396	1.083228	.00215973
branch_other_manu	4.494e-09	2.698e-06	5.392e-09
branch_other_serv	.00196564	1.1803155	.00235285
Mandalay	.00191979	1.1527825	.00229809
Pathein	.00069859	.41948565	.00083748
Mawlamyine	.00869599	5.2217068	.01032581
Bago	.00236044	1.4173786	.00282408
Pyay	.00433561	2.6034148	.00517499

Monywa	1.796e-06	.00107836	2.155e-o6
Sagaing	.00175248	1.0523173	.00209823
Kale	.00008885	.05335074	.00010659
Taunggyi	.00402694	2.4180679	.00480833
Lashio	.01480594	8.8905698	.01745427
use_mortgage	.04321263	25.948023	.04929138

	Source	ss	df	MS	Number of obs	=	518
					F( 27, 490)	=	2.24
	Model	62.2464028	27	2.30542233	Prob > F	=	0.0004
	Residual	504.294138	490	1.02917171	R-squared	=	0.1099
					Adj R-squared	=	0.0608
	Total	566.540541	517	1.0958231	Root MSE	=	1.0145
	q54e2	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0747119	.1048376	0.71	0.476	1312749	.2806987
	medium	.2861429	.2499607	1.14	0.253	2049841	.77727
Gender Interviewpartner	gender_interview- partner	.0698228	.0984511	0.71	0.479	1236156	.2632612
Position interviewpartner (base=owner)	manag_interviewpart- ner	0007981	.1497256	-0.01	0.996	2949816	.2933854
	staff_interviewpartner	-1.099981	1.044407	-1.05	0.293	-3.15205	.9520886
	relative_interview- partner	.4200841***	.1588885	2.64	0.008	.1078972	.732271
Registration government authority	registered	1816384	.1464301	-1.24	0.215	4693466	.1060699
Membership business association	member_bus_ass	.1586007	.2154628	0.74	0.462	2647443	.5819457
Branch (base=Food/beverages/ tobacco products)	branch_food	.1967689	.1740654	1.13	0.259	1452378	.5387755
	branch_plastics	1216385	.3616407	-0.34	0.737	8321964	.5889194
	branch_textiles	.2260024	.2924785	0.77	0.440	3486643	.8006692
	branch_mineral	.1993089	.2925348	0.68	0.496	3754684	.7740863
	branch_machinery	.1198729	.2172491	0.55	0.581	3069818	.5467276

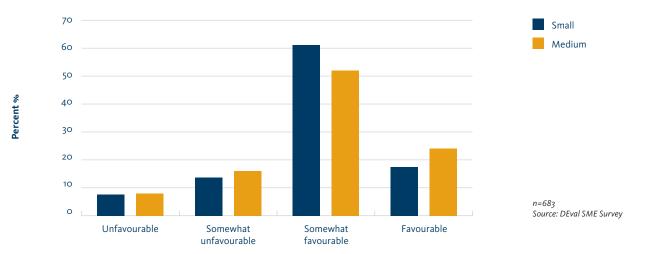
	branch_wood	.4172544**	.1809475	2.31	0.022	.0617256	.7727831
	branch_wholesale	0926767	.2023	-0.46	0.647	4901593	.3048058
	branch_retail	.2884001**	.1441185	2.00	0.046	.0052337	.5715666
	branch_repair	.258704	.1848707	1.40	0.162	1045332	.6219412
	branch_other_manu	.0520824	.36565	0.14	0.887	6663529	.7705178
	branch_other_serv	.1870861	.250912	0.75	0.456	3059102	.6800823
City (base=Yangon)	Mandalay	.557263*	.2965099	1.88	0.061	0253246	1.139851
	Pathein	0	(omitted)				
	Mawlamyine	8497004***	.2442655	-3.48	0.001	-1.329638	3697633
	Bago	.0768986	.1176292	0.65	0.514	1542213	.3080184
	Pyay	0	(omitted)				
	Monywa	1.267192	.8895384	1.42	0.155	4805878	3.014973
	Sagaing	7403721	1.073206	-0.69	0.491	-2.849026	1.368282
	Kale	0	(omitted)				
	Taunggyi	.18792	.1544881	1.22	0.224	1156208	.4914609
	Lashio	.3920705***	.1465292	2.68	0.008	.1041674	.6799737
Use of current account	use_leasing	.6282124	.5213219	1.21	0.229	3960898	1.652515
	_cons	1.899114	.196823	9.65	0.000	1.512393	2.285835

variable	eta^2	% change eta^2	partial eta^2
small	.00092258	.83968911	.00103538
medium	.00238056	2.1666866	.00266727
gender_interviewpartner	.00091371	.83162462	.00102544
manag_interviewpartner	5.161e-08	.00004697	5.798e-08
staff_interviewpartner	.00201506	1.8340194	.00225867
relative_interviewpartner	.01269826	11.557423	.014065
registered	.00279519	2.5440652	.00313038
member_bus_ass	.00098429	.89585806	.00110456
branch_food	.00232137	2.1128156	.00260112
branch_plastics	.00020552	.18705151	.00023083
branch_textiles	.00108466	.98721527	.00121706
branch_mineral	.00084325	.76748904	.00094644
branch_machinery	.00055307	.50338431	.00062096
branch_wood	.00965947	8.7916463	.01073527
branch_wholesale	.00038125	.34699478	.00042812

branch_retail	.00727459	6.6210227	.00810626
branch_repair	.00355735	3.2377517	.00398054
branch_other_manu	.00003686	.03354478	.0000414
branch_other_serv	.00100994	.91920746	.00113332
Mandalay	.00641651	5.8400391	.00715693
o.Pathein			
Mawlamyine	.02198184	20.006947	.02409997
Bago	.00077636	.70661011	.00087143
o.Pyay			
Monywa	.00368649	3-3552847	.00412444
Sagaing	.00086455	.7868775	.00097032
o.Kale			
Taunggyi	.0026879	2.446412	.00301058
Lashio	.01300579	11.837321	.01440072
use_leasing	.0026379	2.4009033	.00295474

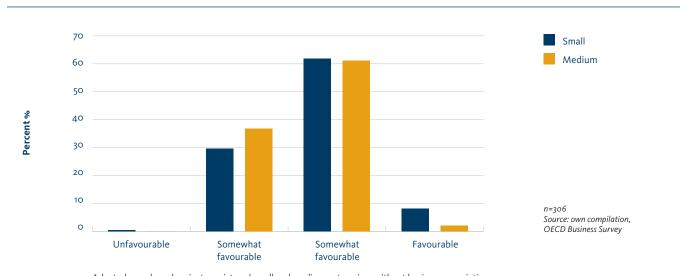
## **Business conditions**

Figure 74: Rating of current market conditions, DEval SME Survey



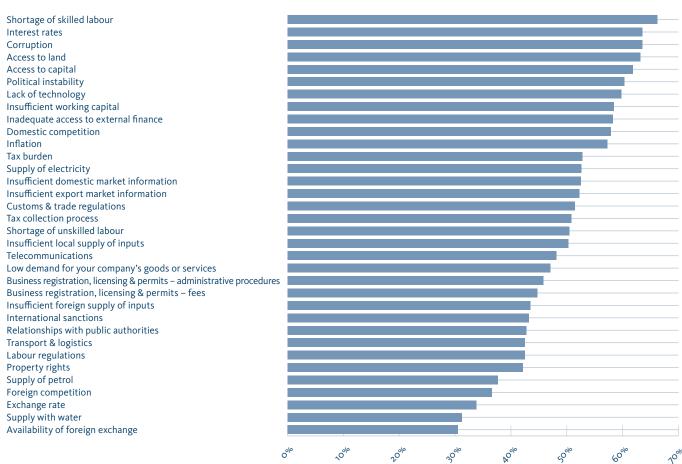
Adapted sample: only registered small and medium-sized enterprises without business association membership

Figure 75: Rating of current market conditions, OECD Business Survey



Adapted sample: only private registered small and medium enterprises without business association membership and situated in same cities as DEval survey

Figure 76: Identification of obstacles as moderate or major, in percent of total firms



n=2,241 Source: own compilation, based on OECD Business Survey

Table 59: Multiple regress	ion results and effect sizes for rating of present market conditions as dependent variable							
	Source	SS	df	MS	Number of obs	=	1975	
					F( 32, 1942)	=	15.69	
	Model	268.394471	32	8.38732722	Prob > F	=	0.0000	
	Residual	1038.20502	1942	.534606088	R-squared	=	0.2054	
					Adj R-squared	=	0.1923	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.1215181***	.0391954	3.10	0.002	.0446486	.1983876	
	medium	.2289074**	.1116446	2.05	0.040	.0099515	.4478633	
Registration government authority	registered	.0071747	.0466789	0.15	0.878	0843714	.0987208	
Exporting firm	exporting	3979635***	.1173174	-3.39	0.001	6280448	1678822	
Membership business association	member_bus_ass	.0281885	.0933359	0.30	0.763	1548606	.2112376	
Age business	age_business	0017361	.0015853	-1.10	0.274	0048452	.0013729	
Rating of present regulatory framework	present_regul_frame- work	.1658952***	.0302668	5.48	0.000	.1065363	.2252541	
Gender Interviewpartner (base=female)	gender_interview- partner	0729042*	.0372279	-1.96	0.050	145915	.0001066	
Position interviewpartner (base=owner)	manag_interviewpart- ner	0235987	.0520035	-0.45	0.650	1255872	.0783899	
	staff_interviewpartner	.0600095	.1327559	0.45	0.651	2003495	.3203685	
	relative_interview- partner	0270939	.0605921	-0.45	0.655	1459262	.0917385	
Branch (base=restaurants)	branch_food	.0715538	.0668146	1.07	0.284	0594821	.2025898	
	branch_plastics	.0812804	.1029043	0.79	0.430	1205341	.2830948	
	branch_textiles	.1505977**	.0756219	1.99	0.047	.0022891	.2989064	
	branch_mineral	0325228	.0960721	-0.34	0.735	2209382	.1558926	
	branch_machinery	.1324218**	.06586	2.01	0.044	.003258	.2615856	
	branch_wood	0557923	.0795817	-0.70	0.483	2118668	.1002822	
	branch_wholesale	.282734***	.0876698	3.22	0.001	.1107972	.4546708	
	branch_retail	.0986291	.0605875	1.63	0.104	0201942	.2174524	
	branch_repair	.0214403	.0730025	0.29	0.769	1217311	.1646117	
	branch_other_manu	0336741	.10158	-0.33	0.740	2328914	.1655433	
	branch_other_serv	.2464775**	.0997143	2.47	0.014	.0509192	.4420357	
City (base=Yangon)	Mandalay	2055288***	.0534359	-3.85	0.000	3103266	1007311	

Pathein	.1383044	.0895093	1.55	0.122	03724	.3138489
Mawlamyine	.3204267**	.1437887	2.23	0.026	.0384302	.6024232
Bago	.0079827	.0621522	0.13	0.898	1139093	.1298747
Pyay	1529017	.096802	-1.58	0.114	3427484	.036945
Monywa	4858896***	.0666063	-7.29	0.000	616517	3552622
Sagaing	8220884***	.0916299	-8.97	0.000	-1.001792	6423852
Kale	.1420625	.115035	1.23	0.217	0835427	.3676676
Taunggyi	6554538***	.0699634	-9-37	0.000	7926651	5182425
Lashio	2733707***	.0697744	-3.92	0.000	4102114	1365301
_cons	2.383952	.1160528	20.54	0.000	2.156351	2.611554

variable	eta^2	eta^2	partial eta^2
small	.00393281	1.9145713	.00492513
medium	.00172003	.83734509	.00216001
registered	9.666e-06	.00470576	.00001217
exporting	.00470818	2.2920383	.00589042
member_bus_ass	.00003732	.01816801	.00004697
age_business	.00049073	.23889913	.00061722
present_regul_framework	.01229208	5.9840386	.01523414
gender_interviewpartner	.00156914	.76388737	.00197089
manag_interviewpartner	.00008426	.04101763	.00010603
staff_interviewpartner	.0000836	.04069984	.00010521
relative_interviewpartner	.00008181	.03982636	.00010295
branch_food	.00046926	.22844564	.00059022
branch_plastics	.00025527	.12426962	.00032116
branch_textiles	.00162268	.78995412	.00203801
branch_mineral	.00004689	.02282659	.00005901
branch_machinery	.00165412	.80525855	.00207741
branch_wood	.0002011	.09790005	.00025303
branch_wholesale	.00425547	2.0716513	.00532706
branch_retail	.00108427	.52784305	.00136271
branch_repair	.00003529	.01718094	.00004441
branch_other_manu	.00004496	.02188946	.00005658
branch_other_serv	.00249995	1.2170271	.00313636
Mandalay	.006053	2.9467249	.00756022

Pathein	.00097685	.47554987	.00122787
Mawlamyine	.00203189	.98916363	.00255064
Bago	6.750e-06	.00328587	8.494e-06
Pyay	.00102082	.49695448	.00128307
Monywa	.02177388	10.599972	.02667193
Sagaing	.03293475	16.033315	.03979933
Kale	.00062401	.30377969	.00078471
Taunggyi	.03591149	17.482452	.04324096
Lashio	.00628063	3.0575382	.00784229

Table 60: Multiple regression results and effect sizes for perceived improvement in economic	conditions in past three
years as dependent variable	

	Logistic regression	Number of obs	=	2396			
		LR chi2(33)	=	317.78			
		Prob > chi2	=	0.0000			
	Log likelihood = -1501.7505	Pseudo R2	=	0.0957			
		Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.765868***	.1853843	5.42	0.000	1.437465	2.169297
	medium	3.483641***	1.191195	3.65	0.000	1.782272	6.809151
Registration government authority	registered	.8774507	.1102469	-1.04	0.298	.6859208	1.122462
Exporting firm	exporting	.2711634***	.0880153	-4.02	0.000	.1435307	.5122918
Membership business association	member_bus_ass	.84704	.1914575	-0.73	0.463	.5438833	1.319174
Age business	age_business	.990266**	.0041846	-2.31	0.021	.9820981	.9985018
Rating of past regulatory framework (base=deteriorated)	past_regul_frame- work_same	1.805811**	.5251898	2.03	0.042	1.021209	3.193228
	past_regul_frame- work_improv	3.232814***	.9420512	4.03	0.000	1.826157	5.722994
Gender Interviewpartner (base=female)	gender_interview- partner	.7228905***	.0716769	-3.27	0.001	.595214	.8779543
Position interviewpartner (base=owner)	manag_interviewpart- ner	.6806166***	.0949196	-2.76	0.006	.5178369	.8945654
	staff_interviewpartner	.6414948	.2405987	-1.18	0.237	.3075686	1.337964
	relative_interview- partner	.5078508***	.0827675	-4.16	0.000	.3689867	.6989748

Branch (base=restaurant)	branch_food	1.470591**	.2633378	2.15	0.031	1.035303	2.088892
	branch_plastics	.9635349	.2533004	-0.14	0.888	.5755698	1.613009
	branch_textiles	1.365683	.2727398	1.56	0.119	.9233295	2.01996
	branch_mineral	1.665815**	.42114	2.02	0.044	1.01492	2.734146
	branch_machinery	1.589472***	.2710042	2.72	0.007	1.137951	2.22015
	branch_wood	1.466605**	.3206986	1.75	0.080	-9553959	2.251351
	branch_wholesale	1.891873***	.4491936	2.69	0.007	1.187923	3.012975
	branch_retail	1.624711***	.2630352	3.00	0.003	1.182959	2.231428
	branch_repair	1.24964	.2408112	1.16	0.247	.8565534	1.82312
	branch_other_manu	1.67226*	.4641031	1.85	0.064	.9706648	2.880966
	branch_other_serv	2.066966***	.532261	2.82	0.005	1.247791	3.42393
City (base=Yangon)	Mandalay	.5443578***	.0731077	-4-53	0.000	.4183766	.7082742
	Pathein	.4719248***	.1106247	-3.20	0.001	.2980858	.7471441
	Mawlamyine	.4731293***	.1370684	-2.58	0.010	.2681524	.8347915
	Bago	.8295954	.1472139	-1.05	0.292	.5858931	1.174666
	Pyay	.3921094***	.0799447	-4.59	0.000	.2629428	.5847271
	Monywa	.1696389***	.0322354	-9.34	0.000	.1168899	.2461921
	Sagaing	.4193324***	.0997423	-3.65	0.000	.2630824	.6683824
	Sagaing Kale	.4193324***	.0997423	-3.65 -3.20	0.000	.2630824	.6683824
	Kale	.3690651***	.1149669	-3.20	0.001	.2004224	.6796096

variable	eta^2	eta^2	partial eta^2
small	.00393281	1.9145713	.00492513
medium	.00172003	.83734509	.00216001
registered	9.666e-o6	.00470576	.00001217
exporting	.00470818	2.2920383	.00589042
member_bus_ass	.00003732	.01816801	.00004697
age_business	.00049073	.23889913	.00061722
present_regul_framework	.01229208	5.9840386	.01523414
gender_interviewpartner	.00156914	.76388737	.00197089
manag_interviewpartner	.00008426	.04101763	.00010603
staff_interviewpartner	.0000836	.04069984	.00010521
relative_interviewpartner	.00008181	.03982636	.00010295

branch_food	.00046926	.22844564	.00059022
branch_plastics	.00025527	.12426962	.00032116
branch_textiles	.00162268	.78995412	.00203801
branch_mineral	.00004689	.02282659	.00005901
branch_machinery	.00165412	.80525855	.00207741
branch_wood	.0002011	.09790005	.00025303
branch_wholesale	.00425547	2.0716513	.00532706
branch_retail	.00108427	.52784305	.00136271
branch_repair	.00003529	.01718094	.00004441
branch_other_manu	.00004496	.02188946	.00005658
branch_other_serv	.00249995	1.2170271	.00313636
Mandalay	.006053	2.9467249	.00756022
Pathein	.00097685	·475549 <sup>8</sup> 7	.00122787
Mawlamyine	.00203189	.98916363	.00255064
Bago	6.750e-06	.00328587	8.494e-o6
Pyay	.00102082	.49695448	.00128307
Monywa	.02177388	10.599972	.02667193
Sagaing	.03293475	16.033315	.03979933
Kale	.00062401	.30377969	.00078471
Taunggyi	.03591149	17.482452	.04324096
Lashio	.00628063	3.0575382	.00784229

Table 61: Multiple regression results and effect sizes for expected improvement in economic conditions in next three years as dependent variable									
	Logistic regression	Number of obs	=	2166					
		LR chi2(34)	=	468.30					
		Prob > chi2	=	0.0000					
	Log likelihood = -1217.5572	Pseudo R2	=	0.1613					
		Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]			
Firm size (base=micro)	small	1.759823***	.2149968	4.63	0.000	1.38509	2.235939		
	medium	2.872272***	1.105689	2.74	0.006	1.350683	6.107983		
Registration government authority	registered	.7856544	.1107222	-1.71	0.087	.596035	1.035598		

Exporting firm	exporting	.9711921	.3206964	-0.09	0.929	.5084294	1.855153
Membership business association	member_bus_ass	.8211421	.2085011	-0.78	0.438	.4992116	1.350679
Age business	age_business	.9819922***	.0046717	-3.82	0.000	.9728784	.9911914
Rating of past regulatory framework (base=deteriorated)	future_regul_frame- work_same	.948049	.3430741	-0.15	0.883	.466448	1.926896
	future_regul_frame- work_improv	3.154179***	1.135344	3.19	0.001	1.557747	6.386688
Rating of present economic conditions	present_econ_conditions	2.096584***	.1486561	10.44	0.000	1.824562	2.40916
Gender Interviewpartner (base=female)	gender_interview- partner	.7622971**	.0864623	-2.39	0.017	.6103488	.9520733
Position interviewpartner (base=owner)	manag_interviewpart- ner	.661699***	.1044857	-2.62	0.009	.4855695	.9017156
	staff_interviewpartner	.7845735	.3190824	-0.60	0.551	-3535525	1.741058
	relative_interview- partner	.7995143	.1427398	-1.25	0.210	.563454	1.134472
Branch (base=restaurant)	branch_food	1.095657	.228102	0.44	0.661	.7285597	1.647722
	branch_plastics	.6676797	.1935479	-1.39	0.163	.3782863	1.178462
	branch_textiles	.8547347	.1862642	-0.72	0.471	.5576184	1.310164
	branch_mineral	.982912	.274536	-0.06	0.951	.5685472	1.699272
	branch_machinery	1.145533	.2250229	0.69	0.489	.7794745	1.683502
	branch_wood	1.352347	-341735	1.19	0.232	.8241219	2.219141
	branch_wholesale	1.349574	.3699478	1.09	0.274	.7886125	2.309563
	branch_retail	1.124255	.2079908	0.63	0.527	.7823292	1.615622
	branch_repair	1.299624	.2828385	1.20	0.229	.8483395	1.990974
	branch_other_manu	1.394302	.418029	1.11	0.268	.77474	2.509329
	branch_other_serv	1.632394	.5052326	1.58	0.113	.8899689	2.994163
City (base=Yangon)	Mandalay	.6187617***	.0947438	-3.14	0.002	.4583412	.8353299
	Pathein	.3068767***	.0779338	-4.65	0.000	.1865496	.5048164
	Mawlamyine	-5595114*	.1916757	-1.70	0.090	.2858952	1.094992
	Bago	1.127405	.2387949	0.57	0.571	.7443679	1.707546
	Pyay	.3768731***	.092865	-3.96	0.000	.2325151	.6108563
	Monywa	.3308773***	.0647581	-5.65	0.000	.2254619	.4855802
	Sagaing	1.199996	.3360788	0.65	0.515	.6930851	2.077652
	Kale	.3483927***	.1166878	-3.15	0.002	.1807068	.6716819
	Taunggyi	.8974187	.2094397	-0.46	0.643	.5679912	1.41791
	Lashio	.9203676	.2169013	-0.35	0.725	.5799096	1.460704
	_cons	.240599	.1106687	-3.10	0.002	.0976709	.5926829

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.5652	4.626	0.000	1.760	1.300	0.464
medium	1.0551	2.741	0.006	2.872	1.175	0.153
registered	-0.2412	-1.712	0.087	0.786	0.905	0.412
exporting	-0.0292	-0.089	0.929	0.971	0.994	0.204
member_bus_ass	-0.1971	-0.776	0.438	0.821	0.962	0.197
age_business	-0.0182	-3.820	0.000	0.982	0.821	10.886
future_regul_framework_same	-0.0533	-0.147	0.883	0.948	0.974	0.493
future_regul_framework_improv	1.1487	3.191	0.001	3.154	1.768	0.496
present_econ_conditions	0.7403	10.441	0.000	2.097	1.862	0.840
gender_interviewpartner	-0.2714	-2.393	0.017	0.762	0.879	0.477
manag_interviewpartner	-0.4129	-2.615	0.009	0.662	0.869	0.340
staff_interviewpartner	-0.2426	-0.597	0.551	0.785	0.970	0.124
relative_interviewpartner	-0.2238	-1.253	0.210	0.800	0.939	0.284
branch_food	0.0914	0.439	0.661	1.096	1.030	0.320
branch_plastics	-0.4039	-1.393	0.163	0.668	0.929	0.182
branch_textiles	-0.1570	-0.720	0.471	0.855	0.952	0.313
branch_mineral	-0.0172	-0.062	0.951	0.983	0.996	0.235
branch_machinery	0.1359	0.692	0.489	1.146	1.045	0.325
branch_wood	0.3018	1.194	0.232	1.352	1.073	0.234
branch_wholesale	0.2998	1.094	0.274	1.350	1.065	0.211
branch_retail	0.1171	0.633	0.527	1.124	1.040	0.339
branch_repair	0.2621	1.204	0.229	1.300	1.076	0.280
branch_other_manu	0.3324	1.109	0.268	1.394	1.071	0.207
branch_other_serv	0.4900	1.583	0.113	1.632	1.097	0.190
Mandalay	-0.4800	-3.135	0.002	0.619	0.837	0.371
Pathein	-1.1813	-4.652	0.000	0.307	0.780	0.210
Mawlamyine	-0.5807	-1.695	0.090	0.560	0.918	0.147
Bago	0.1199	0.566	0.571	1.127	1.033	0.267
Руау	-0.9758	-3.960	0.000	0.377	0.814	0.211
Monywa	-1.1060	-5.651	0.000	0.331	0.729	0.286
Sagaing	0.1823	0.651	0.515	1.200	1.052	0.276
Kale	-1.0544	-3.148	0.002	0.348	0.858	0.146
Taunggyi	-0.1082	-0.464	0.643	0.897	0.975	0.232
Lashio	-0.0830	-0.352	0.725	0.920	0.981	0.228

## Table 62: Multiple regression results and effect sizes for expected increase of revenue as dependent variable – manufacturing sector

	Logistic regression	Number of obs	=	1139			
		LR chi2(43)	=	380.00			
		Prob > chi2	=	0.0000			
	Log likelihood = -557.05038	Pseudo R2	=	0.2543			
		Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.126076	.2004507	0.67	0.505	.7944138	1.596204
	medium	.6655923	.3072203	-o.88	0.378	.2693491	1.644754
Expectation for future economic conditions (base=deteriorates)	future_econom- ic_cond_same	1.913858**	.5481196	2.27	0.023	1.091767	3.354978
	future_econom- ic_cond_imp	11.09775***	3-177775	8.41	0.000	6.331379	19.45232
Expectation for future regulatory framework (base = deteriorates)	future_regul_frame- work_same	.6650997	.3877375	-0.70	0.484	.2121565	2.085054
	future_regul_frame- work_improv	1.497994	.8671712	0.70	0.485	.4816806	4.658657
Age business	age_business	.9991345	.0071567	-0.12	0.904	.9852056	1.01326
Exporting firm	exporting	1.318545	.5267258	0.69	0.489	.6026445	2.884887
Registration government authority	registered	.8326507	.1807416	-0.84	0.399	.5441197	1.274181
Membership business association	member_bus_ass	.7363128	.2445107	-0.92	0.357	.3840608	1.411642
Location in industrial zone	location_IZ	.8274274	.1775863	-o.88	0.377	.5433017	1.26014
Gender Interviewpartner (base=female)	manag_interviewpart- ner	.8869678	.2223983	-0.48	0.632	.5425972	1.4499
Position interviewpartner (base=owner)	staff_interviewpartner	2.663051	1.743194	1.50	0.135	.7382368	9.606461
	relative_interview- partner	.995562	.2734904	-0.02	0.987	.5810789	1.705696
	gender_interview- partner	.7733541	.1389266	-1.43	0.153	.543835	1.099739
Existence outstanding loan (base=no)	loan	1.28878	.2581649	1.27	0.205	.8702985	1.908486
Use of business development services (base=none)	use_bus_dev_services	1.22824	.3104692	0.81	0.416	.7483763	2.015794
Branch (base=restaurant)	branch_food	.7807095	.1975382	-0.98	0.328	.4754611	1.281929
	branch_plastics	.6173981	.2160158	-1.38	0.168	.3109897	1.225701
	branch_textiles	.7184614	.2003568	-1.19	0.236	.4159388	1.241016

	branch_mineral	1.11018	.3745563	0.31	0.757	.5730759	2.150674
	branch_wood	.5656699	.171152	-1.88	0.060	.3126217	1.023545
	branch_other_manu	.9315151	.3291873	-0.20	0.841	.4659986	1.862067
City (base=Yangon)	Mandalay	.3853537***	.0957882	-3.84	0.000	.2367417	.6272555
	Pathein	.2539411***	.0893576	-3.90	0.000	.1274117	.5061234
	Mawlamyine	.2173074***	.1057273	-3.14	0.002	.0837407	.5639136
	Bago	.6204119	.2206346	-1.34	0.179	.3090087	1.245631
	Pyay	.2195775***	.0939019	-3.55	0.000	.0949671	.5076947
	Monywa	.5680007**	.1612864	-1.99	0.046	.3255714	.9909494
	Sagaing	.6999432	.2433803	-1.03	0.305	.3540689	1.383687
	Kale	.801572	.6061496	-0.29	0.770	.1820803	3.528759
	Taunggyi	.3969944	.223303	-1.64	0.101	.1318248	1.195561
	Lashio	.3087371**	.1584515	-2.29	0.022	.1129097	.8442024
Rating of telecommunication as obstacle	telecommunica- tion_obst	1.174658	.1328435	1.42	0.155	.9411265	1.466138
Rating of electricity as obstacle	electricity_obst	.961242	.0810732	-0.47	0.639	.8147804	1.134031
Rating of transportation as obstacle	transport_obst	1.123933	.1309306	1.00	0.316	.8945016	1.412211
Rating of lack of skilled workers as obstacle	lack_skilled_work- ers_obst	.8786507	.0755902	-1.50	0.133	.7423138	1.040028
Rating of supply of raw materials as obstacle	supply_raw_obst	.9069018	.0838605	-1.06	0.291	.7565721	1.087102
Rating of price of raw materials as obstacle	price_raw_obst	.9431029	.0801548	-0.69	0.491	.7983899	1.114046
Rating of labour turnover as obstacle	turnover_obst	.990517	.0885005	-0.11	0.915	.831398	1.18009
Rating of corruption as obstacle	corruption_obst	1.221462	.1916286	1.28	0.202	.8981307	1.661194
Rating of political instability as obstacle	instability_obst	.8567763**	.0624207	-2.12	0.034	.7427675	.9882846
Rating of regulations on hygieneof food and security as obstacle	regulations_obst	.7466025*	.1141512	-1.91	0.056	.5532809	1.007473
	_cons	2.13238	1.627836	0.99	0.321	.4776027	9.520561

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.1187	0.667	0.505	1.126	1.059	0.483
medium	-0.4071	-0.882	0.378	0.666	0.929	0.182
future_economic_cond_same	0.6491	2.267	0.023	1.914	1.352	0.465
future_economic_cond_imp	2.4067	8.405	0.000	11.098	3.258	0.491

future_regul_framework_same	-0.4078	-0.700	0.484	0.665	0.820	0.488
future_regul_framework_improv	0.4041	0.698	0.485	1.498	1.220	0.491
age_business	-0.0009	-0.121	0.904	0.999	0.991	10.997
exporting	0.2765	0.692	0.489	1.319	1.075	0.263
registered	-0.1831	-0.844	0.399	0.833	0.922	0.444
member_bus_ass	-0.3061	-0.922	0.357	0.736	0.934	0.223
location_IZ	-0.1894	-0.883	0.377	0.827	0.917	0.460
manag_interviewpartner	-0.1199	-0.478	0.632	0.887	0.959	0.348
staff_interviewpartner	0.9795	1.496	0.135	2.663	1.144	0.138
relative_interviewpartner	-0.0044	-0.016	0.987	0.996	0.999	0.288
gender_interviewpartner	-0.2570	-1.431	0.153	0.773	0.885	0.475
loan	0.2537	1.266	0.205	1.289	1.106	0.398
use_bus_dev_services	0.2056	0.813	0.416	1.228	1.068	0.320
branch_food	-0.2476	-0.978	0.328	0.781	0.904	0.410
branch_plastics	-0.4822	-1.378	0.168	0.617	0.889	0.245
branch_textiles	-0.3306	-1.186	0.236	0.718	0.875	0.405
branch_mineral	0.1045	0.310	0.757	1.110	1.033	0.306
branch_wood	-0.5697	-1.883	0.060	0.566	0.838	0.311
branch_other_manu	-0.0709	-0.201	0.841	0.932	0.981	0.270
Mandalay	-0.9536	-3.836	0.000	0.385	0.701	0.373
Pathein	-1.3707	-3.895	0.000	0.254	0.719	0.240
Mawlamyine	-1.5264	-3.137	0.002	0.217	0.786	0.158
Bago	-0.4774	-1.342	0.179	0.620	o.886	0.254
Pyay	-1.5161	-3.545	0.000	0.220	0.749	0.191
Monywa	-0.5656	-1.992	0.046	0.568	0.832	0.325
Sagaing	-0.3568	-1.026	0.305	0.700	0.882	0.352
Kale	-0.2212	-0.292	0.770	0.802	0.979	0.098
Taunggyi	-0.9238	-1.642	0.101	0.397	0.881	0.138
Lashio	-1.1753	-2.290	0.022	0.309	0.845	0.144
telecommunication_obst	0.1610	1.423	0.155	1.175	1.127	0.743
electricity_obst	-0.0395	-0.469	0.639	0.961	0.960	1.029
transport_obst	0.1168	1.003	0.316	1.124	1.092	0.757
lack_skilled_workers_obst	-0.1294	-1.504	0.133	0.879	0.867	1.099
supply_raw_obst	-0.0977	-1.057	0.291	0.907	0.896	1.118
price_raw_obst	-0.0586	-0.689	0.491	0.943	0.933	1.191

turnover_obst	-0.0095	-0.107	0.915	0.991	0.990	1.057
corruption_obst	0.2000	1.275	0.202	1.221	1.104	0.493
instability_obst	-0.1546	-2.122	0.034	0.857	0.822	1.264
regulations_obst	-0.2922	-1.911	0.056	0.747	0.863	0.506

	Logistic regression	Number of obs	=	954			
		LR chi2(40)	=	465.42			
		Prob > chi2	=	0.0000			
	Log likelihood = -404.79863	Pseudo R2	=	0.3650			
		Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.256409	.2995885	0.96	0.338	.7873419	2.004927
	medium	.4770909	.3947221	-0.89	0.371	.0942666	2.414596
Age business	age_business	.9829345*	.0090715	-1.87	0.062	.9653144	1.000876
Exporting firm	exporting	1	(omitted)				
Registration government authority	registered	1.072935	.2933808	0.26	0.797	.6278024	1.833682
Membership business association	member_bus_ass	2.063092	1.175626	1.27	0.204	.6752618	6.303255
Location in industrial zone	location_IZ	2.006033*	.7755077	1.80	0.072	.9403167	4.27959
Expectation for future economic conditions (base=deteriorates)	future_econom- ic_cond_same	3.382296**	1.782149	2.31	0.021	1.204229	9.499792
	future_econom- ic_cond_imp	54.10161***	28.63981	7.54	0.000	19.16942	152.6903
Expectation for future regulatory framework (base = deteriorates)	future_regul_frame- work_same	1.955615	1.43057	0.92	0.359	.4662434	8.202645
	future_regul_frame- work_improv	3.320891	2.433521	1.64	0.101	.7897715	13.96394
Position interviewpartner (base=owner)	manag_interviewpart- ner	1.016956	.2971562	0.06	0.954	.573561	1.80312
	staff_interviewpartner	.2583997*	.2041419	-1.71	0.087	.0549316	1.215518
	relative_interview- partner	.9610469	.3343622	-0.11	0.909	.4859585	1.900597
Gender Interviewpartner (base=female)	gender_interview- partner	.8852398	.1818715	-0.59	0.553	.5918103	1.324157

Existence outstanding loan (base=no)	loan	1.400891	.3692152	1.28	0.201	.8357261	2.348253
Use of business development services (base=none)	use_bus_dev_services	1.235885	.3920305	0.67	0.504	.6636999	2.30136
Branch (base=restaurant)	branch_wholesale	1.298114	.4667304	0.73	0.468	.6416049	2.626383
	branch_retail	1.362001	.3304863	1.27	0.203	.8465164	2.191389
	branch_repair	1.03985	.3568689	0.11	0.909	.5306946	2.037496
	branch_other_serv	2.613689**	1.071522	2.34	0.019	1.170282	5.83737
City (base=Yangon)	Mandalay	.6113665	.1796228	-1.67	0.094	.3437272	1.0874
	Pathein	.3054371**	.1718774	-2.11	0.035	.1013745	.9202693
	Mawlamyine	.2298552**	.1625234	-2.08	0.038	.0574906	.9189928
	Bago	.5378703*	.1816846	-1.84	0.066	.2774306	1.042799
	Pyay	.5194637	.2202205	-1.54	0.122	.2263072	1.192373
	Monywa	1.328189	.5727595	0.66	0.510	.5704184	3.092619
	Sagaing	.1440328	.1928945	-1.45	0.148	.0104351	1.988038
	Kale	2.072384	1.044954	1.45	0.148	.771384	5.567622
	Taunggyi	.1856075***	.0732456	-4.27	0.000	.0856425	.4022556
	Lashio	.307923***	.1107186	-3.28	0.001	.1521875	.6230246
Rating of telecommunication as obstacle	telecommunica- tion_obst	1.226545	.1703362	1.47	0.141	.9342709	1.610252
Rating of electricity as obstacle	electricity_obst	.9826707	.0968199	-0.18	0.859	.8101052	1.191995
Rating of transportation as obstacle	transport_obst	.915806	.1468766	-0.55	0.583	.6687875	1.254061
Rating of lack of skilled workers as obstacle	lack_skilled_work- ers_obst	1.023375	.1066704	0.22	0.825	.8342781	1.255333
Rating of supply of raw materials as obstacle	supply_raw_obst	.9937662	.1335946	-0.05	0.963	.7635807	1.293342
Rating of price of raw materials as obstacle	price_raw_obst	.984765	.1076446	-0.14	o.888	.7948548	1.220049
Rating of labour turnover as obstacle	turnover_obst	1.061674	.1193236	0.53	0.594	.8517713	1.323303
Rating of corruption as obstacle	corruption_obst	.4645249***	.1075897	-3.31	0.001	.2950259	.7314049
Rating of political instability as obstacle	instability_obst	.8572598*	.0740295	-1.78	0.075	.7237792	1.015357
Rating of regulations on hygieneof food and security as obstacle	regulations_obst	.9143242	.1496751	-0.55	0.584	.6633738	1.260208
	_cons	.1493114	.1521814	-1.87	0.062	.0202549	1.100667

	b	Z	P>z	e^b	e^bStdX	SDofX
small	0.2283	0.957	0.338	1.256	1.104	0.435
medium	-0.7400	-0.894	0.371	0.477	0.921	0.112
age_business	-0.0172	-1.865	0.062	0.983	0.830	10.833
registered	0.0704	0.257	0.797	1.073	1.025	0.356
member_bus_ass	0.7242	1.271	0.204	2.063	1.125	0.163
location_IZ	0.6962	1.801	0.072	2.006	1.256	0.327
future_economic_cond_same	1.2186	2.313	0.021	3.382	1.774	0.471
future_economic_cond_imp	3.9909	7.539	0.000	54.102	6.963	0.486
future_regul_framework_same	0.6707	0.917	0.359	1.956	1.397	0.499
future_regul_framework_improv	1.2002	1.638	0.101	3.321	1.822	0.500
manag_interviewpartner	0.0168	0.058	0.954	1.017	1.006	0.334
staff_interviewpartner	-1.3532	-1.713	0.087	0.258	0.865	0.107
relative_interviewpartner	-0.0397	-0.114	0.909	0.961	0.989	0.266
gender_interviewpartner	-0.1219	-0.593	0.553	0.885	0.943	0.479
loan	0.3371	1.279	0.201	1.401	1.134	0.372
use_bus_dev_services	0.2118	0.668	0.504	1.236	1.068	0.311
branch_wholesale	0.2609	0.726	0.468	1.298	1.082	0.301
branch_retail	0.3090	1.273	0.203	1.362	1.151	0.454
branch_repair	0.0391	0.114	0.909	1.040	1.015	0.387
branch_other_serv	0.9608	2.344	0.019	2.614	1.303	0.276
Mandalay	-0.4921	-1.675	0.094	0.611	0.833	0.372
Pathein	-1.1860	-2.108	0.035	0.305	0.813	0.175
Mawlamyine	-1.4703	-2.079	0.038	0.230	0.814	0.140
Bago	-0.6201	-1.836	0.066	0.538	0.836	0.290
Pyay	-0.6550	-1.545	0.122	0.519	0.858	0.233
Monywa	0.2838	0.658	0.510	1.328	1.069	0.235
Sagaing	-1.9377	-1.447	0.148	0.144	0.897	0.056
Kale	0.7287	1.445	0.148	2.072	1.149	0.191
Taunggyi	-1.6841	-4.268	0.000	0.186	0.635	0.269
Lashio	-1.1779	-3.276	0.001	0.308	0.719	0.280
telecommunication_obst	0.2042	1.470	0.141	1.227	1.166	0.751
electricity_obst	-0.0175	-0.177	0.859	0.983	0.981	1.068
transport_obst	-0.0880	-0.548	0.583	0.916	0.942	0.681
lack_skilled_workers_obst	0.0231	0.222	0.825	1.023	1.026	1.105

supply_raw_obst	-0.0063	-0.047	0.963	0.994	0.995	0.860
price_raw_obst	-0.0154	-0.140	o.888	0.985	0.984	1.064
turnover_obst	0.0598	0.532	0.594	1.062	1.067	1.089
corruption_obst	-0.7667	-3.310	0.001	0.465	0.704	0.458
instability_obst	-0.1540	-1.783	0.075	0.857	0.830	1.213
regulations_obst	-0.0896	-0.547	0.584	0.914	0.949	0.582

Table 64: Multiple regression results and effect sizes for obstacle = corruption as dependent variable – manufacturing sector								
Source	ss	df	MS	Number of obs	=	1310		
				F( 26, 1283)	=	6.18		
Model	37.7098069	26	1.45037719	Prob > F	=	0.0000		
Residual	301.164239	1283	.234734403	R-squared	=	0.1113		
				Adj R-squared	=	0.0933		
Total	338.874046	1309	.258880096	Root MSE	=	.48449		
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.0484847	.0311095	1.56	0.119	0125463	.1095157	
	medium	019411	.07928	-0.24	0.807	1749437	.1361218	
Exporting firm	exporting	.0052574	.0678844	0.08	0.938	1279192	.138434	
Registration government authority	registered	0016829	.037232	-0.05	0.964	0747252	.0713594	
Membership business association	member_bus_ass	0508195	.0608793	-0.83	0.404	1702534	.0686143	
Age business	age_business	.0013255	.0012701	1.04	0.297	0011662	.0038172	
Gender Interviewpartner (base=female)	gender_interview- partner	.0763424**	.0310975	2.45	0.014	.0153349	.1373498	
Position interviewpartner (base=owner)	manag_interviewpart- ner	1037108**	.0420381	-2.47	0.014	1861817	0212399	
	staff_interviewpartner	1261405	.1020445	-1.24	0.217	3263329	.074052	
	relative_interview- partner	.1026376**	.049612	2.07	0.039	.0053081	.1999672	
Branch (base=machinery/ equpipment/vehicles and other metal parts)	branch_food	.1037415**	.0428438	2.42	0.016	.0196898	.1877931	
	branch_plastics	.0033525	.0626045	0.05	0.957	1194658	.1261709	

	branch_textiles	.0289607	.0485179	0.60	0.551	0662224	.1241438
	branch_mineral	.0668492	.0580242	1.15	0.249	0469835	.1806819
	branch_wood	.2083351***	.0513619	4.06	0.000	.1075726	.3090976
	branch_other_manu	.1189461	.0605822	1.96	0.050	.0000951	.2377971
City (base=Yangon)	Mandalay	.1653772***	.0410126	4.03	0.000	.0849181	.2458364
	Pathein	0850167	.0663981	-1.28	0.201	2152775	.045244
	Mawlamyine	.1290711	.085629	1.51	0.132	0389172	.2970593
	Bago	0219894	.0597677	-0.37	0.713	1392425	.0952637
	Pyay	.0434193	.0675378	0.64	0.520	0890774	.1759159
	Monywa	.0904998*	.0497659	1.82	0.069	0071316	.1881313
	Sagaing	.2321883***	.0572915	4.05	0.000	.1197931	.3445836
	Kale	0494404	.1488436	-0.33	0.740	3414439	.2425631
	Taunggyi	.7556252***	.0916334	8.25	0.000	.5758575	-935393
	Lashio	.0070918	.085543	0.08	0.934	1607277	.1749112
	_cons	.9058996	.0572196	15.83	0.000	.7936452	1.018154

variable	eta^2	% change eta^2	partial eta^2
small	.00168253	1.5119805	.00188963
medium	.00004152	.03731543	.00004672
exporting	4.155e-o6	.00373355	4.675e-06
registered	1.415e-o6	.00127177	1.592e-o6
member_bus_ass	.00048268	.43375565	.00054283
age_business	.00075443	.67795582	.00084817
gender_interviewpartner	.00417465	3.7514911	.00467541
manag_interviewpartner	.004216	3.7886504	.0047215
staff_interviewpartner	.00105844	.9511562	.00118956
relative_interviewpartner	.00296468	2.6641709	.00332481
branch_food	.00406131	3.6496438	.00454906
branch_plastics	1.986e-06	.0017851	2.235e-o6
branch_textiles	.0002468	.22178737	.00027763
branch_mineral	.00091942	.82622263	.00103347
branch_wood	.01139676	10.24154	.01266142
branch_other_manu	.00267023	2.3995692	.00299558
Mandalay	.01126302	10.121362	.0125147
Pathein	.00113563	1.0205168	.00127619

Mawlamyine	.00157382	1.4142892	.00176775
Bago	.00009376	.08425919	.00010549
Pyay	.00028629	.25727257	.00032204
Monywa	.00229071	2.0585188	.00257092
Sagaing	.0113773	10.224059	.01264008
Kale	.00007643	.06867937	.00008599
Taunggyi	.04710249	42.328008	.0503327
Lashio	4.761e-06	.00427821	5.357e-o6

Table 65: Multiple regression results and effect sizes for obstacle = corruption as dependent variable – service sector								
Source	SS	df	MS	Number of obs	=	1129		
				F( 24, 1104)	=	7.24		
Model	30.7168637	24	1.27986932	Prob > F	=	0.0000		
Residual	195.221135	1104	.176830738	R-squared	=	0.1360		
				Adj R-squared	-	0.1172		
Total	225.937998	1128	.200299644	Root MSE	=	.42051		
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]		
Firm size (base=micro)	small	.0642223**	.03158	2.03	0.042	.0022586	.1261859	
	medium	.1089004	.1206719	0.90	0.367	1278717	.3456726	
Exporting firm	exporting	171276	.3001235	-0.57	0.568	7601529	.4176009	
Registration government authority	registered	.0407729	.0386398	1.06	0.292	0350428	.1165887	
Membership business association	member_bus_ass	.2569619***	.0782633	3.28	0.001	.1034003	.4105234	
Age business	age_business	0002892	.0012601	-0.23	0.819	0027616	.0021833	
Gender Interviewpartner (base=female)	gender_interview- partner	.0476471*	.0279166	1.71	0.088	0071285	.1024227	
Position interviewpartner (base=owner)	manag_interviewpart- ner	.12779***	.0402504	3.17	0.002	.0488141	.206766	
	staff_interviewpartner	1114166	.1252745	-0.89	0.374	3572196	.1343863	
	relative_interview- partner	.0356654	.0471019	0.76	0.449	0567539	.1280847	
Branch (base=restaurants)	branch_wholesale	.0442203	.0475785	0.93	0.353	0491341	.1375748	

	branch_retail	.0194612	.032783	0.59	0.553	0448628	.0837853
	branch_repair	.0527524	.0413239	1.28	0.202	0283298	.1338346
	branch_other_serv	059824	.0509582	-1.17	0.241	1598098	.0401618
City (base=Yangon)	Mandalay	.1271052***	.0385342	3.30	0.001	.0514967	.2027136
	Pathein	0246851	.0836001	-0.30	0.768	1887181	.1393479
	Mawlamyine	0141767	.0839743	-0.17	o.866	1789439	.1505905
	Bago	.0267668	.0473497	0.57	0.572	0661388	.1196723
	Pyay	.003178	.0524942	0.06	0.952	0998215	.1061776
	Monywa	.1109181*	.0626619	1.77	0.077	0120317	.2338679
	Sagaing	1390137	.246812	-0.56	0.573	6232873	-3452599
	Kale	0148944	.07198	-0.21	0.836	1561275	.1263387
	Taunggyi	.5030393***	.0505276	9.96	0.000	.4038983	.6021804
	Lashio	.0071455	.0476955	0.15	0.881	0864385	.1007295
	_cons	.9251249	.0486627	19.01	0.000	.829643	1.020607

variable	eta^2	% change eta^2	partial eta^2
small	.00323679	2.3808218	.0037321
medium	.0006374	.46884338	.00073715
exporting	.0002549	.18748815	.00029491
registered	.00087145	.64099439	.00100755
member_bus_ass	.00843703	6.2058619	.00967012
age_business	.00004122	.03031819	.0000477
gender_interviewpartner	.0022799	1.676982	.00263169
manag_interviewpartner	.007889	5.8027537	.00904767
staff_interviewpartner	.00061908	.45536105	.00071597
relative_interviewpartner	.00044873	.33006414	.00051907
branch_wholesale	.00067607	.49728301	.00078183
branch_retail	.00027581	.20287295	.00031911
branch_repair	.00127541	.93813101	.00147392
branch_other_serv	.00107868	.79342175	.00124684
Mandalay	.00851537	6.2634812	.00975903
Pathein	.00006824	.05019238	.00007897
Mawlamyine	.00002231	.01640736	.00002582
Bago	.00025011	.18396647	.00028938
Pyay	2.869e-06	.00210995	3.320e-06

Monywa	.00245226	1.8037615	.00283008
Sagaing	.00024829	.18262633	.00028727
Kale	.00003351	.02464912	.00003878
Taunggyi	.07757371	57.059369	.08238315
Lashio	.00001757	.01292087	.00002033

Source	SS	df	MS	Number of obs	=	1324	
				F( 27, 1296)	=	4.19	
Model	133.816751	27	4.95617596	Prob > F	=	0.0000	
Residual	1532.13189	1296	1.18220053	R-squared	=	0.0803	
				Adj R-squared	=	0.0612	
Total	1665.94864	1323	1.25922044	Root MSE	=	1.0873	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.1599131**	.0697904	2.29	0.022	.0229985	.2968278
	medium	.3102817*	.1781999	1.74	0.082	0393103	.6598736
Exporting firm	exporting	.1164792	.1523746	0.76	0.445	1824487	.415407
Registration government authority	registered	0714878	.0826868	-0.86	0.387	2337024	.0907268
Membership business association	member_bus_ass	.3156914**	.1357041	2.33	0.020	.0494677	.5819151
Age business	age_business	0015035	.0028398	-0.53	0.597	0070746	.0040676
Share of skilled workers in staff	percent_skilled	0038121	.002352	-1.62	0.105	0084262	.000802
Gender Interviewpartner (base=female)	gender_interview- partner	0962108	.0692313	-1.39	0.165	2320286	.0396069
Position interviewpartner (base=owner)	manag_interviewpart- ner	1213592	.0941239	-1.29	0.198	3060111	.0632926
	staff_interviewpartner	.1268736	.2289851	0.55	0.580	3223484	.5760957
	relative_interview- partner	.2825182***	.1089784	2.59	0.010	.0687248	.4963115
Branch (base=machinary/ equipment/vehicle and other metal parts)	branch_food	1828131*	.0957962	-1.91	0.057	3707456	.0051194
	branch_plastics	3230418**	.1404061	-2.30	0.022	59849	0475936

	branch_textiles	.0409662	.1081887	0.38	0.705	1712779	.2532104
	branch_mineral	2198108*	.1288668	-1.71	0.088	4726211	.0329996
	branch_wood	014639	.1152154	-0.13	0.899	2406682	.2113902
	branch_other_manu	0176251	.1454741	-0.12	0.904	3030158	.2677655
City (base=Yangon)	Mandalay	.1158423	.0924636	1.25	0.210	0655525	.2972371
	Pathein	3523104**	.1492083	-2.36	0.018	6450267	0595941
	Mawlamyine	.2194674	.1924346	1.14	0.254	15805	.5969848
	Bago	.2379407*	.1347236	1.77	0.078	0263595	.502241
	Pyay	.2182886	.1523545	1.43	0.152	0805998	.517177
	Monywa	3628143***	.1116677	-3.25	0.001	5818835	143745
	Sagaing	.2777455**	.1284631	2.16	0.031	.0257272	.5297639
	Kale	0512479	.3340146	-0.15	0.878	7065164	.6040207
	Taunggyi	1.066178***	.1881541	5.67	0.000	.6970582	1.435298
	Lashio	.6913984***	.1880306	3.68	0.000	.3225208	1.060276
	_cons	2.212918	.1275491	17.35	0.000	1.962692	2.463143

variable	eta^2	% change eta^2	partial eta^2
small	.00372568	4.6382801	.00403474
medium	.00215143	2.678415	.00233387
exporting	.00041467	.51624068	.00045068
registered	.00053042	.66034736	.00057642
member_bus_ass	.00384034	4.7810199	.00415839
age_business	.00019891	.24763203	.00021624
percent_skilled	.00186415	2.3207747	.00202287
gender_interviewpartner	.00137048	1.7061738	.00148796
manag_interviewpartner	.00117971	1.4686786	.0012811
staff_interviewpartner	.00021785	.27121206	.00023682
relative_interviewpartner	.00476916	5.937352	.00515894
branch_food	.00258433	3.2173571	.00280217
branch_plastics	.00375643	4.6765535	.0040679
branch_textiles	.00010175	.12666855	.00011062
branch_mineral	.00206465	2.570376	.00223994
branch_wood	.00001146	.01426202	.00001246
branch_other_manu	.00001042	.01296804	.00001133
Mandalay	.00111384	1.3866707	.00120966

Pathein	.00395635	4.9254453	.00428347
Mawlamyine	.000923	1.1490914	.00100261
Bago	.0022135	2.7556932	.00240105
Pyay	.00145674	1.8135617	.00158146
Monywa	.00749106	9.3259764	.00807952
Sagaing	.00331717	4.1296972	.00359392
Kale	.00001671	.02079703	.00001816

Table 67: Multiple regression results and effect sizes for obstacle = lack of skilled workers as dependent variable – service sector									
Source	SS	df	MS	Number of obs	=	1151			
				F( 25, 1125)	=	6.23			
Model	171.035158	25	6.84140631	Prob > F	=	0.0000			
Residual	1235.26024	1125	1.0980091	R-squared	=	0.1216			
				Adj R-squared	=	0.1021			
Total	1406.2954	1150	1.22286556	Root MSE	=	1.0479			
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]			
Firm size (base=micro)	small	.4085092***	.0783416	5.21	0.000	.254797	.5622214		
	medium	.8672924***	.3014019	2.88	0.004	.2759193	1.458666		
Exporting firm	exporting	6896772	-7477532	-0.92	0.357	-2.156825	.7774706		
Registration government authority	registered	.0966633	.0941279	1.03	0.305	0880226	.2813492		
Membership business association	member_bus_ass	.1625894	.1948768	0.83	0.404	2197734	-5449522		
Age business	age_business	.0002695	.0031166	0.09	0.931	0058454	.0063845		
Share of skilled workers in staff	percent_skilled	.0013715	.0032607	0.42	0.674	0050262	.0077692		
Gender Interviewpartner (base=female)	gender_interview- partner	.0842977	.0688892	1.22	0.221	0508681	.2194634		
Position interviewpartner (base=owner)	manag_interviewpart- ner	.0320833	.1000175	0.32	0.748	1641585	.2283251		
	staff_interviewpartner	0379659	.3121185	-0.12	0.903	6503657	-5744338		
	relative_interview- partner	.4447172***	.1137815	3.91	0.000	.2214693	.6679651		
Branch (base=restaurant)	branch_wholesale	1923322	.1172164	-1.64	0.101	4223194	.0376551		

	branch_retail	2943828***	.0809333	-3.64	0.000	45318	1355856
	branch_repair	.3843696***	.1014144	3.79	0.000	.185387	.5833523
	branch_other_serv	0461512	.1266961	-0.36	0.716	2947384	.202436
City (base=Yangon)	Mandalay	1666523*	.0976544	-1.71	0.088	3582576	.0249531
	Pathein	6223897***	.2104323	-2.96	0.003	-1.035274	2095058
	Mawlamyine	5890363***	.2120913	-2.78	0.006	-1.005175	1728972
	Bago	.1437505	.1189778	1.21	0.227	0896928	.3771939
	Pyay	1403546	.1325992	-1.06	0.290	4005241	.119815
	Monywa	2672767*	.1560212	-1.71	0.087	573402	.0388487
	Sagaing	.1575251	.6153132	0.26	0.798	-1.049766	1.364816
	Kale	.0228689	.1797119	0.13	0.899	3297393	-375477
	Taunggyi	.5238505***	.1186596	4.41	0.000	.2910316	.7566694
	Lashio	.2235535*	.1188283	1.88	0.060	0095965	.4567034
	_cons	1.821011***	.1228718	14.82	0.000	1.579928	2.062095

variable	eta^2	% change eta^2	partial eta^2
small	.02122989	17.455765	.02359902
medium	.006465	5.31569	.00730637
exporting	.00066421	.54612957	.0007556
registered	.00082341	.67702879	.00093654
member_bus_ass	.00054349	.44687391	.00061836
age_business	5.839e-06	.00480115	6.648e-o6
percent_skilled	.00013814	.11358155	.00015724
gender_interviewpartner	.00116912	.96127887	.00132923
manag_interviewpartner	.00008034	.06605812	.00009146
staff_interviewpartner	.00001155	.00949883	.00001315
relative_interviewpartner	.01192761	9.807193	.0133972
branch_wholesale	.00210212	1.7284151	.00238746
branch_retail	.01032998	8.4935784	.01162358
branch_repair	.01121574	9.2218759	.0126077
branch_other_serv	.0001036	.08518445	.00011793
Mandalay	.00227388	1.8696438	.00258204
Pathein	.00683014	5.6159161	.00771585
Mawlamyine	.00602237	4.9517507	.00680955
Bago	.00113977	.93714688	.0012959

Pyay	.00087478	.71926957	.00099492
Monywa	.00229131	1.8839756	.00260178
Sagaing	.00005117	.04207532	.00005825
Kale	.00001264	.01039578	.00001439
Taunggyi	.01521734	12.512089	.01702932
Lashio	.00276346	2.2721852	.00313622

Table 68: Multiple regression results and effect sizes for obstacle = high labour turnover as dependent variable - man	u-
facturing sector	

Source	SS	df	MS	Number of obs	=	1325	
				F( 27, 1297)	=	3.97	
Model	117.185484	27	4.34020313	Prob > F	=	0.0000	
Residual	1418.68169	1297	1.0938178	R-squared	=	0.0763	
				Adj R-squared	=	0.0571	
Total	1535.86717	1324	1.16002052	Root MSE	=	1.0459	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0890184	.067017	1.33	0.184	0424551	.220492
	medium	-3357574*	.171382	1.96	0.050	0004589	.6719736
Exporting firm	exporting	108833	.1465276	-0.74	0.458	39629	.178624
Registration government authority	registered	155233*	.0793569	-1.96	0.051	3109149	.000449
Membership business association	member_bus_ass	.3346751**	.1305291	2.56	0.010	.0786039	.5907464
Age business	age_business	0001499	.0027297	-0.05	0.956	0055051	.0052053
Share of skilled workers in staff	percent_skilled	.0020462	.0022624	0.90	0.366	0023921	.0064844
Gender Interviewpartner (base=female)	gender_interview- partner	.046089	.0665226	0.69	0.489	0844146	.1765927
Position interviewpartner (base=owner)	manag_interviewpart- ner	0813104	.0905288	-0.90	0.369	2589094	.0962885
	staff_interviewpartner	0020182	.2202297	-0.01	0.993	4340637	.4300272
	relative_interview- partner	.4058924***	.1047994	3.87	0.000	.2002974	.6114874
Branch (base=machinery/ equipment/vehicles and other metal parts)	branch_food	0594712	.0921444	-0.65	0.519	2402396	.1212971

	branch_plastics	2133969	.1350526	-1.58	0.114	4783425	.0515487
	branch_textiles	.117488	.1040384	1.13	0.259	0866139	.3215899
	branch_mineral	1377481	.1239538	-1.11	0.267	38092	.1054238
	branch_wood	0855172	.1104775	-0.77	0.439	3022514	.131217
	branch_other_manu	1186974	.139924	-0.85	0.396	3931997	.1558048
City (base=Yangon)	Mandalay	.2924942**	.0887719	3.29	0.001	.118342	.4666465
	Pathein	501939***	.1435213	-3.50	0.000	7834984	2203796
	Mawlamyine	0271757	.1850855	-0.15	0.883	3902756	.3359241
	Bago	.2204369*	.1295549	1.70	0.089	0337232	-474597
	Pyay	.2004004	.1465407	1.37	0.172	0870825	.4878833
	Monywa	3522231**	.1074115	-3.28	0.001	5629424	1415038
	Sagaing	.1251538	.1235556	1.01	0.311	1172369	.3675445
	Kale	.1287929	.3212859	0.40	0.689	5015041	.7590899
	Taunggyi	.6186995**	.1809814	3.42	0.001	.2636511	.9737478
	Lashio	.3275685*	.1808609	1.81	0.070	0272435	.6823805
	_cons	2.020983	.1226635	16.48	0.000	1.780342	2.261623

variable	eta^2	% change eta^2	partial eta^2
small	.00125655	1.6468774	.0013585
medium	.00273346	3.5825482	.00295051
exporting	.00039289	.51493648	.00042517
registered	.00272515	3.5716557	.00294157
member_bus_ass	.00468192	6.1362563	.00504309
age_business	2.147e-06	.00281364	2.324e-06
percent_skilled	.00058258	.76355	.00063031
gender_interviewpartner	.00034186	.44805172	.00036996
manag_interviewpartner	.00057453	.75299158	.0006216
staff_interviewpartner	5.981e-08	.00007839	6.475e-08
relative_interviewpartner	.01068305	14.001519	.01143326
branch_food	.00029667	.38881924	.00032107
branch_plastics	.00177812	2.3304575	.0019213
branch_textiles	.00090822	1.1903413	.00098228
branch_mineral	.00087951	1.1527175	.00095126
branch_wood	.00042673	.55928131	.00046176
branch_other_manu	.00051249	.67169054	.00055452

Mandalay	.0077317	10.133391	.00830087
Pathein	.00871084	11.416685	.00934227
Mawlamyine	.00001535	.02012283	.00001662
Bago	.00206183	2.7022901	.00222717
Pyay	.0013319	1.7456273	.00143984
Monywa	.00765818	10.037032	.00822259
Sagaing	.00073073	.95771151	.00079046
Kale	.00011444	.14999329	.00012388
Taunggyi	.00832306	10.908445	.00893009
Lashio	.00233618	3.0618647	.00252277

Table 69: Multiple regression results and effect sizes for obstacle = high labour turnover as dependent variable – service sector									
Source	SS	df	MS	Number of obs	=	1151			
				F( 25, 1125)	=	5-33			
Model	142.334092	25	5.69336368	Prob > F	=	0.0000			
Residual	1202.68068	1125	1.06904949	R-squared	=	0.1058			
				Adj R-squared	=	0.0860			
Total	1345.01477	1150	1.16957806	Root MSE	=	1.0339			
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]			
Firm size (base=micro)	small	.3868527***	.0773016	5.00	0.000	.2351811	.5385242		
	medium	.6377104**	.2974007	2.14	0.032	.054188	1.221233		
Exporting firm	exporting	7002515	.7378264	-0.95	0.343	-2.147922	.7474192		
Registration government authority	registered	.2544719***	.0928783	2.74	0.006	.0722378	.436706		
Membership business association	member_bus_ass	.2941164	.1922897	1.53	0.126	0831704	.6714032		
Age business	age_business	.0016634	.0030752	0.54	0.589	0043703	.0076972		
Share of skilled workers in staff	percent_skilled	.0071636**	.0032174	2.23	0.026	.0008509	.0134764		
Gender Interviewpartner (base=female)	gender_interview- partner	.0821703	.0679747	1.21	0.227	051201	.2155417		
Position interviewpartner (base=owner)	manag_interviewpart- ner	1060305	.0986897	-1.07	0.283	299667	.0876061		

	staff_interviewpartner	1747739	.3079749	-0.57	0.570	7790438	.429496
	relative_interview- partner	.2864068**	.112271	2.55	0.011	.0661226	.506691
Branch (base=restaurant)	branch_wholesale	2706353**	.1156603	-2.34	0.019	4975694	0437012
	branch_retail	2655124**	.0798589	-3.32	0.001	4222015	1088232
	branch_repair	.1733668*	.1000681	1.73	0.083	0229743	.3697079
	branch_other_serv	0832733	.1250141	-0.67	0.505	3285604	.1620138
City (base=Yangon)	Mandalay	.0649992	.096358	0.67	0.500	1240625	.2540609
	Pathein	6003981***	.2076387	-2.89	0.004	-1.007801	1929954
	Mawlamyine	7867886***	.2092757	-3.76	0.000	-1.197403	3761739
	Bago	.03614	.1173983	0.31	0.758	1942043	.2664842
	Pyay	.0284626	.1308389	0.22	0.828	2282531	.2851783
	Monywa	4408561***	.15395	-2.86	0.004	7429175	1387947
	Sagaing	.270875	.6071446	0.45	0.656	9203883	1.462138
	Kale	1296475	.1773261	-0.73	0.465	4775746	.2182796
	Taunggyi	.3791932***	.1170843	3.24	0.001	.1494651	.6089214
	Lashio	.0883791	.1172508	0.75	0.451	1416757	.3184339
	_cons	1.672156	.1212406	13.79	0.000	1.434273	1.910039

variable	eta^2	% change eta^2	partial eta^2
small	.01990603	18.810608	.02177706
medium	.00365455	3-4534403	.00407042
exporting	.00071593	.67653231	.00080002
registered	.00596654	5.6381994	.00662843
member_bus_ass	.0018595	1.7571766	.00207526
age_business	.00023256	.21976463	.00026002
percent_skilled	.0039403	3.7234615	.00438729
gender_interviewpartner	.00116147	1.0975515	.00129724
manag_interviewpartner	.00091746	.86697488	.00102499
staff_interviewpartner	.00025597	.24188635	.00028618
relative_interviewpartner	.00517252	4.8878737	.0057514
branch_wholesale	.00435182	4.1123447	.00484328
branch_retail	.00878605	8.3025558	.00973025
branch_repair	.00238568	2.2543927	.00266092
branch_other_serv	.00035267	.33325918	.00039425

Mandalay	.00036167	.34176599	.00040431
Pathein	.00664558	6.2798734	.00737724
Mawlamyine	.01123438	10.616154	.01240804
Bago	.00007532	.07117719	.00008423
Pyay	.00003761	.03554379	.00004206
Monywa	.00651786	6.1591863	.00723649
Sagaing	.00015821	.14950041	.0001769
Kale	.00042487	.40148748	.00047492
Taunggyi	.00833671	7.8779413	.00923721
Lashio	.00045158	.42673338	.00050477

Source	SS	df	MS	Number of obs	=	1311	
		F( 26, 1284)	-	6.72			
Model	257.127802	26	9.88953086	Prob > F	=	0.0000	
Residual	1889.56938	1284	1.47162724	R-squared	=	0.1198	
		Adj R-squared	=	0.1020			
Total	2146.69718	1310	1.63870014	Root MSE	=	1.2131	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.1495661*	.0779406	1.92	0.055	0033388	.3024711
	medium	.4188007**	.1985623	2.11	0.035	.0292585	.8083428
Exporting firm	exporting	.0531178	.169126	0.31	0.754	2786759	.3849114
Registration government authority	registered	0383438	.0931413	-0.41	0.681	2210697	.1443821
Membership business association	member_bus_ass	.2416766	.1514199	1.60	0.111	0553809	.5387342
Age business	age_business	.0016372	.00318	0.51	0.607	0046012	.0078757
Gender Interviewpartner (base=female)	gender_interview- partner	.027589	.0778501	0.35	0.723	1251384	.1803165
Position interviewpartner (base=owner)	manag_interviewpart- ner	1678109	.1054528	-1.59	0.112	3746897	.0390678
	staff_interviewpartner	5993039**	.2555139	-2.35	0.019	-1.100574	0980334

	relative_interview- partner	.2441127**	.1238757	1.97	0.049	.0010916	.4871337
Branch (base=machinery/ equipment/vehicles and other metal parts)	branch_food	2199191**	.107421	-2.05	0.041	4306591	0091791
	branch_plastics	1397336	.1567502	-0.89	0.373	4472483	.1677811
	branch_textiles	1596998	.1214722	-1.31	0.189	3980056	.0786059
	branch_mineral	0063281	.1450466	-0.04	0.965	2908826	.2782263
	branch_wood	.2804555**	.1285947	2.18	0.029	.0281766	-5327343
	branch_other_manu	1639141	.1512451	-1.08	0.279	4606288	.1328006
City (base=Yangon)	Mandalay	.6925002***	.102689	6.74	0.000	.4910436	.8939568
	Pathein	5846363***	.1662488	-3.52	0.000	9107854	2584872
	Mawlamyine	0645242	.2144045	-0.30	0.764	4851458	.3560973
	Bago	2459657	.1496476	-1.64	0.100	5395462	.0476149
	Pyay	.4582583***	.1691091	2.71	0.007	.1264978	.7900188
	Monywa	165222	.1246045	-1.33	0.185	4096728	.0792288
	Sagaing	.5425078***	.1435015	3.78	0.000	.2609847	.8240309
	Kale	7352466**	.3726844	-1.97	0.049	-1.466384	0041094
	Taunggyi	.3232349	.2294305	1.41	0.159	1268648	-7733347
	Lashio	.2498318	.2141817	1.17	0.244	1703527	.6700163
	_cons	1.910964	.1432437	13.34	0.000	1.629947	2.191981

variable	eta^2	% change eta^2	partial eta^2
small	.00252444	2.1075965	.00285976
medium	.00304964	2.5460674	.00345266
exporting	.00006762	.05645573	.00007682
registered	.00011618	.09699611	.00013197
member_bus_ass	.00174635	1.4579821	.00198006
age_business	.00018172	.15171302	.0002064
gender_interviewpartner	.0000861	.07187907	.0000978
manag_interviewpartner	.00173601	1.4493485	.00196835
staff_interviewpartner	.00377131	3.148575	.00426622
relative_interviewpartner	.00266217	2.222578	.00301531
branch_food	.00287325	2.3988102	.00325362
branch_plastics	.00054477	.45481447	.00061852
branch_textiles	.0011849	.98924527	.00134433

branch_mineral	1.305e-o6	.0010894	1.482e-06
branch_wood	.00326068	2.7222641	.00369072
branch_other_manu	.00080519	.67223122	.00091392
Mandalay	.03117592	26.02801	.03420671
Pathein	.00847777	7.0778824	.00953952
Mawlamyine	.00006209	.05183544	.00007053
Bago	.00185198	1.5461742	.00209958
Pyay	.005034	4.2027673	.0056865
Monywa	.0012053	1.0062752	.00136744
Sagaing	.00979775	8.1799029	.01100847
Kale	.00266815	2.2275754	.00302207
Taunggyi	.0013607	1.1360127	.00154347
Lashio	.00093273	.77871677	.00105854

Source	SS	df	MS	Number of obs	=	1129	
		F( 24, 1104)	=	4.20			
Model	137.379931	24	5.72416379	Prob > F	=	0.0000	
Residual	1504.40572	1104	1.36268634	R-squared	=	0.0837	
		Adj R-squared	=	0.0638			
Total	1641.78565	1128	1.45548373	Root MSE	=	1.1673	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0571244	.0877745	0.65	0.515	1150991	.229348
	medium	.4678401	.3349893	1.40	0.163	1894474	1.125128
Exporting firm	exporting	7465217	.8331359	-0.90	0.370	-2.38123	.8881868
Registration government authority	registered	.23742**	.1073013	2.21	0.027	.0268825	.4479576
Membership business association	member_bus_ass	.5525553**	.2173027	2.54	0.011	.1261823	.9789282
Age business	age_business	.0072117**	.0034985	2.06	0.039	.0003473	.0140761
Gender Interviewpartner (base=female)	gender_interview-	.1565689**	.0774558	2.02	0.043	.0045917	.3085462

Position interviewpartner (base=owner)	manag_interviewpart- ner	.1700109	.1117449	1.52	0.128	0492455	.3892672
	staff_interviewpartner	2867812	-347799	-0.82	0.410	9692029	.3956405
	relative_interview- partner	.3594912***	.1307495	2.75	0.006	.1029457	.6160367
Branch (base=restaurant)	branch_wholesale	0301454	.1320674	-0.23	0.819	2892769	.2289861
	branch_retail	1005469	.0909521	-1.11	0.269	2790053	.0779115
	branch_repair	2148725*	.1148379	-1.87	0.062	4401977	.0104527
	branch_other_serv	0324813	.1414952	-0.23	0.818	3101111	.2451485
City (base=Yangon)	Mandalay	.5470222***	.1069712	5.11	0.000	.3371323	.7569121
	Pathein	4910784**	.2321198	-2.12	0.035	9465243	0356325
	Mawlamyine	0991608	.233165	-0.43	0.671	5566573	.3583358
	Bago	2539307*	.1314421	-1.93	0.054	5118353	.0039739
	Pyay	.0530206	.1463732	0.36	0.717	2341804	.3402216
	Monywa	0547123	.173933	-0.31	0.753	395989	.2865643
	Sagaing	.310567	.6851362	0.45	0.650	-1.033749	1.654883
	Kale	3441303*	.1998145	-1.72	0.085	7361894	.0479288
	Taunggyi	.2588486*	.1394567	1.86	0.064	0147815	.5324786
	Lashio	.0428453	.1324173	0.32	0.746	2169727	.3026633
	_cons	1.488796	.1351135	11.02	0.000	1.223687	1.753904

variable	eta^2	% change eta^2	partial eta^2
small	.00035155	.4201268	.00038351
medium	.00161887	1.9346645	.00176359
exporting	.0006664	.79638995	.00072672
registered	.00406354	4.856207	.00441503
member_bus_ass	.00536662	6.4134797	.00582259
age_business	.00352696	4.2149646	.00383428
gender_interviewpartner	.00339143	4.0529895	.00368748
manag_interviewpartner	.00192122	2.2959933	.00209228
staff_interviewpartner	.00056432	.67439963	.00061547
relative_interviewpartner	.00627446	7.4984137	.00680086
branch_wholesale	.00004324	.05168019	.00004719
branch_retail	.00101436	1.2122302	.00110577
branch_repair	.00290583	3.4726731	.00316117
branch_other_serv	.00004374	.0522704	.00004773

Mandalay	.02170478	25.938717	.02313874
Pathein	.00371498	4.4396602	.00403786
Mawlamyine	.00015012	.17940131	.0001638
Bago	.00309771	3.7019779	.0033692
Pyay	.0001089	.13014836	.00011884
Monywa	.00008213	.09814745	.00008962
Sagaing	.00017054	.2038118	.00018608
Kale	.0024619	2.9421466	.00267952
Taunggyi	.00285952	3-4173193	.00311093
Lashio	.0000869	.10384606	.00009482

Source	SS	df	MS	Number of obs	=	1325	
		F( 26, 1298)	=	12.56			
Model	385.891838	26	14.8419938	Prob > F	=	0.0000	
Residual	1533.83948	1298	1.18169452	R-squared	=	0.2010	
		Adj R-squared	=	0.1850			
Total	1919.73132	1324	1.44994813	Root MSE	=	1.0871	
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	.0374838	.0694436	0.54	0.589	0987501	.1737177
	medium	.0506011	.1777924	0.28	0.776	2981908	-399393
Exporting firm	exporting	.0162603	.1501123	0.11	0.914	2782291	.3107496
Registration government authority	registered	.0647074	.0824395	0.78	0.433	0970219	.2264367
Membership business association	member_bus_ass	.2875633**	.1356195	2.12	0.034	.0215058	.5536207
Age business	age_business	0023425	.0028363	-0.83	0.409	0079068	.0032218
Gender Interviewpartner (base=female)	gender_interview- partner	0777066	.0691431	-1.12	0.261	2133511	.057938
Position interviewpartner (base=owner)	manag_interviewpart- ner	2248835**	.094053	-2.39	0.017	409396	040371
	staff_interviewpartner	20065	.2288442	-0.88	0.381	649595	.2482951

variable	eta^2	% change eta^2	partial eta^2
small	.00017934	.0892202	.00022441
medium	.00004986	.0248047	.0000624
exporting	7.222e-o6	.00359303	9.039e-06
registered	.00037923	.18865871	.00047441
member_bus_ass	.0027675	1.376772	.0034518
age_business	.00041988	.20888196	.00052524
gender_interviewpartner	.00077747	.38677373	.00097212
manag_interviewpartner	.00351913	1.7506917	.00438517
staff_interviewpartner	.00047322	.23541713	.00059192
relative_interviewpartner	.00024338	.12107729	.00030452
branch_food	.00258631	1.2866369	.00322655
branch_plastics	.00007208	.03585838	.00009021
branch_textiles	.00021721	.10805883	.00027179

branch_mineral	.00020368	.10132555	.00025486
branch_wood	.01423797	7.0830944	.01750805
branch_other_manu	.001405	.69896054	.0017554
Mandalay	.03158173	15.711251	.03802424
Pathein	.01232204	6.1299595	.01518786
Mawlamyine	.00034263	.17045227	.00042865
Bago	.00614271	3.0558688	.00762947
Pyay	.00199177	.99086165	.00248667
Monywa	.00367518	1.8283277	.00457875
Sagaing	.0605983	30.146388	.07049717
Kale	.00130448	.64895027	.00163
Taunggyi	.01531819	7.6204797	.01881137
Lashio	.00694544	3.4552114	.0086179

Table 73: Multiple regression results and effect sizes for obstacle = prices raw material as dependent variable – service sector									
Source	SS	df	MS	Number of obs	=	1151			
				F( 24, 1126)	=	5.56			
Model	137.223728	24	5.71765532	Prob > F	=	0.0000			
Residual	1158.88922	1126	1.0292089	R-squared	=	0.1059			
				Adj R-squared	=	0.0868			
Total	1296.11295	1150	1.12705474	Root MSE	=	1.0145			
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]			
Firm size (base=micro)	small	.1436247*	.0755424	1.90	0.058	0045951	.2918445		
	medium	.3490467	.2910717	1.20	0.231	2220572	.9201506		
Exporting firm	exporting	4084172	.7239311	-0.56	0.573	-1.828823	1.011988		
Registration government authority	registered	035096	.0910058	-0.39	0.700	2136559	.143464		
Membership business association	member_bus_ass	.5757503***	.1886726	3.05	0.002	.2055608	-9459397		
Age business	age_business	.0006971	.0030173	0.23	0.817	0052231	.0066173		
Gender Interviewpartner (base=female)	gender_interview- partner	.0600348	.0666836	0.90	0.368	0708032	.1908728		

Position interviewpartner (base=owner)	manag_interviewpart- ner	082998	.0967513	-o.86	0.391	2728312	.1068351
	staff_interviewpartner	2822971	.3021345	-0.93	0.350	875107	.3105129
	relative_interview- partner	.1934934*	.109812	1.76	0.078	0219657	.4089526
Branch (base=restaurant)	branch_wholesale	1413382	.1134816	-1.25	0.213	3639973	.0813209
	branch_retail	1987293**	.0783537	-2.54	0.011	3524649	0449937
	branch_repair	3262493***	.0980275	-3.33	0.001	5185864	1339121
	branch_other_serv	3403557***	.1226349	-2.78	0.006	5809742	0997371
City (base=Yangon)	Mandalay	.5475387***	.092894	5.89	0.000	.3652739	.7298035
	Pathein	3644197*	.2013523	-1.81	0.071	7594877	.0306482
	Mawlamyine	.0125955	.2022699	0.06	0.950	3842728	.4094638
	Bago	.2110907*	.1142025	1.85	0.065	0129829	.4351643
	Pyay	.0282705	.126587	0.22	0.823	2201024	.2766435
	Monywa	.260603*	.1510468	1.73	0.085	0357619	.5569679
	Sagaing	.8687931	.5953116	1.46	0.145	2992518	2.036838
	Kale	.2146939	.1736192	1.24	0.217	1259596	-5553474
	Taunggyi	.7268791***	.1127455	6.45	0.000	.5056641	.948094
	Lashio	.6070259***	.1135496	5-35	0.000	.3842332	.8298186
	_cons	1.772871	.1162134	15.26	0.000	1.544852	2.00089

variable	eta^2	% change eta^2	partial eta^2
small	.00287036	2.7111313	.00319997
medium	.0011419	1.0785527	.00127548
exporting	.00025274	.23871946	.00028259
registered	.0001181	.11154517	.00013206
member_bus_ass	.00739454	6.9843334	.00820229
age_business	.00004239	.04003378	.0000474
gender_interviewpartner	.00064362	.60791594	.00071931
manag_interviewpartner	.00058436	.55194578	.00065313
staff_interviewpartner	.00069322	.65476657	.00077471
relative_interviewpartner	.00246543	2.3286657	.00274978
branch_wholesale	.00123177	1.1634373	.00137573
branch_retail	.00510818	4.8248026	.00568058
branch_repair	.00879557	8.3076354	.00974122
branch_other_serv	.00611644	5.7771341	.00679421

Mandalay	.02758768	26.057261	.02993083
Pathein	.00260106	2.4567716	.00290062
Mawlamyine	3.079e-06	.00290832	3.444e-o6
Bago	.00271299	2.5624848	.00302505
Pyay	.00003961	.03740798	.00004429
Monywa	.00236372	2.2325949	.00263664
Sagaing	.00169124	1.5974171	.00188793
Kale	.00121424	1.1468809	.00135618
Taunggyi	.0330055	31.174532	.03559956
Lashio	.02269361	21.434694	.02475252

	Source	SS	df	MS	Number of obs	=	1975
					F( 32, 1942)	=	8.24
	Model	78.0225324	32	2.43820414	Prob > F	=	0.0000
	Residual	574.689366	1942	.295926553	R-squared	=	0.1195
					Adj R-squared	=	0.1050
	Total	652.711899	1974	.330654457	Root MSE	=	-54399
		Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Firm size (base=micro)	small	0298622	.0292258	-1.02	0.307	0871793	.027455
	medium	0214947	.0831524	-0.26	0.796	1845721	.1415827
Registration government authority	registered	0576726*	.0347048	-1.66	0.097	1257353	.0103901
Exporting firm	exporting	0287464	.0875403	-0.33	0.743	2004293	.1429365
Membership business association	member_bus_ass	.0180118	.0694427	0.26	0.795	1181782	.1542018
Age business	age_business	0028609**	.001178	-2.43	0.015	0051713	0005506
Rating present market conditions	present_econ_condi- tions	.0918299***	.0167539	5.48	0.000	.0589723	.1246875
Gender Interviewpartner	gender_interview- partner	0196361	.0277214	-0.71	0.479	074003	.0347308
Position interviewpartner (base=owner)	manag_interviewpart- ner	0063839	.0386926	-0.16	0.869	0822672	.0694995

	staff_interviewpartner	.1064071	.0987465	1.08	0.281	0872532	.3000674
	relative_interview- partner	.0284498	.0450784	0.63	0.528	0599574	.116857
Branch (base=restaurants)	branch_food	.0665242	.0497021	1.34	0.181	0309509	.1639992
	branch_plastics	0154288	.0765726	-0.20	0.840	165602	.1347444
	branch_textiles	.0054858	.0563203	0.10	0.922	1049687	.1159403
	branch_mineral	0510898	.0714707	-0.71	0.475	1912572	.0890776
	branch_machinery	.0979621**	.0490007	2.00	0.046	.0018626	.1940615
	branch_wood	0877832	.059183	-1.48	0.138	2038522	.0282857
	branch_wholesale	.0805539	.0653755	1.23	0.218	0476597	.2087674
	branch_retail	0206484	.0451056	-0.46	0.647	1091089	.0678121
	branch_repair	.0556561	.0543006	1.02	0.306	0508376	.1621497
	branch_other_manu	.040517	.0755724	0.54	0.592	1076946	.1887287
	branch_other_serv	.0013948	.0743044	0.02	0.985	1443299	.1471195
City (base=Yangon)	Mandalay	3689131***	.0390197	-9-45	0.000	4454381	2923882
	Pathein	0519294	.0666258	-0.78	0.436	1825949	.0787361
	Mawlamyine	8649002***	.1053026	-8.21	0.000	-1.071418	6583822
	Bago	.0943104**	.0461921	2.04	0.041	.0037191	.1849017
	Pyay	1344853*	.0720026	-1.87	0.062	2756959	.0067253
	Monywa	0730491	.0502024	-1.46	0.146	1715053	.0254071
	Sagaing	0721351	.0695522	-1.04	0.300	2085399	.0642697
	Kale	1754749**	.0855274	-2.05	0.040	3432102	0077397
	Taunggyi	.0738248	.0531899	1.39	0.165	0304905	.1781402
	Lashio	.0766579	.0520881	1.47	0.141	0254966	.1788125
	_cons	2.822731	.0705143	40.03	0.000	2.68444	2.961023

variable	eta^2	% change in eta^2	partial eta^2
small	.00047334	.3959814	.00053731
medium	.0000303	.02534409	.00003441
registered	.00125205	1.0474245	.00142001
exporting	.00004889	.04089911	.00005552
member_bus_ass	.0000305	.02551683	.00003464
age_business	.002674	2.2369812	.00302784
present_econ_conditions	.01362061	11.39457	.01523414
gender_interviewpartner	.00022748	.19030247	.0002583

manag_interviewpartner	.00001234	.01032469	.00001402
staff_interviewpartner	.00052645	.44041442	.00059757
relative_interviewpartner	.00018059	.1510727	.00020506
branch_food	.00081222	.6794754	.00092164
branch_plastics	.00001841	.01539855	.00002091
branch_textiles	4.301e-06	.00359848	4.885e-o6
branch_mineral	.00023167	.19381001	.00026306
branch_machinery	.00181207	1.5159176	.00205385
branch_wood	.00099745	.83443486	.00113159
branch_wholesale	.00068834	.57584638	.00078119
branch_retail	.00009501	.07948347	.0001079
branch_repair	.0004763	.39845513	.00054067
branch_other_manu	.00013032	.10902147	.00014799
branch_other_serv	1.598e-07	.00013365	1.814e-07
Mandalay	.04052678	33.903427	.04400346
Pathein	.00027543	.23041273	.00031272
Mawlamyine	.03058553	25.586891	.03357175
Bago	.00188993	1.5810586	.00214192
Pyay	.00158167	1.3231737	.00179318
Monywa	.00095994	.80305511	.00108908
Sagaing	.00048768	.40797736	.00055358
Kale	.00190845	1.5965525	.00216287
Taunggyi	.00087339	.73065074	.00099098
Lashio	.00098197	.82148624	.00111405

## Table 75: Multiple logistic regression with perception improved regulatory framework in the past three years as dependent variable

Logistic regression	Number of obs	=	2396				
	LR chi2(33)	=	202.55				
	Prob > chi2	=	0.0000				
Log likelihood = -1524.5978	Pseudo R2	=	0.0623				
		Odds Ratio	Std. Err.	Z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	.8749635	.0909758	-1.28	0.199	.7136492	1.072741
	medium	.5383114*	.170273	-1.96	0.050	.2895946	1.000637
Registration government authority	registered	.8517428	.1047897	-1.30	0.192	.6692454	1.084006
Exporting firm	exporting	1.160748	.3272938	0.53	0.597	.6679231	2.017203
Membership business association	member_bus_ass	1.151882	.2538366	0.64	0.521	.7478793	1.774127
Age business	age_business	1.000495	.0041793	0.12	0.906	.9923376	1.00872
Rating past economic conditions (base=deteriorated)	past_econom- ic_cond_imp	1.525679***	.1788365	3.60	0.000	1.212515	1.919725
	past_economic_cond_ same	.696386***	.0910724	-2.77	0.006	.5389284	.8998478
Gender Interviewpartner (base=female)	gender_interview- partner	1.131536	.1117682	1.25	0.211	.9323745	1.37324
Position interviewpartner (base=owner)	manag_interviewpart- ner	1.193104	.1618938	1.30	0.193	.9144874	1.556607
	staff_interviewpartner	2.048399**	.738081	1.99	0.047	1.010901	4.15069
	relative_interview- partner	1.283402	.2022056	1.58	0.113	.9424371	1.747726
Branch (base=restaurants)	branch_food	1.43897**	.2598917	2.01	0.044	1.009989	2.050156
	branch_plastics	1.258017	.3334667	0.87	0.387	.7482655	2.115034
	branch_textiles	1.629062**	.3191168	2.49	0.013	1.109675	2.391549
	branch_mineral	1.031813	.2550188	0.13	0.899	.6356545	1.674868
	branch_machinery	1.0448	.1790282	0.26	0.798	.7467558	1.4618
	branch_wood	1.571816**	.3549185	2.00	0.045	1.009715	2.446833
	branch_wholesale	1.516776*	.3561203	1.77	0.076	-9573475	2.403106
	branch_retail	1.090761	.1822163	0.52	0.603	.7861999	1.513305
	branch_repair	1.150919	.2269601	0.71	0.476	.7819673	1.693951
	branch_other_manu	1.17812	.309069	0.62	0.532	.7045061	1.970128
	branch_other_serv	1.270448	.3215353	0.95	0.344	.7736206	2.086344
City (base=Yangon)	Mandalay	1.965022***	.2576526	5.15	0.000	1.519702	2.540835

Pathein	1.253335	.2928539	0.97	0.334	.7928215	1.981338
Mawlamyine	.9148587	.2661956	-0.31	0.760	.5172264	1.618182
Bago	.2842197***	.0633108	-5.65	0.000	.1836735	.4398069
Pyay	1.461404*	.2897734	1.91	0.056	.9908104	2.155511
Monywa	1.794675***	.3155505	3.33	0.001	1.271517	2.533081
Sagaing	2.084174***	.488669	3.13	0.002	1.316303	3.299987
Kale	1.30916	.4037511	0.87	0.382	.7152839	2.396113
Taunggyi	.9273338	.1839825	-0.38	0.704	.6285765	1.368088
Lashio	.87699	.1819531	-0.63	0.527	.5839719	1.317035
_cons	.443582	.0946862	-3.81	0.000	.2919295	.6740154

	b	z	P>z	e^b	e^bStdX	SDofX
small	-0.1336	-1.285	0.199	0.875	0.940	0.463
medium	-0.6193	-1.958	0.050	0.538	0.913	0.147
registered	-0.1605	-1.304	0.192	0.852	0.937	0.405
exporting	0.1491	0.529	0.597	1.161	1.031	0.202
member_bus_ass	0.1414	0.642	0.521	1.152	1.028	0.198
age_business	0.0005	0.119	0.906	1.000	1.005	10.907
past_economic_cond_imp	0.4224	3.604	0.000	1.526	1.235	0.500
past_economic_cond_same	-0.3619	-2.767	0.006	0.696	0.852	0.442
gender_interviewpartner	0.1236	1.251	0.211	1.132	1.061	0.478
manag_interviewpartner	0.1766	1.301	0.193	1.193	1.062	0.340
staff_interviewpartner	0.7171	1.990	0.047	2.048	1.091	0.122
relative_interviewpartner	0.2495	1.584	0.113	1.283	1.075	0.288
branch_food	0.3639	2.015	0.044	1.439	1.126	0.326
branch_plastics	0.2295	0.866	0.387	1.258	1.042	0.179
branch_textiles	0.4880	2.491	0.013	1.629	1.158	0.301
branch_mineral	0.0313	0.127	0.899	1.032	1.007	0.233
branch_machinery	0.0438	0.256	0.798	1.045	1.015	0.330
branch_wood	0.4522	2.003	0.045	1.572	1.112	0.235
branch_wholesale	0.4166	1.774	0.076	1.517	1.092	0.211
branch_retail	0.0869	0.520	0.603	1.091	1.030	0.344
branch_repair	0.1406	0.713	0.476	1.151	1.040	0.280
branch_other_manu	0.1639	0.625	0.532	1.178	1.033	0.198
branch_other_serv	0.2394	0.946	0.344	1.270	1.047	0.191

Mandalay	0.6755	5.152	0.000	1.965	1.287	0.374
Pathein	0.2258	0.966	0.334	1.253	1.046	0.200
Mawlamyine	-0.0890	-0.306	0.760	0.915	0.986	0.158
Bago	-1.2580	-5.648	0.000	0.284	0.711	0.271
Pyay	0.3794	1.913	0.056	1.461	1.091	0.231
Monywa	0.5848	3.326	0.001	1.795	1.174	0.275
Sagaing	0.7344	3.132	0.002	2.084	1.219	0.270
Kale	0.2694	0.873	0.382	1.309	1.039	0.142
Taunggyi	-0.0754	-0.380	0.704	0.927	0.982	0.237
Lashio	-0.1313	-0.633	0.527	0.877	0.970	0.232

Logistic regression	Number of obs	=	1786				
	LR chi2(34)	=	247.24				
	Prob > chi2	=	0.0000				
Log likelihood = -1093.8532	Pseudo R2	=	0.1015				
		Odds Ratio	Std. Err.	z	P>z	[95% Conf. interval]	
Firm size (base=micro)	Small	1.20383	.148347	1.51	0.132	.9455238	1.532704
	medium	.6449761	.2150834	-1.32	0.188	-3354975	1.239932
Registration government authority	registered	.9174162	.1351403	-0.59	0.558	.687353	1.224483
Exporting firm	exporting	1.117262	.4907844	0.25	0.801	.4723284	2.64281
Membership business association	member_bus_ass	.9295635	.2723835	-0.25	0.803	.5234286	1.650824
Age business	age_business	1.006415	.0049745	1.29	0.196	.996712	1.016212
Rating present regulatory framework	present_regul_frame- work	1.163073	.115871	1.52	0.129	.9567668	1.413864
Expectation future economic conditions (base=deteriorate)	future_econom- ic_cond_imp	3.353072***	.7216061	5.62	0.000	2.199165	5.112435
	future_econom- ic_cond_same	.9029768	.1981933	-0.46	0.642	.5872829	1.388372
Gender Interviewpartner (base=female)	gender_interview- partner	1.256338*	.1459938	1.96	0.050	1.000442	1.577687
Position interviewpartner (base=owner)	manag_interviewpart- ner	.9222212	.1493422	-0.50	0.617	.671419	1.266708

	staff_interviewpartner	.7882095	.3076912	-0.61	0.542	.3667418	1.694037
	relative_interview- partner	.8694556	.1675324	-0.73	0.468	.5959808	1.268418
Branch (base=restaurants)	branch_food	1.120707	.234432	0.54	0.586	.7437652	1.688684
	branch_plastics	1.123313	.3552079	0.37	0.713	.6044194	2.087676
	branch_textiles	1.446349	.3357582	1.59	0.112	.9176429	2.279674
	branch_mineral	1.057315	.3294975	0.18	0.858	.574036	1.947464
	branch_machinery	1.006656	.2057401	0.03	0.974	.6743926	1.502621
	branch_wood	1.452698	-3775571	1.44	0.151	.8728655	2.417704
	branch_wholesale	.9576591	.2570932	-0.16	0.872	.5658448	1.620782
	branch_retail	1.024396	.1929475	0.13	0.898	.7081773	1.481814
	branch_repair	.7752856	.1746542	-1.13	0.259	.4985462	1.205641
	branch_other_manu	1.146972	.372254	0.42	0.673	.6071445	2.166773
	branch_other_serv	1.103859	.3380821	0.32	0.747	.6056385	2.011933
City (base=Yangon)	Mandalay	1.102664	.1831926	0.59	0.556	.7962096	1.527069
	Pathein	.5621599**	.152148	-2.13	0.033	.3307372	.9555131
	Mawlamyine	.6034692	.2883491	-1.06	0.291	.2365565	1.539485
	Bago	.4231118***	.0824184	-4.42	0.000	.2888343	.6198143
	Pyay	.6583484	.1990975	-1.38	0.167	.363945	1.190902
	Monywa	.9698214	.19668	-0.15	0.880	.6517303	1.443164
	Sagaing	3.399602***	1.179449	3.53	0.000	1.722322	6.710297
	Kale	.8609046	.290523	-0.44	0.657	.4443308	1.668029
	Taunggyi	.8784802	.1919872	-0.59	0.553	.5724089	1.34821
	Lashio	.9389203	.2087114	-0.28	0.777	.607318	1.451581
	_cons	.3624235	.1557823	-2.36	0.018	.1560775	.8415742

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.1855	1.505	0.132	1.204	1.091	0.467
medium	-0.4385	-1.315	0.188	0.645	0.933	0.158
registered	-0.0862	-0.585	0.558	0.917	0.965	0.412
exporting	0.1109	0.252	0.801	1.117	1.020	0.179
member_bus_ass	-0.0730	-0.249	0.803	0.930	0.987	0.179
age_business	0.0064	1.294	0.196	1.006	1.073	10.984
present_regul_framework	0.1511	1.516	0.129	1.163	1.087	0.551
future_economic_cond_imp	1.2099	5.622	0.000	3-353	1.804	0.487

future_economic_cond_same	-0.1021	-0.465	0.642	0.903	0.953	0.467
gender_interviewpartner	0.2282	1.964	0.050	1.256	1.115	0.479
manag_interviewpartner	-0.0810	-0.500	0.617	0.922	0.973	0.343
staff_interviewpartner	-0.2380	-0.610	0.542	0.788	0.969	0.133
relative_interviewpartner	-0.1399	-0.726	0.468	0.869	0.962	0.279
branch_food	0.1140	0.545	0.586	1.121	1.038	0.327
branch_plastics	0.1163	0.368	0.713	1.123	1.021	0.179
branch_textiles	0.3690	1.590	0.112	1.446	1.121	0.308
branch_mineral	0.0557	0.179	0.858	1.057	1.012	0.219
branch_machinery	0.0066	0.032	0.974	1.007	1.002	0.319
branch_wood	0.3734	1.437	0.151	1.453	1.095	0.244
branch_wholesale	-0.0433	-0.161	0.872	0.958	0.991	0.215
branch_retail	0.0241	0.128	0.898	1.024	1.008	0.344
branch_repair	-0.2545	-1.130	0.259	0.775	0.931	0.282
branch_other_manu	0.1371	0.423	0.673	1.147	1.028	0.202
branch_other_serv	0.0988	0.323	0.747	1.104	1.018	0.183
Mandalay	0.0977	0.588	0.556	1.103	1.035	0.356
Pathein	-0.5760	-2.128	0.033	0.562	o.886	0.211
Mawlamyine	-0.5051	-1.057	0.291	0.603	0.946	0.110
Bago	-0.8601	-4.416	0.000	0.423	0.779	0.290
Pyay	-0.4180	-1.382	0.167	0.658	0.929	0.176
Monywa	-0.0306	-0.151	0.880	0.970	0.991	0.288
Sagaing	1.2237	3.527	0.000	3.400	1.363	0.253
Kale	-0.1498	-0.444	0.657	0.861	0.977	0.153
Taunggyi	-0.1296	-0.593	0.553	0.878	0.968	0.252

### **Business development services**

# Table 77: Multiple logistic regression results and effect sizes for knowledge of business development services as independent variable

pendent variable							
Logistic regression	Number of obs	=	2475				
	LR chi2(32)	=	391.19				
	Prob > chi2	=	0.0000				
Log likelihood = -1494.3958	Pseudo R2	=	0.1157				
		Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	1.520876***	.1577036	4.04	0.000	1.241167	1.863619
	medium	3.513308***	1.201731	3.67	0.000	1.797056	6.86864
Age business	age_business	1.002803	.0042781	0.66	0.512	.994453	1.011223
Membership in business association	member_bus_ass	1.398873	.3264347	1.44	0.150	.8854129	2.210095
Registration with government authority	registered	1.055137	.1326256	0.43	0.669	.8247395	1.349897
Exporting firm	exporting	.8479177	.2558608	-0.55	0.585	.4693556	1.531812
City (base=Yangon)	Mandalay	.9410685	.1259878	-0.45	0.650	.7238767	1.223427
	Pathein	.9337057	.2245768	-0.29	0.776	.5827433	1.496038
	Mawlamyine	2.36768***	.6758565	3.02	0.003	1.353152	4.142851
	Bago	1.360525*	.2389196	1.75	0.080	.9643361	1.919485
	Pyay	.4857965***	.1017155	-3.45	0.001	.3222781	.7322814
	Monywa	.3602386***	.0715303	-5.14	0.000	.2441026	.5316283
	Sagaing	.6662489*	.1641	-1.65	0.099	.4111325	1.07967
	Kale	.5299173*	.1831354	-1.84	0.066	.2691778	1.043222
	Taunggyi	3.116748***	.6298544	5.63	0.000	2.097417	4.631466
	Lashio	1.513574**	.2977195	2.11	0.035	1.029372	2.225536
Branch (base=restaurant)	branch_food	1.701773***	.3034801	2.98	0.003	1.199791	2.413781
	branch_plastics	1.394762	.3772845	1.23	0.219	.8208224	2.370014
	branch_textiles	1.178471	.2373393	0.82	0.415	.7941274	1.748829
	branch_mineral	1.094495	.2799942	0.35	0.724	.6629165	1.807043
	branch_machinery	1.204543	.2087639	1.07	0.283	.8576246	1.691793
	branch_wood	.9766957	.2163554	-0.11	0.915	.6327076	1.507702
	branch_wholesale	1.890546***	.443594	2.71	0.007	1.193611	2.994412
	branch_retail	1.505362**	.245381	2.51	0.012	1.093682	2.072004

	branch_repair	.82743	.1646691	-0.95	0.341	.5601848	1.222169
	branch_other_manu	3.342194***	.9297122	4.34	0.000	1.937534	5.765195
	branch_other_serv	2.094642***	.5392748	2.87	0.004	1.264633	3.469408
Position interviewpartner (base=owner)	manag_interviewpart- ner	1.561117***	.2168974	3.21	0.001	1.188972	2.049741
	staff_interviewpartner	1.936399*	.7366468	1.74	0.082	.918713	4.081406
	relative_interview- partner	.7488562*	.1238844	-1.75	0.080	.5414806	1.035652
Gender interviewpartner (base=female)	gender_interview- partner	1.014323	.1000403	0.14	o.885	.8360342	1.230632
Familiarity with TVET system	familiarity_TVET	2.433101***	.2054616	10.53	0.000	2.061964	2.871041
	_cons	.1396987	.0295616	-9.30	0.000	.092272	.2115021

	b	Z	P>z	e^b	e^bStdX	SDofX
small	0.4193	4.044	0.000	1.521	1.214	0.462
medium	1.2566	3.674	0.000	3.513	1.206	0.149
age_business	0.0028	0.656	0.512	1.003	1.031	10.921
member_bus_ass	0.3357	1.438	0.150	1.399	1.069	0.200
registered	0.0537	0.427	0.669	1.055	1.022	0.406
exporting	-0.1650	-0.547	0.585	0.848	0.967	0.202
Mandalay	-0.0607	-0.454	0.650	0.941	0.977	0.377
Pathein	-0.0686	-0.285	0.776	0.934	0.987	0.197
Mawlamyine	0.8619	3.019	0.003	2.368	1.150	0.162
Bago	0.3079	1.753	0.080	1.361	1.087	0.271
Руау	-0.7220	-3.448	0.001	0.486	0.844	0.236
Monywa	-1.0210	-5.142	0.000	0.360	0.759	0.270
Sagaing	-0.4061	-1.649	0.099	0.666	0.895	0.272
Kale	-0.6350	-1.838	0.066	0.530	0.915	0.139
Taunggyi	1.1368	5.625	0.000	3.117	1.309	0.237
Lashio	0.4145	2.107	0.035	1.514	1.103	0.237
branch_food	0.5317	2.981	0.003	1.702	1.189	0.325
branch_plastics	0.3327	1.230	0.219	1.395	1.061	0.177
branch_textiles	0.1642	0.815	0.415	1.178	1.050	0.300
branch_mineral	0.0903	0.353	0.724	1.094	1.021	0.231
branch_machinery	0.1861	1.074	0.283	1.205	1.063	0.328
branch_wood	-0.0236	-0.106	0.915	0.977	0.994	0.239

branch_wholesale	0.6369	2.714	0.007	1.891	1.144	0.211
branch_retail	0.4090	2.509	0.012	1.505	1.151	0.343
branch_repair	-0.1894	-0.952	0.341	0.827	0.948	0.283
branch_other_manu	1.2066	4.338	0.000	3.342	1.275	0.202
branch_other_serv	0.7394	2.872	0.004	2.095	1.149	0.188
manag_interviewpartner	0.4454	3.206	0.001	1.561	1.163	0.340
staff_interviewpartner	0.6608	1.737	0.082	1.936	1.084	0.121
relative_interviewpartner	-0.2892	-1.748	0.080	0.749	0.920	0.288
gender_interviewpartner	0.0142	0.144	0.885	1.014	1.007	0.479
familiarity_TVET	0.8892	10.530	0.000	2.433	1.751	0.630

Logistic regression	Number of obs	=	2475				
	LR chi2(32)	=	214.03				
	Prob > chi2	=	0.0000				
Log likelihood = -733.21934	Pseudo R2	=	0.1274				
		Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Firm size (base=micro)	small	2.213835***	.3522004	5.00	0.000	1.620791	3.023873
	medium	8.56906***	2.815011	6.54	0.000	4.50097	16.31399
Age business	age_business	.9944054	.0067852	-0.82	0.411	.9811952	1.007793
Membership in business association	member_bus_ass	1.766299**	.4953149	2.03	0.042	1.01945	3.060291
Registration with government authority	registered	1.491577**	.3364314	1.77	0.076	.958636	2.3208
Exporting firm	exporting	1.236426	.518776	0.51	0.613	.5432798	2.813927
City (base=Yangon)	Mandalay	3.232193***	.629282	6.03	0.000	2.206862	4.733903
	Pathein	.410508	.2556192	-1.43	0.153	.1211398	1.391093
	Mawlamyine	1.582367	.7172607	1.01	0.311	.6508362	3.847182
	Bago	.7028186	.2509863	-0.99	0.323	-3490337	1.415205
	Pyay	1.195826	.3771396	0.57	0.571	.6444901	2.218809
	Monywa	1.55446	.4488184	1.53	0.127	.8826992	2.737452
	Sagaing	1.317111	.4964414	0.73	0.465	.6292018	2.757113

	Kale	1.116991	.6933643	0.18	0.859	.3308814	3.770744
	Taunggyi	2.215221***	.6586664	2.67	0.007	1.236869	3.967441
	Lashio	2.333091***	.7386901	2.68	0.007	1.25438	4.339446
Branch (base=restaurant)	branch_food	1.340995	.3665655	1.07	0.283	.7847804	2.291426
	branch_plastics	1.860246	.7100107	1.63	0.104	.8804149	3.93055
	branch_textiles	1.164066	.3824212	0.46	0.644	.6114192	2.216236
	branch_mineral	.7581662	.3329768	-0.63	0.528	.3205736	1.793086
	branch_machinery	.9186403	.2622988	-0.30	0.766	.5249313	1.607639
	branch_wood	1.229668	.4929875	0.52	0.606	.5604436	2.698013
	branch_wholesale	1.737639	.5998669	1.60	0.109	.8833002	3.418306
	branch_retail	1.513731	.4123922	1.52	0.128	.8874675	2.581935
	branch_repair	.9958555	.3510653	-0.01	0.991	.4990285	1.987318
	branch_other_manu	2.953673***	1.022692	3.13	0.002	1.498439	5.822184
	branch_other_serv	1.984518*	.6956554	1.96	0.051	.9983295	3.944903
Position interviewpartner (base=owner)	manag_interviewpart- ner	1.610127***	.2896107	2.65	0.008	1.131765	2.290679
	staff_interviewpartner	2.31721**	.9390854	2.07	0.038	1.047135	5.127764
	relative_interview- partner	.957065	.2690131	-0.16	0.876	.5516766	1.660345
Gender interviewpartner (base=female)	gender_interview- partner	1.009882	.1581385	0.06	0.950	.7429853	1.372654
Familiarity with TVET system	familiarity_TVET	1.311348	.1248334	2.85	0.004	1.088149	1.58033
	_cons	.0189374	.0066882	-11.23	0.000	.0094776	.0378392

	b	z	P>z	e^b	e^bStdX	SDofX
small	0.7947	4.995	0.000	2.214	1.443	0.462
medium	2.1482	6.539	0.000	8.569	1.376	0.149
age_business	-0.0056	-0.822	0.411	0.994	0.941	10.921
member_bus_ass	0.5689	2.029	0.042	1.766	1.120	0.200
registered	0.3998	1.773	0.076	1.492	1.176	0.406
exporting	0.2122	0.506	0.613	1.236	1.044	0.202
Mandalay	1.1732	6.026	0.000	3.232	1.557	0.377
Pathein	-0.8904	-1.430	0.153	0.411	0.839	0.197
Mawlamyine	0.4589	1.012	0.311	1.582	1.077	0.162
Bago	-0.3527	-0.988	0.323	0.703	0.909	0.271
Pyay	0.1788	0.567	0.571	1.196	1.043	0.236

Monywa		. == 0				
мопуwа	0.4411	1.528	0.127	1.554	1.127	0.270
Sagaing	0.2754	0.731	0.465	1.317	1.078	0.272
Kale	0.1106	0.178	0.859	1.117	1.016	0.139
Taunggyi	0.7954	2.675	0.007	2.215	1.208	0.237
Lashio	0.8472	2.676	0.007	2.333	1.223	0.237
branch_food	0.2934	1.073	0.283	1.341	1.100	0.325
branch_plastics	0.6207	1.626	0.104	1.860	1.116	0.177
branch_textiles	0.1519	0.462	0.644	1.164	1.047	0.300
branch_mineral	-0.2769	-0.630	0.528	0.758	0.938	0.231
branch_machinery	-0.0849	-0.297	0.766	0.919	0.973	0.328
branch_wood	0.2067	0.516	0.606	1.230	1.051	0.239
branch_wholesale	0.5525	1.601	0.109	1.738	1.124	0.211
branch_retail	0.4146	1.522	0.128	1.514	1.153	0.343
branch_repair	-0.0042	-0.012	0.991	0.996	0.999	0.283
branch_other_manu	1.0830	3.128	0.002	2.954	1.244	0.202
branch_other_serv	0.6854	1.955	0.051	1.985	1.138	0.188
manag_interviewpartner	0.4763	2.648	0.008	1.610	1.176	0.340
staff_interviewpartner	0.8404	2.074	0.038	2.317	1.107	0.121
relative_interviewpartner	-0.0439	-0.156	0.876	0.957	0.987	0.288
gender_interviewpartner	0.0098	0.063	0.950	1.010	1.005	0.479
familiarity_TVET	0.2711	2.847	0.004	1.311	1.186	0.630

## **Annex III: Questionnaire**

Legen	nd:		
Italic:	rlined:	_Please enter text or number answers into these boxes.  Explanations to interviewee  Instruction. Please do not these instructions aloud.  77= for "Not applicable"  99= for "Do not know"  88= for "refusal"	
Ao.	Business ID:	:	
A1.	Questionna	ire ID:	
A2.	Interviewer	ID:	
A3.	Name of en	terprise:	
A4.	Building/No	D.:	
A5.	Street:		
A6.	Landmark: _		
А7.	Ward:		
A8.	Township: _		
A9.		prise located within an industrial zone? > Skip to Ag.2	
A9.1.	If Yes, when	did the enterprise move in industrial zone? Year (YYYY)	
A9.2.		ne enterprise been in an industrial zone before?  > Skip to A12	
A10.	Name/No. o	of industrial zone:	
A12.	City:		

In order to be able to contact you again, we would appreciate if you would let us know your name, phone number and, if available, e-mail address:

A13.	Interviewee name:
A14.	Gender (M/F):
A15.	Position in the company  (e.g. Owner, Manager/Director, Human Resource Officer, Finance Officer, Supervisor)
A16.	Phone number 1:
A17.	Phone number 2:
A18.	E-mail address:

#### INTRODUCTION:

Good morning/afternoon/evening. I am working with **SRCS**, a survey and research company. Could I please speak to the person who most often represents the firm for official purposes, that is the individual who most often deals with banks or government agencies/institutions?

<u>If asked why, add:</u> **SRCS** has been contracted by the German Government who want to better understand the conditions for doing business in Myanmar by asking the opinion of the individuals who are the top firm managers and most often deal with banks or government agencies.

If person is unavailable, arrange a convenient time to come back:

Day (dd)	Month (mm)	Year (yyyy)	Hour (00 to 23)	Minutes (oo to 59)

#### When put through, continue.

Good [morning/afternoon/evening]. I am [insert your name] from SRCS. On behalf of the German Government we seek the opinions of business leaders like you with respect to the business and investment climate in Myanmar.

The information obtained here will be held in the strictest confidentiality. Neither your name nor the name of your business will be used in any document based on this survey.

May I conduct the interview with you?

If the respondent says no, terminate interview.

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1	L	١	۱	

#### **GENERAL QUESTIONS**

#### **Enterprise Data**

1. What is the legal status of your enterprise? *Please select only one*. Only continue if this is the main office/headquarter of the enterprise. If it is a subsidiary ask where the main office/headquarter is located and go there.

2 Government 6 Subsidiary of (name of enterprise): 3 Government and private individuals 4 Cooperative Address of head office Building:	1	Private individuals/sole proprietorship	5	Other
4 Cooperative Address of head office	2	Government	6	Subsidiary of (name of enterprise):
	3	Government and private individuals		
building.	4	Cooperative		
Street/no.: Land mark: City:				Street/no.: Land mark:

2.	In which year was this bu	siness started?
		(YYYY)

3. What is the sex of the owner?

1	Male
2	Female

4. What is the age of the owner?

	(YY)
--	------

5. Which sector does your enterprise fit into?

1	Manufacturing
2	Services >>Skip to question 7

1	Food, beverages or tobacco/cheroot	5	Textiles and/or shoes	9	Chemicals
2	Plastics and/or rubber	6	Mineral products	10	Wood, straw, weaving, and/or furniture
3	Fabricate metal products	7	Machinery & equipment	11	Computers and/or electronics
4	Paper	8	Vehicles or vehicle parts	12	Petroleum products
13	Other, please specify:				

<sup>&</sup>gt;>Skip to question 8

7. In which sector/branch is your enterprise most active? <u>Enumerator: Do not read aloud the answers.</u> Select only one answer.

1	Construction	7	Legal services	13	Photography services
2	Restaurant	8	Consulting services	14	Real estate services
3	Accommodation services	9	Security services	15	Cleaning services
4	Wholesale	10	Health services	16	Repair
5	Retail	11	Printing/secretarial services		
6	Transportation (land, water, air)	12	Cosmetic services		
17	Other, please specify:				

8. What are your main marketing channels?

Channel	1)	2) Share in %
a. Own shop(s)	1 Yes o No	
b. Wholesaler(s) in the same area	1 Yes o No	
c. Retail shop(s) in the same area	1 Yes o No	
d. Sale agencies	1 Yes o No	
e. Traders from other regions	1 Yes o No	
f. Foreign export	1 Yes	
	o No >>Skip to g	
f1. Export to the European Union	1 Yes o No	

f2. Export to countries other than European Union	1 Yes o No	
g. Other, please specify:	1 Yes o No	
		100 %

9. Is this enterprise member of a business association or chamber of commerce?

1	Yes
О	No <u>&gt;&gt;Skip to question 12</u>

10. Member of which business association or chamber of commerce? *Multiple answers possible*. Enumerator: Do not read aloud the answers.

1	UMFCCI	5	Myanmar Fruit and Vegetable Producer and Exporter Association
2	Myanmar Women Entrepreneurs Association	6	Myanmar Young Entrepreneurs Association
3	Myanmar Garment Manufacturers Association	7	Other (specify):
4	Union of Myanmar Travel Association		

11. What services/privileges does this enterprise get as a member of this association(s)? Multiple answers are possible.

1	Publicity or advertising	6	Networking
2	Business skills training	7	Events, seminars
3	Support with taxes, regulations, and registration	8	Establish credibility
4	Information on markets, trends, clients	9	Other (specify):
5	Legal advice		

12. Is your enterprise registered with any government authority?

1	Yes
0	No <u>&gt;&gt;Skip to question 14</u>

13. Where are you registered? Multiple answers possible.

1	Directorate of Investment and Company Administration (DICA)	2	Directorate of Industrial Supervision and Inspection (DISI)
3	City Development Committee/Department of Development Affairs		
4	Other: specify		

#### **Staff Composition**

14. How many employees are currently working in your enterprise? Enumerator: Please see definition for permanent employee in survey manual.

	1) Male	2) Female	3) Total
a. Permanent full time employees			
b. Permanent part time employees			
c. Non-permanent employees (e.g. employees on call, temporary or seasonal workers)			

15. Please specify the number of **permanent** employees according to their function in your enterprise:

	1) Male	2) Female	3) Total
a. Management staff			
b. Professionals and other skilled workers			
c. Semi-skilled and unskilled workers			

16. How do you think the number of your staff will change in the next 12 months?

The number of will	decrease	stay the same	Increase
a. Management staff	1	2	3
b. Professionals and other skilled workers	1	2	3
c. Semi-skilled and unskilled workers	1	2	3

## **QUALIFICATION NEEDS**

Now we move onto the qualifications and skills of your staff.

17. Are you familiar with the technical vocational education and training (TVET) system? Please rate from 1 = "I do not know about" the TVET system" to 4 = "I know the TVET system well".

<ul> <li>1 – Don't know the TVET system</li> <li>2 – Know of the TVET system</li> <li>3 – Somewhat familiar with the TVET</li> <li>4 – Very familiar with the TVET syst</li> </ul>			
1	2	3	4

18. Do you know about "skill standards"?

1	Yes
0	No

19. *In question 15 you told us that you have*: Copy response from question 15 in here.

	Total number
Management staff	
Professionals and other skilled workers	
Semi-skilled and unskilled workers	

Please estimate how many of those have:

	1) University or Technological University	2) Technical school (GTI, GTHS)	3) Training center (STC, ITC)	4) Other: e.g. private	5) Without profes- sional certificate/ formal vocational education
a. Management staff					
b. Professionals and other skilled workers					
c. Semi-skilled and unskilled workers					

20. How do you rate your **professionals and other skilled workers** (without managerial function) with regard to ...? Please rate on a scale from 1 = "not qualified" to 4 = "very qualified"

	1 – not qualified 2 – somewhat unqualified 3 – somewhat qualified 4 – very qualified			
a. their theoretical know-how	1	2	3	4
b. their practical professional skills	1	2	3	4
c. their work attitude	1	2	3	4
d. their communication and social skills	1	2	3	4

21. How do you rate your **semi-skilled workers** with regard to ...? *Please rate on a scale from 1 = "not qualified" to 4 = "very* qualified"

	1 – not qualified 2 – rather unqualified 3 – rather qualified 4 – very qualified			
a. their theoretical know-how	1	2	3	4
b. their practical professional skills	1	2	3	4
c. their work attitude	1	2	3	4
d. their communication and social skills	1	2	3	4

22. Has your enterprise ever collaborated with a vocational training institution?

1	Yes
0	No >>Skip to question 26

## 23. We have collaborated with

1) Name of training institute	2) Since (YYYY)

24. Could you explain in which way you have cooperated? *Please describe shortly the main cooperation activities. Multiple answers possible.* Enumerator: Do not read aloud the answers.

1	We provide practical sessions for trainees within own enterprise.	3	We engage in development of curriculum.
2	We accept interns.		
4	Other, specify:		

25. How do you rate the cooperation with the training institution in general? *Please rate from* 1 = "not satisfactory at all" to 4 = "very satisfactory".

<ul><li>1 – Not satisfactory</li><li>2 – Somewhat unsatisfactory</li><li>3 – Quite satisfactory</li><li>4 – Very satisfactory</li></ul>			
1	2	3	4

26. Do you provide in-house training for your staff?

1	Yes, we provide in-house training.
0	No.

#### Recruiting

27. Where do you get your staff from? Please state which sources are relevant. Mark relevant sources with a checkmark "✓".

	1) Employment agency	2) Training institution	3) Recruit from other enterprises	4) Advertise- ment (e.g. in newspapers)	5) Personal acquaintances and referrals	6) Unsolicited applications	7) Other sources: specify
a. Management staff							
b. Professionals and other skilled workers							
c. Semi-skilled and unskilled workers							

28. How difficult is it for you to find adequately qualified staff for these positions? Please rate on a scale from 1 = "very easy" to 4 = "very difficult".

	1 – Very eas 2 – Quite e 3 – Quite d 4 – Very dif	ifficult		
a. Management staff	1	2	3	4
b. Professionals and other skilled workers	1	2	3	4
c. Semi-skilled and unskilled workers	1	2	3	4

29. How do you rate the qualification of graduates from a **University or Technical University** with regard to ...? Please rate on a scale from 1 = "not qualified" to 4 = "very qualified".

1 – Not qualified 2 – Somewhat unqualified 3 – Rather qualified 4 – Very qualified				
a. their theoretical know-how	1	2	3	4
b. their practical professional skills	1	2	3	4
c. their work attitude	1	2	3	4
d. their communication and social skills	1	2	3	4

30. How do you rate the qualification of graduates from a **Technical School (GTI, GTHS)** with regard to ...? Please rate on a scale from 1 = "not qualified" to 4 = "very qualified".

1 – Not qualified 2 – Somewhat unqualified 3 – Rather qualified 4 – Very qualified		ed		
a. their theoretical know-how	1	2	3	4
b. their practical professional skills	1	2	3	4
c. their work attitude	1	2	3	4
d. their communication and social skills	1	2	3	4

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31. How do you rate the qualification of graduates from a **Training Center (STC, ITC)** with regard to ...? *Please rate on a scale from* 1 = "not qualified" to 4 = "very qualified".

1 – Not qualified 2 – Somewhat unqualified 3 – Rather qualified 4 – Very qualified		ed		
a. their theoretical know-how	1	2	3	4
b. their practical professional skills	1	2	3	4
c. their work attitude	1	2	3	4
d. their communication and social skills	1	2	3	4

#### C.,

## **FINANCIAL NEEDS AND SERVICES**

Now we move onto questions about your financial needs and services. As a reminder, all information will be held in strictest confidence.

#### **Financial Needs**

32. Currently, does your enterprise have an outstanding loan? If there are multiple loans, tell us about the largest loan.

	Yes	
,	No >>Skip to question 2	44
hat i	is the size of this (la	rgest) loan?
		Kyat
hat i	interest rate do you	the enterprise pay for this (largest) loan?
		%
ŀ	nat i	No <u>&gt;&gt;Skip to question a</u> nat is the size of this (lai

Enumerator:	Indicate	whether	interest	rate is	monthly	or vearly.

1	Monthly
2	Yearly

35. Was this (largest) loan obtained as a private person or as an enterprise?

1	Private person
2	Enterprise

36. Did you/the enterprise get the amount of loan that you asked for?

1	Yes
0	No, the amount was smaller.

37. Did you or the enterprise have to provide collateral for this (largest) loan?

1	Yes, I/the enterprise had to provide collateral.
0	No I/the enterprise did not have to provide collateral. >>Skip to question 39

38. What kind of collateral did you or your enterprise have to provide for (this) largest loan? Multiple answers possible.

1	Land
2	Building
3	Vehicle
4	Machinery or equipment
5	Personal assets
6	Other:

39. Did the lending institution/person ask for any documentation for this (largest) loan? Multiple answers possible.

1	Business plan
2	Purpose of the loan
3	Other: specify

## 40. What is this (largest) loan's maturity?

1	less than a year
2	between one and three years
3	more than three years

## 41. What is the main purpose of this (largest) loan? Please indicate only the most important purpose. Enumerator: Show card.

1	Investments for expansion of business
2	Investments into new technologies and/or product development
3	As working capital (e.g. payment for supplies, salaries)
4	Investments in buildings/land
5	Investments in equipment (machinery, vehicles etc.)
6	Financing of trade activities
7	Investments in human resources (recruitment, training etc.)
8	Repayment of other loans
9	Other:

## 42. Where did you/the enterprise obtain this (largest) loan? Please indicate only the most important source. Enumerator: Show card.

1	Borrowing from own family, relatives and/or friends
2	Commercial bank
	Please indicate which bank: a.
3	Borrowing from Cooperative

4	Borrowing from micro-finance institution
5	Borrowing from money lenders
6	Other enterprises
7	Customers (loans and/or advance payments)
8	Subsidized loan from a government agency, e.g. SMIDB, MARDB
9	Other:

43. What are the main reasons for your/the enterprise's choice? Please select the most important reason.

1	Best interest rates
2	Personal/mutual trust, long term relationship
3	Only available source
4	Most convenient source (location, accessibility)
5	Fastest available source (approval, outpayment)
6	Other:

44. Does your enterprise have further funding needs?

1	Yes
0	No >>Skip to question 50

45. How much funding do you/the enterprise still need?

46. Do you/the enterprise intend to satisfy these additional funding needs?

1	Yes
0	No >>Skip to question 50

47. How do you/the enterprise intend to satisfy these additional funding needs? *Please select only the most important source*. Enumerator: Show card.

1	Enterprise and private savings (retained earnings)
2	Borrowing from family, relatives and/or friends
3	Commercial bank
	Please indicate which bank: a.
4	Borrowing from Cooperative
5	Borrowing from Micro-finance institution
6	Borrowing from money lenders
7	Other enterprises
8	Customers (loans and/or advance payments)
9	Contributions from shareholders (stock/equity)
10	Subsidized loan from a government agency, e.g. SMIDB, MARDB
11	Other:

## 48. What is the preferred maturity of the loan?

1	less than a year
2	between one and three years
3	more than three years

49. For what do you/the enterprise need the additional funding? Multiple answers possible. Enumerator: Show card.

1	Investments for expansion of business
2	Investments into new technologies and/or product development
3	As working capital (e.g. payment for supplies, salaries)
4	Investments in buildings/land
5	Investments in equipment (machinery, vehicles etc.)
6	Financing of trade activities
7	Investments in human resources (recruitment, training etc.)
8	Repayment of other loans
9	Other:

50. To what extend does each of the following statements best describe the present situation to obtain loans? Please rate on a scale from 1 = "I strongly disagree" to 4 = "I strongly agree".

	<ul> <li>1 - I strongly disagree</li> <li>2 - I somewhat disagree</li> <li>3 - I somewhat agree</li> <li>4 - I strongly agree</li> </ul>			
a. Collateral/guarantee requirements are too stringent.	1	2	3	4
b. The interest rate is too high.	1	2	3	4
c. The term of the loan is too short.	1	2	3	4
d. The amount of the loan is too small relative to financing needs.	1	2	3	4
e. The procedures of loan applications are too complicated and/or time consuming.	1	2	3	4
f. We are not interested in borrowing money from banks.	1	2	3	4

#### **Financial Services**

51. Does your enterprise have a main/'house bank' (i.e. a bank used for day to day transactions)?

1	Yes, my enterprise has a main/'house bank' at:	[Insert name(s) of bank]
О	No >>Skip to question 58	

52. Why did you choose this particular bank? Multiple answers possible. Enumerator: Do not read aloud the answers.

1	Recommendation from friends, family members
2	Advertisement
3	Banking conditions
4	Accessibility (vicinity, opening hours etc.)
5	Service portfolio
6	Other:
6	Borrowing from money lenders

53. How would you rate your bank in terms of the following? *Please rate on a scale from 1 = "very incompetent at all" to 4 = "very competent"*.

	<ul><li>1 - Very incompetent</li><li>2 - Quite incompetent</li><li>3 - Quite competent</li><li>4 - Very competent</li></ul>			
a. Customer service (i.e. availability, responsiveness, timeliness etc.)	1	2	3	4
b. Technical know-how (i.e. knowledge about adequate financial products etc.)	1	2	3	4
c. Knowledge about rules and regulations	1	2	3	4
d. Decision competencies of your agent	1	2	3	4

54. Which financial services provided by your bank other than loans do you use and how do you rate them in general? *Please rate* on a scale from 1 = "not adequate" to 4 = "adequate".

Do you use?		<ul><li>1 – Not adequate</li><li>2 – Somewhat inadequate</li><li>3 – Rather adequate</li><li>4 – Adequate</li></ul>			
a. Current account	1 Yes o No	1	2	3	4
b. Short-term savings account	1 Yes o No	1	2	3	4
c. Fixed term savings account	1 Yes o No	1	2	3	4
d. Mortgage	1 Yes o No	1	2	3	4
e. Leasing	1 Yes o No	1	2	3	4
f. Other:	1 Yes o No	1	2	3	4

Enumerator: If all items are answered with "Yes", >>skip to Question 58.

55. Regarding those financial services you do **not** use: Why do you not use it? Only ask this question for items flagged `not used' in question 54.

	I don't need it	poor conditions	bank does not offer it	do not know it	Other (specify)
a. Current account	1	2	3	4	
b. Short-term savings account	1	2	3	4	
c. Fixed term savings account	1	2	3	4	
d. Mortgage	1	2	3	4	

e. Leasing	1	2	3	4	
g. Other:	1	2	3	4	

56. Regarding those financial services you do not use: Would you use them in the future, if the bank offered them and the conditions were appropriate? Only ask this question for items flagged `not used' in question 54.

	Yes	maybe	No	do not know it
a. Current account	1	2	3	4
b. w savings account	1	2	3	4
c. Fixed term savings account	1	2	3	4
d. Mortgages	1	2	3	4
e. Leasing	1	2	3	4
h. Other:	1	2	3	4

57. How do you rate the range of financial services of your bank? *Please rate on a scale from 1 = "not comprehensive" to 4 = "comprehensive"*.

<ul> <li>1 - Not comprehensive</li> <li>2 - Somewhat incomprehensive</li> <li>3 - Rather comprehensive</li> <li>4 - Comprehensive</li> </ul>			
1	2	3	4

58. Why does your enterprise not have a main/house bank? *Multiple answers possible*. Enumerator: Only ask this question if answer to Question 51 was "No". Do not read aloud the answers.

1	I was never interested
2	I don't need the services of a bank, I can satisfy the financial needs of my enterprise with other sources
3	Lacking accessibility (vicinity, opening hours etc.)
4	Banks conditions cannot compete with the conditions of my other financial sources
5	Banks do not understand my financial needs, are not able to satisfy them
6	Banking procedures are too complicated/bureaucratic
7	I don't trust banks
8	Other:

#### **BUSINESS CONDITIONS**

Now we move onto questions of the business and regulatory environment.

#### **Market Conditions**

First, I will ask you about market conditions for businesses.

59. How do you rate the market conditions for businesses (e.g. how difficult it is to obtain raw materials, number of competitors, etc.)? *Please rate on a scale from 1 = "unfavorable" to 4 = "favorable"*.

<ul> <li>1 – Unfavorable</li> <li>2 – Somewhat unfavorable</li> <li>3 – Somewhat favorable</li> <li>4 – Favorable</li> </ul>			
1	2	3	4

60. How have the market conditions for businesses changed in the last three years?

Deteriorated	stayed the same	Improved
1	2	3

61. How do you expect the market conditions for businesses will change in the next three years?

Will deteriorate	will stay the same	will improve
1	2	3

62. What are the main reasons for your future expectations about the market conditions for businesses? *Multiple answers possible*. Enumerator: Do not read aloud the answers.

1	Tax increases
2	Frequent changes in government policies and regulations
3	ASEAN/Liberalization of the economy

4	Political stability
5	Support by international community
6	Privatisation
7	Improvement of infrastructure
8	Improved access to finance
9	Other:

63. To which degree do the following issues currently affect the economic performance of your enterprise? *Please rate on a scale from 1 = "no obstacle" to 4 = "major obstacle"*.

	2 – Minor o 3 – Modera	<ul><li>1 - No obstacle</li><li>2 - Minor obstacle</li><li>3 - Moderate obstacle</li><li>4 - Major obstacle</li></ul>		
a. Telecommunication	1	2	3	4
b. Electricity	1	2	3	4
c. Transport	1	2	3	4
d. Lack of skilled workers	1	2	3	4
e. Supply of raw materials	1	2	3	4
f. High prices of raw materials	1	2	3	4
g. High labor turnover	1	2	3	4
h. Corruption	1	2	3	4
i. Political instability	1	2	3	4
j. Regulations regarding hygiene of food or security of other products	1	2	3	4

# **Government Regulations**

Now, I will ask you about government regulations that affect your business.

64. How would you rate the role of government regulations for your enterprise? *Please rate on a scale from 1 = "obstructive" to 4 = "supportive"*.

<ul><li>1 – Obstructive</li><li>2 – Somewhat obstructive</li><li>3 – Somewhat supportive</li><li>4 – Supportive</li></ul>			
1	2	3	4

65.	. Are there any particular laws and/or regulations which are an obstacle in conducting your daily business? Which one(s)? <u>If renough space use backside of questionnaire.</u>	<u>not</u>

66. How did government regulations change in the last three years?

Deteriorated	stayed the same	Improved
1	2	3

67. How do you expect government regulations to change in the next three years?

Will deteriorate	will stay the same	will improve
1	2	3

# **BUSINESS CONDITIONS**

68. What is your experience with business development services?

? the counsel service/did		2) Did you receive the counseling service/did	3) What was the reason for not using the service Multiple answers possible. Enumerator: Show card.		4) How much did you benefit from the service?											
		you attend the training on?			2 - Sor 3 - Mo	derate	nefit t benefi ly bene penefitt	fitted								
Multiple answers	1 Yes	1 Yes >> Skip to last	1	The trainer does not have any expertise for me	1	2	3	4								
possible. Enumerator: Show card. o No >> Skip to b											2	Lack of trust; the trainer might tell competitors				
	·	o No									3	Service is not relevant to my current conditions				
				4	High transaction costs during application											
										5	Too expensive					
			6	I possess this knowledge already												
		7	Other (specify):													
			>>Sl	cip to b												

1) Do you know?		2) Did you receive the counseling service/did	the counseling service/did Multiple answers possible. Enumerator: Show card.				did yo the ser					
		you attend the training on?			<ul><li>1 - Did not benefit</li><li>2 - Somewhat benefitted</li><li>3 - Moderately benefitted</li><li>4 - Strongly benefitted</li></ul>							
b. Business Plan	1 Yes		1	The trainer does not have any expertise for me	1	2	3	4				
o No » Skip to c	column	2	Lack of trust; the trainer might tell competitors									
	o No	o No		O NO	O NO	O NO	3	Service is not relevant to my current conditions				
				High transaction costs during application								
			5	Too expensive								
			6	I possess this knowledge already								
			7	Other (specify):								
			>>SI	kip to c								

1) Do you know?		2) Did you receive the counseling service/did	ce/did Multiple answers possible. Enumerator: Show card.				n did yo the ser			
		you attend the training on?			2 - Soi 3 - Mo	derate	nefit t benefi ly bene penefitt	fitted		
c. Start-up support	1 Yes	1 Yes >> Skip to last	1	The trainer does not have any expertise for me	1	2	3	4		
	o No >> Skip to d	o No	2	Lack of trust; the trainer might tell competitors						
			o No	3	Service is not relevant to my current conditions					
						4	High transaction costs during application			
			5	Too expensive						
			6	I possess this knowledge already						
				Other (specify):						
			>>SI	kip to d						

1) Do you know?		2) Did you receive the counseling service/did				How much did you nefit from the service?			
		you attend the training on?			1 - Did not benefit 2 - Somewhat benefitted 3 - Moderately benefitted 4 - Strongly benefitted				
d. Accounting	1 Yes o No >> Skip to e	1 Yes >> Skip to last column o No	1	The trainer does not have any expertise for me	1	2	3	4	
services			2	Lack of trust; the trainer might tell competitors					
			o No	3	Service is not relevant to my current conditions				
			4	High transaction costs during application					
		5	5	Too expensive					
			6		6	I possess this knowledge already			
		7	Other (specify):						
			>>SI	rip to d					

1) Do you know?	2) Did you receive the counseling service/did			3) What was the reason for not using the service  Multiple answers possible. Enumerator: Show card.		4) How much did you benefit from the service?			
		you attend the training on?			1 - Did not benefit 2 - Somewhat benefitted 3 - Moderately benefitted 4 - Strongly benefitted				
e. Quality	1 Yes	column o No	1	The trainer does not have any expertise for me	1	2	3	4	
management	o No >> Skip to f		2	2	Lack of trust; the trainer might tell competitors				
			3	Service is not relevant to my current conditions	ns				
					4	High transaction costs during application			
			5	Too expensive					
			6	I possess this knowledge already					
			7	Other (specify):					
		>>SI	kip to e						

1) Do you know?		2) Did you receive the counseling							did yo	
		service/did you attend the training on?			1 - Did not benefit 2 - Somewhat benefitted 3 - Moderately benefitted 4 - Strongly benefitted					
f. Management	o No >> Skip to	1 Yes >> Skip to last column o No	1	The trainer does not have any expertise for me	1	2	3	4		
training			2	Lack of trust; the trainer might tell competitors						
			3	Service is not relevant to my current conditions						
			4	High transaction costs during application						
			5	Too expensive						
			6	I possess this knowledge already						
		7	Other (specify):							
		>> S	kip to next question							

69. Which business development services would be beneficial for your enterprise that, to your knowledge, are either inadequately provided or do not exist? Multiple answers possible. Enumerator: Show card. Provide a short explanation of each business development service. Refer to the Survey Manual.

1	Entrepreneurship training programme
2	Business Plan development
3	Start-up support
4	Accounting services
5	Quality management
6	Management training
7	Other:

# F.

#### **ENTERPRISE PERFORMANCE**

We now move onto question on your business performance. As a reminder, all information will be held to the strictest confidence.

70. In what range did your enterprise's monthly revenue – in a **typical** month during the last 12 months – fall into? Enumerator: Show card.

1	less than 100,000 Kyat
2	between 100,000 and 250,000 Kyat
3	between 250,000 and 500,000 Kyat
4	between 500,000 and 1,000,000 Kyat
5	between 1,000,000 and 5,000,000 Kyat
6	between 5,000,000 and 25,000,000 Kyat
7	between 25,000,000 and 100,000,000 Kyat
8	more than 100,000,000 Kyat

71. What are your expectations regarding your monthly revenue in a year from now?

Will decrease	will stay the same	will increase
1	2	3

72.	Does your firm have any internationally recognized certification qualification (e.g. ISO/HAACP)?						
	1	Yes					
	0	No >>Skip to question 74					
73. '	Which	n international certification qualification(s)? Multiple answers are possible.					
	a.						
	b.						
	с.						
74.	Is ther	E TAKING  re anything you would like to add which could be relevant for our survey? If not enough space use backside of ionnaire.					
	Thank Do yo	ING REMARKS  you for the time and patience. We once again assure absolute confidentiality and anonymity of all given information. u have any questions?  ly take leave.					

#### Correlation source of loan and Table 33: Multiple regression results and effect Table 47: sizes with rating of unskilled workers different factors 134 as dependent variable – manufacturing Correlation between 0% interest and Table 48: loan source and size of loan sector 106 134 Correlation of size additional funding Table 34: Multiple regression results and effect Table 49: sizes with rating of unskilled workers needs with economic outlook 138 as dependent variable - service Table 50: Sources of existing and additional sector funding, in percent 109 139 Table 35: Correlation between membership in Table 51: Multiple regression using 'house bank' business association and collaboration as dependent variable 140 with different training institutions, Multiple regression with opinion on Table 52: **OECD Business Survey** 111 competency of 'house bank' as Table 36: Multiple regression results and effect dependent variable 142 sizes with rating of university graduates Table 53: Multiple regression with rating of range as independent variable of services of 'house bank' as dependent 112 Table 37: Multiple regression results and effect variable 144 Multiple regression with rating of sizes with rating of graduates of Table 54: technical schools as independent current accounts as dependent variable variable 146 114 Table 38: Multiple regression results and effect Multiple regression using rating of Table 55: sizes with rating of graduates of short-term savings account as training institutions as independent dependent variable 148 variable Multiple regression using rating of 117 Table 56: Table 39: Multiple regression results and effect fixed term savings account as sizes with difficulty in finding managedependent variable 150 ment staff as dependent variable Table 57: Multiple regression using mortgages 119 Table 40: Multiple regression results and effect as dependent variable 153 sizes with difficulty in finding skilled Table 58: Multiple regression using leasing as workers as dependent variable dependent variable 122 155 Table 41: Multiple regression results and effect Table 59: Multiple regression results and effect sizes with difficulty in finding unskilled sizes for rating of present market workers as dependent variable conditions as dependent variable 160 124 Correlation of firm size and purpose Table 42: Table 6o: Multiple regression results and effect of loan taken sizes for perceived improvement in 128 Table 43: Correlation source of loan with firm economic conditions in past three years size, city and branch as dependent variable 128 162 Table 44: Multiple regression with source of Table 61: Multiple regression results and effect loan=formal as dependent variable 128 sizes for expected improvement in Table 45: Multiple regression with source of economic conditions in next three years loan=commercial bank as dependent as dependent variable 164 variable 131 Table 46: Correlation size of outstanding loan and its purpose 133

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