

A SURVEY ON SMEs' TRANSACTION COST

Narantuya Chuluunbat¹,
Gansuld Daashinkhuu²,
Manlaibaatar Zagdbazar³

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Abstract

This paper reports the results of a survey of SMEs regarding non-market transaction costs they faced through all of their business operational stages and aims to clarify priority factors required to improve the business environment. Non-market transaction costs include cost of time spent by responsible staff for dealing with government regulations, cost of searching for advice and information, unexpected cost of delay in service provision by state agencies, informal payment (gift and bribe) etc., We interviewed 1541 SMEs and found that average monetary value of the transaction cost is MNT 9 million (~USD4500) per year which is around 4.4% of annual turnover of SMEs. The results also indicate that the combined share of transaction costs of tax compliance and collecting custom documents is 73 percent in total transaction cost, and micro businesses bear considerably more burden of transaction cost than others.

Key words: SMEs, transaction costs, enterprise survey, Mongolia

JEL classification: D02, D23, E02, G28, G38, H54, L53, M48

¹ Economics Department, National University of Mongolia, Building #5, 6th floor, United Nations Street, Sukhbaatar district, Ulaanbaatar, Mongolia

Email: cnarantuya28@yahoo.com

² Economics Department, University of Finance and Economics, 13381, Peace Avenue-5, Bayanzurkh district, Ulaanbaatar, Mongolia

Email: gansuld.d@ufe.mn

³ Economic Research Institute, Suite 503, Building #5, United Nations Street, Sukhbaatar district, Ulaanbaatar, Mongolia

Email: manlaibaatar@eri.mn

LIST OF ABBREVIATIONS

GASR	– General Authority for State Registration
GDP	– Gross Domestic Product
MNT	– Mongolian currency, Tugrug
NSO	– National Statistics Office
SME	– Small and Medium Enterprises
VAT	– Value added tax

INTRODUCTION

Small and medium-sized enterprises and micro businesses play a crucial role in supporting economic growth, providing jobs for the growing population and reducing poverty around the world as well as in Mongolia. (UNDP, 1999; World Bank, 2012) One of the biggest constraints in the SMEs sector development in Mongolia has been access to finance. However, SMEs' access to finance considerably improved as a result of recent policy measures. According to the Enterprise Survey of 2009, 27.2 percent of medium sized enterprises and 32.8 percent of small sized enterprises perceived access to finance to be the most difficult problem for them, while in 2013 these percentages went down to 13.0 and 24.8, respectively (World Bank, 2013).

In spite of some recent improvements, businesses in Mongolia are still facing problems related to government institutions. In the Doing Business survey (World Bank, 2013), medium sized businesses named political instability (18.1%) and corruption (14.8%) as the most difficult constraints while small sized businesses named tax rate (16.5%) and dealing with permits and licenses (13.7%). These problems are highlighted in other local and international studies too. In a survey of Mongolian National Chamber of Commerce and Industries (2004), more than 30 percent of small businesses identified government bureaucracy and burden of inspections as the most difficult problems. According to the Bank of Mongolia (2011), half of SMEs conceded that the recent economic boom had no, or even negative effect on their businesses and social phenomena such as corruption and political instability, and business environment such as public service and infrastructure development created substantial bottlenecks. Similarly, in the Competitiveness Report by the World Economic Forum (2014), government bureaucracy, poor management of exchange rate, deficit of educated labor force, inflation, political instability, and corruption are among the most difficult problems for running a business in Mongolia. In the Doing Business survey, Mongolia stands at 107 or lower in the ranking of 190 countries in terms of connecting to electricity, getting construction permits, documenting foreign trade, and closing a business (World Bank Group, 2014)

Under these circumstances, it is crucial to formulate an effective strategy to create an enabling environment for SMEs and identify mechanisms that help to promote the sector development. So, there is a need to study the SME sector in more detail. According to a World Bank survey, small and new businesses create more jobs than other businesses (Ayyagari, Demirguc-Kunt, & Maksimovic, 2011). In Mongolia, however, there is no detailed study on what kind of SMEs create more jobs and grow faster, how SMEs are affected by seasonal fluctuations, how different is their business life cycle, whether there is a link between business productivity growth and its owner's gender, etc.

Moreover, it is very important to estimate transaction cost of doing business formally by using micro data. Transaction costs are private sector costs of complying with government regulations and dealing with government agencies and a substantial amount of resources is spent for these purposes. For instance, to secure a government contract, Mongolian private companies give 1.3 percent of contract value as a gift, lose 0.7 percent of their sales due to electrical outages, and spend 20 percent of senior management time for dealing with the requirements of government regulations (World Bank, 2013).

The aim of the survey is to study in detail transaction costs incurred by the SME sector. First, we review theories about institutional environment of SME. In chapter 2, we discuss the methodology of the survey and measurement methods of transaction costs. Next chapters present main survey findings. In this survey, we interviewed 1541 SMEs and estimated their non-marketed transaction costs by each stage of business activity.

1. INSTITUTIONAL ENVIRONMENT OF SME SECTOR AND ITS IMPORTANCE

1.1. Institutional economics

The importance of business enabling environment is one of the main implications of the New Institutional Economics and transaction cost economics. Nobel laureate D. North (1990) defines institutions as humanly devised constraints that structure social, political and economic relations among people. These “rules of game” create incentives for developing businesses. Institutions are classified as formal or informal by their type of enforcement. Formal institutions are usually legal, written rules that have mechanisms to punish those who violate the rules. In contrast, informal institutions are usually unwritten norms or shared rules that push people to follow the norm by informal ways such as peer pressure or exclusion.

When an economy is less developed, costs to process information, protect property rights and enforce contracts in the economy tend to be reduced by informal institutions such as trust and social networks among residents from the same locality, school friends, or acquaintances. However, informal institutions are not sufficient when business activities get narrower and specialized. As the economy grows, the number and type of market players increase, transactions become more complex and formal institutions are needed. Formal and informal institutions complement each other and can together further reduce transactions costs (C. Narantuya et.al, 2009). In a low trust society, absence of strong institutions lead to higher transaction costs and lower possibility for starting or growing businesses. Especially, due to the lack of funding, SMEs prefer trust based decision making instead of legal based actions. However, if there are only few people who can be trusted, transaction costs tend to increase.

As formal institutions, clearly defined property rights should protect assets and profits of SMEs from appropriation by the state while contract enforcement activities should protect assets and profits of SMEs from appropriation by other citizens (Acemoglu & Johnson, 2005). Moreover, limiting corruption, reducing high tax rates, adopting international standards and following those standards at all levels prevent various types of appropriation of assets and profits of SMEs.

1.2. Evaluating business environment

The global competitiveness of the SMEs mainly depends on their entrepreneurship skills, but business environment is important to the competition. Generally, the following business environment factors influence the SME sector in any country:

- ✓ Macro and microeconomic policies
- ✓ Factor endowment
- ✓ Entrepreneurial culture
- ✓ Innovation and technology
- ✓ Regulatory framework
- ✓ Infrastructure

International organizations pay attention and study business environment of countries on a regular basis. These studies include Doing Business by the World Bank, the Economic Freedom Index by the Heritage Foundation of Fraser Institute, World Competitiveness Index by the World Economic Forum, and Corruption Perception Index by Transparency International, among others.

Doing Business, an annual survey by the World Bank, is considered one of the most comprehensive surveys of economic and business environment in countries around the world (183 countries in its latest survey). The survey assesses how easy to do business in a country by using the following 10 groups of indicators:

- ✓ Starting a business
- ✓ Dealing with construction permits
- ✓ Getting electricity
- ✓ Registering properties
- ✓ Getting loan
- ✓ Protecting investors
- ✓ Paying taxes
- ✓ Trading across borders
- ✓ Enforcing contracts
- ✓ Resolving insolvency

The survey is important in identifying strengths and weaknesses of individual economies. In *Doing Business 2014* (World Bank, 2014), Mongolia ranked 72th among all countries, moving down by 2 places from the previous year ranking. The main contributing factors were getting harder to start a business (down 4 places from the previous year) and resolve insolvency issues (down 3 places from previous year).

The Economic Freedom Index by the Fraser Institute, being estimated for more than 20 years, currently covers 143 countries and measures economic freedom by 42 indicators in the following 5 areas:

- ✓ Size of government
- ✓ Legal structure and security of property rights
- ✓ Access to sound money
- ✓ Freedom to trade internationally
- ✓ Regulation of credit, labor and business

According to the 2014 report by the Fraser Institute, Mongolia received 6.98 points (based on 2012 data) and ranked 77th among 154 countries, 11 places lower compared to the last evaluation. This is because of the worsening of relative situation in all 5 areas of economic freedom areas (Gwartney, Lawson, & Norton, 2014).

Every year, the World Economic Forum calculates World Competitiveness Index. This index is based on the following 12 economic competitiveness indicators:

- ✓ Institution
- ✓ Infrastructure
- ✓ Macroeconomic environment
- ✓ Health and primary education
- ✓ Higher education and vocational training
- ✓ Efficiency in markets of goods and services
- ✓ Labor market efficiency
- ✓ Financial market development
- ✓ Technological readiness
- ✓ Market size
- ✓ Business sophistication
- ✓ Innovation

These indicators are interrelated and influenced by each other. In the “World Competitiveness Report 2014-2015” (Schwab & Sala-i-Martin, 2014), Mongolia has a score of 3.83 and ranks 98th places out of 144 countries. The result is a slight improvement from the previous report (3.7 points and 107th place in the 2013-2014 report).

1.3. Policies for SME enabling environment

Many studies have proven the importance of SMEs in the economic development of poor and advanced countries alike. The aim of the SME sector development can be defined as follows:

- ✓ Creating new job
- ✓ Improving performance and competitiveness of SMEs
- ✓ Increasing total contribution to and participation in the economy

To reach these objectives, small businesses should overcome many obstacles and constraints such as poor business environment (bureaucracy, high tax burden, weak property rights), lack of basic infrastructure, less access to finance, low technological capacities, and heavy competitive pressure from domestic and global markets (Abe, Troilo, Juneja, & Narain, 2012).

Some problems related to acquiring capital, management skills, technical capacities and market knowledge are mostly under the control of SME owners. For instance, if there is an internal problem such as lack of management skills and marketing intelligence, or inadequate access to raw materials, business owners can solve it by themselves. However, there are important areas where the government should provide support for SMEs in less developed countries. Accordingly, international organizations and donor countries now pay attention to the following areas:

- ✓ Enabling business environment
- ✓ Entrepreneurship development
- ✓ Financing business
- ✓ Fostering business development services
- ✓ Technology transfer and adaptation
- ✓ Market access including trade promotion

Government policies and supporting infrastructures are crucial to create enabling environment for SMEs (World Bank, 2011). Transparent and less costly regulatory frameworks facilitate enterprise establishment, operation, access to human resource and markets, or even the exit of failing firms. Enabling environment includes policies, government decisions, rules, public infrastructure at the national level, as well as agreements, conventions and market standards at the international level. Moreover, informal institutions such as social norms and business ethics are important in creating enabling business environment.

A healthy business environment is fundamental to enabling businesses to start, survive, and grow. Such environment must include (Abe, Troilo, Juneja, & Narain, 2012):

- ✓ Business area is open, transparent and fairly competitive
- ✓ Clear, independent rule of law for all businesses
- ✓ Easy to establish and liquidate a business
- ✓ Equal and stable legal treatment for transactions

Enabling business environment reduces costs of both state and private sectors, improves productivity, and supports growth. Not only does it reduce administrative costs and nuisances faced by SMEs, the enabling environment makes them to concentrate on their core activities such as marketing management. Enabling environment also makes governments spend less resources to regulate the private sector and invest the freed resources in infrastructure and business developing services.

SME promotion policies are based on three main justifications. First, SME development increases competitiveness, motivates entrepreneurship, positively influences economic efficiency, innovation, and productivity growth, both directly and indirectly. Second, SMEs are more productive than large firms, but financial markets and weak institutions constrain SME development. Therefore, improving SME financing and institutions, government direct support

is important. Third, SMEs growth creates more jobs than large firms' growth because SMEs tend to be more labor intensive. So, it is possible to reduce poverty by subsidizing the SME sector.

However, some studies question the impact of subsidizing SMEs. First, they emphasize advantages of large firms and criticize assumptions of SME supporting policies. Large enterprises have greater capacities to benefit from the economies of scale and to finance research and development activities which have positive impact on productivity. Moreover, large enterprises create more stable and higher quality jobs than smaller enterprises, and hence contribute more to poverty reduction. Second, assumptions of SME support policies are not well grounded. For instance, Little, Mazumdar and Page (1987) argue that compared with large enterprises, SMEs do not create more jobs and do not use labor force more intensively. Moreover, failing financial and legal institutions limit SME development and weaken policy impacts. Third, natural resources, technology, policy and institutions are main factors which determine the composition of economic sectors and optimal size of producers. For instance, some countries have a comparative advantage of producing goods and services which are produced more efficiently by large firms, while other countries can have a comparative advantage of producing goods and services which are produced more efficiently by small firms. For these reasons, instead of emphasizing the role of SMEs, some researchers suggest to pay attention on enabling business environment of all enterprises including large firms. In fact, having little barriers to enter or exit the market, securing property rights and effectively enforcing contracts determine business environment affecting competition and market activities overall.

2. OBJECTIVE AND METHODOLOGY OF THE SURVEY ON SMEs

2.1. Survey objective and importance

The purpose of the survey is to measure transaction costs faced by SMEs through all of their business operational stages and clarify priority factors required to improve the business environment.

Compared to the previous studies conducted on Mongolian SMEs, this study has the following significance:

- ✓ Using micro level data, we calculated transaction costs faced by SMEs and identified how much difficulties are caused by transaction costs as compared with SMEs' sales revenue.
- ✓ Transaction costs incurred in each relation between SMEs and state organizations are estimated for direct, indirect and informal cost.
- ✓ Transaction costs incurred in the relations among SMEs and in the relations between SMEs and financial institutions are also estimated.
- ✓ Transaction costs are classified organizational characteristics of SMEs such as size, activity and location.

2.2. Transaction cost and its measurement

Transaction cost is a cost incurred in business relation and collaboration; in some ways it creates inefficient "friction" in an economy. Inefficient transaction costs faced by business entities are relatively low in a society with low bureaucracy and high trust. To this extent, business environment is improved and thereby a key condition of economic development is generated. On the other hand, if entrepreneurs encounter red tape and complicated rules in registering business, getting permits, paying taxes and raising finance, business interruptions and additional costs will be incurred in their operations. Also, opportunity costs of time need to be considered in addition to direct costs such as taxes and fees. To avoid such costs, entrepreneurs may cooperate with formal intermediaries and consultants, use their personal connections, and even offer gifts and bribes to bureaucrats. Such costs, therefore, need to be taken into account. Entrepreneurs shrink their activities, or make a choice to transfer their operations into informal sector due to high transaction costs. This situation limits their opportunities to grow and increase jobs in the future.

Transaction cost is a cost not only incurred by entrepreneurs but also faced by public organizations. Public organizations need to spend substantial resources to enforce complicated rules and make massive bureaucratic processes work.

It, therefore, is vital to consider direct and indirect costs in business relations in order to reduce regulatory and administrative barriers and develop simplified strategies. By identifying and measuring the main components of transaction costs and taking appropriate measures to reduce it, we can improve the business environment and boost its productivity and competitiveness.

However, measuring transaction cost using empirical research is no easy task. For instance, depending on the definition of transaction cost, it may include various costs incurred in business activities such as advertisement, administration and management, finance, research and development, public relations, etc. In particular, SMEs tend to not include these costs in detail in their financial reports, making it complicated to differentiate these costs from the costs of production, transportation, etc. Often, due to the lack of commonly accepted definition and measurement methodology, transaction costs are defined and estimated subjectively by individual researchers and the process is often costly and time consuming.

Empirical studies on measuring transaction costs are becoming popular internationally. For instance, Nobel laureate Oliver E. Williamson and others have conducted several studies in

transaction cost economics, such as sorting transaction costs in terms of organization and contract types, and how uncertainty and frequency of certain activity and asset specificity affect transaction costs. Furthermore, John Wallis and Douglass North carried out research on measuring total amount of transaction costs in an economy through defining the size of the “transaction sector.” For example, “Economic Freedom Report - 2006” (Open Society Forum, 2016) measured the size of the transaction sector in the Mongolian economy to be equal to 27 percent of GDP in 2006. Moreover, other studies on measuring transaction cost in any sector can be included in this classification.

The third direction of studies in transaction cost economics includes “non-market transaction costs” initiated by Hernando de Soto. Non-market transaction costs include costs of getting business permission, time and effort for overcoming various bureaucracy and bribes for bureaucrats. The amount of non-market transaction costs is high in developing countries. This research attempts to measure non-market transaction costs which are incurred by SMEs in dealing with public entities.

2.3. Survey sampling and questionnaire

Survey method is used in the study. The survey sample includes entities with formal registration. Although entities in informal sectors take up a large proportion in economic activities, their productivity is relatively low. Economic growth and development fully depend on the increase of entities having high productivity in formal sectors (La Porta & Shleifer, 2008). According to the World Bank study conducted in 2006, the share of informal sector in the Mongolian economy was 16 percent, while the National Statistical Office estimated it to be equal to 13.7 percent of GDP in 2010 (Schneider, Buehn, & Montenegro, 2010; NSO, 2013). These measures are relatively low.

The Business Register database shows that 59,843 and 64,301 establishments were actively operating in Mongolia in 2014 and 2015, respectively (NSO, 2015). With this population, the required sample size should equal to 1500 ($n = 1500$), determined with 95% confidence level and $\pm 2.5\%$ margin of error. A total of 1541 entities is surveyed. Survey methodology is described in the Appendix.

The data was collected via interviews with the principals of small and medium businesses selected on a random basis. Data analysis was made using STATA 14.2 software. The key tool of survey is the questionnaire. The questionnaire covers to types of information:

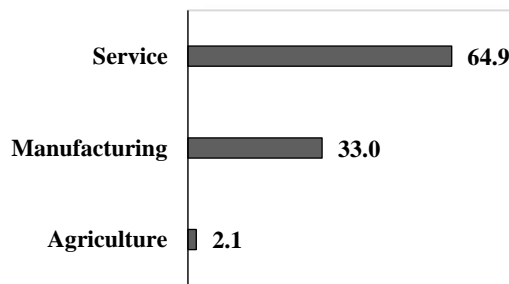
- ✓ *Basic information of respondent entities.* Basic information such as business sector, type of activities, number of employees, location, sales revenue, established year, number of branches, etc.
- ✓ *Information on transaction costs.* Information of transaction costs such as registration, permission, customs, taxes, professional inspection, infrastructure, contract enforcement, etc.

2.4. General information of survey sample

A total of 1541 SMEs was involved in the survey. Of them, 752 were interviewed in February-March 2015 and the remaining 789 were interviewed in March-April of 2016. The survey covered SMEs in the city of Ulaanbaatar and aimag (province) centers having high population density as the research aims to measure transaction costs or non-monetary costs that are related to public services. 87.1 percent of all respondents are from Ulaanbaatar, 6.7 percent are from Orkhon aimag, and 6.2 percent are from Darkhan-Uul aimag.

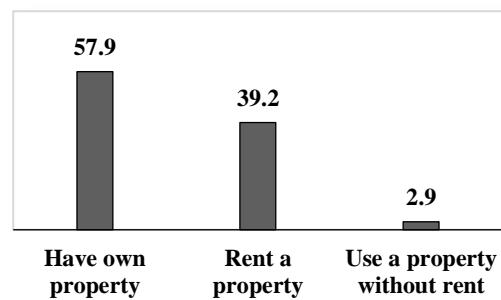
The majority or 64.9 percent of SMEs involved in the survey are operating in trade and services sectors, and 57.9 percent has own building or plant to operate their businesses.

FIGURE 2-1. SME ECONOMIC ACTIVITY, %



Source: Findings of the survey

FIGURE 2-2. PROPERTY OWNERSHIP, %



Source: Findings of the survey

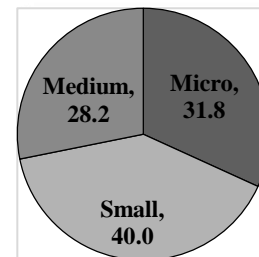
The size of entities is classified by sales revenue: entities with sales revenue lower than MNT100 million are identified as micro businesses, entities with sales revenue in MNT100-500 million are small, and entities with sales revenue between MNT500 million and MNT3.2 billion are medium (Figure 2-4)

FIGURE 2-3. YEAR ESTABLISHED, %



Source: Findings of the survey

FIGURE 2-4. SIZE OF ENTITIES, %



Source: Findings of the survey

The majority of respondent entities have operated in their sectors for over 5 years and have 1-9 employees; 31.8 percent of respondents have sales revenue of up to MNT100 million; 40.0 percent are small companies (Figure 2-3, Table 2-1).

TABLE 2-1. NUMBER OF EMPLOYEES IN SME

Number of employees	Share
1-9	51.9
10-19	22.7
20-49	18.2
50+	7.2

Source: Findings of the survey

3. TRANSACTION COST OF GOVERNMENT REGULATIONS

3.1. Transaction costs of business registration

Registering business in the formal sector is considered to be beneficial to the entity itself and to its employees and owners. For example, entities will have access to services of banks, financial institutions, and the government sector, as well as opportunity to enter new profitable markets while their employees will be protected by laws. Especially, with establishing Limited Liability Company (LLC), responsibility of owners is limited to their invested capital and owners' private assets will not be at risk. If registration process is not complicated, all enterprises would want to be registered because of its benefits. As a result, enterprises will create more jobs, and pay income tax to government budget. So, this section discusses the costs of establishing a business.

The World Bank annually publishes *Doing Business* report and its main objective is to accurately measure and compare transaction cost related to establishing enterprise in different countries. However, our survey coverage is different from the sample of the World Bank survey. More specifically, the World Bank survey covers only companies that have 10-50 employees and located in Ulaanbaatar city. In addition, companies have to be 100 percent domestically owned, with no real estate ownership, and with annual income at least 100 times more than GDP per capita. Its main measurements are the number of steps for starting business (to reserve a company name, be verified by notary, register with Taxation and Social Insurance Office, get enterprise seal etc.), time to complete each step (except time spent to search for and obtain advice and information), amount of official payment for these steps, and amount of deposit at bank, and so forth.

TABLE 3-1. THE NUMBER OF STEPS, TIME AND COST TO START BUSINESS IN MONGOLIA

№	Procedure	Time	Payment
1	To check and reserve an available name at Entity Department of General Authority for State Registration	1 day	500 MNT
2	To pay registration charge at commercial bank	1 day	free
3	To register at Entity Department of General Authority for State Registration (GASR)	7 days	22'500 MNT
4	To register at local Social Insurance Department	1 day	free
5	To make enterprise seal	1 day	46'000 MNT

Source: (World Bank, 2014).

Doing Business 2015 (World Bank, 2014) reports that it takes 5 procedures, 11 days to start a formal business in Mongolia and its official charge is MNT79,000. It is a relatively good indicator as Mongolia ranks 42nd out of 189 countries presented in the survey (TABLE 3-1).

In contrast, our survey measures “non-market transaction costs” such as cost of time spent by responsible staff for registration, cost of searching for advice and information, unexpected cost of delay in service provision by state agencies, informal payment (gift and bribe) etc. Moreover, we identify the sources from where SMEs get advice and obtain information on registration processes. We clarify whether some enterprises experience more difficulties than others, whether enterprises registered in the official SME Registry Database of GASR, and if not, the reason for not registering. We also gather additional information on how prompt is a service of the registration office, what are challenges of doing business formally, how difficult is closing a business, and what is the lowest price for which SMEs would be willing to handle everything to register a firm officially at someone else's request.

Of 1541 survey participants, 954 SMEs (or 62.0 percent) have faced some “non-market transaction cost” for registering their business or updating its status, and average cost is MNT822,000 which is around 0.4 percent of their annual turnover.

TABLE 3-2. TRANSACTION COST FOR REGISTRATION

Type of transaction cost	The number of SMEs faced the cost	Average cost, MNT thousand	Percentage of annual turnover
Cost of seeking advice and information on registration	432	311	0.3
Opportunity costs of registering enterprise or updating its registration, and delayed reply of government agencies	913	700	0.3
Amount of informal payment to speed up registration	36	289	0.3
Total transaction cost	954	822	0.4

Source: Findings of the survey and researcher’s calculation

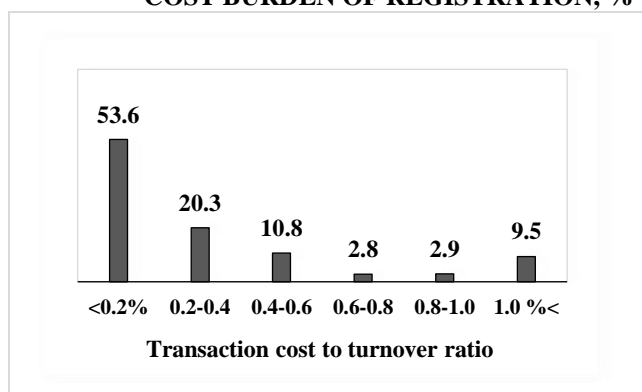
Opportunity cost of time spent by staff who were responsible for registration constitutes the largest portion in total transaction costs related to registration. The number of staff who were responsible for registration was mostly 1 (for 67.0 percent of SMEs) and 2 (for 24 percent of SMEs). The opportunity cost, on average, is MNT664,000 for 912 SMEs. As mentioned above, the transaction cost includes unexpected cost caused by irresponsible government agencies such as documents for registration were mislaid (2.7 percent of SMEs) and official replies were delayed beyond the specified date (7.9 percent of SMEs). The average delay took 25 days and MNT437,000. Overall, these opportunity costs amount to 0.3 percent of SMEs turnover.

Of all surveyed SMEs, 28 percent believe that informal payments (gifts or bribe) help to complete registration process promptly, and 3.9 percent actually paid informal payment of MNT289,000, on average, to government officials for speeding up the process (TABLE 3-2).

Most SMEs face less than MNT500,000, while 15.0 percent of enterprises face more than MNT2.5 million of transaction cost. As for the ratio of transaction cost to total turnover, half of SMEs face a burden of less than 0.2 percent of their annual turnover, but a tenth of SMEs faced a burden of more than 1 percent of turnover (FIGURE 3-1).

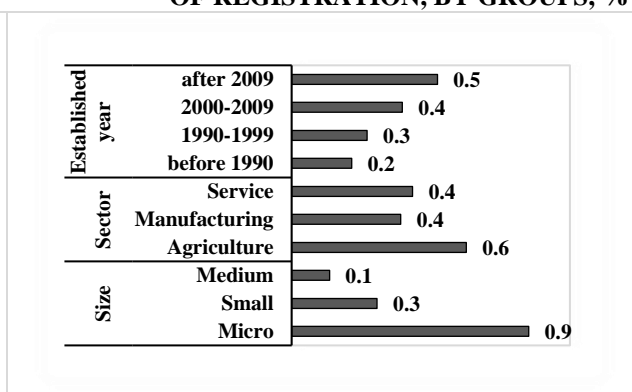
For comparison, SMEs were asked to answer an additional question to estimate their transaction cost (What is the lowest price for which SMEs would be willing to handle everything to register a firm officially if someone asked them to do so?). 533 enterprises responded. On average, SMEs estimated this cost as taking MNT1.4 million and it is considerably greater than their actual transaction cost (MNT822,000).

FIGURE 3-1. DISTRIBUTION OF TRANSACTION COST BURDEN OF REGISTRATION, %



Source: Findings of the survey and researcher’s calculation

FIGURE 3-2. TRANSACTION COST BURDEN OF REGISTRATION, BY GROUPS, %



Source: Findings of the survey and researcher’s calculation

The burden of transaction cost of registration depends on the year an enterprise was established, its economic activities and its size. For newly established enterprises, in particular, the burden of transaction cost of registration (cost to sales turnover ratio) is higher than older enterprises because new enterprises tend to have less sales turnover. On the other hand, older enterprises

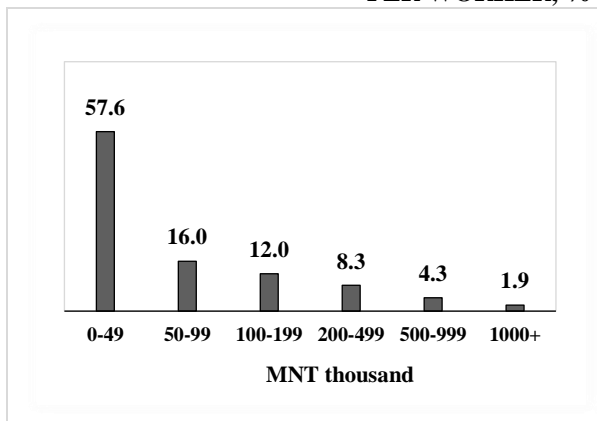
tend to have more experience on registering a business, so they spend less time and effort on updating their registration next time (FIGURE 3-2).

In terms of economic activity, agriculture businesses face greater burden of transaction cost for registering or updating registration status. Although transaction cost in absolute terms is lower than in other sectors (agriculture - MNT708,000, manufacturing – 889,000, services – 790,000), the burden for agriculture businesses is higher because they tend to have lower turnover.

In terms of business size, average transaction cost for medium sized enterprises is MNT1.4 million, for small sized enterprises – MNT0.7 million and for micro businesses – MNT0.4 million. The bigger the size of SME, the higher the opportunity cost of time spent by its staff responsible for registration. However, the overall burden of transaction cost for registering is heavier for smaller enterprises (FIGURE 3-2).

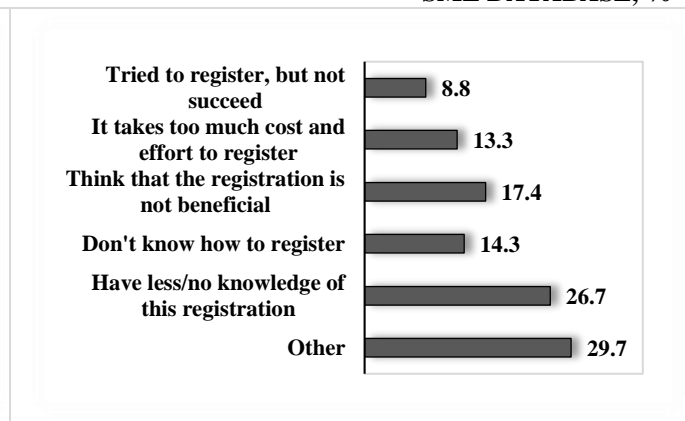
We can estimate the burden of transaction cost for registering by using a different measure - cost per worker. In this survey, the average transaction cost per worker is MNT111,000, but a quarter of SMEs faces transaction cost for registering more than MNT100,000 per worker (FIGURE 3-3).

FIGURE 3-3. DISTRIBUTION OF TRANSACTION COST OF REGISTRATION PER WORKER, %



Source: Findings of the survey and researcher's calculation

FIGURE 3-4. REASONS OF NOT BEING REGISTERED FOR OFFICIAL SME DATABASE, %



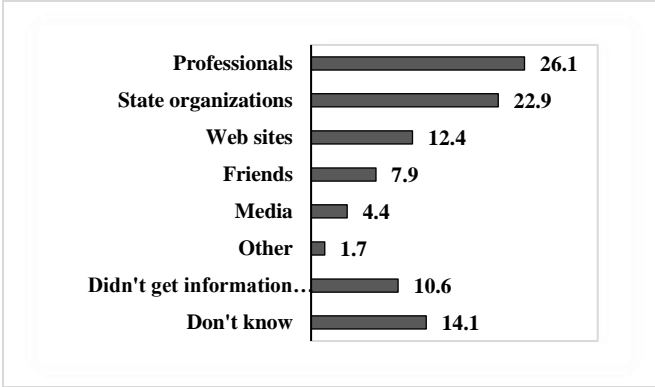
Source: Findings of the survey and researcher's calculation

The Law on SME adopted in 2007 provides for special government support, including tax breaks, for small and medium businesses registered in the special SME register. However, only few enterprises (approx. 2,500) have registered in the system so far, according to former SME division of the Ministry of Labor. In our survey, the main reasons of not registering into the system are lack information about the law and the registration procedure, and its negligible benefit. Many SMEs also did not register due to cost and time for registering (FIGURE 3-4).

To ease procedures of starting a business, many good practices are introduced globally. According to *Doing Business 2015*, 97 of 189 countries have already introduced online registration system and 100 countries introduced one-stop-shop service for business registration. Mongolia has not introduced yet these services. In some countries, it is required even to deposit some cash in a bank account for starting a business. Currently, in 104 countries including Mongolia, it is no longer required and considered a good practice for easing business registration process.

In our study, to seek information or advice on a business registration, small and medium businesses usually approach individual specialists instead of government agencies (Figure 3-5). SMEs' general satisfaction with the services of state registration agencies is moderate (Figure 3-6). It shows that there is still a need to improve service quality of state agencies and access to information on business registration.

FIGURE 3-5. INFORMATION SOURCE OF REGISTRATION, %



Source: Findings of the survey and researcher’s calculation

FIGURE 3-6. SERVICE QUALITY OF REGISTRATION OFFICE, %



Source: Findings of the survey and researcher’s calculation

In conclusion, even though businesses are not required to register or update registration regularly, transaction costs of registering a business are not trivial.

3.2. Transaction cost of getting permits and dealing with specialized inspection

Licensing and specialized inspection are typical state regulations of business activities. In any country, government regulates and limits business activities by protecting rights of workers and consumers, ensuring occupational safety, protecting environment, supporting fair competition, and allocating scarce resources. However, the administrative burden of these regulations on businesses should be as light as possible. When getting permits or passing inspection takes too much time and cost, businesses have three choices: leaving market; giving a bribe to get permission or pass inspection; starting informal or illegal activities which might be harmful for community. None of these choices is beneficial to society. The simpler the procedures, the more beneficial they are for the society.

In *Doing Business 2015* survey, enterprises in the construction sector were asked how difficult is to get permits and approvals for building a warehouse and related utilities value of which is around \$200,000. The survey measures the number of procedures required to build a warehouse and its utilities (collecting documents, getting statements and permits, access to electricity and sewerage, registering the warehouse into the state registration system etc.), the number of days to complete each procedure (not including time spent gathering information and recording a half day if the procedure can be completed online), and cost required to complete each procedure (cost of preparing projects and planning, and connecting with utilities etc.).

According to *Doing Business 2015*, getting permits to build a warehouse requires 16 steps and those steps take, in total, 137 days and 0.02 percent (MNT70,000) of warehouse value (approx. MNT288 million). Mongolia ranked 74th, and it is close to the average of East Asia and the Pacific region.

In our survey, we estimate the non-market transaction costs of getting all kinds of permits for starting or continuing a business and dealing with requirements of specialized inspection agency. As in the previous section, this transaction cost includes opportunity cost of time spent by staff who are responsible for the procedures, cost of seeking information and advice, unexpected costs caused by delay of government response, informal costs (gift and bribe) etc. Additionally, the study identified sources of seeking advice and information, the staff members usually responsible for the procedures, how costly is the procedure compared with similar businesses, how prompt is a service of the responsible government agency, and what is the lowest price for which SMEs would be willing to provide the service of getting all required licenses and permits at someone else’s request.

3.2.1. Transaction cost of getting permits

Over half of the surveyed SMEs (55.0 percent) obtained at least one permit/license, and 62.0 percent of them update their permits on a regular basis. Of all surveyed SMEs, 777 entrepreneurs (50.4 percent) paid MNT1.6 million on average to get permits, and it equals to 0.8 percent of their annual turnover.

The largest portion of transaction cost of getting permits is cost of time spent by staff. In some cases, government agencies make decisions late from the specified date or delay approval, and 17.5 percent of SMEs faced this problem. In total, these two types of opportunity cost are MNT1.4 million on average of 756 SMEs and which is 0.7 percent of their annual turnover.

TABLE 3-3. TRANSACTION COST OF GETTING PERMITS

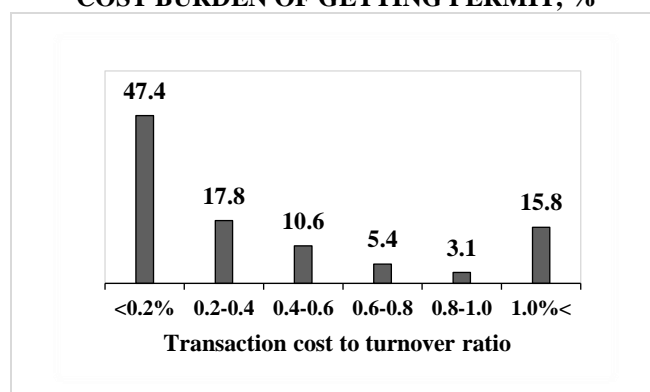
Type of transaction cost	The number of SMEs faced the cost	Average cost, MNT thousand	Percentage of annual turnover
Cost of seeking advice and information on permits	354	498	0.4
Opportunity costs of inefficient time spent by staff and delayed time of waiting the government agency reply.	756	1364	0.7
Informal payment	38	1117	0.6
Total transaction cost	777	1609	0.8

Source: Findings of the survey and researcher's calculation

The number of staff who were responsible for getting permit was mostly 1 (for 56.0 percent of SMEs) and 2 (for 32.0 percent). As mentioned above, the transaction cost of getting permit includes unexpected cost caused by irresponsible actions of government agencies. Official decision on granting the permit was delayed beyond the date specified by the rules for 17.5 percent of SMEs (13.0 percent of them waited for approval for more than 3 months beyond the specified date). In addition, SMEs paid MNT1.1 million, on average, in the form of informal payment to officials (TABLE 3-3).

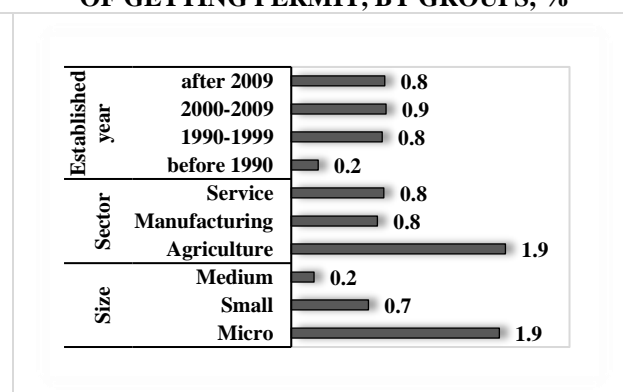
Transaction cost of obtaining licenses and permits varies across SME. Half of SMEs faced less than MNT500,000 for getting a permit while 7 percent of SMEs faced cost of more than MNT5 million. As far as cost to turnover ratio is concerned, half of them (47.4 percent) experienced transaction cost less than 0.2 percent of turnover while 15.8 percent faced cost of more than 1.0 percent of turnover (FIGURE 3-7).

FIGURE 3-7. DISTRIBUTION OF TRANSACTION COST BURDEN OF GETTING PERMIT, %



Source: Findings of the survey and researcher's calculation

FIGURE 3-8. TRANSACTION COST BURDEN OF GETTING PERMIT, BY GROUPS, %



Source: Findings of the survey and researcher's calculation

For comparison, SMEs were asked to answer an additional question to estimate their transaction cost (*What is the lowest price for which SMEs would be willing to handle everything to obtain a license/permit if someone asked them to do so?*). 421 enterprises responded. On average, SMEs

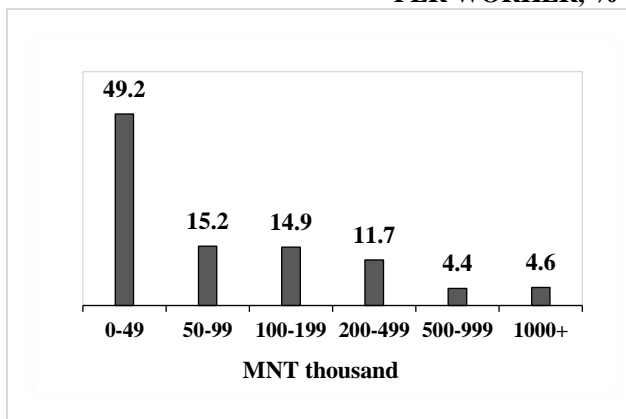
estimated the price for this service to be MNT1.6 million, an amount equal to their actual transaction cost (MNT1.6 million).

The burden of transaction cost of getting permit depends on the year an enterprise was established, its economic activities and its size, too. As for the year established, there is no significant difference between transaction cost to turnover ratios of new and old SMEs (FIGURE 3-8). In contrast, there is considerably different burden on SMEs in different economic sectors: SMEs in agriculture faced greater transaction cost burden for getting permit than SMEs in other sectors. Even though their average amount of transaction cost is not significantly higher than that of other SMEs (agriculture - MNT1.5 million, manufacturing - MNT2.3 million and services - MNT1.2 million), their transaction cost burden is considerably higher due to their lower annual turnover.

In terms of business size, average transaction cost for medium sized enterprises is MNT 2.2 million, for small sized enterprises – MNT1.5 million, and for micro businesses – MNT0.9 million. The larger the size of SME, the higher the opportunity cost of time spent by its staff who are responsible for getting permit. However, as with registration, the burden of transaction cost for getting permit is heavier for smaller enterprises (FIGURE 3-8).

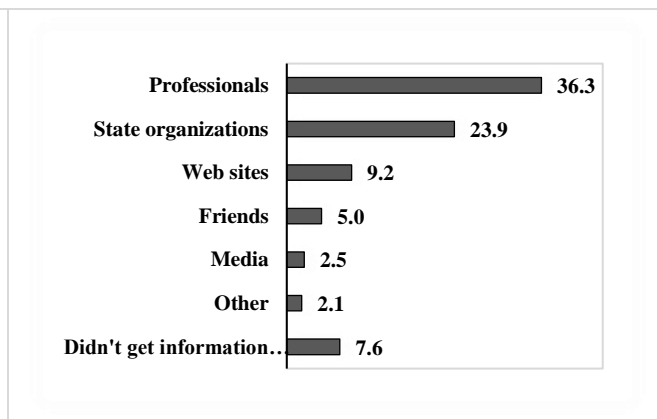
In a different measure of the burden - transaction cost per worker, a third of SMEs experienced transaction cost of more than MNT100,000 per worker. The average transaction cost per worker is MNT217,000 (FIGURE 3-9).

FIGURE 3-9. DISTRIBUTION OF TRANSACTION COST OF GETTING PERMIT PER WORKER, %



Source: Findings of the survey and researcher’s calculation

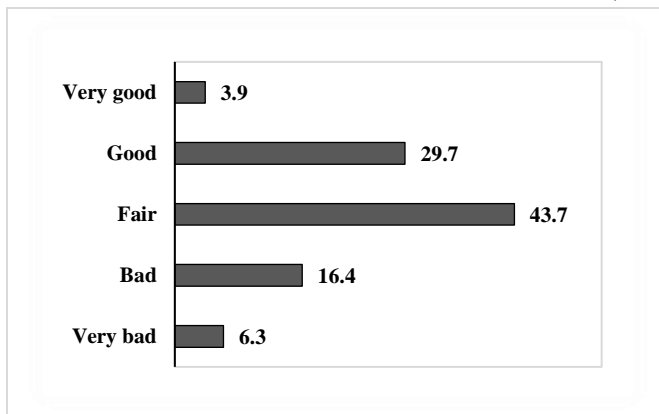
FIGURE 3-10. INFORMATION SOURCE OF GETTING PERMIT, %



Source: Findings of the survey and researcher’s calculation

In our study, SMEs mostly approach individual professionals instead of government agencies, when looking for information or advice on getting permits (FIGURE 3-10).

FIGURE 3-11. SERVICE QUALITY OF GETTING PERMIT, %



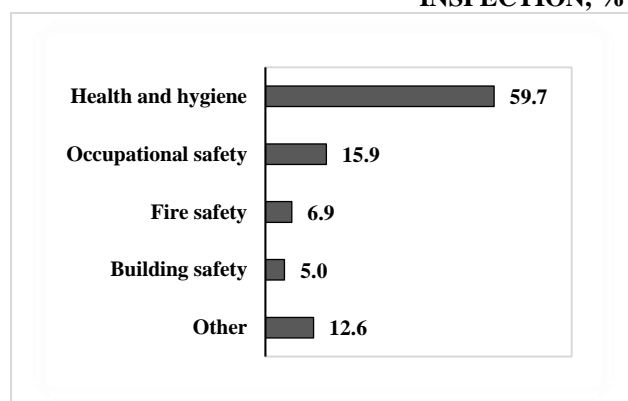
Source: Findings of the survey and researcher’s calculation

SMEs' overall satisfaction with the quality of services of government agencies is moderate to high (FIGURE 3-11).

3.2.2. Transaction cost of dealing with specialized inspection

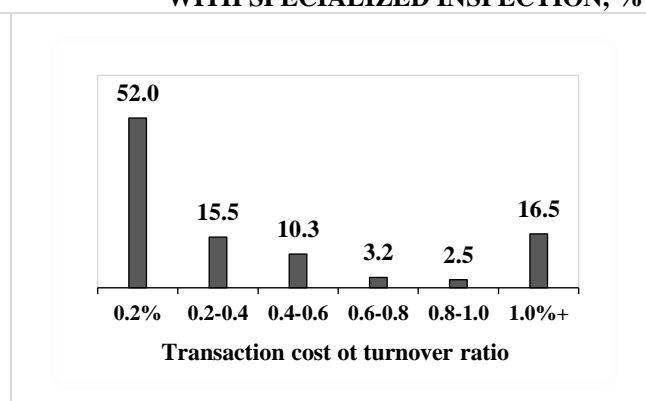
In the last 12 months, 27.0 percent of SMEs were examined by the Agency for Specialized Inspection. The main issue examined was health and safety standard (FIGURE 3-12). In our sample 75.0 percent of micro enterprises examined – 80.0 percent of which operate in the services sector – were examined in compliance with health and hygiene standard, 7.0 percent in fire safety and 6.0 percent in occupational safety. In contrast, 46.0 percent of medium sized enterprises were examined in health and hygiene, 26.0 percent in occupational safety and 11.0 percent in construction standard.

FIGURE 3-12. THE MAIN ISSUES EXAMINED BY AGENCY FOR SPECIALIZED INSPECTION, %



Source: Findings of the survey and researcher's calculation

FIGURE 3-13. DISTRIBUTION OF TRANSACTION COST BURDEN OF DEALING WITH SPECIALIZED INSPECTION, %



Source: Findings of the survey and researcher's calculation

The average amount of the transaction cost of dealing with specialized inspection is MNT1,254,000 for 403 enterprises (Table 3-4). The largest portion of this is direct cost to meet the requirements. In contrast, the opportunity cost of time spent by staff responsible for dealing with specialized inspection is considerably low.

TABLE 3-4. TRANSACTION COST FOR DEALING WITH A SPECIALIZED INSPECTION (%)

Type of cost	The number of enterprises faced the cost	Average cost, MNT thousand	Percentage of annual turnover
Direct cost to meet requirements by specialized inspection.	324	1143	0.7
Salaries of staff who are responsible for dealing with a specialized inspection	385	342	0.2
The amount of informal payment to specialized inspectors	29	239	0.2
Total transaction cost	406	1254	0.7

Source: Findings of the survey and researcher's calculation

The data shows that 49.0 percent of enterprises face this type of transaction cost of MNT500,000 or lower per year, while 7.0 percent of enterprises face more than MNT5 million. In terms of turnover, for about half of enterprises this type of the transaction cost is less than 0.2 percent of their annual turnover, while for 17.0 percent of enterprises the cost exceeds 1.0 percent of turnover (FIGURE 3-13).

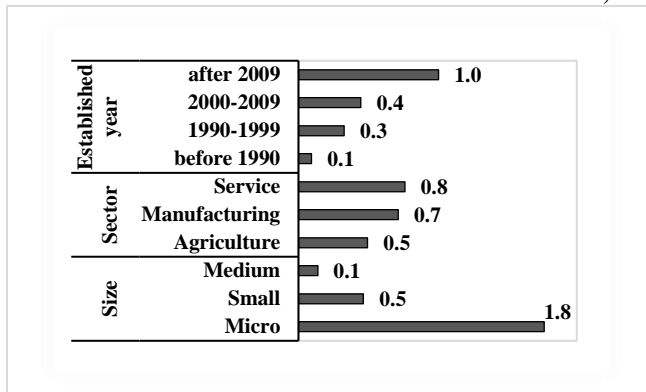
The burden of transaction cost of dealing with specialized inspection varies across the year an enterprise was established, its economic activities and its size. For newly established enterprises, in particular, the burden of transaction cost of dealing with specialized inspection (cost to turnover ratio) is higher than for older enterprises because new enterprises tend to have less sales

turnover. On the other hand, breaches of standards occur more frequently in new enterprises because they just started a business (FIGURE 3-14).

In terms of business activities, there is not any significant difference between transaction cost to turnover ratios of different economic sectors. The burden of transaction cost for dealing with specialized inspection is heavier for smaller enterprises.

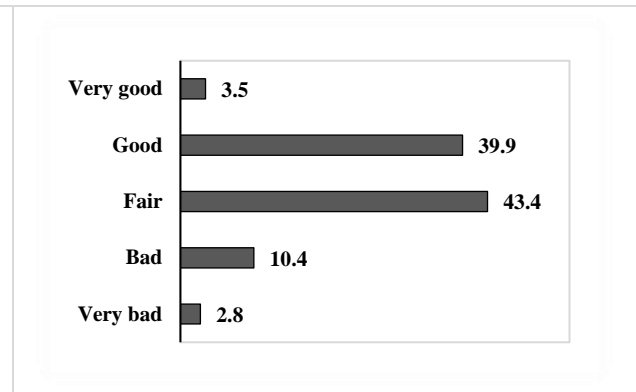
Average transaction cost per worker stands at MNT178,000, but 70.0 percent of SMEs face cost less than MNT100,000, while for 6 percent of them this type of cost is greater than MNT 500,000.

FIGURE 3-14. TRANSACTION COST BURDEN OF DEALING WITH SPECIALIZED INSPECTION, BY GROUPS, %



Source: Findings of the survey and researcher's calculation

FIGURE 3-15. SERVICE QUALITY OF SPECIALIZED INSPECTION AGENCY, %



Source: Findings of the survey and researcher's calculation

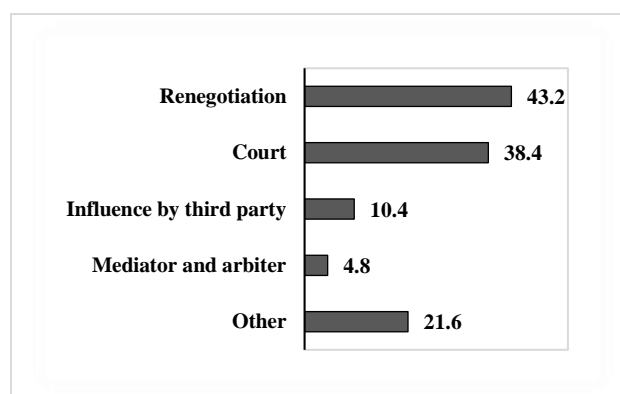
Although examinations of the specialized inspection agency incur some additional cost, enterprises tend to have higher satisfaction with the activity of the agency because the agency helps SMEs to prevent potential business risks (FIGURE 3-15).

3.3. The transaction cost of contract enforcement

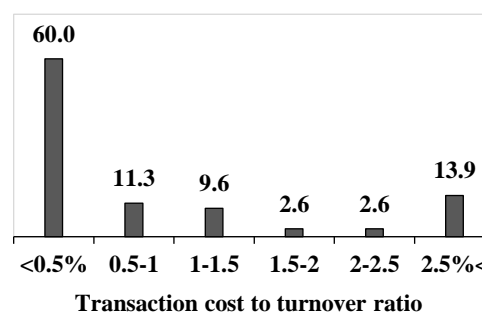
One of the main factors that influence business development is enforcing contracts with business partners at low transaction cost. Currently, research for measuring the transaction cost associated with contract enforcement is not available in Mongolia. In this study, we attempted to measure this cost. In doing so, costs of the contract enforcement and settling disputes were measured as non-market transaction costs. For comparison purposes, we also measured the market transaction costs of searching for, finding a business partner and signing a contract, i.e. the stages before the enforcement.

To succeed in business, the contract between business and its employees, suppliers and customers must be implemented with a low cost, effectively and speedily. But the breach of the contract and dispute between partners are sometimes unavoidable in the course of business relations. Business might even become a victim of criminal activities such as racket. In these cases, regulatory agencies' interference is needed for enforcing the contract, resolving the dispute, and protecting the property rights. Hence, it is most important to maintain the involvement of these agencies in enforcing the contract as effective and efficient as possible.

In this survey, enterprises were asked if they had any disputes regarding the contract implementation with business partners in the last three years. The majority of the 8.1 percent who answered "yes", resolved these disputes by renewing the contracts or seeking lawsuits.

FIGURE 3-16. SOLUTION OF DISPUTES, %

Source: Findings of the survey and researcher's calculation

FIGURE 3-17. DISTRIBUTION OF TRANSACTION COST BURDEN OF CONTRACT ENFORCEMENT, %

Source: Findings of the survey and researcher's calculation

Dispute resolution process costs the enterprises MNT1.6 million in direct costs (attorney and court fees, notary fees, etc.) and MNT2.0 million in indirect costs (wasted time, other non-monetary costs) per year on average. Also 10 companies paid informal costs of MNT718,000 on average to resolve the dispute (Table 3-5).

Of the companies involved in dispute resolution, 92.0 percent faced an average transaction cost of MNT2.9 million, which equals to 1.7 percent of their turnover.

TABLE 3-5. TRANSACTION COST OF RESOLVING CONTRACT DISPUTES

Type of cost	The number of enterprises faced the cost	Average cost, MNT thousand	Percentage of annual turnover
Direct costs of resolving contract disputes	108	1558	1.0
Indirect costs of resolving contract disputes	77	2048	1.1
Informal costs of resolving contract disputes	10	718	0.6
Total non-market transaction cost of resolving contract disputes	115	2897	1.7
Total market transaction cost of contracting	1121	1234	0.6

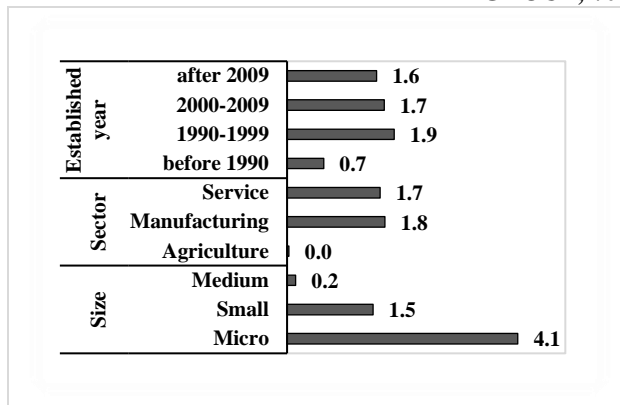
Source: Findings of the survey and researcher's calculation

Although relatively few disputes of contract implementation have occurred, the costs of resolving the disputes shown in the table above are higher than the market transaction costs associated with establishing a contract. To measure the market transaction costs associated with contract establishing, we considered both of direct monetary costs and indirect non-monetary costs of finding suppliers or buyers and signing a contract with them.

When we look into the transaction cost burden of resolving contractual disputes, 14.0 percent of the companies involved in the disputes spent more than 2.5 percent of their annual turnover on this type of transaction costs (Figure 3-17).

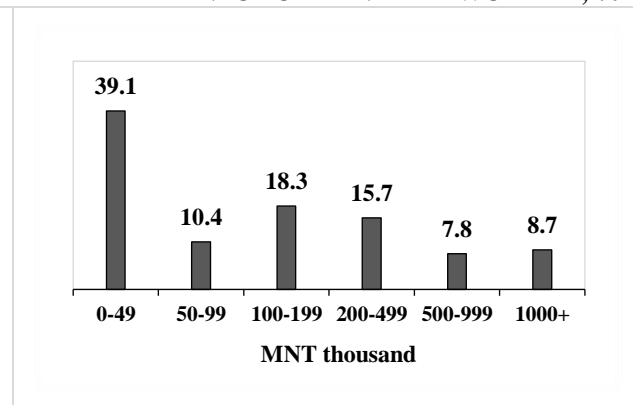
The burden of transaction cost of contract enforcement depends on the year an enterprise was established, their economic activities and sizes. The cost burden as shown in the following figure is much less for companies with a long history. This can be explained, on the one hand, by the fact that the share of transaction costs is considerably small in comparison with a large amount of sales revenue of the companies with long history. On the other hand, this also can be related to the prior experience in resolving the disputes in a cost-effective way (Figure 3-18).

FIGURE 3-18. TRANSACTION COST BURDEN OF CONTRACT ENFORCEMENT, BY GROUP, %



Source: The survey findings and researcher's calculation

FIGURE 3-19. DISTRIBUTION OF TRANSACTION COST OF CONTRACT ENFORCEMENT PER WORKER, %



Source: The survey findings and researcher's calculation

Relatively low transaction costs of dispute resolution in the agriculture sector can be attributed to the following: lower likelihood of the disputes in this sector and the relatively low costs of resolving the disputes. As expected, small-sized companies face a relatively high burden of transaction cost of contract enforcement.

The average cost per worker is MNT287,000, but about half of enterprises face cost less than MNT100,000, while 9.0 percent of them face cost more than MNT 1 million (Figure 3-19).

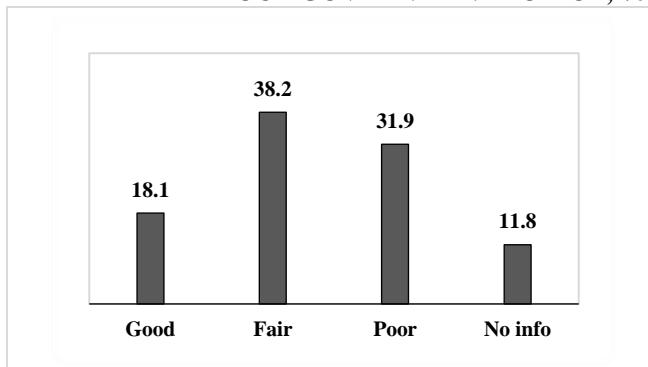
In addition to measuring the cost of dispute resolution, we attempted to measure the cost of securing property rights for those organizations which were subjected to any criminal attack. The data show that 9.9 percent of the surveyed companies were subjected to a criminal attack, 8.6 percent suffered from material damage with average loss estimated was MNT 2.5 million. Of those companies, 78.0 percent took an action after the attacks mostly by informing the law enforcement agencies (58.0 percent), in some cases making a payment to the attacker in (9.0 percent) as well as using a third-party enforcer (6.0 percent). Also, 58.0 percent of the businesses subjected to criminal attacks spent an additional MNT740,000 per year in order to prevent future attacks.

3.4. Transaction cost of dealing with government agencies implementing SME policies

In developing countries, the government policy plays a crucial role in developing micro, small and medium enterprises. In particular, international organizations are interested in issues on how business environment enables starting a new business and branching it out. In case of business enabling environment, state institutions work well and government policy supports any business activity.

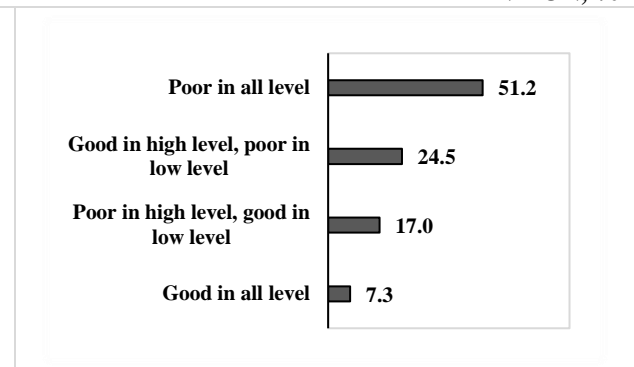
In this subsection, we study the sources of and measure transaction costs related to the implementation of government policy on business environment and public procurement. Of all interviewed entities, 43.7 percent have no or little information about government policy on SMEs (Figure 3-20) and 51.2 percent consider the policy implementation as poor at all levels (Figure 3-21). Furthermore, access to information on SME policy need to be improved, and monitoring and evaluation mechanism of the policy implementation at all levels need to be created.

FIGURE 3-20. ACCESS TO INFORMATION ABOUT GOVERNMENT POLICY, %



Source: The survey findings and researcher's calculation

FIGURE 3-21. EVALUATION OF POLICY IMPLEMENTATION, %



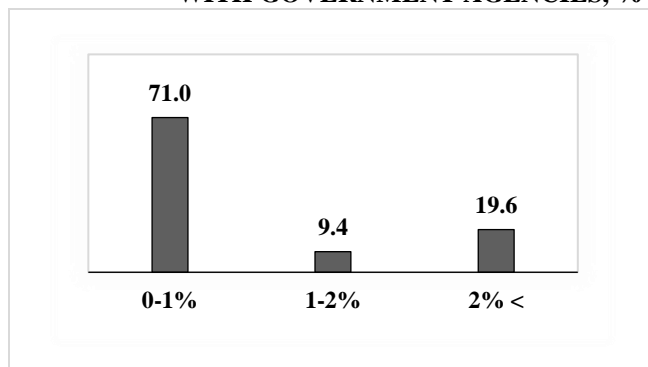
Source: The survey findings and researcher's calculation

About 40.0 percent of interviewed entities believe that the design of government policy on SMEs is poor and almost half or 49.0 percent believe it to be adequate at all stages. Of SMEs in the sample, 24.6 percent applied to be involved in government projects and programs to start or expand their business, but 44.5 percent of them admitted to be unsuccessful. Thus, the policy formulation and implementation are not clear for most respondents. Moreover, 21.0 percent of enterprises supply goods and services to the central and local government organizations and 25.2 percent of them maintain that the procurement was costlier compared to the same activity in the private sector.

We identify the sources and measure the transaction costs of dealing with government implementing agencies and public procurement processes. The costs include: (i) direct costs such as cost of searching for and obtaining information, preparing and copying documents about the business, fulfilling financial requirement, obtaining inquiry and guarantees from the third party; (ii) indirect costs such as cost filing a complaint against a governmental organization; (iii) informal payments related to returning a favor, giving a gift, treating to a meal and making cash payment to the people for providing inquiry, guarantee and making procurement decision.

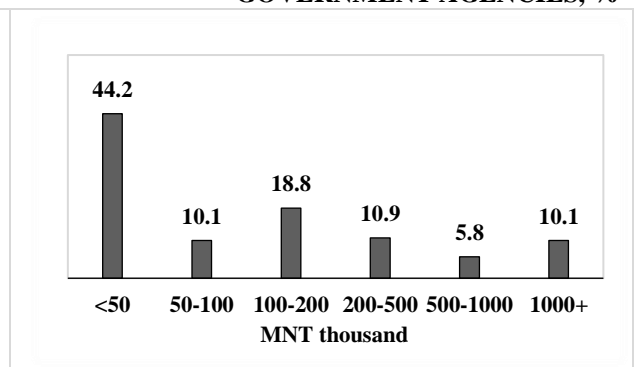
In the survey, 138 SMEs faced a transaction cost of dealing with central or local government and public procurement, and the average cost equaled to MNT3 million. For 71.0 percent of these entities the transaction cost amounted to up to 1 percent of their annual turnover, while for 9.4 percent of the entities the cost was between 1 and 2 percent of their turnover and 19.6 percent faced costs of over 3 percent of their turnover. (Figure 3-22)

FIGURE 3-22. DISTRIBUTION OF TRANSACTION COST BURDEN OF DEALING WITH GOVERNMENT AGENCIES, %



Source: The survey findings and researcher's calculation

FIGURE 3-23. TRANSACTION COST PER WORKER OF DEALING WITH GOVERNMENT AGENCIES, %



Source: The survey findings and researcher's calculation

In comparison, the average transaction cost per worker of dealing with government organizations that implement SME policies are MNT 454,000 for micro businesses, MNT 476,500 for small

and MNT 160,500 for medium-sized businesses on average. The transaction cost per worker is less than MNT 50,000 for 44.2 percent of SMEs that encountered this kind of transaction cost.

The average direct transaction cost of dealing with government agencies is estimated to be MNT2.4 million, indirect costs amount to MNT2.3 million and informal payments are MNT1.1 million. Total transaction cost compounds to MNT3.1 million on average. As expected, the burden of this type of transaction cost is higher for small businesses. (Figure 3-24)

Of the interviewed SMEs, 4.0 percent filed a complaint related to public procurement and central and local government policy actions. They waited for 90 days on average to resolve the complaint. The survey data show that 218 entities approached non-governmental organizations such as sectoral or professional associations, and 24.0 percent of these entities consider their support to be effective and adequate. Among the professional and sector organizations, the Mongolian National Chamber of Commerce and Industry is seen to be more helpful.

FIGURE 3-24. TRANSACTION COST BURDEN, BY SIZE, %



Source: The survey findings and researcher’s calculation

4. TRANSACTION COST OF PAYING TAXES AND CUSTOMS DUTIES

4.1. Transaction cost of tax compliance

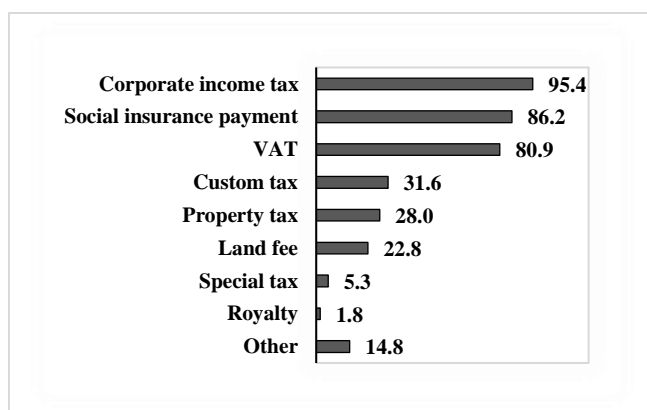
SMEs do not make a big contribution to the state budget as they usually run businesses in less profitable or informal markets. The main factors of paying less tax are high tax rate, lack of knowledge of tax law, and additional costs of tax compliance. Heavy tax burden is not only caused by high tax rate, but also cost of complying with taxation laws and regulations.

In advanced countries, the transaction cost of tax compliance is measured by surveys. In Mongolia, *Doing Business 2015* (World Bank, 2014) conducted a case study of tax paying activities of medium-sized companies which were established in 2012 and are in the second year of paying taxes. The study measures types of taxes, modes of paying taxes, frequency of payment, time spent on this activity and overall tax burden. As the study found, entities make 41 tax payments a year on average. It takes 148 hours to collect documents, report, and pay taxes. The average tax payment accounts for 24 percent of their annual turnover. Mongolia ranks 84th out of 189 countries surveyed and the indicators are comparable with the average of East Asia and the Pacific.

In this section, we measured the non-market transaction cost of SMEs tax compliance including the following categories: opportunity cost of time spent by staff who are responsible for tax compliance, cost of seeking information and advice on taxation issues, extra costs and fines incurred by audits by the tax and social insurance offices, and other informal payments. In addition, we gathered further information on the types of taxes paid by enterprises, use internet for tax compliance, book keeping procedures, the person responsible for tax compliance, sources of information and advice on taxation issues, perceptions about the promptness of services of the tax office and fairness of the tax system.

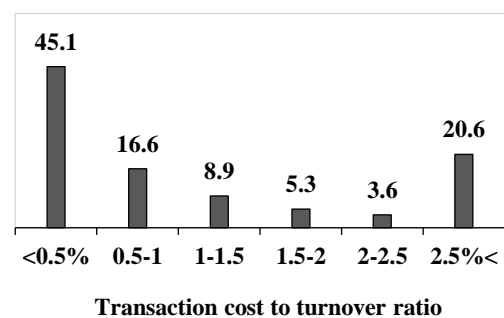
Almost all SMEs pay VAT, income taxes, and social insurance payment; many of them pay other taxes as well (Figure 4-1).

FIGURE 4-1. SHARE OF SMEs PAID TAXES, %



Source: The survey findings and researcher's calculation

FIGURE 4-2. DISTRIBUTION OF TRANSACTION COST BURDEN OF TAX COMPLIANCE, %



Source: The survey findings and researcher's calculation

Almost all SMEs interviewed, namely 98.0 percent, face some transaction costs caused by tax compliance. The average cost is MNT3.4 million and it equals to 2.0 percent of their annual turnover. (Table 4-1)

TABLE 4-1. TRANSACTION COST BURDENT OF TAX COMPLIANCE

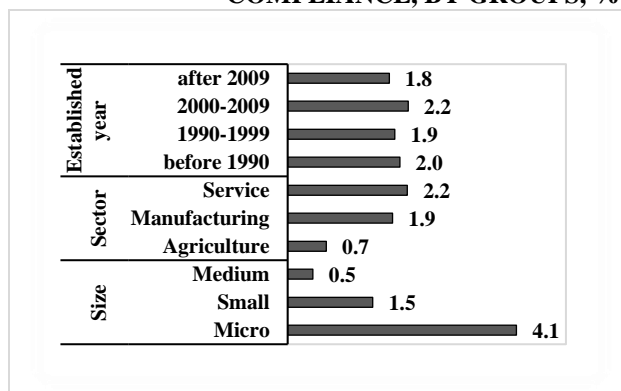
Type of cost	The number of enterprises faced the cost	Average cost, MNT thousand	Percentage of annual turnover
Cost of seeking information and advice on tax compliance	649	305	0.2
Indirect transaction cost of tax compliance	1493	2774	1.7
Informal payment to tax officers for avoiding tax penalty	29	2174	1.3
Total transaction cost of tax compliance	1508	3433	2.0

Source: The survey findings and researcher’s calculation

In more details, for 21.0 percent of enterprises this type of transaction cost amounted to more than 2.5 percent of their annual turnover. The bulk of the cost are indirect costs of salaries and extra costs incurred by audit conduted by the tax and social insurance offices (Figure 4-2)

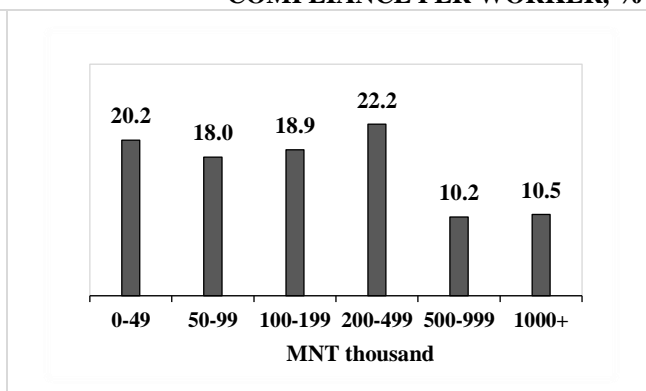
The burden of transaction cost of tax compliance depends considerably on the type of economic activities and the size of enterprises, but not on the year they were established (Figure 4-3). Specifically, the transaction cost burden (transaction cost to turnover ratio) is lower in the agriculture sector and medium-sized SMEs. This is mainly because these types of SMEs operate on a larger economic scale.

FIGURE 4-3. TRANSACTION COST OF TAX COMPLIANCE, BY GROUPS, %



Source: The survey findings and researcher’s calculation

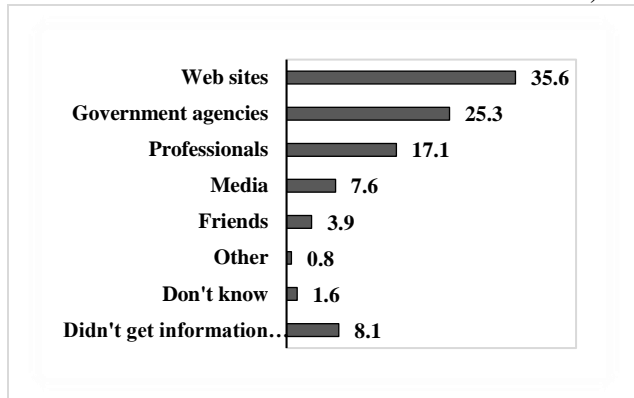
FIGURE 4-4. TRANSACTION COST OF TAX COMPLIANCE PER WORKER, %



Source: The survey findings and researcher’s calculation

Irrespective of the size of an enterprise its economic activity is, tax compliance takes almost same effort from all companies. As a result, the transaction cost burden is higher for those companies which have less revenue or fewer worker. In terms of the transaction cost per worker, 38.0 percent of SMEs face costs less than MNT100,000, while 11.0 percent of them face cost more than MNT1 million. (Figure 4-4)

In the survey, most SMEs get information and advice on tax compliance directly from the government organizations or official websites, which is a positive indication. (Figure 4-5)

FIGURE 4-5. SOURCES OF INFORMATION ABOUT TAXES, %

Source: The survey findings and researcher's calculation

FIGURE 4-6. SERVICE QUALITY OF TAX OFFICES, %

Source: The survey findings and researcher's calculation

Finally, SMEs tend to be reasonably satisfied with the quality of services of tax offices. (Figure 4-6)

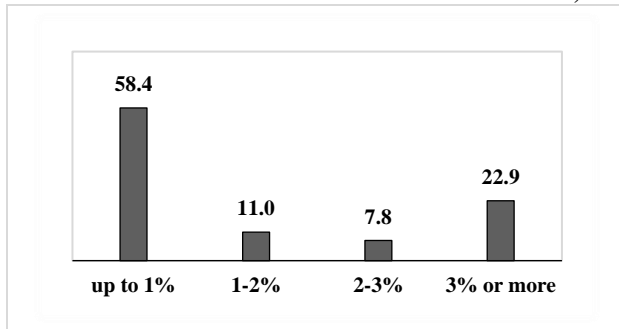
4.2. Transaction cost of customs and international trade

Countries around the world are becoming more dependent on each other due to globalization. They are involved actively in international market in various ways such as global trading of raw materials and industrial products and services; direct investment through multinational corporations; portfolio investment through purchase of bonds and stocks etc. In addition, it is important for SMEs to compete not only in domestic market but also in international market. In Mongolia, a substantial number of enterprises run trade business. In developing countries, free trade policy has a positive impact to consumption and industrial development, but may have negative effect on domestic market.

“Freedom to trade internationally” indicator, a major area of the Fraser Institute's *Degree of Economic Freedom* study, is based on five components: tariffs, regulatory trade barriers, black-market exchange rates and controls of the movement of capital and people (Gwartney, Lawson, & Hall, 2013). According to the “Economic Freedom of the World: 2013 Annual Report”, Mongolia ranked 68th among 152 countries and scored 7.06 points in the degree of economic freedom. Moreover, freedom to trade internationally is estimated at 6.09 points; Mongolia ranks 92nd in this area, which demonstrates that its participation in international trade faces substantial tariff and non-tariff barriers. Under these circumstances, it can be concluded that legal restrictions and regulatory barriers in trade and customs create substantial burden for Mongolian companies. However, policy choice of trade liberalization vs. domestic market protection is not only an economic issue, but also an issue of international politics.

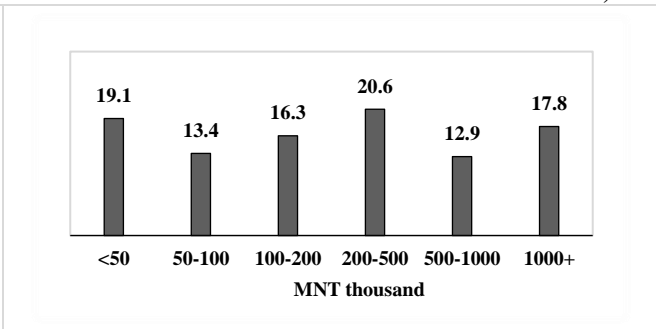
In this section, we identify and measure transaction cost of international trade barriers to SMEs. In the survey, we found that 5.3 percent of enterprises export their products and 33.4 percent import raw materials and goods. Of all surveyed SMEs, 34.0 percent needed to get special approval, 61.5 percent of which obtain one time customs license and the remaining 38.5 percent obtain licenses every time when they make export or import. It takes approximately 6 to 7 days to receive imported goods or ship exported goods from custom warehouses after filling in customs application.

FIGURE 4-7. DISTRIBUTION OF TRANSACTION COST BURDEN OF TRADE, %



Source: The survey findings and researcher's calculation

FIGURE 4-8. DISTRIBUTION OF TRANSACTION COST BURDEN OF TRADE PER WORKER, %



Source: The survey findings and researcher's calculation

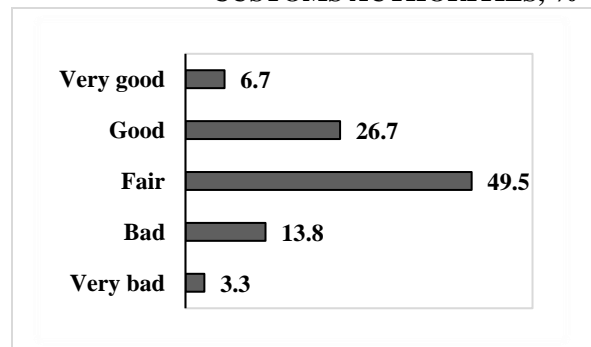
We aimed to estimate transaction cost in international trade which arises from four sources: (i) official customs clearance fee (direct cost), (ii) employee's time spent on customs clearance, cost of waiting customs authorities' decision and cost of time spent for paying customs tax (indirect cost), (iii) informal payment (gift or bribe) to government officials for getting customs license, clearance of traded goods, and (iv) fine or penalty. Figure 4-7 and Figure 4-8 present the transaction cost per sales turnover and transaction cost per worker in international trade.

Detailed analysis shows that average transaction cost of international trade is MNT9.5 million for SMEs that run trade-related activity. Of which, average direct cost is MNT7.2 million, indirect cost is MNT2.4 million, informal payment is MNT2.2 million and penalty is MNT2.4 million for SMEs that encountered these types of transaction cost.

Of all SMEs that run trade-related activities, 58.4 percent faced transaction cost less than 1 percent of sales turnover, while 23 percent spent more than 3 percent of their turnover (Figure 4-7). In terms of transaction cost per worker, the burden is MNT0.9 million for micro businesses, MNT1.4 million for small businesses, and MNT0.6 million for medium businesses.

Figure 4-9 displays perception of the firms surveyed about the speed and quality of the services provided by the customs authorities.

FIGURE 4-9. SERVICE QUALITY OF CUSTOMS AUTHORITIES, %



Source: The survey findings and researcher's calculation

Of the entities surveyed, 33.5 percent evaluated the services as very good and good, whereas 17.1 percent evaluated as poor and extremely poor.

5. TRANSACTION COSTS RELATED TO INFRASTRUCTURE AND FINANCIAL ENVIRONMENT

5.1. Transaction costs of connecting to infrastructure

A weak infrastructure development in developing countries reduces economic efficiency and increases cost of doing business, as seen from the studies conducted annually by the World Bank and the World Economic Forum (World Bank, 2015; Schwab & Sala-i-Martin, 2014).

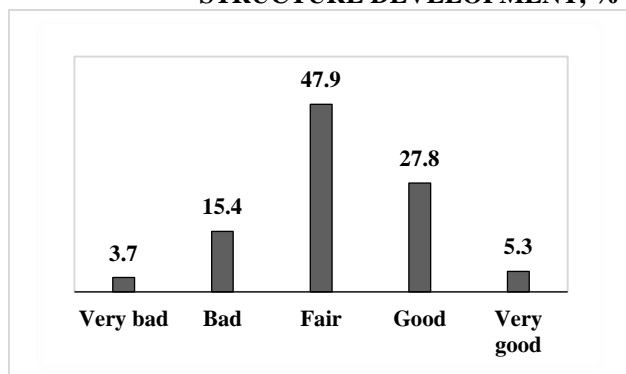
Providing accessible and efficient infrastructure is vital for the economy to work efficiently. To be precise, infrastructure development is a key factor for determining the location of economic activities and production of goods that can be developed in a country. For example, in Mongolia, in recent years considerable effort has been devoted to constructing basic infrastructure for commencing major economic projects that are under way. In *Doing Business 2015* survey (World Bank, 2014), Mongolia ranked in 142nd out of 189 countries by the ease of getting electricity. It shows that transaction costs associated with infrastructure are relatively high in the country.

Developing infrastructure allows to reduce the distance effect between regions, integrate national markets, and connect regional and international markets at a low cost. In addition, the quality and availability of infrastructure can not only boost economic growth but also have positive effect on reducing poverty and inequality. Having well-developed transportation and communication sectors is a prerequisite for reaching the least developed parts where most of the core economic activities takes place. Developing an efficient way of constructing high-quality roads, railway, ports and airlines allows for entrepreneurs to allocate and transfer optimally their human and other resources and deliver their products and services to the customers in a safe and timely manner. Furthermore, the outage and shortage of electricity can affect strongly the production processes. Reliable and available telecommunication networks generate an opportunity for continuous and free information flow in a country. Improving connectivity of entrepreneurs and acquiring information necessary for decision making at a low cost will boost economic efficiency.

Endogenous growth models include basic infrastructure as an individual factor in the production function which contributes to the total output in combination with other production factors. For example, in the public good model, government expenditure is included in the production technology as a pure public good, and the model proves that public good has a positive effect on input productivity and long run economic growth (Barro, 1990b). Similarly, endogenous growth model shows that underinvestment generates congestion in infrastructure such as wastewater treatment plant, police and firefighting, basic education, etc. negatively affecting total economic output (Barro & Sala-i-Martin, 1992c).

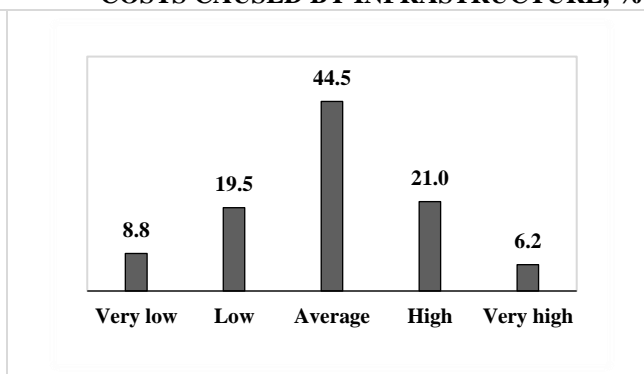
The main purpose of this subsection is to identify and measure transaction cost of the basic infrastructure development in Mongolia for SMEs. To do this, we asked the 1541 SMEs in the sample 31 questions that help to measure approximately transaction costs caused by infrastructure and identify their sources. The results of the first two questions are illustrated in the figures below. A third of SMEs involved in the survey evaluated the current infrastructure development as “very high” and “high”, while 19.1 percent evaluated as “poor” and “very poor”. The remaining 47.9 percent of respondent SMEs evaluated it as moderately developed. Moreover, 71.7 percent of SMEs perceive that cost incurred by their businesses due to infrastructure development is moderate or higher (i.e., “high” and “very high”). It can be concluded that the current infrastructure development causes substantial costs for SMEs (figure 5-1, figure 5-2).

FIGURE 5-1. PERCEPTION OF INFRASTRUCTURE DEVELOPMENT, %



Source: The survey findings and researcher's calculation

FIGURE 5-2. PERCEPTION OF ADDITIONAL COSTS CAUSED BY INFRASTRUCTURE, %



Source: The survey findings and researcher's calculation

When we disaggregate the above perception by economic sector (Table 5-1) and size (Table 5-2) of SMEs, additional cost caused by poor infrastructure development is not significantly different among economic sectors, but it is relatively high for medium-sized businesses compared to small and micro businesses.

TABLE 5-1. PERCEPTION ON ADDITIONAL COSTS CAUSED BY INFRASTRUCTURE, BY ECONOMIC SECTOR

	Agriculture	Manufacturing	Service
Very low	13%	7%	10%
Low	6%	19%	20%
Moderate	53%	45%	44%
High	19%	23%	20%
Very high	9%	5%	6%
Total	100%	100%	100%

Source: The survey findings and researcher's calculation

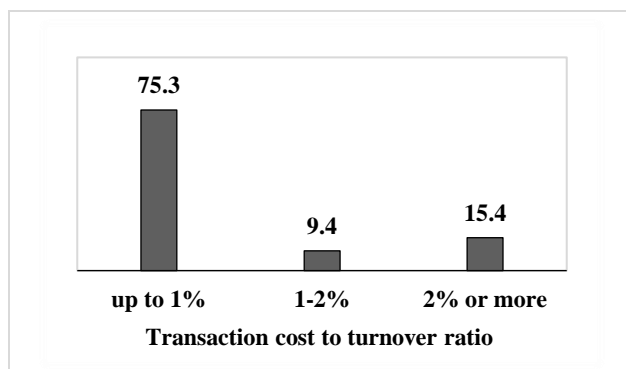
TABLE 5-2. PERCEPTION ON ADDITIONAL COSTS CAUSED BY INFRASTRUCTURE, BY SIZE

	Micro	Small	Medium
Very low	10%	9%	7%
Low	19%	20%	20%
Moderate	47%	45%	40%
High	18%	18%	28%
Very high	5%	7%	5%
Total	100%	100%	100%

Source: The survey findings and researcher's calculation

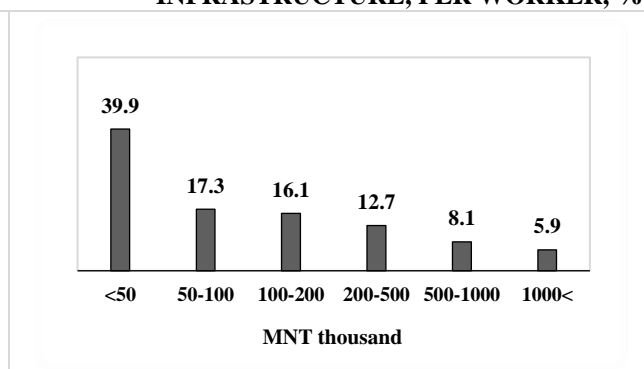
Consistent with our general methodology, transaction costs related to infrastructure is measured in the following three categories: (i) direct costs, including costs for expanding roads and parking space near the enterprise, connecting to electricity and heating, and costs associated with landscaping; (ii) indirect costs, including additional costs or losses incurred due to power outages, road (re)construction, public transport delay, road space rationing, and disruptions in electricity, water and heating due to maintenance work; (iii) informal payments, including gifts and bribe given to public servants.

FIGURE 5-3. TRANSACTION COST BURDEN ASSOCIATED WITH INFRASTRUCTURE, %



Source: The survey findings and researcher's calculation

FIGURE 5-4. DISTRIBUTION OF TRANSACTION COSTS ASSOCIATED WITH INFRASTRUCTURE, PER WORKER, %



Source: The survey findings and researcher's calculation

More than half of interviewed SMEs (53.0 percent) encountered some transaction costs associated with infrastructure. In Figure 5-3, 75.3 percent of these SMEs faced the burden of this type of transaction costs of less than 1.0 percent of their annual turnover, while 15.4 percent bore

a burden of more than 2.0 percent of their annual turnover. In Figure 5-4, 40.0 percent of those SMEs spent less than MNT 50,000 per worker as a transaction cost.

As Figure 5-5 shows, the burden of infrastructure related transaction cost or the percentage of transaction cost in sales turnover is highest among micro entities (2.7 percent on average). The result reveals that transaction costs tend to cause greater burden as the businesses become smaller. This conclusion is verified by estimation of transaction costs per worker. An average transaction cost per worker is MNT 375,500 for micro entities, MNT 213,300 for small-sized entities and MNT 141,200 for medium-sized entities. It can be concluded that poor infrastructure development become considerable barrier to the entrepreneurs starting a new business and micro businesses.

Since infrastructure development and progress fully depend on public policy decision, public service availability and promptness is vital for reducing transaction cost. In the survey, 16 percent of entities requested to connect to electricity and heating or upgrade current connection, but most of them (72 percent) did not receive any response from government agencies on time. In addition, 11.0 percent of all entities informed that in the last 2 years they had some transaction costs for maintaining or expanding road and parking space near their location and getting or upgrading connection to electricity and heating, and 14.0 percent of them paid MNT922,000 informal payment on average to government officials.

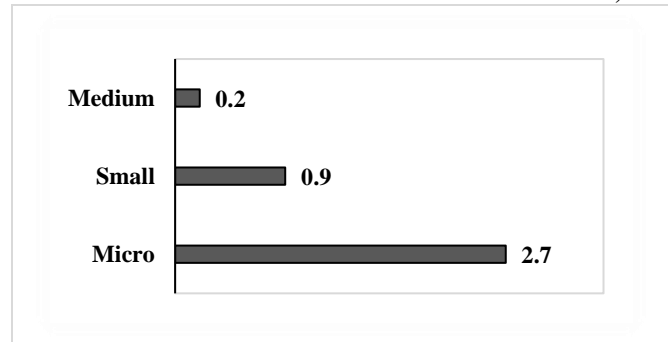
Public transport and transportation costs are key factors affecting profitability of SMEs. Entities in the survey have 3 vehicles on average. In Ulaanbaatar city, 21 percent of SMEs face additional direct and indirect costs about MNT1.5 million a month on average and due to car place number restriction rule. This road space rationing policy also limits their income.

FIGURE 5-6 shows the distribution of perception of SMEs about the quality of the services of public organizations in charge of infrastructure. Of all SMEs, 16.8 percent perceive the service quality of public organizations to be “very poor” and “poor”, 55.2 percent perceive to be “moderate”, and 28.1 percent perceive to be “very good” and “good”.

5.2. Transaction costs of dealing with financial institutions

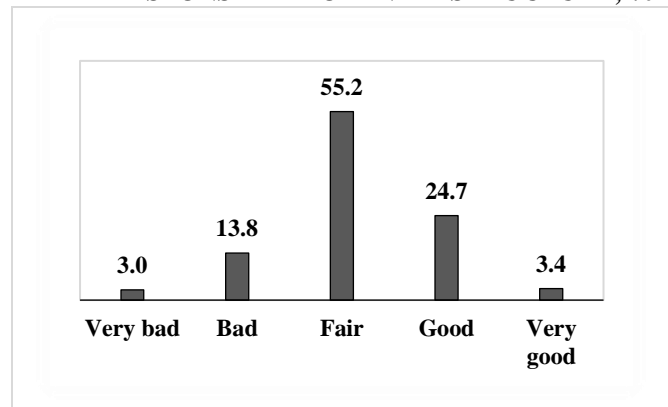
Issues of the financial environment of SMEs are among the most important in developing countries. Often times business project proposals developed by SMEs are rejected by financial institutions due to numerous factors including high financing requirements, legal barriers, poor and inefficient public institutions, and lack of collateral. Although not all SMEs necessarily turn into large corporations, they all face similar financial issues when starting or expanding their

FIGURE 5-5. INFRASTRUCTURE RELATED TRANSACTION COST TO TURNOVER RATIO, BY THE SIZE OF SMEs, %



Source: The survey findings and researcher's calculation

FIGURE 5-6. SERVICE QUALITY OF IMPLEMENTING AGENCIES THAT ARE RESPONSIBLE FOR INFRASTRUCTURE, %



Source: The survey findings and researcher's calculation

business. Generally, opportunities to strengthen their market position, run stable operation and expand or develop business are limited by their ability to find affordable financing and allocate it efficiently. SMEs' financing needs are different at each stage of business growth, and management of the working capital, taking a loan and other financial operations have direct and profound influence on SMEs' cash flow.

SMEs' financing needs may vary (Johnsen & McMahon, 2005; Zavatta, 2008) depending on factors such as:

- ✓ Home country,
- ✓ Industrial sectors,
- ✓ Perceived business risk,
- ✓ Asset structure (e.g., tangible versus intangible; capital-intensive versus less capital intensive; and high or low fixed assets),
- ✓ Debt-to-equity ratio,
- ✓ Growth rate, and
- ✓ Profitability.

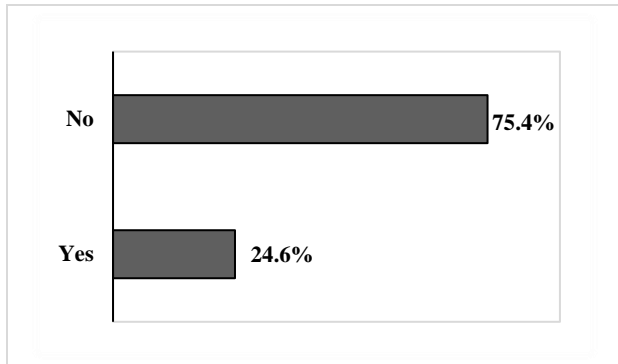
SMEs can raise the necessary funds from a number of different financial instruments. These instruments can be broken down into six general categories listed below (Abe, Troilo, Juneja, & Narain, 2012):

- ✓ Informal financing (personal savings, borrowing from family or friends, borrowing from money lenders, trade credit, etc.)
- ✓ Internal financing (retained profit, internal savings, sales of assets, etc.)
- ✓ Debt financing (short-/long-term loans, line of credit, promissory notes, credit cards, overdraft, corporate bonds, etc.)
- ✓ Equity financing (seed capital, angel finance, venture capital, IPOs, etc.)
- ✓ Asset-based financing (factoring, invoice discounting, inventory financing, etc.)
- ✓ Leasing (capital leasing (hire-purchasing), operating leasing, etc.)
- ✓ Government grant and subsidies (grants, interest subsidies, credit guarantees scheme, loan insurance schemes, loan schemes, etc.)

There are several studies on financial environment of small entities conducted by the Bank of Mongolia, World Bank, ADB and other international organizations (Bank of Mongolia, 2011, 2012, 2014). According to World Bank survey (World Bank, 2015), Mongolia ranked 61st out of 189 countries by ease of getting credit and received 55 points out of 100 which is higher than the average (48.6) of East Asia and the Pacific region.

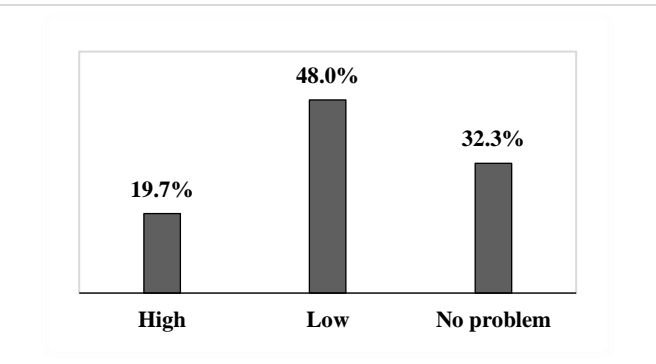
The purpose of this subsection is to measure transaction costs incurred by SMEs when they get financing from financial institutions and take a subsidized loan and/or government loan guarantee. Of interviewed 1541 SMEs, 24.6 percent took some financing or investment in the last three years (figure 5-7).

FIGURE 5-7. PERCENT OF SMEs WHICH RECEIVED FINANCING AND INVESTMENT



Source: The survey findings and researcher's calculation

FIGURE 5-8. DIFFICULTY OF GETTING FINANCIAL MARKET INFORMATION

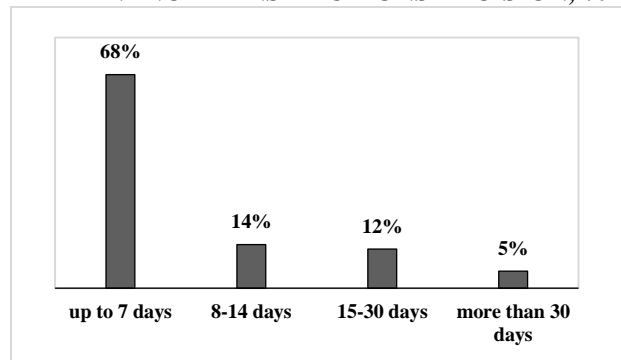


Source: The survey findings and researcher's calculation

One source of increasing transaction costs is cost of getting information. Of interviewed SMEs, 19.7 percent assessed it was “difficult” for them to get financial market information, while 48.0 percent assessed “not difficult” (Figure 5-8). Furthermore, a decision to issue a loan is made by financial institutions after 13 days on average once the loan request is placed (Figure 5-9). A loan request was decided within a week for 68.2 percent of SMEs, and 3 weeks or more for 17.9 percent of SMEs.

In the survey, we estimate the total transaction cost of getting finance from financial institutions and taking soft loan and government guarantee as a sum of direct and informal costs. Direct costs refer to costs of creating collateral, preparing the required documents for the loan, salaries of persons working on loan request, preparing documents for soft loan or government guarantee and salaries of persons in charge of these tasks. Informal payment refers to bribe given to public officials in order to take soft loan or governmental guarantee.

FIGURE 5-9. WAITING TIME FOR FINANCIAL INSTITUTIONS DECISION, %

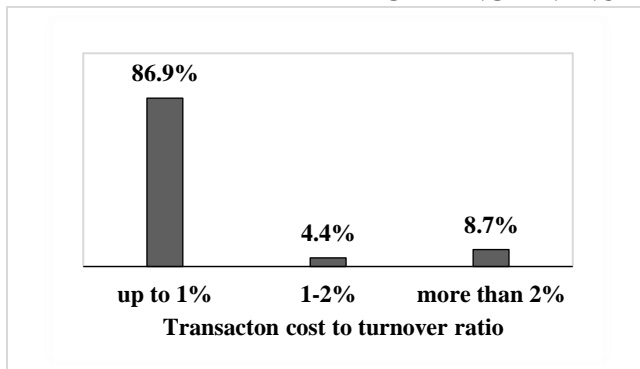


Source: The survey findings and researcher's calculation

The average transaction cost of getting loan is MNT1.4 million and it is about 1.0 percent of their annual sales revenue. To be precise, 86.9 percent of the 496 SMEs incurred transaction costs for getting financing spent on this activity up to 1.0 percent of annual sales revenue, while 8.7 percent encountered the cost more than 2.0 percent of their turnover.

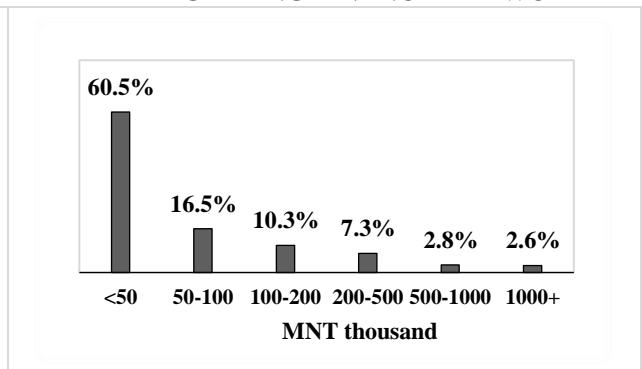
Moreover, the average transaction cost per worker is MNT 225,300 for micro entities, MNT 100,600 for small entities and MNT 75,100 for medium entities. The data shows that micro businesses bear higher burden of this type of transaction cost.

FIGURE 5-10. DISTRIBUTION OF TRANSACTION COST BURDEN OF GETTING FINANCE



Source: The survey findings and researcher’s calculation

FIGURE 5-11. DISTRIBUTION OF TRANSACTION COST OF GETTING FINANCE PER WORKER



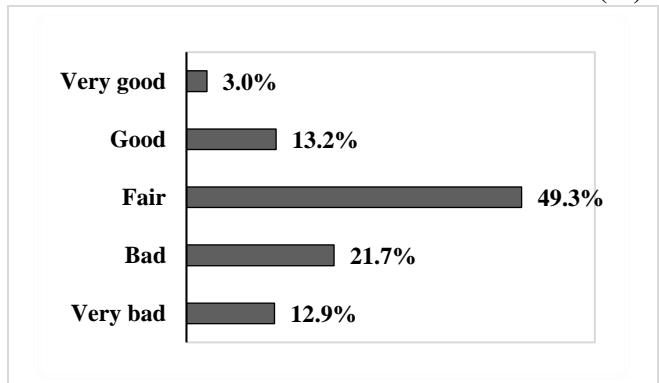
Source: The survey findings and researcher’s calculation

One of the toughest constraints to get finance is collateral required by financial institutions. SMEs usually encounter difficulties to start or expand their business due to the lack of collateral. SMEs, therefore, demand for policy makers to pay attention to this issue. About 44.0 percent of all SMEs involved in the survey responded that banks and financial institutions require collateral for a loan. The average direct cost of creating loan collateral is MNT 2.4 million and it is relatively high for SMEs.

The government adopted law on Credit Guarantee Fund in 2012 to promote SMEs development, and there is necessity to conduct survey among SMEs about how effectively the law is enforced in practice. However, only 3.7 percent of interviewed SMEs answered that they received a soft loan or credit guarantee provided by government and it shows that the accessibility to the Credit Guarantee Fund is still very low. Those SMEs spent directly MNT521,000 on average to get a soft loan or credit guarantee by the government.

Figure 5-12 presents the perception of SMEs about government activities associated with soft loan and credit guarantee in promoting SMEs development. Of interviewed SMEs, 16.2 percent assessed the program benefit as “very good” and “good”, while 34.6 percent evaluated as “very poor” and “poor”.

FIGURE 5-12. PERCEPTION OF SMEs DEVELOPMENT POLICY (%)



Source: The survey findings and researcher’s calculation

6. TOTAL TRANSACTION COST

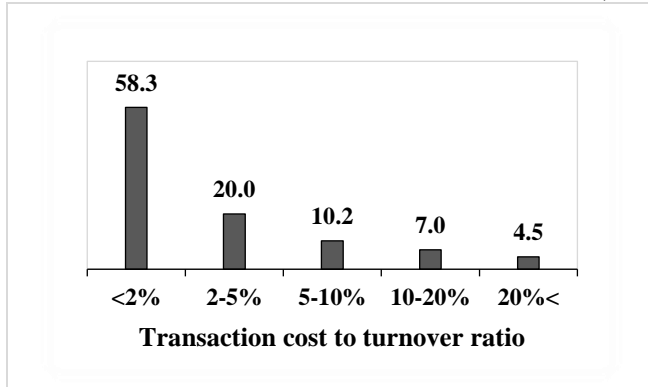
In this chapter, we aggregate transaction costs described and estimated in the previous chapters and measure total burden of the transaction cost carried by SMEs.

Total transaction cost consists of three type of cost encountered in all procedures to deal with government regulations: direct cost such as seeking information and advice, paying fees or charge etc.; indirect cost such as opportunity cost (value of spent time) of relating government agencies; informal cost such as gift or bribe to government officials to speed up the procedure etc., To measure annual transaction cost, we excluded transaction costs of registering a business or getting special permit because these costs are needed just one time. So, total transaction costs presented in this chapter are a sum of non-market transaction costs faced by SMEs on a regular basis. Although some costs are not measured annually, they were estimated by using their expected cost in a given year.

The total transaction cost is calculated as a sum transaction costs of tax compliance, dealing with special inspection, connecting to infrastructure, taking customs service, solving contract disputes, relating central and local government agencies, and getting finance. As of 2015-16, SMEs were bearing **MNT9 million as non-market transaction cost** for above mentioned procedures. This is about **4.4 percent of their annual turnover on average**. In previous chapters, we presented the detailed estimations of transaction costs for each procedure.

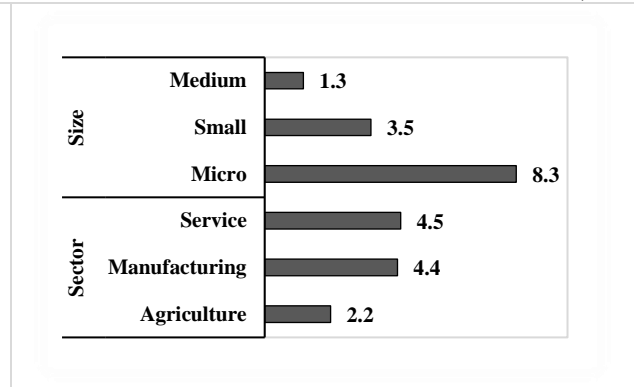
The burden of total transaction cost in terms of cost to turnover ratio is shown in the figure below. Specifically, 4.5 percent of SMEs faced transaction cost of more than 20 percent of their annual sales turnover while 58.3 percent of SMEs encountered the cost less than 2 percent of turnover.

FIGURE 6-1. DISTRIBUTION OF TOTAL TRANSACTION COST BURDEN, %



Source: The survey findings and researcher's calculation

FIGURE 6-2. TRANSACTION COST BURDEN BY SIZE AND SECTOR, %



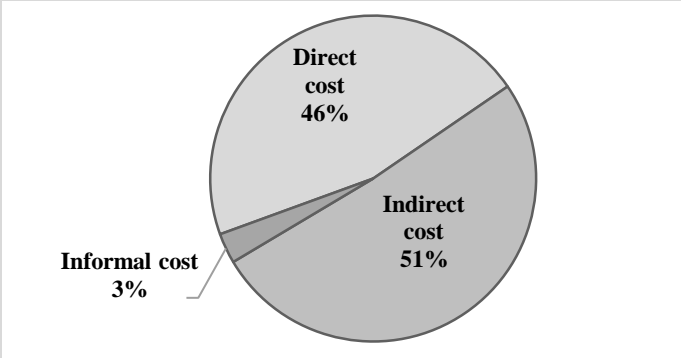
Source: The survey findings and researcher's calculation

The burden of transaction cost depends on the size and type of economic activity of SMEs. As shown in Figure 6-2, in particular, micro businesses bear considerably greater burden of transaction cost than others. This is partly because of their small size, but it can also be seen as an indication of the fact that SMEs face numerous unnecessary government procedures and red tape to run their business. Another point is that agriculture SMEs face lower transaction cost burden than service and manufacturing businesses.

The combined share of transaction costs of tax compliance and collecting custom documents is 73 percent in total transaction cost. This is partly because the range of enterprises which have to comply with regulations of those government agencies is wider, but it indicates that it is essential to make procedures of tax reporting and custom compliance simpler and less bureaucratic.

Indirect transaction cost accounts for 51 percent of total transaction cost (Figure 6-3). Of all interviewed enterprises, 12 percent paid bribe and gift to government officials to run their business that is 3 percent of total transaction cost.

FIGURE 6-3. TRANSACTION COST COMPOSITION



Source: The survey findings and researcher’s calculation

7. CONCLUSION

Many studies conducted by international and domestic organizations highlight that one of the main impediments to small and medium enterprises growth is the formalities and burden of government organizations in developing countries. However, studies that discuss these constraints in detail and measure the costs associated with government regularions in Mongolia are almost non-existent. Using the stratified random sampling from the Business Register Database of the National Statistical Office, we attempted to accurately measure the transaction costs that are incurred when small and medium enterprises deal with governmental organizations to run their businesses. Transaction costs are borne by small businesses at every stage of relationship between the state and private sector:

- ✓ Formal registration;
- ✓ Licensing
- ✓ Examination of specialized inspection;
- ✓ Enforcement of contract;
- ✓ Tax compliance;
- ✓ Getting customs service;
- ✓ Connecting to infrastructure;
- ✓ Other relation with governmental organization including SME policy implementation;
- ✓ Getting finance.

This study aims at identifying major sources of non-market transaction cost carried by small and medium enterprises. We believe that survey findings will be helpful to reduce the difficulties caused by the state and improve overall business environment.

Non-market transaction costs include inefficient costs of time and effort taken to overcome too many unnecessary procedures in doing business. Researchers emphasize that non-market transaction cost is a major factor that hinders socio-economic development because its size is relatively high in developing countries. This survey shows that the average non-market transaction cost faced by SMEs amounts to 4.4 percent of their sales turnover. Especially, micro and small enterprises bear significantly greater burden of transaction cost.

Online services are needed to improve public services, namely, formal registration, getting a permit or reporting. The survey findings suggest that availability of and access to information of public services is a crucial step to reduce transaction costs faced by SMEs.

Indirect transaction cost is the main source of burden in each procedure which SMEs have to deal with. Namely, opportunity cost of time required for entering into a relation with implementing agencies, salary of employees who are responsible for these activities, and cost of time spent waiting for response from government agencies are significantly higher. Accordingly, the government needs to take persistent actions for making public service easily accessible and prompt, cutting back the procedures and number of voluminous documentation required by public agencies in order to reduce transaction costs faced by SMEs.

It should be noted that the occurrence of bribes and informal payments made by SMEs is relatively low and average monetary value is lower than other types of costs. However, the amount of bribe can be higher in reality since SMEs may not provide accurate response on this sensitive issue. Therefore, the current actions to fight corruption need to be taken further.

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