Analysis of the Determinants of Micro Enterprises Graduation\textsuperscript{1}

Ascarya\textsuperscript{2}

Siti Rahmawati\textsuperscript{3}

Abstract

Micro Enterprises (MEs) account for 55.86 million or 98.9\% of the total enterprises in Indonesia. They employ more than 90\% of people, but almost all of them never graduate from micro to Small Enterprises (SEs). This study creates the graduation model and analyzes the determinants of MEs graduation using field survey, Structural Equation Modeling (SEM) and Strategic Assumption Surfacing and Testing (SAST) methods. The estimated of SEM model show that the main determinants of micro enterprise graduation are the Standard Operating Procedure and information technology, the characteristic of their business, the infrastructure and macroeconomic condition, and family support. Other important determinants include visionary, entrepreneurship and business experience of the owner, and the skilled human resources. Most micro and small enterprises do not have the key factors to success and to graduate. Religious Islamic characteristics do not emerge as the main key success factors of ME graduation, although they are necessary factors including the spiritual uplift, the trustworthy (amanah), and truthful (shiddiq). SAST results show that the most important policies needed by MSEs relates to the price stability and infrastructure, the capital support, the way and the cost of doing business, the strategic location, the financial access, the raw material, and the availability of appropriate technology.

Keywords: SME’s, structural equation model, firm performances, graduation model, decision making.

JEL Classification: D78, L11, L25

\textsuperscript{1} The authors would like to thank Andung Setyobudi for his advisory, Atika R. Maerifikah for her research assistantship, as well as Budi Suherjo and his team for the survey.

\textsuperscript{1} Paper presented at "the 6th Islamic Economic System Conference", organized by Faculty of Economics and Muamalat (FEM), Universiti Sains Islam Malaysia, Krabi, Thailand, September 29-30, 2015.

\textsuperscript{2} Center for Central Banking Research and Education, Bank Indonesia. Jl. MH Thamrin No.2, Sjafruddin Prawiranegara Tower, 20th fl., Jakarta 10350, Indonesia. Email: ascarya@bi.go.id.

\textsuperscript{3} Center for Central Banking Research and Education, Bank Indonesia. Jl. MH Thamrin No.2, Sjafruddin Prawiranegara Tower, 20th fl., Jakarta 10350, Indonesia. Email: s_rahmawati@bi.go.id.
1. INTRODUCTION

Micro Enterprises (ME) have been playing important role in Indonesian economy. After 1998 Asian crisis, particularly in rural area, ME considered to be the safety valve in the process of national economic recovery in enhancing economic growth, reducing unemployment rate and alleviating poverty. Number of ME accounts for 98.8% (or 55.9 million) of total enterprises in Indonesia in 2012.

Statistical data expresses the significance of ME’s contribution towards Growth Domestic Product (GDP) of about 34.7% in 2011 and 35.8% in 2012. It is just below the contribution of large enterprises towards the GDP. Furthermore, the ME sector could absorb for about 96.0 million labors (90.8%) in 2011 and 99.9 million labors (90.1%) in 2012.

| Table 1: Statistics of Micro, Small and Medium Enterprises in 2012 |
|-----------------|----------------|----------------|----------------|
|                 | Number         | GDP            | Labor          | Export*        |
| Micro           | 55,856,176     | 98.79%         | 35.81%         | 1.51%          |
| Small           | 629,418        | 1.11%          | 9.68%          | 4.09%          | 3.45%         |
| Medium          | 48,997         | 0.99%          | 13.59%         | 2.94%          | 11.48%        |
| Large           | 4,968          | 0.01%          | 40.92%         | 2.84%          | 83.56%        |
| MSMEs           | 56,534,592     | 99.99%         | 59.08%         | 97.16%         | 16.44%        |

Source: Ministry of Cooperation and SMEs; * 2011 data.

With their specialties – especially low financial capital –, ME could produce either goods or services in the short-term process. Having simple management and huge unit volume scattered in the whole nation, brought about ME to have better resistance towards business cycle. Despite the historical success of ME, there exist unresolved issues to explore, whereby ME have always been in difficulties to access loans or financing from the banking industry for a number of reasons (conventional as well as Islamic financial institutions).

According to Ascarya (2014), there are several models of microfinance institutions (MFI), conventional as well as Islamic MFI, that specifically serve poor people and ME, such as Baitul Maal wa Tamwil (BMT). Meanwhile, several financing models to empower and to develop ME through BMT have been rapidly growing, including commercial, non-commercial, and mixed models. These include direct and indirect linkage models between Islamic banks and BMT. Some models utilize zakat, waqf, and donors as their primary/secondary source of funds. To sum up, there exist several financing models (with or without TA) which were developed to target specific customers of poor people and ME, with or without social funds.
Nevertheless, the percentage of ME over the total enterprises has not changed significantly for the last 15-years. The data showed only a slight increasing trend of Small Enterprises (SE) and Medium Enterprises (ME) during the period of 2006-2012.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>99.84%</td>
<td>99.85%</td>
<td>99.78%</td>
<td>99.78%</td>
<td>98.95%</td>
<td>98.90%</td>
<td>98.85%</td>
<td>98.79%</td>
</tr>
<tr>
<td>Small</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.96%</td>
<td>1.02%</td>
<td>1.07%</td>
<td>1.11%</td>
</tr>
<tr>
<td>Medium</td>
<td>0.15%</td>
<td>0.14%</td>
<td>0.20%</td>
<td>0.21%</td>
<td>0.07%</td>
<td>0.08%</td>
<td>0.08%</td>
<td>0.09%</td>
</tr>
<tr>
<td>Large</td>
<td>0.01%</td>
<td>&lt;0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

It is necessary to analyze the capability of Islamic financial institution on supporting the micro enterprises. More importantly, we have to address the capability of the micro enterprises to step up and to graduate to small enterprises.

The number of Micro Enterprises dominates in Indonesia, and it employs more than 90 percent of the total labor. For this reason, it is important and relevant to analyze the determinants of micro enterprise graduation to the larger scale (small enterprises; SE, or medium enterprise; ME). Expanding the size of micro enterprises will directly improve the wellbeing of their owners and employees.

Explicitly, the objective of this paper is to analyze the determinants of Micro Enterprises (ME) to improve gradually and to graduate to Small Enterprises (SE). This study will cover two groups of MSE’s; the customers of Islamic financial institutions and customers of conventional ones.

On this paper, we design the ME Graduation model. We apply the Structural Equation Modeling (SEM) to analyze the determinants of the ME graduation. In addition, we also apply the Strategic Assumption Surfacing and Testing (SAST) on designing the Islamic ME Graduation model.

The next section of this paper provides the literature reviews on the micro, small, and medium enterprises, the business life cycle, and previous studies related to this topic. The third section discusses the data, the methodology of this paper, and the model to estimate. Section four present the result of the estimated model and its analysis, while section five will conclude and close the presentation of this paper.

2. LITERATURE REVIEW

2.1 Micro and Small Enterprises

The smallest business scale is micro enterprises (MEs) with micro scale operations and relatively few or frequently no permanent employees. Since MEs are not
registered formally, they have no access to formal services. In general, the definition of MSMEs can be expressed by number of employee, total asset, annual sales and capital size. According to Aziz and Rusland (2009), the various classifications of MSMEs could be driven by various type of market structure, production structure, market power, policy as well as legal system in each country.

Criteria of MSMEs varies widely, even across multilateral institutions such as World Bank, European Union (EU), Multilateral Investment Fund (MIF) – Inter-American Development Bank (AfDB), Asian Development Bank (ADB), and United Nations Development Program (UNDP). In general, they defined MSMEs by number of employees, total assets, and annual sales. According to AfDB, enterprises with more than 50 employees are classified to be large enterprises. Meanwhile World Bank and EU classify enterprises with 299 and 249 employees as medium enterprises. These differences are dominantly driven by different level of each region’s economy.

Table 3: MSMEs Criteria Used by Multilateral Institutions

<table>
<thead>
<tr>
<th>Multilateral Institutions</th>
<th>Micro Enterprises</th>
<th>Small Enterprises</th>
<th>Medium Enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employee</td>
<td>Total Assets/ Annual Sales</td>
<td>Employee</td>
</tr>
<tr>
<td>World Bank</td>
<td>&lt; 11</td>
<td>TA:&lt;$10.000 AS:&lt;$100.000</td>
<td>&lt; 50</td>
</tr>
<tr>
<td>EU</td>
<td>&lt; 10</td>
<td>€2Mil</td>
<td>&lt; 50</td>
</tr>
<tr>
<td>MIF – IADB</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>ADB</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>UNDP</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: UNDP; DCED (Donor Committee for Enterprise Development); Gibson & Vaart (2008); modified by Authors

Criteria of MSMEs also varies across countries. In Chile, MSMEs is defined based on annual sales, while India defines it based on capital size. Some countries classified MSMEs based on number of employee including Jamaica, Albania, Australia, Oman, and Saudi Arabia. Specifically, China categorized total employees based on economic sector.

Some countries combine several benchmarks in defining MSMEs. Peru and Dominican Republic used the number of employee and the annual sales to define MSMEs. Philippines, Cambodia and Nigeria combined the number of employee and the total assets for MSMEs classification. Costa Rica and Bolivia used the number of employee, the annual sales, and total assets.
Economic sector also affects the definition of MSMEs. South Africa has set different definition of MSMEs across mining, electricity, manufacture and construction. Argentina used different level of annual sales to classify the enterprises in the sectors of industry, retail, services and agriculture. Malaysia distinguished MSMEs in service sector and manufacture, based on number of employee and annual sales.

In Indonesia, several institutions and act regarding MSMEs use different criteria to define MSMEs classification. Statistics Indonesia defines MSMEs based on the number of employee without taking into account the total assets and the annual sales. Enterprises with less than 5 employees are classified as MEs, 5 to 19 employees for SEs, and 20 to 99 employees for Medium Enterprises. Later, the MSMEs Act No. 28/2008 defines MEs based on assets and annual sales, as shown in Table 4.

Table 4: Criteria MSMEs

<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Criteria (MSMEs Act No.20/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICRO</td>
<td>- Assets &lt; Rp50 million (real property excluded)</td>
</tr>
<tr>
<td></td>
<td>- Annual sales is &lt; Rp300 million</td>
</tr>
<tr>
<td>SMALL</td>
<td>- Assets Rp50 million – Rp500 million (real property excluded)</td>
</tr>
<tr>
<td></td>
<td>- Annual sales Rp200 million – Rp2.5 billion</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>- Assets Rp500 million – Rp 10 billion</td>
</tr>
<tr>
<td></td>
<td>- Annual sales Rp2.5 billion – Rp10 billion</td>
</tr>
</tbody>
</table>

2.2 Business Life Cycle Framework

The business life cycle model explains the development of enterprise with certain number of stages along its process. Different authors proposed different number of stages in their model, see Table 5 below.

Table 5: Business Life Cycle Models by Number of Stages

<table>
<thead>
<tr>
<th>No. of Stage</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Lippitt and Schmidt (1967); Downs (1967); Scott (1971); Katz and Kahn (1978); Smith, Mitchell and Summer (1985)</td>
</tr>
<tr>
<td>4</td>
<td>Chandler (1962); Steinmetz (1969); Lyden (1975); Kimberly (1979); Quinn and Cameron (1983); Kazanjian and Drazin (1989)</td>
</tr>
<tr>
<td>5</td>
<td>Penrose (1952); Greiner (1972); Galbraith (1982); Miller and Friesen (1984); Scott and Bruce (1987); Jansen and Chandler (1993); Lester and Parnell (1999)</td>
</tr>
<tr>
<td>6</td>
<td>Churchill and Lewis (1983); Hanks, et al. (1993)</td>
</tr>
<tr>
<td>8</td>
<td>Torbert (1974)</td>
</tr>
<tr>
<td>10</td>
<td>Adizes (1979)</td>
</tr>
</tbody>
</table>

Source: Quinn and Cameron (1983 p.35-37); Perényi, et al. (2011 p.144); Lester, et al. (2003 p.341); modified by Authors
Many studies have applied business life cycle framework on various objects. The framework applies not only for organization, but also for public company and corporate. Table 6 shows the life cycle models across unit of analysis.

<table>
<thead>
<tr>
<th>Units of Analysis</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Chandler (1962); Downs (1967); Torbert (1974); Katz and Kahn (1978); Galbraith (1982); Lester and Parnell (1999)</td>
</tr>
<tr>
<td>Organizations</td>
<td>Greiner (1972); Adizes (1979); Hanks, Watson, Jansen and Chandler (1993); Kimberly (1979); Quinn and Cameron (1983); Smith, Mitchell and Summer (1985)</td>
</tr>
<tr>
<td>Public Organizations</td>
<td>Lyden (1975)</td>
</tr>
<tr>
<td>Firms/Companies/Industry</td>
<td>Lippitt and Schmidt (1967); Miller and Friesen (1984); Penrose (1952); Porter (1980)</td>
</tr>
<tr>
<td>Large Enterprises</td>
<td>Channon (1968); Salter (1970)</td>
</tr>
<tr>
<td>Small and Medium Enterprises</td>
<td>Mahar and Coddington (1966); Steinmetz (1969); Barnes and Hershon (1976); Bruce (1978); Scott and Bruce (1987); Churchill and Lewis (1983); Kazanjian and Drazin (1989)</td>
</tr>
</tbody>
</table>

Source: Scott and Bruce (1987 p.46); Perényi, et al. (2011 p.144); modified by Authors

Many authors have proposed the life cycle of an organization or a company with different stages. However, there are similarities in these models; they categorized business life cycle based on the establishment (birth) to maturity. Adizes (1979) established the most complete categories, where he classified the business life cycle into 10 stages, starting from courtship (initial creation) to the final stage; bankruptcy.

### 2.3 Determinants of MEs Graduation in Islamic Perspective

Islamic entrepreneurship refers to Islamic perspective. Conventional entrepreneurship targets profit maximization from the beginning. On the other hand, the Islamic entrepreneurship may naturally in a well-balanced between making profit and targeting spiritual rewards. Muslim scholars have suggested a number of characteristics to be implemented by Muslim entrepreneurs (Faizal, et al., 2013; Hoque, et al., 2014; Oukil, 2013; Abdullah and Hoetoro, 2011; Kayed, 2006; Kayed and Hassan, 2010; Hassan and Hippler, 2014).

The basic framework of Islamic entrepreneur or Muslimpreneur is taqwa (faith) and ‘ibadah (worship) to Allah SWT (Faizal, et al., 2013). Within this framework, there are other elements that complement the Islamic entrepreneurship including the halal concept, efficiency concept, noble values, trustworthy, welfare, knowledge, and caring for the society as well as the environment.
Hoque, et al. (2014) developed a model of entrepreneurship in modern business based on Al-Quran and Sunnah; ways of life accepted universally by all Muslims. The notable characteristics of entrepreneurship; proposed by Hoque et al. include among others: 1) Owner: fear of Allah, truthful, visionary, honest, patience, optimism, risk-taking, initiative, strategic thought; 2) Business: halal earnings, economical, customer orientation, excellence; 3) Management: innovation; and 4) Resources: knowledge, employee involvement, hardworking. To develop entrepreneurship according to Islamic perspective, the model would be used in stages.

In the context of small and medium enterprises empowerment, Abdullah and Hoetoro (2011) proposed Islamic social entrepreneurship as a model in empowering SMEs to operate in a Muslim society. The model basically utilized the stock of social capital and cooperation across Muslim entrepreneurs, as commonly dictated in Al-Qur’an and Sunnah. The main purpose of this SMEs model is to create jobs and to generate value to the communities instead of merely profit for the business owner. The mechanism of this model is described in the Figure 1.

**Figure 1: A Model of Islamic Social Entrepreneurship**

Every model of Islamic entrepreneurship is acceptable as long as it stands on the concept unity of God and obeys the Islamic principles. Along to this concept, a Muslim Entrepreneur will have a strong social responsibility, which is in line with the purpose of human creation. Table 7 shows the summary of Islamic entrepreneurship characteristics.
Table 7: The Summary of Islamic Entrepreneurship Characteristics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Halal Earning</td>
<td>Halal is a top priority (Al-Maidah, 5:88)</td>
<td>Halal Earning (Al-Baqarah, 2:188)</td>
</tr>
<tr>
<td>Economical</td>
<td>Do not waste (Al-A’raf, 7:31; HR. Muslim)</td>
<td>Economical (Al-Isra, 17:26-27)</td>
</tr>
<tr>
<td>Worship</td>
<td>Worship to Allah is a Priority (Al -Hijr, 15:67)</td>
<td>Morality (HR. Bukhari; Al -Qalam, 68:4)</td>
</tr>
<tr>
<td>Morality</td>
<td>Practicing High Moral Values (Al -Baqarah:275)</td>
<td></td>
</tr>
<tr>
<td>Trustworthy &amp; Truthfulness</td>
<td>Trustworthy (Al-Tirmidhi: 1213)</td>
<td>Honesty &amp; Truthfulness (HR. Bukhari)</td>
</tr>
<tr>
<td>Knowledgeable</td>
<td></td>
<td>Knowledge (Thaahaa, 20:114)</td>
</tr>
<tr>
<td>Caring for Society &amp; Environment</td>
<td>Caring for the Society &amp; Environment (Al-Qashash, 28:77; HR. Abu Dawud:2542)</td>
<td>Customer Orientation (Huu’d, 11:85); Employee Involvement (Ibn Majah)</td>
</tr>
<tr>
<td>Initiative</td>
<td></td>
<td>Initiative (Al-Baqarah, 2:42 &amp; 149)</td>
</tr>
<tr>
<td>Risk Taking</td>
<td></td>
<td>Risk Taking (Al-Maidah, 3:159)</td>
</tr>
<tr>
<td>Strategic Thinking</td>
<td></td>
<td>Strategic Thinking (Al-Anfal, 8:22)</td>
</tr>
<tr>
<td>Hard Working</td>
<td></td>
<td>Hard Working (An’Najm, 53:30)</td>
</tr>
</tbody>
</table>
In the context of enterprise graduation, Islamic entrepreneurship should differ from other entrepreneurship regarding the motives and aims. The aim of micro enterprises is to be successful in their business. In the conventional perspective, MEs scholars define success from various aspects, and the common indicators are the employment growth (Mead and Liedholm, 1998), the profit, the annual sales, the assets (McPherson, 1996) and the personal income (Kayed, 2006).

On the other hand, the success measures for a Muslim include and beyond those above. The MEs graduation in Islamic perspective does not necessarily translate into firm growth, but it is more qualitative aspects or innovation. According to Hoque (2014), the innovativeness of entrepreneurs in the Qur’an says “We do not change the circumstances of people until they do not change what is within themselves” (QS. Ar-Ra’d, 13:11). In fact there is no room for an indolent and idle brain in Islam. According to Islamic teachings, a man can have nothing but what he strives for (QS An-Najm, 53:39).

In the Islamic perspective, Siddiqi (1979: p.141 & 151) as cited in Kayed (2006: p.112) defines the aims of the Muslim entrepreneur is to gain (satisfactory) halal profits and to render social services to the wider community. Islam legitimates the profit motive as long as it is free from interest (riba), greed, speculation and exploitation. The economic profit should also not be the ultimate goal of the entrepreneur.

2.4 Previous Studies

There are plenty of studies focusing on the key success factor of small and medium enterprises (SMEs). Some of these studies include, among others, Chittithaworn et al. (2010), Hassanali (2012), Philip (2010), Jasra, et al. (2011), as well as Elster and Phipps (2013).

Key success factors of the small and medium enterprises (SMEs) according to Chittithaworn, et al. (2010) and Philip (2010) include the SMEs characteristic, the management and know-how, the products and services, the way of doing business and cooperation, the resources and finance, and the external environment. Chittithaworn also add the strategy and the customer and market to this list. Hassanali (2012) emphasized the key success factors of SME were strategic framework on business and operational, including strategic implementation and strategic leadership.

Jasra, et al. (2011) mentioned that the key success factors of SME were the financial resources, the marketing strategy, the technological resources, and the government support, the access of information, the business plan, and the entrepreneur’s skills. Meanwhile, Elster and Phipps (2013) stated that the key enablers of SME success were the internal capacity and capability, the external environment, and the vision of the owner.
However, there are only few studies focusing on the graduation of the micro and small enterprise. One of them is part of a three-country research project in Egypt, India and Philippines carried out by the Department of Competitiveness and Social Development of the German Development Institute (Deutsches Institut für Entwicklungspolitik, DIE). It study the determinants of ME graduation and summarize them in six groups.

The first category relates to the owner of the Business, which includes the fear of Allah, the trustworthy, the truthful, the visionary, the entrepreneurship, the leadership and the business experience. The second category is the characteristic of the business itself. This includes halal earnings, product, service, market, customer, cost of business, competition and location. The third category is management know-how. It covers the transparency, professionalism, Standard Operating Procedure, Standard Operating Management, information technology, innovation and networking. The fourth category is the resource, which covers the spiritual capital, skilled human-resource, owned capital, access to finance, technology resource, raw material, and the social capital. The fifth category is external environment, including regulation and policy, infrastructure, macroeconomic, Muslim-majority, corruption, crime, bureaucracy, and tax and retribution. The sixth category is support. This last category includes central government, local government, social fund, technical support, managerial support, spiritual uplift, and family support.

These six variable categories cover most of the determinant of small enterprise graduation. To assess the ME graduation itself, we can use several indicator including the sales increase, the wealth-capital increase, the employee increase, the market expansion, the profit increase, and the increase of financing limit. See table 8.

### Table 8: Literature Summary of ME Graduation

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OWNER of Business</strong></td>
<td></td>
</tr>
<tr>
<td>1. Fear of Allah</td>
<td>Faizal, et al. (2013 p.192); Hoque (2014 p.138);</td>
</tr>
<tr>
<td>2. Trustworthy</td>
<td>Hoque (2014 p.137); Faizal, et al. (2013 p.193); Roomi (2013p.15-17);</td>
</tr>
<tr>
<td>(Amanah)</td>
<td></td>
</tr>
<tr>
<td>3. Truthful</td>
<td>Hoque (2014 p.136); Roomi (2013p.15-17); Faizal (2013 p.193);</td>
</tr>
<tr>
<td>(Shiddiq)</td>
<td></td>
</tr>
<tr>
<td>4. Visionary</td>
<td>Ghosh and Kwan (1996 p.9); BIS (2013 p.16); Hoque (2014 p.1); Olawale and</td>
</tr>
<tr>
<td></td>
<td>Garwe (2010 p.731); Daily, et al. (2002); Benzing, et al (2009 p.61);</td>
</tr>
<tr>
<td></td>
<td>Pillay (2006 p.36);</td>
</tr>
<tr>
<td>5. Entrepreneurship</td>
<td>Jasra, et al. (2011 p.278); Benzing, et al. (2009 p.61); Chittithaworn,</td>
</tr>
<tr>
<td></td>
<td>et al. (2011 p.182); Tahir, et al. (2011); Temitope (2013 p.1404); Somain</td>
</tr>
<tr>
<td></td>
<td>and Veseli (2011 p.15);</td>
</tr>
<tr>
<td>6. Leadership</td>
<td>Stefanovic, et al. (2010b p.262);</td>
</tr>
<tr>
<td>7. Work Experience</td>
<td>Garoma (2012); Loewe (2013 p.24); Reeg (2013a p.21); Reeg (2013b); Rafiki</td>
</tr>
<tr>
<td></td>
<td>(2014 p.176); Pillay (2006 p.32);</td>
</tr>
</tbody>
</table>
**BUSINESS Characteristics**

<table>
<thead>
<tr>
<th>Category</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Halal Earning</td>
<td>Hoque (2014); Faizal, et al. (2013 p.193); Oukil (2013 p.5);</td>
</tr>
<tr>
<td>2. Product</td>
<td>Chittithaworn, et al. (2011 p.182); Ghosh and Kwan (1996 p.8-9); Brink (2003 p.5);</td>
</tr>
<tr>
<td>3. Services</td>
<td>Chittithaworn, et al. (2011 p.182); Ghosh and Kwan (1996 p.8-9); Brink (2003 p.5);</td>
</tr>
<tr>
<td>4. Market</td>
<td>Ghosh and Kwan (1996 p.8-9); Olawale and Garwe (2010 p.731);</td>
</tr>
<tr>
<td>5. Customer</td>
<td>Hoque (2014 p.133); Brink (2003 p.4);</td>
</tr>
<tr>
<td>6. Cost of Production</td>
<td>Olawale and Garwe (2010 p.731);</td>
</tr>
<tr>
<td>7. Competition</td>
<td>Loewe (2013 p.35); Reeg (2013 a p.82); Sefiani and Bown (2013 p.305); Soini and Vaseli (2011 p.19);</td>
</tr>
<tr>
<td>8. Location</td>
<td>Garoma (2012 p.114); Reeg (2013 a p.92); Loewe (2013 p.69); Soini and Vaseli (2011 p.19); Olawale and Garwe (2010 p.731);</td>
</tr>
</tbody>
</table>

**MANAGEMENT Know-how**

<table>
<thead>
<tr>
<th>Category</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transparency</td>
<td>Khalique, et al. (2015 p.226); Zain (2014 p.63);</td>
</tr>
<tr>
<td>(Tabligh)</td>
<td></td>
</tr>
<tr>
<td>2. Professional</td>
<td>Zain (2014 p.63); Khalique, et al. (2015 p.226);</td>
</tr>
<tr>
<td>(Fathonah)</td>
<td></td>
</tr>
<tr>
<td>5. Information</td>
<td>Jasra, et al. (2011 p.278); Olawale and Garwe (2010 p.731); Temitope</td>
</tr>
<tr>
<td>Tech.</td>
<td>(2013 p.1404);</td>
</tr>
<tr>
<td>6. Innovation</td>
<td>Soini and Veseli (2011 p.17); Hoque (2014 p.134); Pillay (2006 p.37);</td>
</tr>
<tr>
<td>7. Networking</td>
<td>Loewe (2013 p.24); Reeg (2013 a p.29); Reeg (2013b p.36); Ghosh and Kwan</td>
</tr>
<tr>
<td></td>
<td>(1996 p.9); Olawale and Garwe (2010 p.731);</td>
</tr>
</tbody>
</table>

**RESOURCES**

<table>
<thead>
<tr>
<th>Category</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Skilled H-Resource</td>
<td>Loewe (2013 p.134); Benzing, et al. (2009 p.61); Ghosh and Kwan (1996 p.9);</td>
</tr>
<tr>
<td>3. Owned Capital</td>
<td>Garoma (2012 p.117);</td>
</tr>
<tr>
<td>4. Access to Finance</td>
<td>Loewe (2013 p.154); Reeg (2013 a p.37); Reeg (2013b); Sefiani and Bown</td>
</tr>
<tr>
<td></td>
<td>(2013 p.302); Olawale and Garwe (2010 p.731); Ghosh and Kwan (1996 p.9);</td>
</tr>
<tr>
<td></td>
<td>Ahmad, et al. (2012); Soini and Veseli (2011 p.49); Pillay (2006 p.35);</td>
</tr>
<tr>
<td>5. Tech. Resource</td>
<td>Ghosh and Kwan (1996 p.9); Temitope (2013 p.1404); Soini and Veseli (2011 p.17); Brink (2003 p.3);</td>
</tr>
<tr>
<td>6. Raw Material</td>
<td>Temitope (2013 p.1404);</td>
</tr>
<tr>
<td>7. Social Capital</td>
<td>Garoma (2012 p.177); Loewe (2013 p.24); Farooqi (2006 p.113); Reeg (2013 a p.31); Milagrosa (2014 p.22); Loewe (2013 p.24)</td>
</tr>
</tbody>
</table>
The results of seven measurement models comprise of two exogenous latent variables. The complete results of all SEM procedures can be obtained from the authors.

### Table: Measurement Models

<table>
<thead>
<tr>
<th>Environment</th>
<th>Models</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXTERNAL Environment</strong></td>
<td></td>
</tr>
<tr>
<td>1. Regulation-Policy</td>
<td>Reeg (2013a p.35); Loewe (2013 p.34); Stefanovic, <em>et al.</em> (2010 p.103); Olawale and Garwe (2010 p.732); Temitope (2013 p.1403); Soini and Veseli (2011 p.52); Pillay (2006 p.42);</td>
</tr>
<tr>
<td>2. Infrastructure</td>
<td>Reeg (2013a p.34); Seifani and Bown (2013 p.304); Olawale and Garwe (2010 p.732); Ahmad, <em>et al.</em> (2012 p.521); Temitope (2013 p.1403)</td>
</tr>
<tr>
<td>3. Macro-economic</td>
<td>Reeg (2013a p.32); Loewe (2013 p.34); Ahmad, <em>et al.</em> (2012 p.520); CGAP (2011 p.11); Brink (2003 p.3);</td>
</tr>
<tr>
<td>5. Corruption</td>
<td>Reeg (2013a p.171); Loewe (2013 p.36); Olawale and Garwe (2010 p.732); UNIDO and UNODC (2007 p.10); Soini and Veseli (2011 p.51); Brink (2003 p.3);</td>
</tr>
<tr>
<td>8. Tax/Retribution</td>
<td>Olawale and Garwe (2010 p.732); Pillay (2006 p.69);</td>
</tr>
</tbody>
</table>

### Table: Support Models

<table>
<thead>
<tr>
<th>Support</th>
<th>Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Government</td>
<td>CGAP (2004 p.2);</td>
</tr>
<tr>
<td>2. Local Government</td>
<td>CGAP (2004 p.2);</td>
</tr>
<tr>
<td>3. Social Fund</td>
<td>Fehlinger and El-Nemr (2010, p.4)</td>
</tr>
<tr>
<td>4. Technical Support</td>
<td>DPbS (2006 p.8);</td>
</tr>
<tr>
<td>5. Managerial Support</td>
<td>DPbS (2006 p.7); Soini and Veseli (2011 p.15)</td>
</tr>
<tr>
<td>6. Spiritual Uplift</td>
<td>DPbS (2006 p.3); Khalique, <em>et al.</em> (2015 p.226); Oukil (2013 p.4);</td>
</tr>
</tbody>
</table>

### Table: Graduation Models

<table>
<thead>
<tr>
<th>Graduation</th>
<th>Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sales Increase</td>
<td>Kayed (2006); Garoma (2012 p.25); Munizu (2010 p.35); Ascarya and Sanrego (2007 p.11);</td>
</tr>
<tr>
<td>2. W-Cap Increase</td>
<td>Kayed (2006); Munizu (2010 p.35); Ascarya and Sanrego (2007 p.11);</td>
</tr>
<tr>
<td>3. Employee Increase</td>
<td>Mead and Liedholm (1998); Garoma (2012 p.25); Temitope (2013 p.1405); Munizu (2010 p.35); Soini and Veseli (2011 p.15);</td>
</tr>
<tr>
<td>4. Market Expansion</td>
<td>Munizu (2010 p.35); Ascarya and Sanrego (2007 p.11); Soini and Veseli (2011 p.15);</td>
</tr>
<tr>
<td>5. Profit Increase</td>
<td>McPherson (1996); Garoma (2012 p.25); Temitope (2013 p.1405); Munizu (2010 p.35); Soini and Veseli (2011 p.15);</td>
</tr>
<tr>
<td>6. Fin. Limit Increase</td>
<td>Bank Indonesia Regulation</td>
</tr>
</tbody>
</table>
2.5 Conceptual Framework

Based on the above literature reviews, we construct the following conceptual framework and empirical model. As presented on Figure 2., there are four latent endogenous variables, namely owner business, business characteristics, management, and resources. We also include two latent exogenous variables; the external environment, and the support. These latter two are clearly exogenous since we have little or no control on them both.

Following the existing literatures on proxies for the enterprise graduation, the alternatives to use are the increase in sales, the wealth-capital, the employee, the market share, the profit, and the increase in financing limit. Any increase on one or several of these proxies will indicate a positive sign of micro enterprise graduation.

Within this framework, we construct our empirical model, estimate it, and then validate it. We will use the estimation result and the analysis to derive conclusions. We expect the result will lead us to several policy recommendations for the authorities on helping the micro enterprise to graduate.

Figure 2: Conceptual Framework of Determinants of ME Graduation

3. RESEARCH METHOD

3.1 Data

This study applies Structural Equation Modeling (SEM) and Strategic Assumption Surfacing and Testing (SAST), which need qualitative data. The first method, SEM, is useful on analyzing the determinants of Micro Enterprises (ME) to graduate to Small Enterprises (SE) gradually. The latter method, SAST, will help us to design the Islamic Micro Enterprise Graduation model.
We obtain the primary data from the field survey located in Yogyakarta, Bandung, and Greater Jakarta. From these locations, we choose 120 MSE’s from customers of Islamic and conventional financial institutions. Some of them have received loan from conventional financial institution and financing from Islamic financial institution. To reduce the selection bias on sampling, we also include respondents who do not receive any loan or financing.

3.2 Structural Equation Modeling (SEM)

The Structural Equation Modeling (SEM) is a model originally developed by Karl Jöreskog (1973) which is combined with a model developed by Keesling (1973) and Wiley (1973). The model is well recognized as ‘Linear Structural Relationship’ (LISREL) model, or sometimes as JKW model.

The SEM is essentially simultaneous equation as in econometrics. The difference is econometric uses measured or observed variables while the SEM uses unobservable variable or latent variables. The supporting computer software is developed by Jöreskog and Sörbom called LISREL which is considered to be interactive and user friendly program.

SEM consists of two main components, first is the structural model, which describes the structural relationships among latent variables or unobserved variables or constructs or factors. These variables are measured or estimated indirectly by their respective indicators, which lead us to the second component of SEM; the measurement model.

The measurement model measure or estimate the respective latent variables using the concept of ‘Confirmatory Factor Analysis’ (CFA) or ‘Exploratory Factor Analysis’ (EFA). It is important to note that one cannot combine indicators arbitrarily to form latent variables. They have to be selected based on underlying theories.

3.2.1 Structural Model

Structural model shows potential direct causal relationships between the latent exogenous (denoted by $\xi$ ‘ksi’) and the latent endogenous (denoted by $\eta$ ‘Eta’) or between two latent endogenous variables. Exogenous variables are independents with no prior causal variable(s). On the other hand, the endogenous variables can serve as mediating variables or pure dependent variables.

Structural relationships help us understand and analyze the cause and effect model. Causal relationship between exogenous and endogenous variables is usually expressed by straight line with single headed arrow denoted by $\gamma$ ‘gamma’, while causal relationship between two endogenous variables is usually denoted by $\beta$ ‘beta’.
Correlation between two exogenous variables is expressed by curved line with double headed arrow denoted by \( \varphi \) ‘Phi’. Error in structural equation of endogenous variable is usually denoted by \( \zeta \) ‘zeta’ and represents the portion that cannot be explained by the model.

Figure 3: Structural Model of SEM

Figure 3 exhibits the example of structural model. We can rewrite the above SEM model in the following set of equations.

\[
\begin{align*}
\eta_1 &= \gamma_{11} \xi_1 + \zeta_1 \\
\eta_2 &= \gamma_{22} \xi_2 + \zeta_2 \\
\eta_3 &= \gamma_{31} \xi_1 + \gamma_{32} \xi_2 + \zeta_3 \\
\eta_4 &= \gamma_{41} \xi_1 + \gamma_{42} \xi_2 + \zeta_4 \\
\eta_5 &= \beta_{51} \eta_1 + \beta_{52} \eta_2 + \beta_{53} \eta_3 + \beta_{54} \eta_4 + \zeta_5
\end{align*}
\]

3.2.2 Measurement Model

Measurement model shows the causal relationships between the latent variable and its indicators (observable or measurable). The causal relationship may involve several measurement indicators on estimating the value of latent variable. To recall, the latent variable (or construct) is not observable and may be endogenous or exogenous, while the indicators forming both is observable.

The indicator for latent exogenous is usually denoted by \( X_n \), with causal dependency denoted by \( \lambda_{X_n} \) ‘lambda \( X_n \)’ and measurement error \( \delta_n \) ‘delta’. On the other hand, the indicator for latent endogenous is denoted by \( Y_n \), with causal dependency \( \lambda_{Y_n} \) ‘lambda \( Y_n \)’, and measurement error \( \epsilon_n \) ‘epsilon’.
Figure 4 expresses the example of measurement models for the previous latent variables.

**Figure 4: Measurement Model of SEM**

It is possible to rewrite this measurement model to the following set of equations.

- **Latent exogenous $\zeta$:**
  
  \[
  X_1 = \lambda X_{11} \zeta_1 + \delta_1; \quad X_2 = \lambda X_{12} \zeta_1 + \delta_2; \quad X_3 = \lambda X_{13} \zeta_1 + \delta_3; \quad (3.6-3.8)
  \]
  \[
  X_4 = \lambda X_{41} \zeta_1 + \delta_4; \quad X_5 = \lambda X_{51} \zeta_1 + \delta_5; \quad X_6 = \lambda X_{61} \zeta_1 + \delta_6; \quad (3.9-3.11)
  \]
  \[
  X_7 = \lambda X_{71} \zeta_1 + \delta_7; \quad X_8 = \lambda X_{81} \zeta_1 + \delta_8; \quad (3.12-3.13)
  \]

- **Latent exogenous $\zeta_2$:**
  
  \[
  X_9 = \lambda X_{92} \zeta_2 + \delta_9; \quad X_{10} = \lambda X_{102} \zeta_2 + \delta_{10}; \quad X_{11} = \lambda X_{112} \zeta_2 + \delta_{11}; \quad (3.14-3.16)
  \]
  \[
  X_{12} = \lambda X_{122} \zeta_2 + \delta_{12}; \quad X_{13} = \lambda X_{132} \zeta_2 + \delta_{13}; \quad X_{14} = \lambda X_{142} \zeta_2 + \delta_{14}; \quad (3.17-3.19)
  \]
  \[
  X_{15} = \lambda X_{152} \zeta_2 + \delta_{15}; \quad (3.20)
  \]

- **Latent endogenous $\eta$:**
  
  \[
  Y_1 = \lambda Y_{11} \eta_1 + \epsilon_1; \quad Y_2 = \lambda Y_{21} \eta_1 + \epsilon_2; \quad Y_3 = \lambda Y_{31} \eta_1 + \epsilon_3; \quad (3.21-3.23)
  \]
  \[
  Y_4 = \lambda Y_{41} \eta_1 + \epsilon_4; \quad Y_5 = \lambda Y_{51} \eta_1 + \epsilon_5; \quad Y_6 = \lambda Y_{61} \eta_1 + \epsilon_6; \quad (3.24-3.26)
  \]
  \[
  Y_7 = \lambda Y_{71} \eta_1 + \epsilon_7; \quad (3.27)
  \]

- **Latent endogenous $\eta_2$:**
  
  \[
  Y_8 = \lambda Y_{82} \eta_2 + \epsilon_8; \quad Y_9 = \lambda Y_{92} \eta_2 + \epsilon_9; \quad Y_{10} = \lambda Y_{102} \eta_2 + \epsilon_{10}; \quad (3.28-3.30)
  \]
  \[
  Y_{11} = \lambda Y_{112} \eta_2 + \epsilon_{11}; \quad Y_{12} = \lambda Y_{122} \eta_2 + \epsilon_{12}; \quad Y_{13} = \lambda Y_{132} \eta_2 + \epsilon_{13}; \quad (3.31-3.33)
  \]
  \[
  Y_{14} = \lambda Y_{142} \eta_2 + \epsilon_{14}; \quad Y_{15} = \lambda Y_{152} \eta_2 + \epsilon_{15}; \quad (3.34-3.35)
  \]
3.3 SEM Procedure

SEM procedure consists of five steps, namely: 1) model specification; 2) model identification, 3) Confirmatory Factor Analysis for measurement model (including programming, estimation, test and modification, as well as re-specification if needed), 4) Path Analysis for structural model (this step also includes programming, estimation, test and modification, and re-specification if required), and 5) interpretation and communication of the results. Figure 5 present the summary of the SEM procedure.

Figure 5: SEM Procedure
Note: LF: Loading Factor; SLF: Standardized Loading Factor; MV: Measured Variables; LV: Latent Variables; RMSEA: Root Mean Square Error of Approximation; CR: Construct Reliability, CR = (ΣSLF2)/((ΣSLF)2+Σεj); VE: Variance Extracted, VE = ΣSLF2/(ΣSLF2+Σεj); CFA: Confirmatory Factor Analysis; εj: measurement error for each indicator or measured variable, εj<0.75; ML: Maximum Likelihood; GLS: Generalized Least Square; WLS: Weighted Least Square; MI: Modification Index; No. of Data = (p+q)(p+q+1)/2, p = no. of measured variables from all endogenous variables; q = no. of measured variables from all exogenous variables. No. of Parameter = β + γ + λx + λy + θδ + θɛ + ζ + Φ.

3.3.1 Model Specification: the Empirical Model

The first step in performing SEM analysis is to specify the measurement model, the structural model and the path diagram. Specification of measurement model defines latent variables ‘LV’ (both for exogenous and endogenous) and their measured variables ‘MV’, as well as the relationship between each ‘LV’ and its respective MVs. Specification of structural model defines causal relationships among latent variables. Finally, hybrid (complete) Path Diagram is drawn based on measurement model and structural model previously specified.

Following the conceptual framework, our empirical SEM model comprises two latent exogenous variables; External Environment (ζ1) and Support (ζ2), and five latent endogenous variables; Owner Business (η1), Business Characteristics (η2), Management Know-How (η3), Resource-Fin (η4) and ME Graduation (η5). The corresponding structural equations are exactly similar to equations 3.1 – 3.5.

Table 9 presents the detailed indicators of each latent variable (Xn is indicator of exogenous variable ζ and Yn is indicator of endogenous variable η). The corresponding measurement equations are exactly the same as equations 3.6 – 3.55

Table 9: Indicators of Latent Variables

<table>
<thead>
<tr>
<th>EXTERNAL-Env (X1)</th>
<th>OWNER-Bus (Y1)</th>
<th>MGT-Know How (Y3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 : Regulation-Policy</td>
<td>Y1 : Fear of Allah</td>
<td>Y16 : Transparency (Tabligh)</td>
</tr>
<tr>
<td>X2 : Infrastructure</td>
<td>Y2 : Trustworthy (Amanah)</td>
<td>Y17 : Professional (Fathonah)</td>
</tr>
<tr>
<td>X5 : Corruption</td>
<td>Y5 : Entrepreneurship</td>
<td>Y20 : Information Tech.</td>
</tr>
<tr>
<td>X6 : Crime</td>
<td>Y6 : Leadership</td>
<td>Y21 : Innovation</td>
</tr>
<tr>
<td>X7 : Bureaucracy</td>
<td>Y7 : Business experience</td>
<td>Y22 : Networking</td>
</tr>
<tr>
<td>X8 : Tax/Retribution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The complete empirical SEM model is illustrated in Figure 6, where the determinants of Micro Enterprises (ME) to improve gradually and to graduate to Small Enterprises (SE) are external environment, support, owner business, business characteristics, management know-how, and resource-fin.

**Figure 6: SEM Model of Graduation Model**

<table>
<thead>
<tr>
<th>SUPPORT (X&lt;sub&gt;2&lt;/sub&gt;)</th>
<th>BUSINESS-Char (Y&lt;sub&gt;2&lt;/sub&gt;)</th>
<th>RESOURCES-Fin (Y&lt;sub&gt;4&lt;/sub&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X&lt;sub&gt;0&lt;/sub&gt; : Central Government</td>
<td>Y&lt;sub&gt;8&lt;/sub&gt; : Halal Earnings</td>
<td>Y&lt;sub&gt;23&lt;/sub&gt; : Spiritual Capital</td>
</tr>
<tr>
<td>X&lt;sub&gt;10&lt;/sub&gt; : Local Government</td>
<td>Y&lt;sub&gt;9&lt;/sub&gt; : Product</td>
<td>Y&lt;sub&gt;24&lt;/sub&gt; : Skilled H-Resource</td>
</tr>
<tr>
<td>X&lt;sub&gt;11&lt;/sub&gt; : Social Fund</td>
<td>Y&lt;sub&gt;10&lt;/sub&gt; : Service</td>
<td>Y&lt;sub&gt;25&lt;/sub&gt; : Owned Capital</td>
</tr>
<tr>
<td>X&lt;sub&gt;12&lt;/sub&gt; : Technical Support</td>
<td>Y&lt;sub&gt;11&lt;/sub&gt; : Market</td>
<td>Y&lt;sub&gt;26&lt;/sub&gt; : Access to Finance</td>
</tr>
<tr>
<td>X&lt;sub&gt;13&lt;/sub&gt; : Managerial Support</td>
<td>Y&lt;sub&gt;12&lt;/sub&gt; : Customer</td>
<td>Y&lt;sub&gt;27&lt;/sub&gt; : Tech. Resource</td>
</tr>
<tr>
<td>X&lt;sub&gt;14&lt;/sub&gt; : Spiritual Uplift</td>
<td>Y&lt;sub&gt;13&lt;/sub&gt; : Cost of Business</td>
<td>Y&lt;sub&gt;28&lt;/sub&gt; : Raw Material</td>
</tr>
<tr>
<td>X&lt;sub&gt;15&lt;/sub&gt; : Family Support</td>
<td>Y&lt;sub&gt;14&lt;/sub&gt; : Competition</td>
<td>Y&lt;sub&gt;29&lt;/sub&gt; : Social Capital</td>
</tr>
<tr>
<td>Y&lt;sub&gt;15&lt;/sub&gt; : Location</td>
<td>Y&lt;sub&gt;20&lt;/sub&gt; : Sales Increase</td>
<td>Y&lt;sub&gt;30&lt;/sub&gt; : Sales Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;29&lt;/sub&gt; : W-Cap Increase</td>
<td>Y&lt;sub&gt;32&lt;/sub&gt; : Employee Increase</td>
<td>Y&lt;sub&gt;34&lt;/sub&gt; : Profit Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;31&lt;/sub&gt; : Sales Increase</td>
<td>Y&lt;sub&gt;33&lt;/sub&gt; : Market Expansion</td>
<td>Y&lt;sub&gt;35&lt;/sub&gt; : Fin. Limit Increase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRADUATION (Y&lt;sub&gt;5&lt;/sub&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y&lt;sub&gt;30&lt;/sub&gt; : Sales Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;31&lt;/sub&gt; : W-Cap Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;32&lt;/sub&gt; : Employee Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;33&lt;/sub&gt; : Market Expansion</td>
</tr>
<tr>
<td>Y&lt;sub&gt;34&lt;/sub&gt; : Profit Increase</td>
</tr>
<tr>
<td>Y&lt;sub&gt;35&lt;/sub&gt; : Fin. Limit Increase</td>
</tr>
</tbody>
</table>
3.3.2 Model Identification

The second step is to identify whether the model is over-identified, just-identified, or under-identified. The identification formula is as follows: \( t < s/2 \); where \( t \) is the number of parameter to be estimated. Moreover, \( s \) is the number of known data or the number of variance and covariance of observed data, which is equal to \((p+q)*(p+q+1)\), where \( p \) is the number of indicators from endogenous variables and \( q \) is the number of indicators from exogenous variable.

We need the model to be over or just identified, and on the case of under identified, we have to adjust the model. Technically we expect that data > parameter (over-identified) or data = parameter (just-identified). When the data < parameter (model is under-identified), we can resolve the problem with the following model constraint:

- Assign loading factor LF=1 for one of the measured variables MV; or
- Assign all variance of exogenous latent variables \( \Phi = 1 \).

Our empirical model has total number of parameter \( t \) of 111 (\( \beta = 4; \gamma = 6; \lambda x = 15; \lambda y = 35; \delta = 15; \theta e = 35; \zeta = 5; \Phi = 1 \)), while, the total number of data \( s \) is 1056 (\( p = 35; q = 15 \), so that \((p+q)*(p+q+1) = 2550\)). On this case \( t < s/2 \), or data > parameter; this means that the model is over-identified.

3.3.3 Model Estimation

The third step is to estimate the model (the measurement model first and then the structural model) in LISREL. We have to use the following appropriate estimation method to suit the characteristics of the data:

- Maximum Likelihood ‘ML’ is selected if the data is normal (p-value \( z_{kurtosis} \) and \( z_{skewness} > 0.05 \)) with sample size between 100 – 200, and it will produce the best estimation parameter;
- Robust ML or Generalized Least Square ‘GLS’ is selected if the data is abnormal with sample size between 200 – 300; or
- Weighted Least Square ‘WLS’ is selected, when the model has only 10 – 15 variables, if the data is abnormal with sample size between 2000 – 3000.

In this paper, we use Maximum Likelihood since our data satisfies multivariate normality. The data is normally distributed and most indicators (9 out of 50) have p-value \( z_{kurtosis} \) and \( z_{skewness} > 0.05 \).

3.3.4 Model Testing

The fourth step is to test the fit of the model (measurement model first, then the structural model). Following Hair, et al. (1998) the fit test consist of:
1) Overall model fit (for both measurement an structural models) using goodness of fit. This requires $\chi^2/df \leq 3.0$, $p > 0.050$ and RMSEA (the root mean square error of approximation) $\leq 0.08$. The model has perfect fit if $\chi^2/df = \infty$ (0.0/0), $p = 1.0$ and RMSEA = 0.0. The model has close fit if $\chi^2/df \leq 3.0$, $p > 0.050$ and RMSEA $\leq 0.05$. The model has good fit if $\chi^2/df \leq 3.0$, $p > 0.050$ and 0.05 < RMSEA $\leq 0.08$.

2) Measurement model fit using the validity and the reliability tests. The model is considered valid if $t \geq 1.96$, while the model is considered reliable if construct reliability ‘CR’ = $(\sum_{j}\lambda_j)^2/((\sum_{j}\lambda_j)^2+\sum_{j}e_{j}) \geq 0.7$ and the variance extracted ‘VE’ = $\sum_{j}\lambda_j^2/(\sum_{j}\lambda_j^2+\sum_{j}e_{j}) \geq 0.5$. Moreover, each indicator is considered as very significant if the value of standardized loading factor $\geq 0.5$.

3) Structural model fit using significance t-test. We use this test to evaluate each causal relationship and the overall coefficient of determination ‘$R^2$’. Causal relationship between latent variable is considered significant if $t \geq 1.96$.

3.3.5 Model Modification

When the test results (either measurement or structural model) are not satisfactory, then the LISREL program should be modified. If the measurement model is the case, the modification is possible with modification indices and or by dropping unqualified measured variables (indicators). In the case of structural model, we can modify the model by using modification indices, and or by trial-and-error.

3.4 Strategic Assumption Surfacing and Testing (SAST)

The Strategic Assumption Surfacing and Testing (SAST) method is originally developed by Mitroff and Emshoff (1979) and Mason and Mitroff (1981). Both are an extension of inquiring systems design from Churchman (1971). Mitroff and Emshoff (1979) define SAST as an adversarial problem methodology which suits an intensely ill-structured problem. The term of ill-structured problem is complex mixtures of highly interdependent important problems, which involve more than one person in their formulation, solution, implementation, and evaluation.

SAST is a process which reveals the underlying assumptions of a policy or plan and helps create a map for exploring them (see Easton, 1988). There are four principles on SAST method; (i) adversarial – the premise to test an assumption through its opposite assumption; (ii) participative – the premise to distribute the knowledge and resources on a group of individual; (iii) integrative – the premise to create a unified set of assumptions and action plan from the adversarial and participative elements; and (iv) managerial mind supporting – the premise to deepen the manager’s insight based on the exposure to assumption.
To begin the SAST process, it is necessary for the organization to provide an issue or policy and a decision making group. Adapted from some literatures, the SAST procedure can be simplified into four phases (Mitroff and Emshoff, 1979; Easton, 1988; Córdoba-Pachón, 2010). First, group formation strategy is applied to separate a large group into opposing homogenous groups. The formation of small homogenous groups is chosen because it tends to perform better than large groups on problem-solving tasks (Easton, 1988).

**Figure 7: SAST Procedure**

Second, the assumption surfacing phase involves two distinct steps. First step is to identify the stakeholder of the policy, and the second step is to generate policy assumption performed by each group. Córdoba-Pachón (2010) defined the assumption as an affirmation of organization and their stakeholders to behave in the current and the future situations.

Third, the dialectical debate to evaluate assumptions from each group. The purpose of this phase is to show how each group views the situation and what its viewpoint entails. Following dialectical debate within group, the debate is continued across groups, where each participant will start to adjust their assumptions. The assumption modification should continue as long as progress is evident along the process (Mitroff and Emshoff, 1979; Córdoba-Pachón, 2010).

Having modifying the assumption, each group should have justification in plotting the rating of assumptions. The assumption rating must be tested against the level of its importance and its certainty. The term of importance refers to the significance of assumption on the policy outcome, while the certainty refers to the assumption should be self-evident and certain-to-be true as possible (Easton, 1988).

Different rating scales may vary. Using simple ordinal scale for the pairwise of importance and certainty, Figure 8 presents four quadrants comparisons across assumptions; (i) certain and important, (ii) important and uncertain, (iii) uncertain and
unimportant, and (iv) certain and unimportant. Those falling in the first quadrant (certain planning region) are important and directly represent the fundamental premises of policy. In contrast, the assumptions on the extreme left are less significant for effective planning or problem solving.

**Figure 8: Rating Assumptions with SAST Methodology**

![Diagram showing rating assumptions with SAST methodology](image)

Source: Mitroff and Emshoff (1979), modified by Authors

Lastly, final synthesis involves the list of common assumptions for all groups, including re-formulated ones. Those assumptions in the quadrant II (problematic planning region) are the most critical since they are subject to further analysis (for example, using information requirements analysis). The final accepted assumptions from these entire processes are the presumptions of the policy.

### 4. RESULTS AND ANALYSIS

#### 4.1 Respondent Profile

There are three groups of respondents profiles, viewed from: 1) Graduation performance: Micro Enterprise which remain micro (81 respondents); Micro Enterprise which graduated to Small Enterprise (16 respondents); and Small Enterprise which remained small (23 respondents); 2) Source of financing: MSE which received financing from conventional bank (54 respondents); MSE which received financing from Islamic bank (24 respondents); and MSE which did not receive any loan/financing (42 respondents); and 3) Sales performance: MSE which past sales increase (72 respondents); MSE which past sales stagnant (25 respondents); and MSE which past sales decrease (23 respondents).

**Table 10: Grouping of Respondent Profile**

<table>
<thead>
<tr>
<th>FINANCING</th>
<th>ME</th>
<th>ME to SE</th>
<th>SE</th>
<th>TOTAL</th>
<th>Decrease</th>
<th>Stagnant</th>
<th>Increase</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>36</td>
<td>7</td>
<td>11</td>
<td>54</td>
<td>16</td>
<td>19</td>
<td>46</td>
<td>81</td>
</tr>
<tr>
<td>Shariah</td>
<td>18</td>
<td>3</td>
<td>3</td>
<td>24</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>No Financing</td>
<td>27</td>
<td>6</td>
<td>9</td>
<td>42</td>
<td>5</td>
<td>4</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81</td>
<td>16</td>
<td>23</td>
<td>120</td>
<td>23</td>
<td>25</td>
<td>72</td>
<td>120</td>
</tr>
</tbody>
</table>
According to the summary of association (Chi-Square) tests, table 11 shows that MSEs are highly-diverse business enterprises, which has almost no specific significant association revealing their business pattern.

Table 11: Summary of Respondent Profile’s Association (Chi-Square) Tests

<table>
<thead>
<tr>
<th>Source of Financing</th>
<th>Owner’s Gender</th>
<th>Owner’s Education</th>
<th>Business Sector</th>
<th>Length of Business</th>
<th>Business Permits</th>
<th>Initiative</th>
<th>Motivation</th>
<th>No. of Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.053</td>
<td>0.905</td>
<td>0.368</td>
<td>0.201</td>
<td>0.832</td>
<td>0.386</td>
<td>0.746</td>
<td>0.760</td>
</tr>
<tr>
<td>Grad. Performance</td>
<td>0.663</td>
<td>0.741</td>
<td>0.284</td>
<td>0.363</td>
<td>0.513</td>
<td>0.093</td>
<td>0.329</td>
<td>0.059</td>
</tr>
<tr>
<td>Sales Performance</td>
<td>0.975</td>
<td>0.782</td>
<td>0.142</td>
<td>0.476</td>
<td>0.419</td>
<td>0.068</td>
<td>0.299</td>
<td>0.094</td>
</tr>
</tbody>
</table>

The performances of MSEs, either graduation or sales performance, mostly, have no association with their characteristics or their source of financing. Only marketing strategy that has significant association with MSE Graduation Performance (0.043 < 0.05). Moreover, some MSEs characteristics have almost significant associations, particularly 1) Gender and Source of Capital with Source of Financing; 2) Number of Employee and Start of Business Initiative with Graduation Performance; and 3) Start of Business Initiative and Number of Employee with Sales Performance.

The survey shows that the owner of MSEs almost split in half between male (53%) and female (47%). However, ME that graduated to SE mostly owned by male (63%). Meanwhile, viewed from Source of Financing, Figure 9 (left) shows that Male owner prefers conventional loan (63%), while Female owner prefers Islamic financing (67%). Moreover, chi-square results (0.053 > 0.05) shows that there is no association between Source of Financing and Owner’s gender. However, there is a strong tendency that Female owners correspond to Islamic financing, while Male owners correspond to conventional loan.

Figure 9 : Gender and Education of Owner

![Figure 9: Gender and Education of Owner](Image)
Moreover, referring to owner’s education, figure 9 (right) shows that most of owners of MSEs graduated from Junior High School (39%) and Senior High School (22%), especially owners of MEs where 42% graduated from Junior High School and 25% graduated from Senior High School. Meanwhile, most of owners of graduated MEs graduated from Junior High School (31%) and undergraduate (31%).

**Figure 10: Sector of Business and Business Permits**

![Figure 10](image)

Referring to business sectors, figure 10 (left) shows that most of MSEs entered into manufacturing sector (73%), and only ME entered into services sector (9%). Moreover, in term of busines permits, figure 10 (right) shows that there is only small number of MSEs that hold business permits (TDI/TDP and SIUP) and NPWP. Most of MSEs (32%) have some kind of local permits or no permit at all (27%).

**Figure 11: Start of Business Initiative and Business Motivation**

![Figure 11](image)

Referring to the establishment of business initiative, Figure 11 (left) shows that most MSEs (80%) started their business by the owner initiative, especially SEs (96%). Meanwhile graduated ME contributes the biggest proportion that they started their business by family initiative (38%). Chi-square results (0.093 > 0.05 and 0.068 > 0.05) show that there are no associations between business initiator and MSE graduation performance as well as sales performance. However, there is a strong tendency that graduated ME corresponds to family initiative, while ME corresponds to
owner’s initiative. Moreover, owner’s initiative corresponds to sales increase. Figure 11 (right) shows that the main motivation of respondents to enter into MSE is to become entrepreneurs. Most SEs (33%) and graduated ME (30%) wanted to be entrepreneurs, while most ME (29%) just did not have other job, when they started their business.

**Figure 12: Place of Business and Target Customer**

Referring to where the business takes place, Figure 12 (left) shows that most MSEs open their business at home (53%), especially ME and SE, as well as at shop (32%), particularly graduated ME. Only small part of them choose choose online (6%), traditional market (4%), industrial estate (2%), and sidewalk (1%) as their place of business. Moreover, based on target customer, Figure 12 (right) shows that most MES conduct direct marketing to their end customer (53%), especially ME (59%), as well as to retail industry (30%), especially SE (34%) and graduated ME (34%). The main marketing destination area of MSMEs is mostly local market, within the same township, municipality, or city. Only small part of their market is oriented toward export (2%).

**Figure 13: Number of Employee and Skills of Employee**

In term of number of employee, Figure 13 (left) shows that most of MSEs (83%) have less than 10 employees, especially those graduated MEs (94%). Chi-square results
(0.059 > 0.05 and 0.094 > 0.05) show that there are no associations between number of employee and MSE graduation performance as well as sales performance. However, there is a strong tendency that ME and graduated ME have less than 10 employees, while SE has about 11 to 25 employees. Moreover, having no employees corresponds to stagnant and sales decrease. In terms of skill of employee, Figure 13 (right) shows that most MSEs (50%) have all skilled employees, especially ME (56%). Only small part of their employees are unskilled (8%) because most MSE are personally owned and managed by them selves.

**Figure 14: Source of Capital and Sales Performance**

In terms of source of capital, Figure 14 (left) shows that most MSEs (49%) started their business with their own capital, particularly SE (54%). Moreover, in terms of past sales performance, Figure 14 (right) shows that most MSEs (60%) experienced increase in sales, especially those graduated MEs (75%). Chi-square result (0.710 > 0.05) shows that there is no association between past sales performance and MSE graduation performance.

**Figure 15: Marketing Strategy**

Figure 15 (left) shows that most MSEs (26%) focused on product strategy, especially ME (29%), while SEs (28%) focused on process strategy. Moreover, chi-square result (0.043 < 0.05) in Figure 15 (right) shows that there is significant association between
marketing strategy and MSE graduation performance. MEs focused on product strategy, graduated MEs focused on people, while SE focused on process. Graduated MEs more focused on people strategy.

In terms of MSEs business experience, Figure 16 (left) shows that most MSEs owner (62%) regularly attend religious study, and some of them (28%) provide comfortable prayer room. Most MSEs owner are lack of business experiences. However, most of MSEs owner (51%) have followed standardized financial reports. Some MSEs experienced comparative study (33%), received soft loan/financing (25%), participated in self improvement training (24%), participate in product innovation seminar/expo (23%).

Moreover, Figure 16 (right) shows that most of MEs owner (60%) regularly attend religious study, and some of them (22%) provide comfortable prayer room. Most MEs owner lack of business experiences. However, almost half of MEs owner (47%) have followed standardized financial reports. Some MEs experienced comparative study (30%), received soft loan/financing (27%), participated in self improvement training (19%), participated in product innovation seminar/expo (19%).

**Figure 16: Business Experience**

The survey shows that most of them have connections with bank as depositor, debtor or both, where: 1) Depositors and Debtors (57%); 2) Depositor only (28%); 3) Debtor only (8%); and 4) Non bank customer (7%).
Figure 17: Bank Mindedness of ME, ME to SE and SE

Figure 17 reveals that all graduated ME have connections with bank as depositor and debtor (63%) or as depositor only (37%).

4.2 SEM Results

The SEM results presented in this section are the final process of several SEM procedure started from specification, identification, estimation, testing, and final results. The complete results of all SEM procedures can be obtained from the authors.

4.2.1 Measurement Model

The results of seven measurement models comprise of two exogenous latent variables (EXTERNAL and SUPPORT) and five endogenous latent variables (OWNER, BUSINESS, MANAGEMENT, RESOURCES and GRADUATE) will be discussed.

a. External

Measurement model of latent exogenous variable EXTERNAL satisfies three main conditions, namely, \( \chi^2 / df \leq 3.0 \) (19.47/12), \( p > 0.050 \) (0.08) and RMSEA \( \leq 0.08 \) (0.07). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of EXTERNAL is a good model with close fit (AGFI = 0.97).

Figure 18: Measurement Model of EXTERNAL

\[ \chi^2 = 19.47; \; df = 12; \; p = 0.08; \; RMSEA = 0.07 \]
\[ AGFI = 0.97; \; Conclusion: \; CLOSE \; FIT \]
All measured variables (X1.1–X1.8) significantly explain EXTERNAL. Bureaucracy (X1.7) and Infrastructure (X1.2) have the highest loading factors (0.66 and 0.64), followed by Tax-Retribution (X1.8) and Corruption (X1.5).

b. Support

Measurement model of latent exogenous variable SUPPORT satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (12.13/8), $P > 0.050$ (0.15) and RMSEA $\leq 0.08$ (0.07). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of SUPPORT is a good model with close fit (AGFI = 0.98).

Figure 19: Measurement Model of SUPPORT

All measured variables (X2.1–X2.7) significantly explain SUPPORT. ZISWAF/Social Funds (X2.3) and Managerial-Tech. Support (X2.5) have the highest loading factors (0.73 and 0.72), followed by Central Government (X2.1) and Local Government (X2.2).

c. Owner

Measurement model of latent endogenous variable OWNER satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (14.13/12), $P > 0.050$ (0.29) and RMSEA $\leq 0.08$ (0.04). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of OWNER is a good model with close fit (AGFI = 0.98).

Figure 20: Measurement Model of OWNER
All measured variables (Y1.1– Y1.7) significantly explain OWNER of BUSINESS. Truthful (Y1.3) and Visionary (Y1.4) have the highest loading factors (0.63 and 0.61), followed by Trustworthy (Y1.2) and Leadership (Y1.6).

d. Business

Measurement model of latent endogenous variable BUSINESS satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (28.16/19), $P > 0.050$ (0.08) and RMSEA $\leq 0.08$ (0.06). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of BUSINESS is a good model with close fit (AGFI = 0.95).

Figure 21: Measurement Model of BUSINESS

All measured variables (Y2.1–Y2.8) significantly explain BUSINESS CHARACTERISTICS. Customer (Y2.5) and Service (X2.3) have the highest loading factors (0.54), followed by Cost of Business (Y2.6) and Location (Y2.8).

e. Management

Measurement model of latent endogenous variable MANAGEMENT satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (6.20/8), $P > 0.050$ (0.62) and RMSEA $\leq 0.08$ (0.00). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of MANAGEMENT is a good model with close fit (AGFI = 0.98).
All measured variables (Y3.1–Y3.7) significantly explain MANAGEMENT KNOW-HOW. Information Technology (Y3.5) and Innovation (Y3.6) have the highest loading factors (0.72 and 0.71), followed by SOP-SOM (Y3.4) and Transparency (Y3.1).

f. Resource

Measurement model of latent endogenous variable RESOURCE satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (18.12/14), P> 0.050 (0.20) and RMSEA ≤ 0.08 (0.05). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of RESOURCE is a good model with close fit (AGFI = 0.97).

![Measurement Model of RESOURCE](image)

All measured variables (Y4.1–Y4.7) significantly explain RESOURCES. Technological Resource (Y4.5) and Access to Finance (Y4.4) have the highest loading factors (0.74 and 0.61), followed by Raw Material (Y4.6) and Skilled Human Resource (Y4.2).

g. Graduation

Measurement model of latent endogenous variable GRADUATION satisfies three main conditions, namely, $\chi^2/df \leq 3.0$ (5.66/4), P> 0.050 (0.23) and RMSEA ≤ 0.08 (0.06). All goodness of fit (GoF) measures are fit, so that we may conclude that measurement model of GRADUATION is a good model with close fit (AGFI = 0.99).
**Figure 24: Measurement Model of GRADUATION**

\[
\chi^2 = 5.66; \text{df} = 4; p = 0.23; \text{RMSEA} = 0.06
\]

AGFI = 0.99; Conclusion: CLOSE FIT

All measured variables (Y5.1–Y5.6) significantly explain GRADUATION. Working Capital Increase (Y5.2) and Profit Increase (Y5.5) have the highest loading factors (0.76 and 0.73), followed by Financing Limit Increase (Y5.6) and Employee Increase (Y5.3).

**4.2.2 Structural Model**

Structural model of Micro Enterprises Graduation satisfies three main conditions, namely, $$\chi^2/\text{df} \leq 3.0$$ (39.88/45), $$P > 0.050$$ (0.69) and RMSEA $$\leq 0.08$$ (0.00). All goodness of fit (GoF) measures are fit, so that we may conclude that structural model of Micro Enterprises Graduation is a good model with close fit (AGFI = 0.93).

**Figure 25: Structural Model of ME Graduation**
Factors affecting ME graduation include OWNER of business, BUSINESS characteristics, and MANAGEMENT Know-how (endogenous latent variables), as well as EXTERNAL factors and SUPPORT from various parties (exogenous latent variables).

The most important factors determining ME graduation are MANAGEMENT know-how (0.57) and BUSINESS characteristics (0.17), as well as EXTERNAL factors and SUPPORT (indirectly). The most important variables determining ME graduation are SOP and Information Technology (MANAGEMENT) and Market (BUSINESS), as well as Infrastructure and Macroeconomic condition (EXTERNAL) and Family Support (SUPPORT).

Successful ME must have good MANAGEMENT of know-how especially in its business process utilizing information technology optimally, and have comprehensive understanding and capability to win the MARKET. Moreover, business environment with sufficient infrastructure and stable macroeconomic condition, as well as continuing support from families are essential for ME to succeed. In addition, there are several factors that should not be neglected as they are necessary (but not sufficient) for ME to operate and succeed such as visionary entrepreneur, entrepreneurship and business experience, and qualified human resource.

4.3 SAST Results

SAST results of EXTERNAL factor in figure 4.18 (left) shows that \( X_{131} \)–Price stability, especially basic needs, raw material, and energy (Macroeconomic), \( X_{121} \)–Infrastructure improvement, especially road, bridge, electricity, transportation, clean water, etc. (Infrastructure) and \( X_{181} \)–Tax Reliev (Tax-Retribution), lie on Certain Planning Region (Region I). Meanwhile, \( X_{111} \)–Government policies, such as tax relief and easy licencing, directed towards the betterment of usiness climate (Regulation and Policy), \( X_{133} \)–Elimination of illegal fees to MSEs (Corruption), \( X_{182} \)–Tax breaks for low revenue MSEs (Tax-Retribution), \( X_{171} \)–Fast and cheap/free one-stop licensing service (Bureaucracy), lie on Problematic Planning Region (Region II).

Figure 26: SAST Results of External and Support Factor
SAST results of SUPPORT factor in Figure 26 (right) shows that X232 – Capital participation support (interest free) (ZISWAF/Donor), X231 – Soft loan/financing for working capital (Central Govt.), X231 – Revolving fund program (ZISWAF/Donor), X221 – Availability of market information on MSEs’ products (Local Government), X271 – Motivational support for owner/employee in operating the business (Family Support), lie on Certain Planning Region (Region I). Meanwhile, X223 – Availability of additional capital (interest free) for MSEs (Local Government), X272 – Inculcating good character for owner and employee (Family Support), X261 – Religious training, such as Islamic leadership and entrepreneurship (Spiritual Uplift), X251 – Availability of managerial training and mentoring (Managerial Support), lie on Problematic Planning Region (Region II).

SAST results of OWNER of Business factor in figure 4.18 (left) shows that there is no policy that lies on certain planning region (Region I). Meanwhile, Y111 – Attending religious studies, such as regular halaqah (Fear of Allah), Y121 – Attending Spiritual/Islamic Entrepreneurship Training (Trustworthy) and Y161 – Attending Spiritual/Islamic Leadership Training (Leadership), lie on Problematic Planning Region (Region II).

SAST results of BUSINESS Characteristics factor in figure 4.19 (right) shows that Y261 – Price stability, especially basic needs, raw material, and energy (Cost of Business), Y262 – Infrastructure improvement, especially road, bridge, electricity, transportation, clean water, etc. (Cost of Business), Y281 – Strategic business location (Location), Y242 – Technical Support for MSEs to promote their products (Service), Y251 – Customer Satisfaction and Loyalty Training for MSEs (Customer), Y222 – Product Quality Improvement Training for MSEs (Product), Y231 – Technical Support for MSEs on Service Quality Improvement (Service), Y241 – Easy market access for MSEs to enter mini market, super market or modern market (Market) and Y252 – Improvement on MSE consumer protection (Customer), lie on Certain Planning Region (Region I). Meanwhile, Y211 – Waivers on MSE products halal certification (Halal Earning) and Y271 – Enhancement of market supervisory agency to ensure fair market competition for MSEs (Competition), lie on Problematic Planning Region (Region II).

**Figure 27: SAST Results of Owner and Business Factor**
SAST results of MANAGEMENT factor in Figure 27 (left) shows that Y 371 – The partnership between SMEs and wholesalers, suppliers, distributors, financial institutions or other relevant agencies (Networking) and Y 361 – Regular product development training for SMEs (Innovation) lie on certain planning region (Region I). Meanwhile Y 321 – Regular training on MSEs professionalism (Professional) and Y 311 – Regular meeting with all stakeholders (Transparency), lie on Problematic Planning Region (Region II).

Figure 28: SAST Results of Management and Resources Factor

SAST results of RESOURCES factor in Figure 28 (right) shows that Y 461 – Availability of raw material with affordable price (Raw Material), Y 442 – Availability of cheap loan/financing facilities (Access to Finance), Y 441 – Easy access to loan/financing (Access to Finance), Y 451 – Availability of appropriate technology to improve product quality (Tech. Resource) and Y 471 – Developing togetherness with the surrounding community (Social Capital), lie on Certain Planning Region (Region I). Meanwhile, Y 411 – Improvement of employee spirituality through religious activities (Spiritual Capital), Y 431 – Financial planning training for MSEs (Owned Capital) and Y 443 – Availability of appropriate financing schemes for MSEs, such as revolving fund and join responsibility (Access to Finance), lie on Problematic Planning Region (Region II).

Finally, overall SAST summary results of ME Graduation can be seen in Figure 29. The most important policy needed by MEs to excel their businesses are External, Support, Business Characteristics and Resources policies.

Figure 29: Overall Assessment of the Importance and Certainty Summary Result
The most important EXTERNAL policies needed by MEs are $X_{131}$ – Price stability, especially basic needs, raw material, and energy (Macroeconomic) and $X_{121}$ – Infrastructure improvement, especially road, bridge, electricity, transportation, clean water, etc. (Infrastructure).

The most important SUPPORT policies needed by MEs are $X_{232}$ – Capital participation support or interest free (ZISWAF/Donor); $X_{211}$ – Soft loan/financing for working capital (Central Govt.); and $X_{231}$ – Revolving fund program (ZISWAF/Donor).

The most important BUSINESS Characteristics policies needed by MEs are $Y_{261}$ – Price stability, especially basic needs, raw material, and energy (Cost of Business); $Y_{262}$ – Infrastructure improvement, especially road, bridge, electricity, transportation, clean water, etc. (Cost of Business); and $Y_{281}$ – Strategic business location (Location).

The most important RESOURCES policies needed by MEs are $Y_{461}$ – Availability of raw material with affordable price (Raw Material); $Y_{442}$ – Availability of cheap loan/financing facilities (Access to Finance); $Y_{441}$ – Easy access to loan/financing (Access to Finance); $Y_{451}$ – Availability of appropriate technology to improve product quality (Tech. Resource).

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

a. Characteristics of MSEs

MSEs are highly-diverse business enterprises (mostly in manufacturing, trade-restaurant-hotel and services sectors), which should not be generalized and should be treated accordingly. However, MSEs (in this sample) have some common features, such as:

1. Most of MSEs Owners hold Junior High (39%) and Senior High (22%) degrees, while most graduated MEs Owner hold Junior High (31%) and Undergraduate (31%) degrees.
2. Most of MSEs entered into manufacturing sector (73%), and only ME entered into services sector (9%).
3. Most of MSEs do not have formal business permits or SIUP (85%). They only hold local permits (32%) or no permit at all (27%). Moreover, most graduated MEs also have TDI/TDP (23%).
4. Most of MSEs started their business by the owner initiative (80%), especially Ses (96%).
5. Most of MSEs are motivated by unemployment (25%), entrepreneurship (24%) and market prospects (23%), while graduated MEs (30%) and SEs (33%) are motivated more by entrepreneurship.

6. Most of MSEs run their business at home (53%) or shop (32%), while most graduated MEs run their businesses at the shop (56%) or at home (39%).

7. Most of MSEs have less than 10 employees (83%), especially graduated ME (94%), and they have all skilled employees (50%), especially ME (56%).

8. Most of MSEs (49%) started their businesses with their own capital, and only 25% of them received loan/financing to start their businesses.

9. Most of MSEs sell their products/services to end customer (53%) or retail industry (30%).

10. Most of MSEs (60%) experienced increase in sales, especially graduated ME (75%).

11. Most of MSEs, especially MEs, are lack of business experiences. However, most of them have followed standardized financial reports (51%).

12. Most of MSEs are bank’s customers (93%), as depositor and debtor (57%), or as depositor only (28%). Moreover, financial services they mostly use are ATM, transfer and debit card.

Meanwhile, MSEs have different marketing strategies. ME focused on product, graduated ME focused on customer, while SE focused on process.

The only religious characteristics revealed in this study is that most MEs owner regularly attend religious study (60%), and some of them provide comfortable prayer room (22%). Moreover most female owners of MSEs prefer to obtain financing from Islamic financial institution (67%).

Overall, MSEs in the sample are home/shop operated informal business in manufacturing or trade sectors, which is easy to enter and easy to exit with simple technology; operated by low educated and lack of experience people to survive, which are easily satisfied with their current achievement, as well as by educated entrepreneur to come; financed by their own capital as they are unbankable or view debt as uncommon practice; and knowledgeable about their products but having problems to win the market. Unstable macroeconomic conditions and lack of external supports would not stop them to survive. They are in urgent need of any kind of assistances, especially managerial, financial, technical, marketing, entrepreneurship, leadership and mindset change.
b. SEM

SEM results show that the most important factors of ME Graduation are MANAGEMENT of Know-how and BUSINESS Characteristics (directly), followed by EXTERNAL Factors and SUPPORT (indirectly). However, other factors, such as OWNER of Business and RESOURCES should also be taken into account, as they are all necessary.

The main determinants of ME graduation are Standard Operating Procedure and Information Technology (MANAGEMENT Know-how), Market (BUSINESS Characteristics), Infrastructure and Macroeconomic Condition (EXTERNAL), and Family Support (SUPPORT). Other important determinants are Visionary, Entrepreneurship and Business Experience (OWNER of Business) and Skilled Human Resources (RESOURCES).

These findings suggest that most MSEs in the sample do not have important key factors to success and graduate. Most MSEs do not have standard SOP (78%), especially ME (84%). Most MSEs never participated in marketing training and workshop (83%), especially ME (88%). Most of owners of MSEs have low education background (73% have Senior High degree or below), especially owners of MEs (78%). Most owners of MSEs did not want to be entrepreneurs in the first place (76%), especially owners of MEs (80%). Most owners of MSEs lack of business experiences, especially owners of MEs.

Moreover, business environments of MSEs in the sample, such as macroeconomic conditions and infrastructures, are not considered as a support to ME graduation. Most MSEs complained about increasing price of raw material, energy and basic needs. Essential infrastructures, such as road, electricity, transportation and clean water, are still lacking.

Religious Islamic characteristics, such as Muslim majority (EXTERNAL), Religious uplift (SUPPORT), Trustworthy ‘Amanah’ and truthful ‘Shiddiq’ (OWNER), Halal earnings (BUSINESS), Transparency ‘Tabligh’ and Professional ‘Fathonah’ (MANAGEMENT), as well as Spiritual capital and Social capital (RESOURCES) do not emerge as the main key success factors of ME graduation. However, they are necessary factors with high loading factors (> 0.50), such as Spiritual uplift (0.52), Trustworthy (0.56), and Truthful (0.63).

c. SAST

Some important policies surfaced in the study coincide with SEM results, such as X131 – Price stability, especially basic needs, raw material, and energy (Macroeconomic) and X121 – Infrastructure improvement, especially road, bridge,
electricity, transportation, clean water, etc. (Infrastructure), as well as Y241 – Easy market access of MSEs products to enter mini market, super market or modern market (Market), which lie on Certain Planning Region (Region I). Most of MSEs do not realize the need of policies to improve their management of know-how, especially SOP and IT, as well as owner’s quality, primarily in education, business experiences and market vision.

Therefore, the most important policies needed by MSEs are price stability and infrastructure (EXTERNAL), capital and financing support (SUPPORT), easy & affordable way of doing business, and strategic location (BUSINESS Characteristics), easy & cheap access to finance & raw material and availability of appropriate technology (RESOURCES).

These findings suggest that most MSEs feel satisfied with their own internal conditions and they have not realized that they need some internal improvements to excel and to graduate their businesses. On the other hand, most of MSEs agree that some external conditions need to be improve to provide conducive business climate to grow their businesses.

Moreover, some policies related to religious Islamic characteristics, such as X_{261} – Religious training, i.e. Spiritual Leadership & Entrepreneurship Training (Spiritual Uplift), Y_{111} – Attending religious studies, such as regular halaqah (Fear of Allah), Y_{121} – Attending Spiritual/Islamic Entrepreneurship Training (Trustworthy), Y_{211} – Waivers on MSE products halal certification (Halal Earning), Y_{321} – Regular training on MSEs professionalism (Professional or Fathonah), Y_{311} – Regular meeting with all stakeholders (Transparency or TabligIth), and Y_{411} – Improvement of employee spirituality through religious activities (Spiritual capital), are not regarded as priority and they only lie on problematic planning region (Region II).

5.2 Recommendation

Internally, most of MSEs, especially MEs, are lack of important determinants of ME graduation which they must have had, such as standardization of SOP, utilization of IT, and clear market vision. They understand their products, but they do not fully understand their markets. It seems that they have satisfied with what they already accomplished and that there is no urgent need for development, improvement and expansion.

State Minister for Cooperatives Small and Medium Enterprises and other related government institutions have done many things to address these problems through education, workshop and training, technical and managerial assistance, standardization
and certification, marketing and networking assistance, soft loan/financing, etc. However, since the number of ME is so huge, almost 56 million MEs, the impacts have only been enjoyed by few of them. For example, people’s business credit (Kredit Usaha Rakyat – KUR) is estimated to reach Rp30 trillion at the end of 2015, with credit limit of Rp25 million for each SME. This means that KUR would reach 1.2 million SMEs, or only 2.1% of SMEs.

Most of MSEs, especially MEs, do not have any formal business permits. Therefore, government should provide easy and affordable one door integrated business permit services. Recently, Ijin Usaha Mikro Kecil (IUMK) or MSE Permit has been launched in response to President Decree No. 98 of 2014, where MSEs could apply IUMK to the Village Head for free with less administrative requirements. With this IUMK, MSEs would have received several benefits, such as, certainty of doing their businesses, access to financing, business assistance and empowerment program. However, up to now, only 38 out of 510 cities or districts have released necessary regulation, i.e Peraturan Daerah or Local Regulation.

Therefore, government should give more attention (including political will and support) to MSEs, such as developing standard SOP for various ME businesses, provide ME with training, workshop and funding to install IT, provide various marketing linkage between ME and Industry or user. More importantly, there should be continuous efforts to switch MSEs’ mindset to move forward with innovation and creativity.

External environment, such as price stability and infrastructure are not in favor of MSEs to grow their businesses. Therefore, stable and low inflation, and infrastructure acceleration should become government top priority.

Most of MSEs, especially MEs, owners have low education background (Junior High) and are lack of work and business experiences, while according to Reeg (2013), entrepreneur should have quality education and quality work experience. Therefore, government should support MSEs in terms of education and business experience improvements, such as improving the quality of SMK and Politeknik (Vocational Schools), establishing more BLK, providing facilities for MEs to participate in Expo, Workshop, Conference, Comparative study, motivational workshop, etc.

MSEs are highly diverse with less specific pattern. Therefore, further studies should be conducted for each specific business subsector, since most of MSEs businesses are unique.

Finally, if we want to design MEs graduation, there should have been three group of components, namely:
1. Minimum Requirements: Internal ME and External Environment & Support;
2. Necessary internal factors: Internal ME; and

**Figure 30: Design ME Graduation**

First, internal ME must develop SOP and IT, as well as understand its market, while external environment, such as macroeconomic condition and infrastructure, as well as family support, must be conducive for MEs to grow their business. Second, ME should have visionary and educated owner with entrepreneurship and business experience, as well as skilled human capital. Third, ME should be supported by government policies, such as availability of affordable financing, tax relief, stable price, free/minimum charge for permits and certificates, availability of affordable raw material and energy, and availability of relevant technology. Moreover, financial support from ZISWaf/Donor funds are the most welcomed.

**REFERENCES**


Analysis of the Determinants of Micro Enterprises Graduation


considers fear of God as one of its results, pp. 192.

Identification Problem for Structural Equation Models with Unmeasured Variables”,

Medium Enterprises (SMEs) Performance in Ekiti State Nigeria: A Business Survey

Factors Leading to Success of Small Medium Enterprises”, Interdisciplinary Journal


Stefanovic, I., Sloboda P. and Ljubodrag R. (2010). “Motivational and Success

http://theseus56-kk.lib.helsinki.fi/bitstream/handle/10024/28428/Soini_Eveliina_Vesel


Brookings Institute: Global Economy and Development. Available at

of Defining Small and Medium Enterprises in Developing Countries”, Paper, The


2. Most of MSEs entered into manufacturing sector (73%), and only ME entered

and are lack of work and business experiences, while according to Reeg (2013),

acceleration should become government top priority.

creativity.

Therefore, government should give more attention (including political will and

support) to MSEs, such as developing standard SOP for various ME businesses,

Figure 24: Measurement Model of GRADUATION

of Micro Enterprises Graduation is a good model with close fit (AGFI = 0.93).

2/df ≤ 0.08 (0.00). All


REFERENCES


Islamic Financial Sector Development: Enhancing Islamic Financial Services for


583-593.


Kwazulu-Natal.


The Entrepreneurs


Developing standard SOP for various ME businesses,

Figure 30: Design ME Graduation

Figure 30: Design ME Graduation

Figure 30: Design ME Graduation

easy & cheap access to finance & raw material and availability of appropriate

infrastructure (EXTERNAL), capital and financing support (SUPPORT), easy &

market vision.

Uplift), Y 111 – Attending religious studies, such as regular halaqah (Fear of Allah),

and are lack of work and business experiences, while according to Reeg (2013),

acceleration should become government top priority.

creativity.

Therefore, government should give more attention (including political will and

support) to MSEs, such as developing standard SOP for various ME businesses,

Figure 24: Measurement Model of GRADUATION

of Micro Enterprises Graduation is a good model with close fit (AGFI = 0.93).

2/df ≤ 0.08 (0.00). All


REFERENCES


Islamic Financial Sector Development: Enhancing Islamic Financial Services for


583-593.


Kwazulu-Natal.


Developing standard SOP for various ME businesses,
considers fear of God as one of its results, pp. 192.

in A. Goldberger and O. Duncan (Ed.). Structural Equation Models in the Social

UNIDO and UNODC. (2007). “Corruption Prevention to Foster Small and

Approach”, European Journal of Humanities and Social Science, Vol.27, Iss:1.

Medium Enterprises (SMEs) Performance in Ekiti State Nigeria: A Business Survey

i_Labinot.pdf?sequence=1&isAllowed=y.


Corporate Governance, Mizan, Bandung.


Strategis Kementerian Koperasi dan Usaha Kecil dan Menengah tahun 2010 – 2014”,

Loewe, M., Al-Ayouty, I., Altpeter, A., Borbein, L., Chantelauze, M., Kern, M. E. N. and

pp. 339-354.  


Growth in Pietermaritzburg”, Dissertation, Pietermaritzburg, University of


Intervention”, in Systems Methodology for the Management Sciences,  Springer, US,


Waivers on MSE products halal certification (Halal Earning), Y 321

Regular training and certification, marketing and networking assistance, soft loan/financing, etc.

Most of MSEs, especially MEs, owners have low education background (Junior High) (73% have Senior High degree or below), especially owners of MEs

6. Most of MSEs run their business at home (53%) or shop (32), while most

Most of MSEs entered into manufacturing sector (73%), and only ME entered

These findings suggest that most MSEs in the sample do not have important key

Y 111–Attending religious training for SMEs (Innovation) lie on certain planning region (Region I). Meanwhile Y321

Y 441–Easy access to loan/financing (Access to Finance), Y 261–Religious training, such as Islamic leadership and

Criteria of Effectiveness: Some Preliminary Evidence”, Management Science, Vol.29,