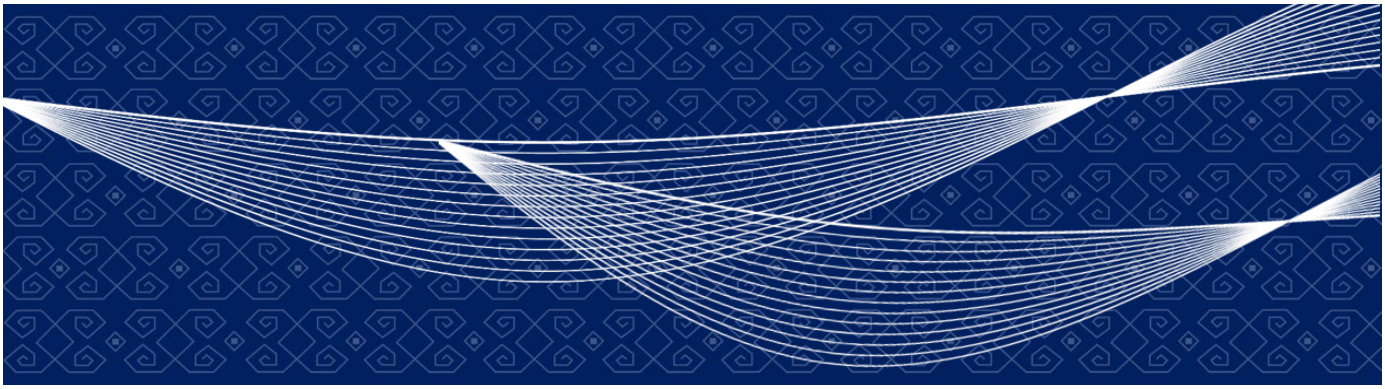
BANK INDONESIA
BANK SENTRAL REPUBLIK INDONESIA



WP/12/2021

WORKING PAPER

INTERPLAY OF POLICY AND SOCIAL CAPITAL

Prof. Iwan Jaya Azis

Arnita Rishanty

Canyon Keanu Can

2021

Introduction

The importance of micro, small, and medium enterprises (MSMEs) has grown during the pandemic. They can potentially play an increasingly central role in averting the disastrous economic fallout of the millions of low income households. In most developing countries, MSME tends to have higher contribution to GDP compared to the case in advanced economies, as most developing countries have higher shares of informal-sector employment. In 2018, 117 million (97 percent) of Indonesian workforce was absorbed by MSMEs, contributing about 61 percent of the country's GDP[1].

Previous literature argues that the competitiveness of MSMEs is hindered by their lack of access to capital, technology and skills. Prevailing policies are largely designed to bridge that gap; however, when those policies overlook the prevailing institutions in each region, they risk losing their effectiveness. The risk is further exacerbated by ignoring the role of social capital in different communities where the MSMEs operate. In this research we argue that interactions between policies and institutions—which social capital is an important part of-- are key in the efforts to improve MSME performance as they influence not only official and non-official expenses incurred in business activities (e.g., transportation, bureaucracy and network costs, as well as payments and other personalized transactions for permit-related matters). These unofficial costs are often too burdensome and frequently cannot be avoided, forcing many MSMEs to remain informal and small. As a result, low productivity and competitiveness continue to plague their operations.

To the extent the rich cultural and geographical diversity across Indonesia's islands results in stark contrasts among the challenges faced by MSMEs in each region, a local understanding of culture- and region-specific difficulties is imperative. Government policies can potentially leverage those unique characteristics to enhance the effectiveness of policies through exercises such as trust-building and cluster-formation. Analyzing in-depth the cases of MSMEs in each region can shed a light on how national-level policies can complement the local-level initiatives with more synergy.

This study aims specifically to explore the challenges faced by MSMEs by emphasizing the importance of MSMEs' social capital and how government policies and institutions interact to affect their performance. To capture the perceptions of MSMEs towards those interactions, we attempt to distill their 'mental bandwidth' by conducting a survey using a particular approach known as the Analytic Hierarchical Process (AHP) and the Analytic Network Process (ANP). We synthesize the results to highlight the perspectives of MSME operators pertaining to the interactions between policies and social capital. It is revealed that more than half of the respondents consider that social capital and its interactions with policies are indeed more important than the policies alone. A significant portion of such opinion is particularly expressed by MSME in rural areas and those receiving assistance from Bank Indonesia (BI). The sensitivity analysis further confirms the results, and some case-based evidence from selected MSME operations also corroborate the finding.

Literature review

The productivity and competitiveness of MSMEs are hindered by hurdles ranging from a lack of innovation, to limited quality of entrepreneurship, asymmetric information, and financing barriers.

[1] Based on data from the Ministry of Cooperatives and MSMEs (2018).

MSME productivity in Indonesia is further limited by the low number of programs designed to boost productivity growth at the firm level, differences in regulations and licensing between regions[2], and variations in local government capacity that lead to high bureaucratic costs which greatly reduce the impact of government-initiated social programs.

In terms of innovation, the strikingly low amount of research and development spending in Indonesia, where only 2 percent of firms in Indonesia invest in R&D, presents a critical barrier for MSME growth. Only 5 percent of small enterprises and 9.7 percent of medium enterprises in Indonesia were able to introduce a new product and/or service during the last three years.

The financing front presents even more complex and varied challenges. While MSMEs in Java are often able to receive loans from banks, MSMEs in the remote regions of Eastern Indonesia must often borrow from cooperatives. Across all regions, however, middlemen remain the most active lenders and fintech lenders have proliferated in recent years, with too-high interest rates that prevent MSMEs from being able to grow through those loans. In addition to capital, another critical aspect of financing is cash flow, particularly for MSMEs engaged in export activities or traditional crafts that require months to create. Thus, while MSMEs are able to obtain buyers, delayed payments can put pressures on the business cash flow, forcing MSMEs to abandon their contract and reduce sales. Some developing countries have attempted to circumvent this challenge by adopting a cash-flow-based (instead of collateral-based) system of lending. In others, third-party insurers are actively involved to lower lenders' (banks') disincentive-to-lend by guaranteeing a sufficient portion of loan repayment or by using a guarantee for each purchase-order according to the MSME's business track record.

Attempts to raise MSME performance in Indonesia have seen limited success. In the 1970s and 1980s, efforts were made to provide financial and technical assistance to help improve the operations of MSMEs; some implemented through cooperative units, others through regular business operations. Attempts were also made to promote MSMEs through regulation and coercion, such as through the enforcement of subcontracting schemes (mainly in the automotive and electronic industries), and through the use a system where state enterprises and larger firms were required to sponsor local MSMEs. In addition, the government also imposed preferential procurement programs and issued regulations, allowing only firms of a certain size to produce certain goods.

Although comprehensive analysis to evaluate the effectiveness of these policies have never been made, several empirical studies deduced that most of these supply-side programs were not effective, plagued by low participation rates and often beset by problems of corruption (Sandee et.al, 1994; Musa and Priatna, 1994; Berry et.al, 2001; Hill, 2001; Tambunan, 2007). Where SMEs succeeded to make improvements, they did so in spite of, not because of, government programs. The growth of MSME over the years have been found to be influenced by factors other than government assistance, and the probability of receiving assistance is positively related to firm size (Berry et.al, 2001).

[2] Decentralization-related Law 23/2014 on the role of local governments assigns responsibility to different tiers of government: national governments are assigned to support co-operatives and medium-sized enterprises, provincial governments to support small enterprises; and cities and regencies are mandated to support micro-enterprises. While useful on paper, such a distinction exacerbates the already widened interregional disparity, and its implementation tends to confuse regulators and MSME operators.

Since then, the government has continued to promote MSME growth through a variety of financial, technical, and regulatory assistance. For example, financial assistance is offered through subsidized credit such as KUD for small farmers and village cooperatives; KIK, KMKP, KUK for general purposes, KUPEDES for village units, BKD for small rural development banks, and KUR for MSMEs (launched in 2007). A wide range of measures have also been taken to offer technical assistance for MSMEs, including trainings to improve product design, marketing and promotion, accounting and book-keeping, and capacity building in utilizing digital technologies such as e-commerce and fintech. The government have also introduced regulations to require banks to allocate 20 percent of credits to MSMEs, assign lower tax rates or grant tax exemptions for some MSMEs, streamline the procedure to obtain licenses and permits, create linkages between MSMEs and large enterprises and other related activities (subcontracting), as well as linkages among the MSMEs themselves.

Those measures have been continued and expanded during the Covid-19 pandemic. Ultra-micro and micro enterprises in key sectors were provided with an unconditional cash transfer program, micro enterprises were given the opportunity to restructure their credit with interest subsidies, and cooperatives had their credit restructured through the Revolving Fund Agency (LPDB) with subsidized credit interest and liquidity assistance being made available to cooperatives. Incentives were also provided to raise the technical capacity of MSMEs through the Pre-Employment Card Program (program kartu prapekerja) that provided funds for MSMEs who enrolled in subsidized training programs.

Some demand-side measures have also been taken to maintain and enhance the purchasing power for MSME/cooperative products and to boost MSME exports through virtual business match-making events. The government offered discounts for the purchase of MSME goods, utilized stall/shop (warung) data to raise e-commerce transactions, established MSME partnerships with nine state-owned enterprises (e.g., in the food cluster), and collaborated with young influencers to encourage people to shop MSME products around their neighborhood.

It remains to be seen whether these programs are effective to help improve the MSME performance. Addressing MSME problems caused by genuine market failures should not be mixed-up with other objectives. Even if the latter are important, they should be addressed by policies designed to meet them, not by policies for MSMEs.[3] Moreover, if policy goals are too ambiguous, there is a risk that the policies will not be well received or even avoided all together by MSMEs. It is hence imperative to understand the internal problems encountered by MSMEs to avoid such a response and to reduce the inequalities that hinder MSME performance.

Viewed from the perspective of Institutional Economics (North, 1990), observed inequality and uneven growth can be the result of interactions between the 'right' kind of policies with the 'wrong' kind of formal and informal institutions. While particular policies according to the standard economic theory will produce an equilibrium outcome with minimum inequality, the implicit assumptions of institutional arrangements to make those policies work may not hold.

[3] For example, program to help MSME is often confused with targeting employment creation because MSMEs are believed to be more labor intensive than large firms. Yet, evidence suggests that enterprise scale is not a reliable guide to labor intensity: many MSMEs are in fact more capital-intensive than larger firms in the same industry. Policies to boost employment should instead focus on altering the pattern of demands in favor of labor-intensive industries rather than on supply-side efforts to change the size distribution of firms.

Defined as formal and informal rules and norms that organize social, political and economic relations, institutions have a normative content as they carry sanctions for non-compliance. There are formal and informal types of institutions. Written laws, policies, and regulations are examples of formal institutions. Informal institutions include intangible components such as social customs or traditions, spirit of comradery, sense of community, goodwill and trust. Both types shape the thought, behavior, as well as broader social capital of community. They can either enable or constrain individuals to act and behave, and hence play a critical role in shaping the results of development (Azis 2008, 2010, 2013). Right policies with wrong institutions can generate disappointing outcomes. Worse, they can produce the opposite results.

More emphasis is generally placed on formal institutions when formulating policies, with the enforcement of those policies being part of informal institutions. In some cases, when a policy with good intent is not sufficiently enforced, local communities may impose social control through neighborhood trust to ensure that the good intent can be materialized. In other cases, the quality and capacity differ between communities may not be enough to materialize the policy outcome.

Literature on institutional perspectives stresses the importance of the participatory process. Social capital is defined as the social networks and the norms of trustworthiness and reciprocity that arise from these networks (Putnam, 1993). Ostrom (2010) discusses how collective-action problems pervade all societies as well as ecological systems used by humans. Substantial evidence has accrued during the last several decades that human actors are able to solve some (but definitely not all) collective-action problems on their own without external rules and enforcement imposed from the outside.

While the relation between social capital and inequality is complex, a major dimension of inequality concerns the access to social capital, e.g., direct and indirect access to resources and network. Social capital can add long-term value by providing opportunities or network to increase individuals' human capital (health, education, prestige), improve the ability of less-developed regions to innovate and attract businesses, or increase MSMEs' capacity to enhance productivity and competitiveness. In many less-developed regions with limited resources and human capital, a lack of access to networks and linkages as part of social capital will worsen inequality.

In addressing the gap between small and large businesses, high transaction costs are at the center of the institutional problems faced by many MSMEs. Transaction costs can range from expenses incurred in business activities such as advertisement, management, finance, and public relations, to the costs of getting permits which is time-consuming and often involves payments or transfer of bribes and kickbacks. In some cases, personalized transactions are the norm rather than the exception. All these costs tend to be more burdensome for small businesses that have small and unsecured assets and lack formal documents, forcing them to remain informal and small as they cannot afford to pay those costs. The persistence of informality contributes to their stunted productivity and competitiveness, which in turn diminishes the chances for MSMEs to obtain financing and weakens their incentives to expand.

Indeed, to the extent that institutions define the incentive structures of societies, given a certain incentive structure, a system will be in equilibrium if the implied regularity of behaviors of individuals or society to follow the rules are best-responses to the beliefs and internalized norms formed by the implied regularity of behaviors (North, 1993, 2005). As a result, policies can fail to achieve their objectives if the institutions in which those policies are elements of is not in

equilibrium (Grief, 2006). To a large extent, the behaviors of individuals or society reflect their social capital, and institutions have a strategic role in influencing and shaping that social capital.

Methodology

To understand how policies and institutions interact together with social capital to expose the real conditions and constraints faced by MSMEs, the following describes the background concepts and theories that we use in our research.

As argued earlier, social capital jointly determine the effectiveness of policies to improve MSME performance. By positioning social capital and its interactions with policies at the center of the analysis, we highlight the role of formal and informal institutions in achieving policy objectives. More specifically, government policy to establish an enabling institutional arrangement and a set of social capital to induce cooperation for collection action jointly determines MSME performance and competitiveness. For cooperation and collective action to work more effectively, participation and coordination as the components of social capital are required. The three sets of policy expected able to improve the institutional arrangements are: those intended to strengthen the interactions among MSMEs as well as between MSMEs and other relevant parties, structural policies to improve MSME operations, and policies to enable MSMEs to use better technology (digital and green technology).

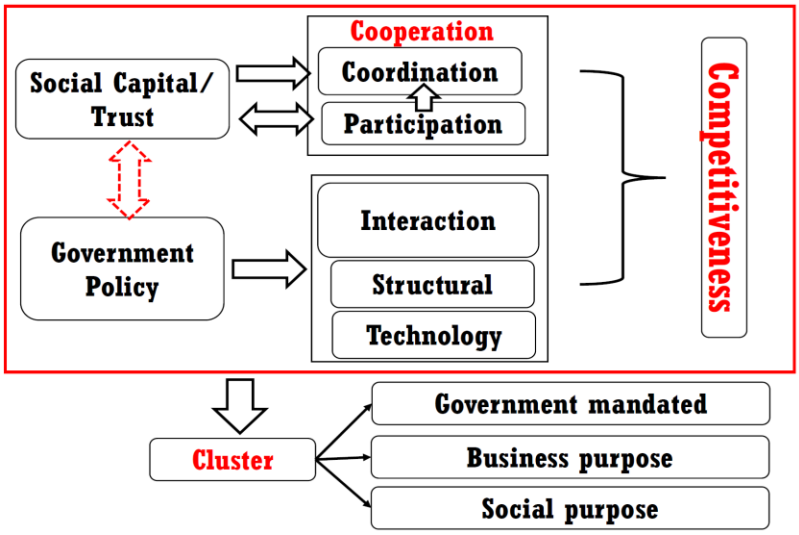


Figure 1. Summarised Survey Framework

The interplay of policies and social capital components works through MSME clusters, some of which are imposed or mandated by the government, some are formed for purely business purposes, and others are used for social and other purposes. Practically speaking, those who are members of a cluster will experience greater joint-effects from the interplay between policies and social capital during their day-to-day operations in the cluster. For those who are not a member of any type of cluster, the choice of cluster type should only reflect what they aspire. It is in this context that perceptions directly obtained from MSME operators are expected to capture both their true and real conditions and their aspirations.

Based on the above, we construct two hierarchies for AHP and a network for ANP to identify how social capital as part of the institutional framework can affect policy outcomes. While the two

hierarchies are designed to reveal the preferred form of cluster, the network is built by putting 'participation' and 'coordination' in cooperation as the key elements of social capital before relating them with the preferred cluster. Whether the benefits of operating in a cluster can exceed the transaction costs depends on the characteristics of the cluster operation. These characteristics are determined by the quality of MSME participation and coordination in cooperation, and the effectiveness of collective actions among members. The quality of their participation and coordination reflects the prevailing social capital, which is an important element of institutions.

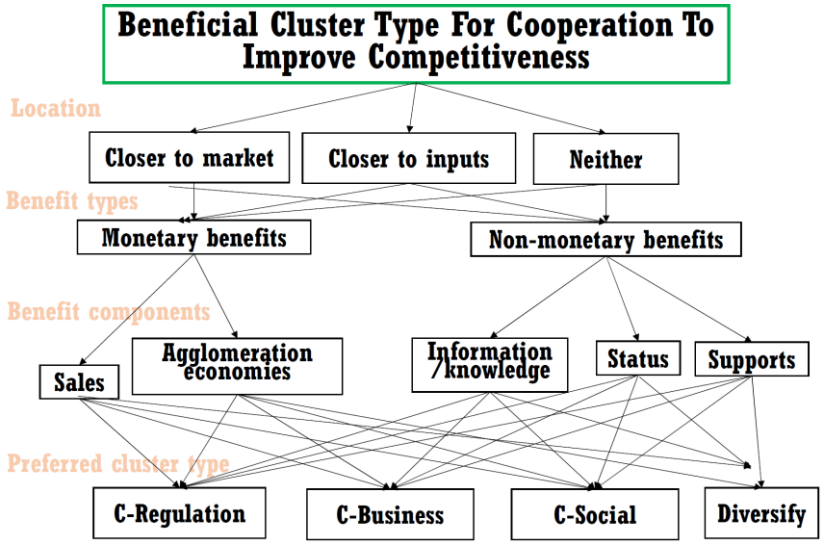


Figure 2. Benefit Hierarchy

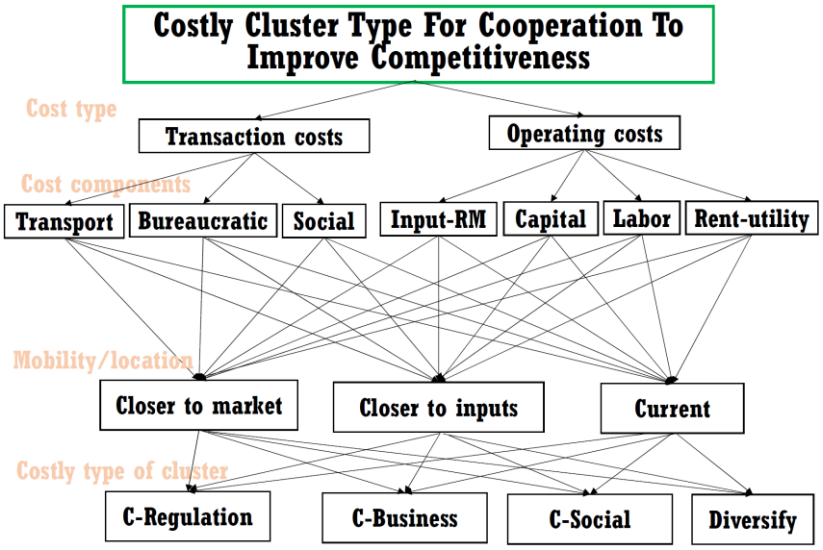


Figure 3. Cost Hierarchy

The hierarchy is designed to distill MSMEs' current conditions and their experience or aspirations for cooperation in a cluster, while the network is constructed to delineate the role of—and the interplay between–policies and social capital to determine the type of cluster deemed most relevant for cooperation and collective actions. As final goal is to help improve the competitiveness of MSMEs, three policy categories are tested: linkage, structural, and technology policies. The social capital used in the network consists of participation and coordination intended to raise the effectiveness of cooperation for collective actions.

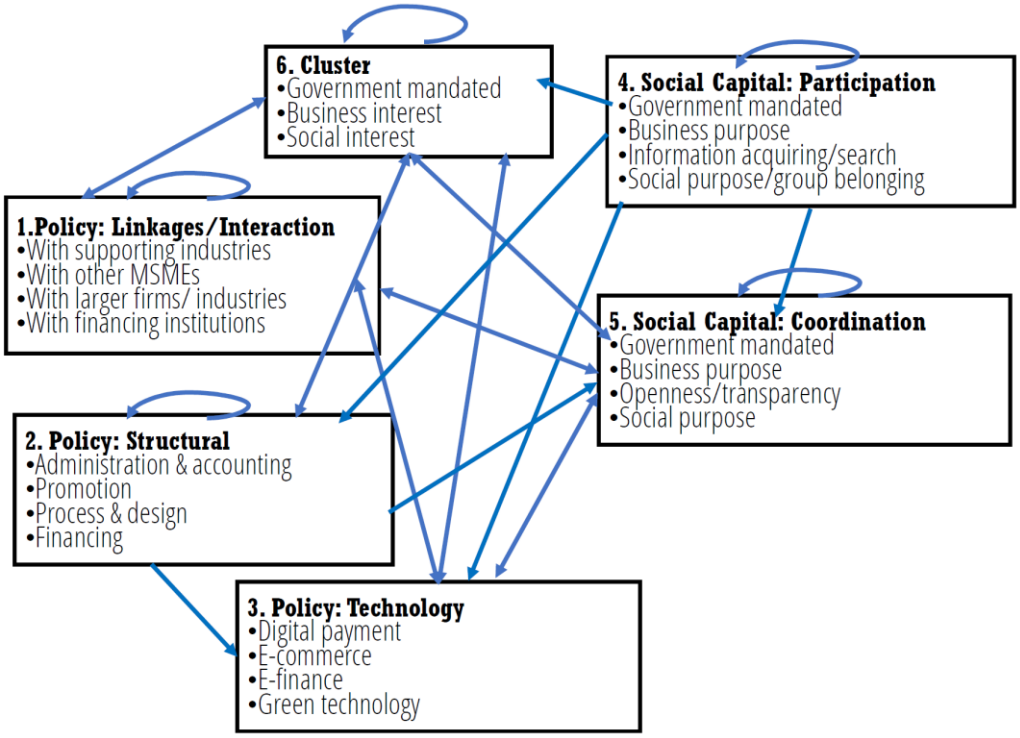


Figure 4. Interplay of Policies and Social Capital: A Network of Feedback & Interrelations

Relying on human perceptions is particularly important because they are the ultimate lens through which MSME respondents view reality, and it is with versions of that reality that they operate with. Even if the perception of MSMEs do not match with the reality (i.e. "wrong" perceptions), it is a human characteristic than influences their decisions and choices surrounding their businesses. What MSME respondents perceive is not necessarily what their eyes and ears tell them, but it is what their brain makes them see and hear, based upon which they make decisions to produce, to diversify, to use digital and green technology, to export, to cooperate, and to join a cluster. It is for this reason the AHP and ANP approach are most appropriate to use.

AHP uses the ratio scales (relative measurements) derived from paired comparisons. Ratio scale is a fundamental kind of number amenable to performing basic arithmetic operations of addition and subtraction within the same scale, multiplication and division of different scales, and combining the two operations by meaningfully weighting and adding different scales to obtain a unidimensional scale. They are particularly useful to capture people's perceptions (Azis, 1990; Azis & Isard, 1996).

Let A_1, A_2, A_3, ..., An be n elements in a matrix within a hierarchy. The pairwise comparisons on pairs of elements (A_i, A_j) are represented by an n-by-n matrix $A = (a_{ij})$, where i,j = 1, 2, 3,....., n. Define a set of numerical weights w_1, w_2, w_3, ..., w_n to reflect the recorded comparisons based on the inputs from the respondents. We can write:

$$\mathbf{A} = \begin{array}{c} \\ A_1 \\ \\ \\ A_n \end{array} \begin{array}{c} \begin{array}{cccccc} A_1 & A_2 & & & & A_n \end{array} \\ \begin{bmatrix} w_1/w_1 & w_1/w_2 & \cdots & \cdots & \cdots & w_1/w_n \\ \cdot\cdot & \cdot\cdot & \cdot\cdot & & \cdot\cdot & \cdot\cdot \\ w_n/w_1 & w_n/w_2 & \cdots & \cdots & \cdots & w_n/w \end{bmatrix} \end{array}$$

The scales used in the pairwise comparisons in AHP are based on Saaty's scaling system (Saaty, 1994), i.e., from 1 to 9. Since every row is a constant multiple of the first row, A has a unit rank. By multiplying A with the vector of weights w,

$$Aw = nw$$

To recover the scale from the matrix, the following system ought to be solved:

$$(A-nI)w = 0$$

from which nontrivial solution is obtained if and only if det(A-nI) vanishes, i.e., the characteristic equation of A. Hence, n is the eigenvalue and w is the eigenvector of A. Given that A has a unit rank, all its eigenvalues except one are zero, and the trace of A is equal to n.

If each entry in A is denoted by a_{ij}, then $a_{ij} = 1/a_{ji}$ holds (reciprocal property), so does $a_{jk} = a_{ik}/a_{ij}$ (consistency property). By definition, $a_{ii} = a_{jj} = 1$ (comparing two same elements). Therefore, if we are to rank n number of elements, i.e., A is of the size n-by-n, the required number of inputs (from the paired comparison) is less than n_2; it is equal to only the number of entries of the sub-diagonal part of A. That is, if there are three elements in a particular level of a hierarchy, only three pairwise comparisons are required.

To the extent the precise value of w_i/w_j is hardly known because the pairwise comparisons that we have is only an estimate (from respondents' perceptions), there are obviously perturbations involved. Note that the reciprocal property still holds but the consistency property does not. By taking the largest eigenvalue denoted by λ_{max},

$A^p\ w^p = \lambda_{max}\ .\ w^p$

where A^p is the actual (or the given) matrix perturbed from matrix A. Although Aw = nw and $A^p\ w^p = \lambda_{max}\ .\ w^p$ are not identical, if w^p is obtained by solving the latter, the matrix whose entries are w_i/w_j is still a consistent matrix; it is a consistent estimate of A, although A^p itself does not need to be consistent. A^p will be consistent if and only if $\lambda_{max} = n$. As long as the precise value of w_j/w_i is not given, which is common in a real case situation due to human bias in expressing perceptions, λ_{max} is always greater-than or equal-to n. Consequently, a measure of consistency can be derived based on the deviation of λ_{max} from n.

When more than two elements are compared, the notion of consistency can be associated with transitivity condition: if $A_1 > A_2$ and $A_2 > A_3$, then $A_1 > A_3$. It should be clear that in solving for w, the transitivity assumption is not strictly required; the inputted comparisons do not have to reflect full consistency. Yet, it is equally clear that the resulting matrix and the corresponding vector remain consistent. It is this consistent vector w that reflects the priority ranking of the elements in each level of the hierarchy. Hence, the elements in each level are pairwise compared with respect to elements in the level above it, and the resulting vector for the bottom level reflects the final results.

AHP does not recognize two-way dependence or feedback effects like in the influence diagram (statistical decision analysis based on Bayes theorem). Since in a feedback situation the elements in each level can depend on elements in other levels as well as on each other, the system forms a network rather than a hierarchy. When a solution is derived, they are more stable than the solution from a hierarchy because one can consider the influence on, and survival in, the face of other influences.

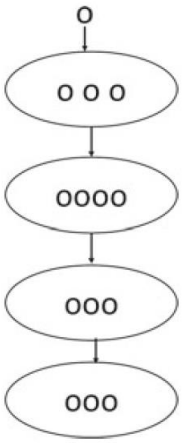


Figure 5. Linear Hierarchy

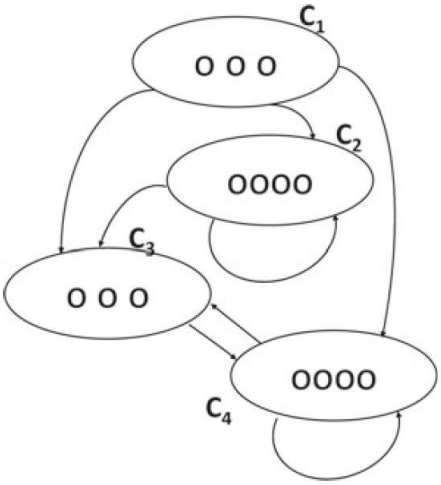


Figure 6. Feedback Network

Figures 5 and 6 show the difference between a hierarchy and a network. Note that the term 'level' we use in a hierarchy is substituted by the term 'categories' in a network (denoted by C_1, C_2, C_3, and C_4), and the contents of each category are called 'components' or 'elements.' In Figure 6, the components in the parent category C_1 and the components to be compared can be in different

categories; e.g., a directed link appears from the parent category C_1 to the other categories (C_2 and C_3). This is the case of "outer dependence." In other cases, the components to be compared can be in the same category, in which case the category is linked to itself and a loop link appears. This is called "inner dependence."

While in AHP a set of pairwise comparison matrices are used, in ANP we need a large matrix called the "supermatrix" that contains a set of sub-matrices. The "supermatrix" captures the influence of components in a network on other components in that network. Denoting a category by C_h, where h = 1, ……m, and assuming that it has n¬h components e_{h1}, e_{h2}, e_{h3} ……., e_{hm}, Figure 7 shows the corresponding supermatrix:

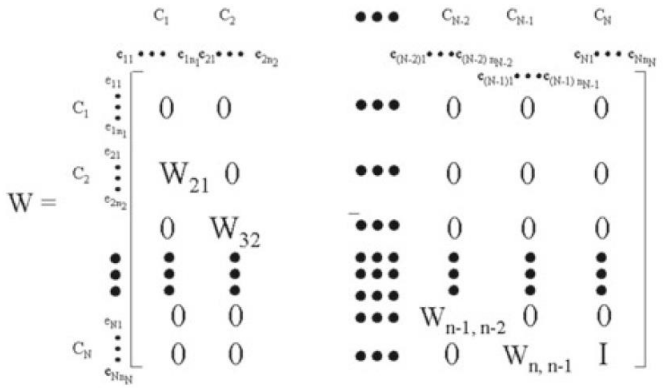


Figure 7. Supermatrix of a Hierarchy

When the bottom level affects the top level of the hierarchy, a form of network known as holarchy is formed, the supermatrix of which looks like the one displayed in Figure 8.

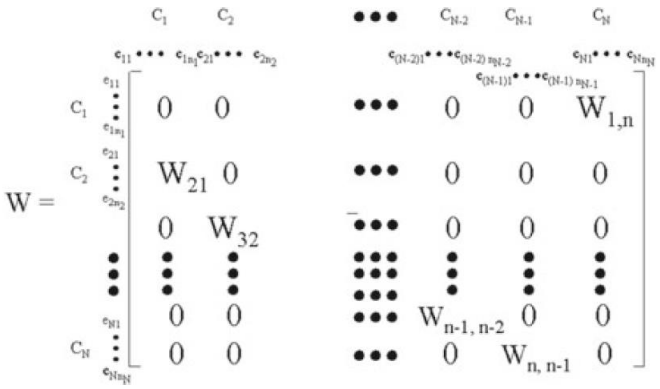


Figure 8. Supermatrix of a Holarchy

Notice that the entry in the last row and column of the supermatrix in Figure 7 is the identity matrix I corresponding to a loop at the bottom level of the hierarchy. This is necessary when a hierarchy is viewed within the context of supermatrix. On the other hand, the entries in the first row and last

column of a holarchy in Figure 8 are nonzero, indicating that the top level depends on the bottom level.

In general, when feedback influences are present as in Figure 6, the supermatrix is formed by laying out all the categories and all the components in each category both vertically on the left and horizontally at the top as in Figure 9.

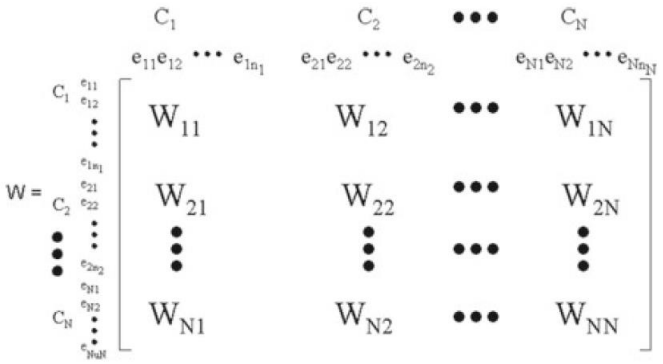


Figure 9. Supermatrix of a Network

The typical entry of the above supermatrix is:

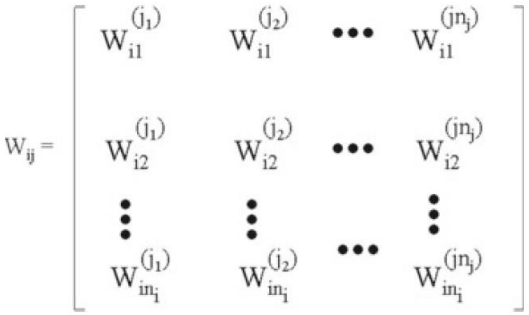


Figure 10. Entry in the Supermatrix of a Network

The entries of sub-matrices in W_{ij} are the ratio scales derived from paired comparisons performed on the components within the categories themselves according to their influence on each component in another category (outer dependence) or components in their own category (inner dependence). If the categories influence and be influenced by other categories, paired comparisons on the categories are to be made as well. Like in a hierarchy, in a network the judgments are also elicited, from which ratio scales are derived. The resulting unweighted supermatrix is then transformed into a matrix each of whose columns sums to unity to generate a stochastic supermatrix. The derived weights are used to weight the components of the corresponding column blocks (cluster) of the supermatrix, resulting in a weighted supermatrix which is also stochastic. The stochastic nature is required for the reasons described below.

Since a component can influence the second component directly and indirectly through its influence on some third component and then by the influence of the latter on the second, every such possibility of a third component must be considered. This is captured by squaring the

weighted matrix. But the third component also influences the fourth, which in turn influences the second. These influences can be obtained from the cubic power of the weighted supermatrix. As the process is performed continuously, we will have an infinite sequence of influence matrices denoted by W_k, k = 1,2…… The question is, if we take the limit of the average of a sequence of N of these powers of the supermatrix, will the result converge, and, is the limit unique? It has been shown that such a limit exists given the stochastic nature of the weighted supermatrix (Saaty, 2001). There are 3 cases to consider in deriving Wk: (1) $\lambda_{max} = 1$ is a simple root and there are no other roots of unity in which case given the nonnegative matrix W is primitive, we have $\lim_{k\to\infty} W^k = we^T$, implying that it is sufficient to raise the primitive stochastic matrix W to large powers to yield the limit outcome; (2) there are other roots of unity that cause cycling, in which case Cesaro sum is applied (Cesaro' Summability stipulates that if a sequence converges then the sequence of arithmetic means formed from that sequence also converges to the same limit as the sequence; see Saaty, 2001); and (3) $\lambda_{max} = 1$ is a multiple root, in which case the Sylvester's formula with $\lambda_{max} = 1$ is applied.

In practice, one simply needs to raise the stochastic supermatrix to large powers to read off the final priorities in which all the columns of the matrix are identical and each gives the relative priorities of the components from which the priorities of components in each category are normalized to one. The powers of the supermatrix do not converge unless it is stochastic, because only then its largest eigenvalue is one. When a convergence is not achieved (a cyclic case) the average of the successive matrices of the entire cycle gives the final priorities (Cesaro sum), in which the limit cycles in blocks and the different limits are summed and averaged and again normalized to one for each cluster. In other words, one has to compute the limit priorities of the stochastic supermatrix according to whether it is irreducible (primitive or imprimitive [cyclic]) or reducible with one being a simple or a multiple root and whether the system is cyclic or not. At any rate, raising the stochastic supermatrix to large powers gives what is known as the limiting supermatrix.

In sum, there are 3 supermatrices to generate: (1) the original unweighted supermatrix of column eigenvectors obtained from pairwise comparison matrices of components; (2) the weighted supermatrix in which each block of column eigenvectors belonging to a category is weighted by the priority of influence of that category, rendering the weighted supermatrix column stochastic; and (3) the limiting supermatrix obtained by raising the weighted supermatrix to large powers. We apply this approach to generate the ratio scales and the ranking of each components shown in Figure 18.

Based on the AHP's two hierarchies and ANP's network, a set of questionnaires are subsequently developed and used to conduct the survey involving 121 MSMEs from across Indonesia.

Data collection and respondents

This study employs primary data as the data source, as primary data which is originated by the researcher has the advantage of new insights and greater confidence regarding data reliability for the researcher (Churchill and lacobucci, 2005, p167; Easterby-Smith et al., 2002). Bank Indonesia's MSME database was used to conduct stratified sampling according to their digital and green technology utilization, export capacity, success status, and business sector. The MSMEs came from the four sectors most relevant to the macroeconomic stability of the Indonesian economy that were identified by Bank Indonesia: agriculture, consumption goods, crafts and various industries, and the trade, hotels and restaurants industry. The sample distinguished between

successful MSMEs who were already able to flourish independently after having benefited from Bank Indonesia's guidance for some period of time (normally three years' time), and MSMEs who have not yet been able to successfully flourish independently even after having benefited from Bank Indonesia's guidance.

The sample was further refined through two focus group discussions with Bank Indonesia's Representative Offices in the region in which the MSMEs were located. While the original sample provided by DUPK through stratified only had 100 MSMEs, consultations with the Representative Offices who were located at the same province with the MSMEs, hence knew better about the characteristics and achievements of MSMEs in each region brought the total sample to 121 MSMEs. The sample was therefore a hybrid of stratified sampling – where MSMEs were stratified by their success status and their sectors – and purposive sampling through the input of the Representative Offices.

The study also involved interviews with local MSME consultants hired by Bank Indonesia to monitor the progress of and foster the development of MSMEs. Bank Indonesia's Representative Offices frequently hire local consultants who are highly familiar with the cultural norms and societal characteristics of the area. Their familiarity is crucial in building rapport with MSMEs, ensuring a strong flow of communication between Bank Indonesia and MSMEs, and monitoring the effectiveness of Bank Indonesia's policies to boost MSME competitiveness through non-monetary means. These local consultants were also interviewed in the study to provide a more holistic view of the general MSME landscape in each region and to understand more broadly how cultural factors influence social capital and competitiveness.

While biases may arise due to the use of Bank Indonesia's network of Representative Offices, respondents were given the freedom to refuse the survey without fear of any repercussions. Moreover, Bank Indonesia's policy of fostering MSMEs through strictly non-monetary means limits the possibility of biases as a result of financial conflicts of interest.

Due to the Covid-19 pandemic, the study was conducted virtually through video conference meetings and, for respondents without access to the internet, through landline phone calls. Respondents' anonymity was ensured by obscuring identifying details in any interview transcript and photographic documentation. Consent was obtained by sending respondents an information sheet and consent letter through an online form. An explanation about the survey was included along with researchers' contact details. The full information sheet and consent letter – translated from Indonesian to English – may be found in the Appendix. The participant information sheet and consent letter were also translated into local languages to ensure the respondents understood the research objective, research scope and research questions matching to the contexts. Respondents were also compensated to cover the costs of being interviewed, i.e. the costs of purchasing internet quotas.

In addition to providing respondents with the participant information sheet, the researchers explained the research objective to the respondents prior to conducting the interviews. It was made clear that respondents understood that their data would be anonymized, that there was no obligation for respondents to answer the questions, that they could stop the interview anytime, and that they could withdraw their responses up to the point of publication of the papers related to the interview. The interviews were recorded through the Zoom application or audio recorded (if the interview is conducted through Whatsapp call application) as part of the data collection process, with written notes also taken by the researchers.

The Representative Offices were tasked with contacting respondents, distributing the online questionnaire links, ensuring that respondents came on time for each interview session, and acting as a silent liaison during interview sessions to help address any technical or language difficulties MSMEs faced. MSMEs who had sufficient internet access were interviewed in a video conference session via Zoom, whereas Whatsapp calls were used for MSMEs with limited internet access, and landline calls for MSMEs without any internet access. MSMEs filled out the online questionnaires and were asked follow-up questions to understand more thoroughly the reasons behind their answers. Meanwhile, MSMEs who did not have access to the internet and was thus unable to access the online questionnaire links were interviewed by reading the questions out loud through the phone and the research team would then input the MSMEs' answers into the online questionnaires to record the interview results.

Figure 11. Distribution of Respondents Across Indonesia

List of interview questions

- AHP/ANP questionnaire
- What are the challenges for your business to strive?
- How would you overcome the challenges?

Research Results

Main AHP-ANP Results

Given the location, it is revealed from the hierarchy-based survey that monetary benefits especially from sales are viewed by most MSMEs to be greater than the non-monetary benefits, based upon which the business-oriented type of cluster is most preferred. Among the non-monetary benefits, majority MSMEs feel that acquiring information is most important, indicating their desire to learn and improve. From the cost side, operating cost is considered most burdensome, and the costliest type of cluster is one intended mainly for social interactions. Comparing the benefit and the cost results, the preference towards business-oriented cluster remains at the top.

Interestingly, although a government-mandated type of cluster is perceived highly beneficial, for some MSMEs especially those operating in trade and using digital technology, such an option is viewed as allowing government controls and intervention that could hinder their business operations. Hence, it is perceived as very costly. As a result, the resulting benefit/cost ratio of the option is relatively small. This underpins the importance of measuring both the upside and the downside of people's perceptions.

More central to our hypothesis is the network-based survey to evaluate the interplay between policies and social capital in determining the cluster type. Over half of MSMEs confirm that policy is not what matters the most to make the cooperation for collective action effective; the role of social capital is critical. Majority of rural-based MSMEs and those that have received assistance from BI for a longer-than-average period have the same view. Even among those who put a higher weight to policy cannot dismiss the importance of social capital.

Although the results vary depending on the characteristics and spatial dimension of MSMEs, linkage policy is perceived as the most important as it is expected to strengthen the linkages between MSMEs and larger firms, among MSMEs themselves, and to enable MSMEs to benefit from the products and services of supporting industries. On the latter, a lack of packaging industries has been frequently expressed by many respondents outside Jawa as among the most serious bottlenecks. Within social capital, consistent with the results from the hierarchy-based survey, active participation especially for acquiring information through transparent and informal coordination is ranked the highest. This is expressed particularly strongly by MSMEs operating in the rural area. Those located in Jawa, Sulawesi, Papua, Maluku and NTT, and those that have received assistance from BI for a longer-than-average period also share a similar view.

It is discernible that the costs of undermining the forces of agglomeration and ignoring the role of social capital based on the prevailing institution can be enormous. Investing in periphery without considering the structure and interactions between regions could paradoxically widen the interregional inequality, and assisting MSMEs by simply allocating more money without considering the local characteristics could lead to problems and waste with only a limited improvement. Direct provision of credit and other non-financial assistance may fail to deal with the underlying causes of the problems faced by MSMEs. They may substitute for the undeveloped or missing markets but not overcome the institutional failure. Where regions thrived and MSME succeeded, they might have achieved it in spite of, not because of, government assistance.

To complement the analysis and corroborate what has been conceptualized, some casebased evidence highlights the importance of understanding local wisdom, mutual trust, and listening directly to the MSMEs about their problems and constraints, before making and announcing new measures. In some cases, external interventions are not needed. They could be even undesirable in cases where MSMEs themselves know how to solve but unable to do so due to the myriad of tasks that they have to deal day by day. What the external parties could do is to facilitate a condition under which own-solution could be implemented. Only when the MSMEs face a vicious-circle problem–where the response to the original problem creates new problems which aggravate the original one–that an external assistance is needed. The evidence of success from working and solving problem together also suggests that external parties should try to avoid giving a cliché advice "work hard" or "adopt new technology," etc. Those advice may rationally be correct and appropriate under a certain condition, but too difficult to execute without providing the supporting means. Enticing members to "work through hard things together" would be more helpful as it can better counter most adverse conditions.

Considering local wisdom also implies respecting local customs and tradition that prevail in a community where the MSMEs operate. That includes respecting the community's customary laws when such laws exist. In a country like Indonesia, where around 50 to 70 million people are considered members of indigenous communities and many of them have their own customary laws, MSMEs operating in those communities should be able doing their business with legal certainty. When the customary laws are not entirely in sync with the state laws, or when the disputes related to the rights of indigenous communities arises, e.g., over the forest and land use, absent of such a certainty could jeopardize their operations. Yet, for some MSMEs and indigenous peoples, land could be their means of subsistence. It could also be the only source of income through their small commercial activities. Incorporating important clauses of the customary laws into the state laws and harmonizing the two, as was done in several regions throughout the country, is the first step in the right direction.

In sum, counterbalancing the endogenous forces of agglomeration and designing policies to be compatible with the prevailing institutions are a lot more important than just allocating budget to periphery regions and providing financial assistance to the small businesses. To reduce the dualism, understanding the structure of the interregional interactions and institutional arrangements, and delving into the internal problems of MSMEs by digging up their perceptions are imperative. Those perceptions reflect the prevailing social capital. Any efforts to help MSMEs should consider those perceptions. Just listen to them. Finding the right policy is crucial and must continue, but the importance of policy design that matches the MSMEs' perception is second to none.

Case studies

Case study #1

In 1968, the Indonesian Bureau of Logistics (Bulog) was established by the government as a special agency designed to control inflation through maintaining the stability of rice prices. Local agencies and warehouses called Logistics Depots (Dolog) were established nation-wide at the district level. The Dologs are tasked with purchasing rice from farmers' cooperatives and private traders during surplus seasons to prevent prices from falling below the price floor. They redistribute the purchased rice and ensure that prices do not exceed the pre-determined price ceiling during dry seasons. Hence, the Dologs would be able to shelter farmers from low prices and protect consumers from high prices. However, the policy's effectiveness hinges on the supply of rice available to the Dologs, and because Dologs generally purchase rice at prices lower than the market price, farmers have little incentive to sell rice to Dologs. This constrains the ability of Dologs to conduct market operations and maintain inflation stability, as the price of rice has the largest weight in calculating Indonesia's consumer price index. Moreover, it also disrupts household access to affordable basic food, especially in regions where rice production fluctuates significantly.

One such region where rice production experiences high fluctuations is the West Manggarai district in East Nusa Tenggara. Dologs in the district often failed to purchase enough rice from farmers to meet the required targets, and in order to design a solution to motivate farmers to sell their rice to Dologs, the central bank chose to hire a local consultant with a long history and deep understanding about the local culture. Knowing the characteristics of the local farmers, the consultant initiated a "community-based program of inflation control" by building trust through personally visiting rice farmers and establishing close communication with farmers who were

members of MSME clusters. Treating the farmers as equal partners rather than as rice sellers, the consultant was able to leverage an important component of social capital – trust – to ensure that the farmers would be receptive to any proposed solution. The feeling of trust also enabled the consultant to discover that farmers actually had the surplus and capacity to sell some of the rice to Dologs, albeit with a lower profit margin, even after considering various risks of harvest failure. It became clear that a lack of communication and mutual trust was the key factor that caused the past efforts failed.

It was at this stage that awareness and understanding of local culture play a critical role. Realizing the importance of telling stories for the local people to speak up and reveal their frank opinions, Mr. Y used precisely such an approach and steered the narratives towards engaging them to show their social responsibility by helping others. He also understood that timing was important. Therefore, he tried to execute the plan during the fasting month (Ramadhan period), when the spirit of giving and sharing is usually high. Indeed, religion can be an important source of social capital in some communities, as it provides a framework for morality and serves as the general principles of behavior. In essence, what Mr. Y tried to do was to match the community's norms and social capital with the inflation policy.

Having done all the right things, however, the real challenge was in the implementation. Since Bulog & Dologs are parts of the government apparatus, administrative bureaucracy in dealing with them is always challenging. To overcome this perennial problem, members of MSE themselves initiated a solution, i.e., organize a meeting with all relevant stakeholders, including the local government, in order to get supports and approvals from them. Long story short, the combination of Mr. Y's approach to acknowledge local wisdom and adopting local peoples' own-initiative helped make the inflation control policy effective. From the regional development perspective, price stability is one of the conditions for improving peoples' standard of living, and lower regional inflation also contributes to lower national inflation.

Case study #2

Breadfruit is one of the superior local products in Papua. Although not a major staple, it is an important supplementary crop for food security and variation in diets. Long recognized for its potential to alleviate hunger in tropical climates, this underutilized Oceanic staple crop is widespread in Papua, grown readily in lowland alluvial plains and fans below altitudes of 1,500 m (with rainfall above 1,500 mm annually).

In Manokwari, West Papua, a working group led by a woman entrepreneur formed an MSE specializing in breadfruit chips (keripik sukun) by mixing it with locally grown taro leaves. Employing 15 women, the group was part of a church's woman organization or 'persekutuan wanita gereja.' They produced the breadfruit chip in a workshop located in a site provided by the church pastor with whom they had a good relation. BI supported the training components (for processing, marketing, and book-keeping), and provided subsidy for equipment and to cover the costs of packaging (which is all done in Jawa). The MSE performed well, able to sell their products not only within the region but also outside the region, and it served as a source of income for local women.

But things changed dramatically when their relationship with the newly appointed pastor went sour. They were told that they can no longer use the workshop site. The well-known Papua creed,

tak kenal maka tak sayang ("don't know thus don't like" or "out of sight, out of mind") explains why such an unfortunate situation can arise. Upon the initiative of the group leader, along with the newly recruited women some members decided to form a new group/cluster. BI supported the group by providing a production house. Receiving trust from the existing and new members, the leader and other initiators found no obstacles in recruiting members for the new cluster.

Yet, the group failed to find a synergy, and productivity was below the capacity. One of the main reasons for low productivity was too few workers attended the workshop in the production house (high absentee rate). A lack of skill among new members was another factor, although they gradually solved this problem through training supported by BI. But it was the low attendance that soon became the most serious obstacle, especially when they received a large order from inside and outside the region. Many of the women had to stay home to attend children and family's need. In some cases, they did not get the permission from their husband to leave home. Clearly, this was a case of MSE failing to perform well not because of classical problems such as a lack of financing, high input costs, difficulty in marketing, or inadequate technology. Instead, it was a time-management issue.

After a long series of discussions, the MSE members themselves came up with a solution. They decided to adopt a pre-scheduled working time system, where members have the option to come to work only during certain pre-scheduled hours/days per week, and payments are made according to the time they spent in the production house. With such a relatively simple solution, absenteeism fell, productivity improved, and the production house became fully utilized.

This case demonstrates that given the prevailing local norms, i.e., family custom and local creed, when the MSE had to face an unexpected challenge they themselves could find the solution. The external party, in this case BI, only helped by facilitating the process to ensure that the system would work. It is also important to note that the establishment of the new cluster was made possible due to the trust towards the leader and among members.

Case studies:

1. Rejang lebong
2. Pak Yos NTT – integrated farming
3. Tenun NTT – Bu Alfonso
4. Tenun Tidore – Bu Anita
5. Pak Billy Manowari – keripik sukung
6. Tenun Sintang
7. Banten Lulu Sari
8. Rendang
9. Pak Bawadi
10. Pak Ulos Sianipar

Conclusion

This paper summarizes the framework, approach, methodology, and survey results of the research on MSME that emphasizes the importance of interactions between policies and institutions. The research is also intended to improve the understanding about the elements and mechanisms of such interactions. Most–albeit not all–of the policy interventions are justified because of the institutional failure. Informal institutions significantly influence the way the public respond to policies. They

could range from bureaucratic and legislative norms, clientelism, paternalism, patrimonialism, habits, traditions, and codes of conduct, all reflect the prevailing social capital.

To the extent the problems highlighted are more institutional in nature, assisting MSMEs by simply allocating more money without considering the local characteristics could lead to problems and waste with no improvement. Direct provision of credit and other non-financial assistance may fail to deal with the underlying causes of the problems faced by MSMEs; they only substitute for the undeveloped or missing markets. Where regions thrived, and MSME succeeded, they might have done so in spite of, not because of, government assistance.

To understand the internal problems of MSMEs by digging up their perceptions (or mental bandwidth) is important as those perceptions also reflect the prevailing social capital. It is for this reason based on a framework capturing the role of social capital and its interaction with policy a specific approach is used to conduct the survey, in which the questionnaires are designed to reflect a set of pairwise comparisons.

Over half of MSMEs confirm that policy is not what matters the most to make the cooperation for collective action effective; the role of social capital is critical. Within social capital, active participation especially for acquiring information through transparent and informal coordination is ranked the highest.

References

Azis, I. J. (1990). Analytic hierarchy process in the benefits/cost framework: A post evaluation of the Trans Sumatera Highway Project. *European Journal of Operational Research, 48*(1).

Azis, I. J., & Isard, W. (1996). The use of the analytic hierarchy process in conflict analysis and an extension. Peace Economics, Peace Science and Public Policy, 3(3).

Azis, I. J. (2008). Institutional constraints and multiple equilibria in decentralization. *Review of Urban and Regional Development Studies, 20*(1).

Azis, I. J. (2010). Endogenous institution in decentralization. *Peace Economics, Peace Science and Public Policy,* 16(2), Article 12.

Azis, I. J. (2013). Complex interplay of factors in the institutional model of decentralization: Theory and application. *Regional Statistics, 3*, 3-2.

Berry, A., Rodriguez, E.,& Sandee, H. (2001). Small and medium enterprise dynamics in Indonesia. *Bulletin of Indonesian Economic Studies, 37*(3), 363–384.

Churchill, G. A., & Iacobucci, D. (2005). *Marketing research: Methodological foundations*. Mason, Ohio: Thomson/South-Western

Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). Management research: An introduction. London: Sage Publications.

Hill, H. (2001). Small and medium enterprises in Indonesia: Old policy challenges for a new administration. *Asian Survey, 41*(2), 248–270.

Greif, A. (2006). *Institutions and the path to the modern economy*. Cambridge University Press.

Saaty, T. L. (1994). Decision making in economics political, social and technological environments with the analytic hierarchy process, vol. VII. RWS Publications.

Saaty, T. L. (2001). Decision making with dependence and feedback: The analytic network process. RWS Publication

Sandee, H., Rietveld, P., Supratikno, H., & Yuwono, P. (1994). Promoting small-scale and cottage industries in Indonesia: An impact analysis for Central Java. *Bulletin of Indonesian Economic Studies, 30*(3), 115–142.

Tambunan, T. (2007). The role of government in technology transfer to SME clusters in Indonesia micro-level evidence from the metalworking industry cluster in Tegal, Central Java. *South East Asia Research, 15*(3), 385–406.

Musa, A., & Priatna. (1998). The Policy Reform for capital of SME (Small–Medium Enterprises) in Indonesia: Impact analysis of financial crisis: Study report. Report for the Asia Foundation, Jakarta.

North, D. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press

North, D. (1993). Prize Lecture, The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel Lecture to the memory of Alfred Nobel, December 9.

North, D. (2005). *Understanding the process of economic change*. Princeton University Press.

Ostrom, E. (2010). Analyzing collective action, Vol 41, Issues1, November, pp. 155–166.

Putnam, R. (1993). *Making democracy work*. Princeton University Press.

Appendix

The participant information sheet and consent letter (conducted in Bahasa Indonesia, translated into English)

We, from the Bank Indonesia Institute, together with Prof. Iwan Jaya Azis, would like to thank you for your participation in the MSME survey which we held online in 2020.

We plan to use the survey results and the stories you conveyed to us in a book that we will publish with the hope that your MSME can provide inspiration to readers so that they can help develop and solve the prevalent problems faced by your MSME and Indonesian MSMEs.

The story of your MSME will be included in the English book entitled "Indonesian Micro and Small and Medium Enterprises (MSMEs): Dualism & the Interaction Between Policy and Institutional Arrangements", as well as in its Indonesian edition and other translated versions.

Would you be willing to permit us to use your MSME stories in the book without anonymity?

You are free to choose whether to provide your consent, without any coercion.

If you are willing, your MSME story will be included in the book with details about the name of your MSME which will be recognizable by the reader, and hence not anonymous.

If you are not willing, then we will keep your stories anonymous with your identity unrecognizable by readers. Thus, if you do not consent, data regarding the name of your MSME will only be used for the research team's notes, which can only be accessed by the research team.

You are also free to change your choice, and to add or remove information that has been submitted to us at any time before the survey results are published.

We will destroy all data related to the MSME survey 5 years after the research is complete.

For requests for the published book, and if you have suggestions or complaints, please contact the Bank Indonesia Institute research team through email at arnita_rishanty@bi.go.id or phone 08113955532.

Do you consent to use of pictures, photos, and/or videos of your business in Bank Indonesia's book publication?

☐ Yes ☐ No

Do you consent to the inclusion of your identity (e.g. your name, name of your business, business location) in Bank Indonesia's book publication?

☐ Yes ☐ No

Do you consent to the inclusion of your interview transcripts in Bank Indonesia's book publication?

☐ Yes ☐ No

If you consented to the inclusion of your interview transcripts in the publication, do you need to review or check the transcripts again before they are included in the book publication?

☐ Yes ☐ No

To digitally provide your signature for your consent, please type in your full name according to your national identity card.

_____