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What Factors Do Government Subsidy Programs Care about for Inter-Firm Collaboration? Prioritization of Evaluation Criteria of Small Business Collaboration Grant, Korea

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Abstract

Purpose: In this study we aim to identify factors affecting successful inter-firm collaboration. We tried to find out whether government subsidies to small-business owners should be made to experienced and competent cooperatives or to cooperatives with potential even if inexperienced. **Research design, data and methodology:** Using analytic hierarchy process (AHP), we examine if evaluation criteria for the Small Business Collaboration Grant (SBCG) reflect the potential of successful collaboration of applicant cooperatives. **Results:** We found that experts tend to think that applicant cooperatives without any experience as a recipient for the SBSG need to be evaluated by their growth potential and their preparation of the application rather than by their business performance or achievement history. The weight of the evaluation must be different between the growth potential and the achievements already achieved. By means of an expert survey, we confirmed that Rookies should weigh evaluation indicators that can reflect their growth potential, and experienced groups should give weight to evaluation indicators that can reflect their achievements. **Conclusions:** For SBCG applicants with experiences, experts tend to weigh more on SBCG business performances and feasible sharing systems. The screening procedure for the first applicant cooperatives need to focus more on “partner selection” stage, whereas elements related to “realization” apply to experienced applicant cooperatives.

Keywords: Inter-firm Collaboration, Small Business Collaboration Grant, Analytic Hierarchy Process, Small Business Cooperative, Government Subsidy, Franchise Construction System

JEL Classification Code: L53, L17, L26

1. Introduction¹²

Collaboration between firms is a strategy by which individual companies mitigate business risk and increase their strengths by gaining the characteristics that they do not have from other companies and providing characteristics that other companies do not have (Chen, Sohal, & Prajogo, 2013; Li, Fan, Lee, & Cheng, 2015). For small- and

medium-sized enterprises (SMEs), which are flexible in business operation but have high operational risk in a highly competitive market, collaboration is increasingly playing a role as a survival strategy (Thun et al., 2011).

Korea has a higher proportion of self-employed people do developed countries. As of September 2019, the proportion of self-employed in Korea in the past five years was 25.1%, much higher than the average of 15.3% for the 37

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Organization for Economic Cooperation and Development (OECD) member countries (OECD, 2019). Besides, as of 2017, the ratio of business establishments that employ fewer than five full-time workers (less than 10 for mining, manufacturing, construction, and transportation) was 85.3% and 36.8%, respectively (KOSIS, 2018). Nevertheless, small business establishments endure for three years on average because they are small, face excessive competition, and face economic downturns (Nam, 2017).

The central government of South Korea has provided support programs for small businesses that are vulnerable to external situations. The Small Business Collaboration Grants (SBCG) program, which supports collaboration between small businesses, is a governmental support policy for small business owners in South Korea. The SBCG, which started in 2013, tries to make small businesses more sustainable by inducing constructive cooperation between small businesses. National treasury support provides in-kind support for brand development, marketing, network, franchise system construction, joint equipment purchases, and operation to small business owners who organize certain types of cooperatives. Since the SBCG program started in 2013, the number of recipient cooperatives has gradually increased, proximately 400 cooperatives receive the grant every year. In 2020, the number of the SBCG recipient was 685, the highest since 2013. Small business cooperatives that support collaborative projects, the Small Enterprise and Market Service (SEMAS), will use on-site evaluation and selection committee review under supervision to decide whether an applicant cooperative is eligible for in-kind support. Currently, evaluation indicators, such as the willingness of cooperative members to participate, the cooperative's operational performance, the possibility of future promotion, and the possibility of sustainability and development, apply to the field evaluation (SEMAS, 2020). This field evaluation serves as a gateway to select potential cooperatives to participate in the cooperative project. In other words, it plays a vital role in selecting a subject in securing the sustainability of the small businesses pursued by the cooperative business.

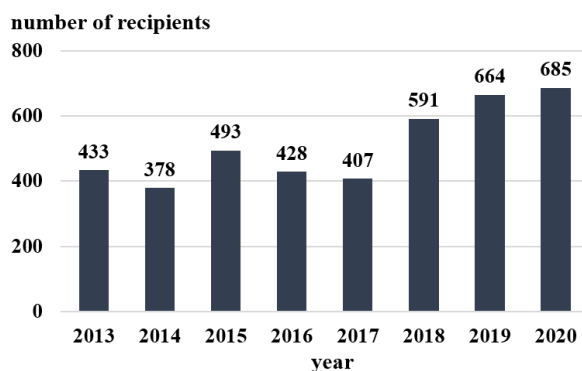


Figure 1: Trends of the number of recipients

SEMAS, a government agency in charge of the operation of SBCG, has reorganized the screening indicators to be applied to field evaluation several times. Since 2013, when the SBCG project started, the evaluation index and the weight assigned to it has changed almost every year. Existing evaluation indicators have limitations in determining whether the member business establishments of the small business cooperative applying for SBCG will proceed with the collaboration correctly and safely and complete the project to be jointly achieved in the future. If collaboration occurs, based on a life-cycle perspective, successful collaboration must go through four stages: 'initiation', 'partner selection', 'setup', and 'realization' (Marxt & Link, 2002). For the SBCG program, which has a policy goal of promoting collaboration, the conditions necessary for successful collaboration must be reflected in the actual evaluation indicators in order to have a policy effect. The government needs to re-configure the weights that will be used correctly in calculating the evaluation score.

In addition to the need to reflect the fundamental characteristics of collaboration in the screening indicators, another issue currently raised in selecting cooperatives as SBCG beneficiaries is that cooperatives with experience in receiving SBCG and cooperatives without such experience (Rookies) use the same screening indicators. This problem arises because it is not clear whether the current policy objectives that SBCG is pursuing will support cooperatives that are already competent or will support cooperatives that have potential but are in the early stages of the project. If an applicant cooperative wants to pursue all these goals, it should be judged differently based on its experience with SBCG beneficiaries. There may be commonly needed indicators between the existing evaluation indicators in different evaluations, or other indicators may be needed.

2. Literature Review

2.1. Small Business Collaboration Grant (SBCG)

Collaboration is one survival strategy of companies. In particular, the need for collaboration is growing for small and medium-sized enterprises that do not have sufficient resources and know-how (Ko, 2019). As technology changes accelerate, the life cycle of products gets shortened, and consumer requirements for new products are highly refined (Ko & Lee, 2015). In the ever-changing market conditions, small-business collaboration has been actively carried out for the past decade to strengthen the competitiveness of small-business owners. Since 2013, the Ministry of SMEs and Startups has provided policy support to promote collaboration between small-business owners. SBCG is a representative collaborative support policy

between the various policy supports. SBCG's recipients are small business cooperatives organized by small-business owners who want to collaborate (SEMAS, 2020). Cooperatives and associations established under the Framework Act on Cooperatives or the Small Business Cooperatives Act can apply to SBCG. Two categories of eligible applicants include general and leading cooperatives. There should be at least five small business cooperatives classified as general types, and at least 50% of the members should be small-business owners. For a leading type, there shall be at least 20 members, and at least 50% of the members shall be micro-enterprises.

SBCG is a subsidy that pays in kind for joint projects and joint equipment that require small business cooperatives. Joint projects include new products, technology development, process improvement, enterprise resource planning systems, marketing, such as brand development, promotional materials, and advertising development, and franchise system construction for joint equipment, equipment, and so forth. The evaluation system needs to consider the capability of realizing joint projects, such as production, inspection, and research. By means of SBCG, a small business cooperative can receive up to 100 million won (USD 90,000) in joint projects and up to 100 million won (USD 90,000) in joint equipment. The leading type can receive up to 500 million won (USD 45,000) in support regardless of the maximum joint project and joint equipment. SBCG supports a year's cost. Even with experience supporting SBCG, one small business cooperative can apply to SBCG several times in the future.

2.2. SBCG application cooperative evaluation criteria

The Small Enterprise and Market Service (SEMAS), a public agency under the Ministry of SMEs and Startups, is responsible for providing SBCG. SEMAS selects the recipient cooperative of SBCG after three stages of review and evaluation. In the first step, the agency reviews the application documents of small business cooperatives who applied for SBCG. On top of that, SEMAS reviews whether there are defects in business plans and documentation of evidence. In the second stage, external experts visit a small business cooperative that has applied for SBCG to conduct an on-site interview evaluation, and a "fit" foundation will hold a future presentation. In the third stage, a selection-review committee conducts a final review.

In the second stage, experts' on-site evaluation is a crucial step in estimating cooperatives' possibility of successfully carrying out collaborative projects. Based on the 2020 SBCG public offering, SEMAS used three evaluation criteria to decide whether a small business cooperative formed by many small-business owners can successfully carry out the joint project: business model, cooperative

ability, and the sustainability of the joint project. The agency assessed each of the three criteria on a specific basis.

However, there was a problem about whether the current evaluation criteria correctly reflected the potential for successful collaboration. There have been many changes in the criteria of field evaluations since the SBCG program launched in 2013. The weights of each evaluation index have also been inconsistent. That both the evaluation criteria and the weights changed year by year means that the evaluation index did not firmly reflect the SBCG's BCG.

2.3. Elements of Successful Collaboration

2.3.1. Well-designed business model

Inter-company partnerships can occur if there is a long-developed trust and routines. We find that the greater the number of direct partnerships in the past, and the higher the network centrality, the more likely it is to form (Gulati & Gargiulo, 1999). When the economic benefits and benefits pursued between entities are considered equal, such inter-company partnerships usually proceed with mutual sympathy and trust established between companies in advance (Osborn & Hagedoorn, 1997). When developing from a collaborative relationship to a joint venture, the business's entities should be consistent in achieving the objectives that the partners jointly pursue. Many scholars suggest that firms should robustly design business models to reduce uncertainty and risk in cooperation and decision-making (Brenk, 2020; Sauner-Leroy, 2004; Gnyawali & Park, 2009).

2.3.2. Organizational capabilities

For several organizations to form a part-time partnership and proceed with a common goal, a manager dedicated to practical work is needed (Nicholas & Steyn, 2008). Between the things for which collaboration does not work efficiently, there is a problem in which the collaboration members undermine the motivation for voluntary cooperation, because one of them thinks there is a replacement for something. A manager needs to share the role of the participants in the collaboration and continue to manage it (McGuire, 2006). For members participating in the collaboration, the ability of managers to accept collaborative projects as their primary task is essential. The selection of managers who can devote themselves to collaborative projects is essential, and their leadership plays a vital role in the success of collaborative projects (Dietrich, Eskerod, Dalcher, & Sandhwalia, 2010). Several studies show that leadership strengthens positive partnerships between companies or members participating in the collaboration (Huxham & Vangen, 2000; Austin, 2010). They show that leadership strengthens the commitment of members to collaborative projects, which leads to innovation (Huxham

& Vangen, 2000; Austin, 2010). For small businesses, members' responsibilities are reflected in leadership (Paget, Dimanche, & Mounet, 2010). Park (2014) argues that leadership plays an essential role in collaboration. He argues that awareness and commitment to collaboration help develop collaboration when participating collaborative organizations overlap or conflict exists (Park, 2014).

Managerial capability is also an essential resource in the organization's capacity. Managerial capability and skill embody a management strategy to collect, classify, and organize the problems and possibilities found in carrying out collaborative activities (Kale, Dyer, & Singh, 2002; Blomqvist & Levy, 2006). In carrying out collaborative projects, managerial capability refers to trusting, communicating, and coordinating collaborative partners (Sivadas & Dwyer, 2000).

The role of the business plan in the capacity of the organization is also an essential factor. Creating a business plan in collaboration with partners is linked to the potential for revenue generation (Austin & Seitanidi, 2012; Dudek & Stadtler, 2005). A reasonably prepared business plan can be the basis for the correct engagement of collaborative members. A reasonably prepared business plan can reflect agreements between collaborative partners (Austin & Seitanidi, 2012; Dudek & Stadtler, 2005). The business plan serves to reduce risk by ensuring justification for business performance and consistency in the progress of collaborative projects. In addition, a reasonably prepared business plan will reflect the roles and responsibilities of the members participating in the collaboration. The reasonable business plan ensures that members' commitment is secured and reduces business risk.

2.3.3. Sustainability of the collaborative business

Successful collaborative projects tend to continue in the future (Briggs, De Vreede, & Nunamaker, 2003). Significant factors that account for the sustainability of the business include revenue generation and growth potential. Profit generation potential means that products or services produced by collaborative projects are competitive in the market. We can interpret the potential for revenue generation as sales and revenue expected to be generated through a collaborative business. The quality of collaboration is generally an influence on the performance of the business (Uhm & Kim, 2018). The process of high-level collaboration improves the performance of collaborative projects. Looking at achievements in the business in the past, we can estimate the future value of collaborative projects. It is a propensity found in companies and organizations that have already worked on collaborative projects. Companies with more experience in collaboration are likely to carry out collaborative projects successfully.

The marketability and business feasibility of collaborative projects are the reflections of quality collaboration.

2.3.4. Phase model and sustainability of collaboration

Collaboration has long-term characteristics; i.e., successful collaboration implies the maintenance and development of a continuous partnership (Emden et al., 2006). The factors that we looked at in previous sections are cross-sectional factors that affect or are affected by collaboration. For these components of collaboration to play a positive role, it is necessary to characterize the stages in which collaboration proceeds and to understand how the elements of collaboration work at each stage. Several researchers argue that collaboration takes place in a cyclical process. The cyclical process of collaboration that repeats several times can be interpreted as continuous cooperation needs.

Marxt and Link (2002) classify collaboration between companies as going through four stages: 'initiation,' 'partner selection,' 'setup,' and 'realization.' It is possible to terminate a single collaboration project in these four steps, whereas it is also possible to relaunch the collaboration project (Marxt & Link, 2002). When small-business owners launch a collaborative project, the project has five steps: initiation, reset, partner selection, setup, and realization (Marxt & Link, 2002).

In the initiation phase, a single entity decides whether collaboration is necessary (Marxt & Link, 2002). The relevant decisions involve choosing whether to create know-how and resources to develop products and services with other entities or buy them from other entities (Marxt & Link, 2002).

The second step, 'partner selection,' is choosing whom to collaborate with. Comprehensive partner selection determines partner choice by identifying information about an already esteemed enterprise profile and the already known enterprise trading or competing, and by identifying the information collected and resources and know-how identified during initiation (Marxt & Link, 2002).

'Setup' is to draw up a plan for a collaborative project with partners. Marxt and Link point out that at this stage, the key is to set the purpose of a collaborative project, define what the expected risks are, and set up an allocation and compensation scheme for expected profits from the project. Usually, as in other businesses, collaborative members should do a close SWOT analysis when developing a business plan for a collaborative project and draw up internal articles of incorporation and conventions on accountability to clarify where the business plan is responsible (Marxt & Link, 2002).

The previous three steps are preparatory for a collaborative project, whereas the fourth step, 'realization', is the process of executing and completing a collaborative

project. In this process, the key is to get the business going correctly (Marxt & Link, 2002). Even if it is a project agreed upon by independent members, top management dedicated to collaborative projects must exist, and a third party responsible for managing and supervising top management must also be deployed (Marxt & Link, 2002).

The successful collaboration project can last a long time and evolve in a better direction. Companies collaborating must make reasonable decisions in the four stages of collaboration described above to ensure successful collaboration.

3. Research Methods and Materials

3.1. SBCG evaluation index survey

The SBCG is a government-led project that helps small business firms form cooperatives and conduct joint projects to become competitive. Since 2013, the content and distribution of the indicators for judging cooperatives applying for SBCG have changed every year. In February 2020, one month before the start of this study, the Small Enterprise and Market Service (SEMAS) updated the operating guidelines for 2020. The SBCG screening indicators presented in the 2020 SBCG operating guidelines will correctly measure the cooperative ability of cooperatives applying for SBCG. It was investigated by experts to see if it could be implemented. We also have the SBCG screening indicators used in the past in the expert survey. We included only the evaluation indicators used in 2019 in the importance evaluation. Despite many other evaluation criteria since 2013, including only the 2019 evaluation index in the questionnaire is as follows. SEMAS has used the evaluation indicators over the years. Although subtle differences in the expressed sentences affect the questionnaire evaluation, we judged that excessive inclusion of evaluation indicators used over many years would adversely affect the spoken characters' responses. A total of 10 SBCG evaluation indicators were used in 2020 and 2019, and 31 SBCG evaluation indicators were used in 2018 (See Table 4). We requested that consultants with small business partners and experts who have been evaluating cooperatives that applied to SBCG should select only the necessary indicators among those used for the last three years. In the selection process, they were asked to differentiate and select in terms of two problems: whether they are experienced SBCG beneficiaries and the context of the collaboration process. We organized a group of experts and consultants who were willing to participate in the expert surveys. 20 experts were in a series of the interview surveys. 19 out of 20 participants are currently staffs of SEMA in charge of SBCG provision and review processes, and the rest of the participants is a consultant

reviewing the processes. The average career years in supporting small business is 8.7 years (Table 1).

Each survey participant responses in three types of interview surveys, including 1) the first wave survey: importance according to the experience of receiving SBCG, 2) the second wave survey: the importance based on the collaboration procedures, and 3) the survey questions asking relative importance by comparing selected criteria extracted from the first and second surveys. We employed Analytical Hierarchy Process (AHP) for the third expert survey.

Table 1: Profile of survey participants

Variable		n	%
Gender	Male	10	50.0
	Female	10	50.0
Age Group	20's	3	15.0
	30's	10	50.0
	40's	4	20.0
	50's or older	3	15.0
Occupation Type	SEMA's staff	19	95.0
	Consultant	1	5.0
Career years	< 5 yrs	8	40.0
	5 – 10 yrs	4	20.0
	10 – 15 yrs	5	25.0
	15 yrs or longer	3	15.0
	Average	8.7	

3.2. SBCG screening index importance survey

3.2.1. The 1st-wave survey: importance according to the experience of receiving SBCG

The 41 screening indicators used for the last three years prevent consideration of the difference between cooperatives

with applicants who have received SBCG and those who have not. When evaluating cooperatives based on SBCG beneficiary experience, we received experts' opinions on which existing indicators are needed and which are unnecessary. Experts in the survey included the Small Enterprise and Market Service employees, and corporate consultants who had screened cooperatives that had applied to SBCG. The first survey was conducted from March to April 2020; 20 experts participated in the survey. Survey participants were asked to select only the indicators necessary for the screening, assuming that applicant cooperatives were judged differently according to the presence or absence of SBCG beneficiary experience from the existing 41 SBCG screening indicators. The importance of individual evaluation indicators is measured by how many survey participants selected the corresponding evaluation indicator. Since 20 people responded to the questionnaire, individual screening indicators are measured from 0 (not at all important) to 20 (very important). We standardized these scores by dividing them by the number of survey participants. In other words, the importance of

individual evaluation indicators ranges from 0 to 1 (Appendix 1).

3.2.2. The 2nd-wave survey: the importance of collaboration by step

Collaboration between small business firms is part of a survival strategy to reduce risk in highly uncertain market conditions. The policy objective of the SBCG program is to promote collaboration between small business firms, thereby improving the risk avoidance and self-sufficiency of small businesses. SBCG-sponsored cooperatives are expected to achieve genuine collaboration by means of the proper methods and procedures in terms of these policy objectives. As mentioned in the previous section, successful collaboration can be achieved only by correctly carrying out a set of key processes. As proposed by Marx and Link (2020), the effect of collaboration is maximized only by carrying out Initiation, Partner selection, Setup, and Realization correctly.

The second survey was conducted from April to May 2020, targeting the 20 experts who participated in the first survey. The hypothetical situation we gave to the second-survey subjects is that the SBCG review considers these four stages of collaboration. The cooperatives who applied for the SBCG were asked to consider whether the individual collaboration steps were correctly done or would be in the future and to select an indicator that reflects each level of collaboration among the 41 evaluation indicators. At each stage, each evaluation index's importance is measured by the number of respondents who selected the index compared to the total number of respondents (Appendix 2).

3.3. Selection of SBCG's evaluation indicators

The first and second surveys were conducted separately without considering SBCG beneficiary experience or the process of collaboration. Since this study has a problem in mind, that both viewpoints should be reflected in the SBCG examination process, we simultaneously applied both viewpoints to grasp the importance of the existing indicators. However, the number of cases was increased to 8 (2 x 4) when we evaluated the importance by considering the beneficiary experience, inexperience, and four collaboration processes at the same time, which increases the effort of evaluating the importance of the 41 indicators eight times, confuses the person, and adversely affects the survey results. For this reason, we produced the scores measured from the two questionnaires. We regarded this as necessary

considering both the existence of beneficiary experience and the process of collaboration. We selected the top four evaluation indicators as alternatives by comparing the

importance of the eight individual evaluation perspectives. Since four evaluation indicators were assigned to each point

of view, we selected a total of 32 evaluation indicators as alternative indicators

3.4. Analytic Hierarchy Process

We re-evaluated the importance of the screening indicators identified by means of the first- and second-wave expert surveys described in the previous section by using the Analytic Hierarchy Process (AHP), which consists of four steps: structuring the problem, pair-wise comparison of decision elements, prioritization, and synthesis.

The first step of AHP, the structuring step, is to decompose and restructure a phenomenon or problem. In this study, we started with whether the existing SBCG screening indicators can correctly assess how successfully the applicant cooperative can carry out the collaborative project. For this reason, the goal of the top-level study was to readjust the importance of existing evaluation indicators. The concept that can support this research's goal is that the importance of the evaluation index should reflect the stage of collaboration correctly. Finally, at the lowest level, we found four indicators that best reflect each stage of collaboration, and measured the relative importance of these indicators. As explained in the previous section, we selected four major evaluation indicators for each stage of collaboration identified in the first and second expert surveys. The collaboration stage, which is a higher concept than are the relative indicators between individual indicators, was compared first, and the importance of the collaboration stage was reflected in the comparison of the evaluation indicators, a lower concept.

Second, the third-wave expert survey was conducted according to the hierarchy of analysis established in the first stage of AHP. In this survey, we asked experts to compare the four levels of collaboration at the top. Next, we compared the importance of the four evaluation indicators assigned to each collaboration process. Experts participating in the survey conduct pair-wise comparisons with other collaboration stages based on each collaboration stage and express the relative importance score in a 4x4 matrix. The relative importance score consists of a 9-point scale. Experts participating in the survey do pair-wise comparisons at the lower level and compare the four major evaluation indicators for each collaboration stage derived from the first and second surveys. At each stage of collaboration, the relative importance between the parts that reflect the process of collaboration is assessed. Response scores consisting on a 9-point scale are expressed in a 4x4 symmetric matrix.

The relative importance scores, as the results of the pair-wise comparisons, can be estimated by using eigen values As described in the Equation (1), the importance score of an evaluation criteria i compared to other criteria j is a_{ij} , and it comprises of a pair-wise comparison matrix A .

$$A = [a_{ij}] = \begin{bmatrix} a_{11} & \dots & a_{1n} \\ \vdots & \ddots & \vdots \\ a_{n1} & \dots & a_{nn} \end{bmatrix} = \begin{bmatrix} \frac{w_1}{w_1} & \dots & \frac{w_1}{w_n} \\ \vdots & \ddots & \vdots \\ \frac{w_n}{w_1} & \dots & \frac{w_n}{w_n} \end{bmatrix} \tag{1}$$

The w_i represents the relative weights or importance of the i^{th} criteria element to others, and the eigen vector $W = [w_i]$ is comparable with the following equation (2).

$$AW = \lambda W \tag{2}, \text{ where } \lambda \text{ is the eigen value for } A$$

The eigen value λ is the value which satisfies the equation $|A - \lambda I| = 0$, and the maximum value of λ always greater than the number of criteria.

The third step of AHP is to calculate the importance of the SBCG screening index, reflecting the relative importance of individual collaboration steps. In addition, we evaluated whether individual survey participants responded consistently to the third questionnaire by means of the consistency ratio and analyzed only the results of consistent survey responses. The consistency ratio can be calculated by dividing the consistency index by the random index score; as the ratio approaches 0%, it shows that a survey respondent responded with consistent thought to the survey. In this study, between the 20 survey responses collected, we selected only survey responses with a consistency ratio of 20% or less for analysis, and then did AHP.

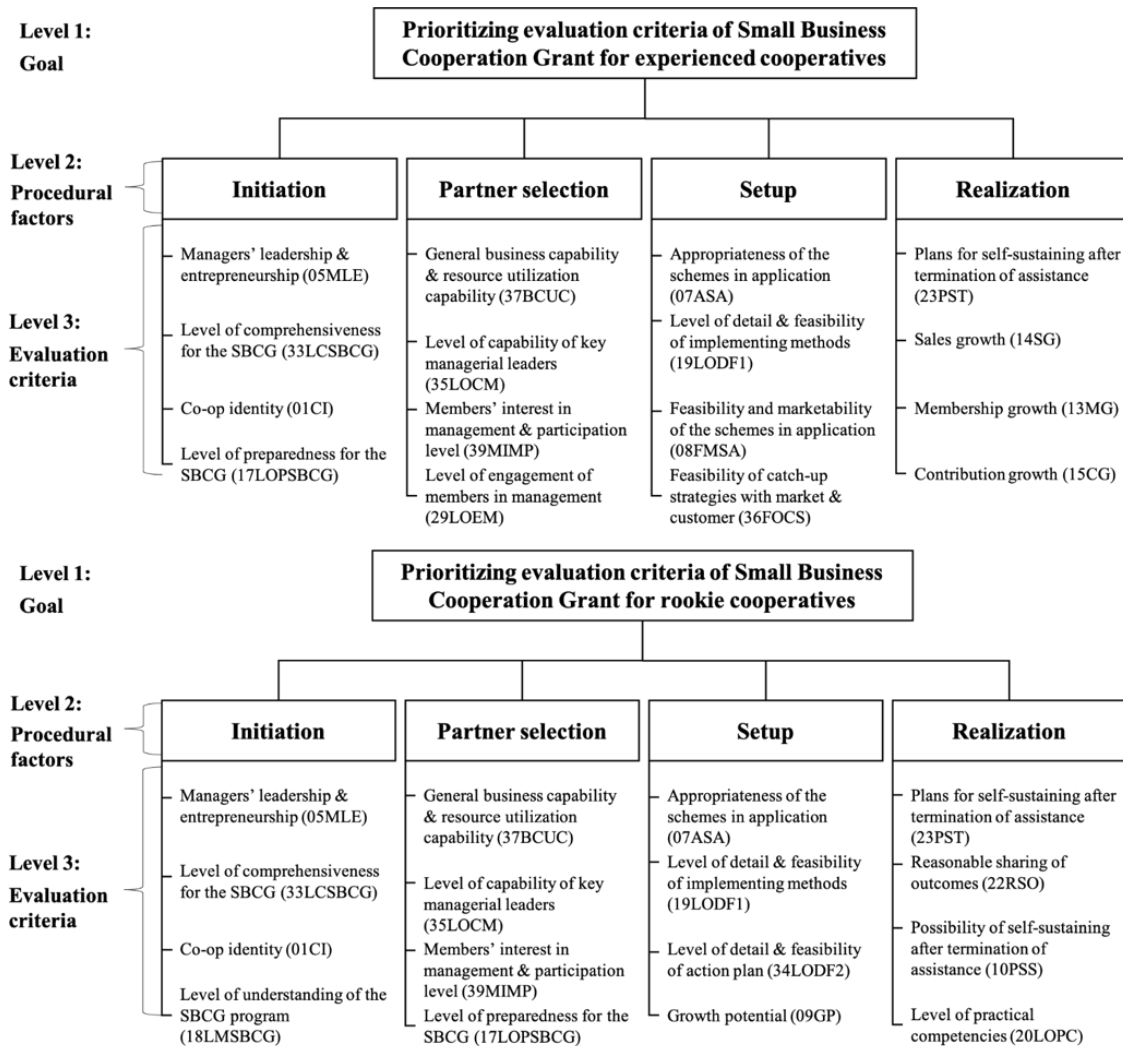


Figure 2: AHP Analytics by Level

4. Findings

4.1. The priority of the existing criteria by experiences

4.1.1. Rookie cooperatives with SBCG

We found that experts tended to think that applicant cooperatives without any experience as a recipient for the SBSG (Rookies) need to be evaluated by their growth potential and their preparation the application rather than by business performance or achievement history. All respondent experts identified growth potential (09GP), level of preparedness for the SBCG (17LOPSBCG), level of members' understanding of the SBCG (18LMUSBCG), and level of comprehensiveness for the SBCG (33LCSBCG) as the essential evaluation criteria for the SBCG. More than 90 percent of them also pointed out that managers' leadership and entrepreneurship (05MLE), appropriateness of the schemes in the application (07ASA), cooperative identity (01CI), appropriateness of the business model (01ABM), and feasibility and marketability of the schemes in the application (08FMSA) are the critical evaluation factors for the rookie cooperatives with SBCG (Appendix 3).

Policy makers and practitioners identify the existing criteria for measuring performances that are less critical for the Rookie applicant cooperatives, including membership growth (13MG), sales growth (14SG), contribution growth (15CB), and employment status (16ES). Criteria measuring the potential for expanding their business, such as capital availability (31CA) and level of preparedness for conversion franchising (41LOPF), are also less critical for evaluating Rookie applicant firms. Applying to applicant cooperatives without experience as a recipient for SBCG, the current evaluation criteria tend to be unfriendly to the Rookie group (Appendix 3).

4.1.2. Experienced cooperatives with SBCG

Experts tend to evaluate SBCG applicant cooperatives with SBCG experience by focusing more on business performance and feasible sharing systems. For the critical evaluation criteria for the experienced cooperatives, more than 90 percent of the experts identify sales growth (14SG), level of detail and feasibility of implementing methods (19LODF1), level of practical competencies (20LOPC), fair sharing of outcomes (22RSO), plans for self-sustaining after the termination of assistance (23PST), and feasibility of catch-p strategies with market and customer (36FOCS).

Compared to Rookie applicant cooperatives, experts consider historical performances to be a more vital element for evaluating the experienced cooperatives. More than 75 percent of the experts responded that membership growth (13MG), sales growth (14SG), contribution growth (15CG), and employment status (16ES) are the critical measure in the

application process for experienced cooperatives. In contrast, none of the experts identified these criteria for the Rookie cooperatives (Appendix 3).

4.2. The priority of the existing criteria by collaborative processes

The SBCG program is designed to promote collaborations between small businesses in the form of a cooperative. With the program goal and objective, the evaluation criteria for selecting recipients for the grant need to help expert evaluators judge if an applicant cooperative has formed reasonably and can keep its members' collaboration stable. As Marx and Link (2002) suggest, a successful collaboration occurs in four steps, including initiation, partner selection, setup, and realization. We explained the four-step process of collaboration to interviewees and asked them to choose several elements from the existing evaluation criteria that best reflect each concept of the processes.

For the first stage of the collaboration process, 80 percent of respondents considered cooperative identity (01CI) and the level of comprehensiveness for the SBCG (22LCSBCG) as criteria to help judge if an applicant cooperative developed motivation to collaborate at the initial stage (Table 4).

For the second step of the collaboration processes, managerial leaders' capability and the cooperative itself are the elements that reflect how a cooperative is established by members reliable for each other. Given the 41 existing evaluation criteria, more than 70 percent of experts identified the capability of crucial managerial leaders (35LOCM) and general business capability and capability to use resources well (37BCUC) as the criteria to reflect the quality of partner selection best (Appendix 3).

Evaluation criteria related to business plans and schemes tend to consider the measurements that reflect the quality of the applicant's cooperative in the setup stage. From the existing evaluation criteria, most survey respondents identify the level of detail and feasibility of the action plan (34LODF2), the product development plan (40FPDF), appropriateness of the schemes in the application (07ASA), feasibility and marketability of the schemes in the application (08FMSA), and the level of detail and feasibility of implementing methods (Table 4).

The realization is the last step in the collaborative processes, in which collaborators finalize their ideas and plans in final production. According to the survey interview with an expert, historical performances are an excellent measure to anticipate the success or failure in realizing products or services. Eighty percent of experts in the interview responded that sales growth (14SG) of a cooperative is the most reliable way to evaluate the possibility of successful production in the future, followed by membership growth (13MG), contribution growth

(15CG), and employment status (16ES). They also identify self-sustaining plans after the termination of assistance (23PST) as criteria to evaluate the possibility of turning collaboration into products and services (Appendix 3).

4.3. Selection of the essential criteria considering experience and the collaborative processes

In this study we evaluated the importance of the evaluation index for SBCG-applicant cooperatives by considering two problems. First, the eligibility of applying for SBCG has not considered whether the cooperative

applying for SBCG had previously received SBCG. SBCG application reviewers investigated the importance of a group of experts in evaluating applicants, with the question that the cooperative should be evaluated in different weights depending on whether they have previously received SBCG. Second, since the goal of SBCG is to encourage collaboration between small businesses, we evaluated the importance of existing evaluation indicators for each component of collaboration.

To measure the importance of the existing evaluation indices by considering both factors of SBCG benefit experience and collaboration process, we multiply the importance of evaluation indices according to the experience of SBCG introduced in the previous section and the importance of each collaboration process. Instead, we calculated only the evaluation indicators whose importance is 0.5 or higher. We regarded evaluation indicators with an importance of less than 0.5 as indicators that experts judged to be insignificant in the SBCG review evaluation.

Table 4 shows the importance of the evaluation indices when two factors are considered simultaneously, the experience of receiving SBCG and the process of collaboration. We divided the SBCG beneficiary group into groups that had not received experience and experienced groups, and used the existing evaluation indicators, which are of high importance for each collaboration process, in the pair-wise comparison, which is the initial stage of AHP. We used the top 4 evaluation indices of importance at each stage for pair-wise comparison. To avoid having an evaluation index be considered in multiple collaboration stages, we prioritized the evaluation index included in several stages in the collaboration stage with the highest importance.

For Initiation, which is the first step in collaboration, managers' leadership and entrepreneurship (05MLE), level of comprehensiveness for the SBCG (33LCSBCG), and cooperative identity (01CI) were reviewed for Rookie and Experienced cooperatives. We found level of members'

understanding of the SBCG program (18LMSBCG) and level of preparedness for the SBCG (17LOPSBCG) to be important in judging Rookie and Experienced cooperatives, respectively (Appendix 4).

In the second stage of collaboration, partner selection, general business capability and ability to use resources well' (37BCUC) and level of capability in key managerial leaders (35LOCM) were essential indicators common to Rookie and Experienced cooperatives. The level of preparedness for the SBCG (17LOPSBCG) is considered necessary only for the Rookie group, and the level of engagement of members in management (29LOEM) was an important indicator only for the evaluation of experienced cooperatives (Appendix 4).

In the third step, the 'Setup' aspect, appropriateness of the schemes in the application (07ASA) and level of detail and feasibility of implementing methods (19LODF1) were important indicators for evaluating cooperatives regardless of their SBCG beneficiary experience. We confirmed that the level of detail and feasibility of the action plan (34LODF2) and growth potential (09GP) should be used as essential evaluation indicators in the evaluation of Rookie cooperatives. On the other hand, in evaluating experienced cooperatives, we identified the feasibility and marketability of the schemes in the application (08FMSA) and feasibility of catch-up strategies with market and customers (36FOCS) as meaningful evaluation indicators (Appendix 4).

For 'Realization,' which is the last stage of collaboration, fewer indicators should be used for review in common with Rookie and Experienced cooperatives than in other stages (1 indicator: Plans for being self-sustaining after the termination of assistance). On the other hand, there are more indicators to be used only in each group. Although the

indicators applied to the Rookie Group consist of indicators (22RSO, 10PSS, and 20LOPC) that can assess the potential and self-reliance of cooperatives, past performance is considered important in judging experienced cooperatives. (14SG, 13MG, and 15CG) (Appendix 4).

4.4. Selected evaluation criteria – a pair-wise comprehensive process

The four different elements of the collaboration process differ in importance by characteristics of cooperatives. We assume that the experience as an SBCG recipient in the past is an attribute that affects differences in weights by collaborative step. In the second interview, we required experts to compare four elements of the collaboration process and prioritize them using a pair-wise comprehensive process. We asked experts to prioritize the collaborative processes for two different hypothetical groups by the experience of SBCG in the past, such as no experience (Rookie) and experienced groups (Experienced).

For the hypothetical Rookie cooperatives, experts consider the partner selection stage to be the most critical for a successful collaboration. The realization step is the second important element in the collaborative process for

the Rookie cooperatives. Compared to other elements, the setup stage is less important in collaboration (Table 2).

For the experienced cooperatives, experts identify that the realization stage is the most important in the collaborative process, whereas the partner selection is the least important. Since experienced cooperatives tend to run their businesses longer than rookies do, the initial collaboration steps are less critical (Table 2).

Table 2: Priority of elements of the collaboration process by applicant type

Elements of collaboration process		Rookie	Experienced
Step 1: Initiation		0.230	0.250
Step 2: Partner selection		0.310	0.230
Step 3: Setup		0.200	0.260
Step 4: Realization		0.260	0.270
Rookie:	Applicant cooperative that has never been a recipient of the SBCG program		
Experienced:	Applicant cooperative that has experienced as a recipient of the SBCG program		

4.5. Relative priority between the evaluation criteria for each step of the collaborative process

In the application review process, for both Rookie and Experienced cooperatives, experts consider initiators' leadership and attitude toward risk-taking most important. From the AHP, we found that cooperative managers' leadership and willingness to take entrepreneurial action scored the highest (0.329 and 0.383 for the Rookies and the Experienced, respectively) (Table 3).

Table 3: Priority of criteria to evaluate applicant cooperatives for the initiation of collaboration

Step 1: Initiation	Rookie	Experienced
Managers' leadership & entrepreneurship (05MLE)	0.329	0.383
Level of comprehensiveness for the SBCG (33LCSBCG)	0.197	0.198
Cooperative identity(01CI)	0.213	0.257
Level of members' understanding of the SBCG program (18LMSBCG)	0.261	-
Level of preparedness for the SBCG (17LOPSBCG)	-	0.163

Experts consider "Members' interest in management and participation level" as an index that reflects partner selection well when evaluating a Rookie cooperative from the existing evaluation index. On the other hand, for Experienced cooperatives, experts cited active participation of

cooperative members as an indicator that reflects partner selection the best (Table 4).

From the 'setup' perspective, experts diagnosed that cooperatives' evaluation factors for applying to SBCG should be evaluated differently according to the 'Rookie' and 'Experienced' groups. The level of detail and feasibility of implementing methods was selected as an existing evaluation index that can adequately measure whether the 'Rookie' cooperative is good at the setup process. On the other hand, Catch-up strategies with market and customers and sustainability was considered to be an evaluation factor that reflects the setup status of the 'Experienced' cooperative well.

Table 4: Priority of criteria to evaluate applicant cooperative concerning partner selection

Step 2: Partner selection	Rookie	Experienced
General business capability & resource utilization capability (37BCUC)	0.225	0.220
Level of capability of key managerial leaders (35LOCM)	0.274	0.212
Members' interest in management & participation level (39MIMP)	0.294	0.257
Level of preparedness for the SBCG (17LOPSBCG)	0.207	-
Level of engagement of members in management (29LOEM)	-	0.311

At the stage of collaboration, setup is the process of concrete design of a collaborative project, and the plan should agree on specific goals and mutual interests between collaborative stakeholders (Marxt & Link, 2002). These components are of common importance regardless of the experience of a cooperative with SBCG in the past. For this reason, two of the existing evaluation elements, appropriateness of the schemes in application and level of detail and feasibility of implementing methods should be used in common to evaluate cooperatives of Rookie and Experienced groups. However, if these common factors based on the SBCG beneficiary experience are essential, they are critical for the Rookie cooperative. It seems that cooperatives with SBCG experience tend to have relatively good agreements between cooperative entities based on cooperative projects' experience. Instead, the experts who participated in the survey recognize that in assessing the quality of cooperatives' setup with SBCG experience, the assessment should emphasize that the cooperative's project plan should be the more attractive marketplace (Appendix 4)

Table 5: Priority of criteria to evaluate applicant cooperatives concerning setup

Step 3: Setup	Rookie	Experienced
Appropriateness of the schemes in application (07ASA)	0.262	0.173
Level of detail & feasibility of implementing methods (19LODF1)	0.292	0.226
Level of detail & feasibility of action plan (34LODF2)	0.178	-
Growth potential (09GP)	0.268	-
Feasibility and marketability of the schemes in application (08FMSA)	-	0.286
Feasibility of catch-up strategies with market & customer (36FOCS)	-	0.316

From the perspective of the realization stage, we have confirmed by means of expert surveys that the elements of evaluating cooperatives with no SBCG benefits and cooperatives with experience should be carried out almost exclusively. Experts say that the possibility of self-sustaining after the termination of assistance is critical for evaluating whether a Rookie cooperative can properly realize a collaborative project with SBCG support. On the other hand, experts consider sales growth as the most crucial evaluation factor in evaluating an experienced cooperative collaborative project's correct feasibility (Table 6).

The experts pointed out that when applying for a cooperative, collaborative project by means of SBCG, government agencies should apply different evaluation criteria depending on their SBCG experience. For Rookie cooperatives, sustainability is more important than past performance, whereas, in evaluating experienced cooperatives, the management performance so far should be used as a more critical evaluation index.

Table 6: Priority of criteria to evaluate applicant cooperatives for the realization

Step 4: Realization	Rookie	Experienced
Plans for self-sustaining after termination of assistance (23PST)	0.259	0.243
Reasonable sharing of outcomes (22RSO)	0.202	-
Possibility of self-sustaining after termination of assistance (10PSS)	0.341	-
Level of practical competencies (20LOPC)	0.198	-
Sales growth (14SG)	-	0.412
Membership growth (13MG)	-	0.179

Contribution growth (15CG)	-	0.166
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5. Conclusions and implications

Since Korea has a higher proportion of SMEs than do other developed countries, the survival of small-business owners is critical in maintaining the soundness of the national economy. The high proportion of small-business owners results from the unemployed and underemployed choosing self-employment as a means of livelihood after the IMF financial crisis in 1997, leading to a slow economic recovery. SBCG is one of the government policies to strengthen the self-sustainability and competitiveness of small-business owners. Since its introduction in 2013, SBCG has received applications from small business cooperatives every year to review their cooperative business proposals and apply them in kind to marketing, branding, and joint equipment sectors. However, SBCG has contributed to improving companies' survival rate and competitiveness by inducing collaboration between small businesses, dependence on government subsidies, an evaluation structure favorable to cooperatives that benefited from SBCG, and inconsistent and frequent changes in screening standards have been pointed out as problems. The SBCG program has contributed to the quantitative growth of collaboration, but qualitative reorganization is now required.

Our purpose in this study is to explore whether the SBCG screening indicators used in the present and the past correctly reflect the potential of collaboration. SBCG screening indicators included in the expert questionnaire were selected based on the essential factors identified by means of a literature review of the factors that influence successful collaboration between companies. Each screening indicator was given importance by means of the expert questionnaire. We thought that collaboration was a series of processes from preparation to reality, and we focused on the four processes of Marxt and Link's collaboration. We looked at which of the four processes the existing evaluation indicators fit into. We were particularly curious if it would be a penalty or an additional point for a cooperative that received SBCG to apply for SBCG over several years. We tried to find out whether government subsidies to small-business owners should be made to experienced and competent cooperatives or to cooperatives with potential even if inexperienced.

In terms of collaboration, the second step in the collaboration of Rookie cooperatives, partner selection, has a high weight. Moreover, the realization of the collaborative project is the second most crucial process. Compared to the Rookie cooperative, we found no significant difference in the importance of the level of collaboration for experienced cooperatives. For inexperienced cooperatives, the choice of

a partner and the possibility of realization are considered necessary.

Existing indicators that can correctly reflect the first step, Initiation, are managers' leadership and entrepreneurship, level of comprehensiveness for the SBCG, cooperative identity, level of members' understanding of the SBCG program, and level of preparedness for the SBCG. In common with Rookie and Experienced cooperatives, we found that the manager's leadership reflected whether the initiation process was carried out correctly.

In the second step, choosing a collaboration partner, we found differences between Rookie and Experienced groups. We found that the ability of cooperative project managers and the degree of participation of participants more importantly reflected whether the Rookie cooperative was correctly selected as a partner. On the other hand, the degree to which members participate in management was selected as an indicator that more heavily reflects the partner selection of experienced cooperatives. In the Rookie group, the ability of cooperative business managers tends to be considered significant.

In the third stage, "Setup," the difference in evaluation indicators between Rookie and Experienced cooperatives is remarkable. We saw that marketability and business feasibility are thoroughly emphasized as an indicator that helps to judge whether cooperatives that have received SBCG are well prepared for collaboration. On the other hand, it is considered essential for Rookie cooperatives that the plan is prepared reasonably.

Finally, the possibility of realizing a cooperative project showed a big difference between Rookie and Experienced cooperatives. In terms of project feasibility, experts responded that participation, democratic allocation structure, and possibility are essential when evaluating Rookie cooperatives, but for Experienced ones, it is vital to judge business performance.

The government's in-kind subsidy support to upgrade the self-sustainability of SMEs requires complex decision-making in terms of scope and qualifications. It is very tricky to decide to what extent governmental support can be practical if it is competitive. Moreover, supporting SMEs that are already growing and competitive will lead to disproportionate distribution of resources, and government support becomes meaningless. The criteria for companies eligible for such subsidies are a problem pointed out by experts, such as SEMAS and consultants, a public agency already in charge of SBCG operations. Recently, the Ministry of SMEs and Startups introduced the 'Same Business Graduation System' in 2020 as an eligibility requirement for SBCG applications. This additional condition restricts cooperatives with a maximum of three SBCG benefits in the "regular form" from applying for SBCG in the "regular form." After that, they can apply as a

"leader type," but the application is limited to that type if they receive a maximum of three benefits.

Nevertheless, competitions still exist between the Rookie Group and the Experienced Group applicant cooperatives. In this study, we investigated whether it is necessary to evaluate the need to separate and evaluate the newly applying cooperatives and the cooperatives who are already the beneficiary of SBCG that relevant industry workers and experts consider. They are differently applied for SBCG based on whether they have previously received SBCG. We found what we presumed should proceed with the evaluation. When evaluating the SBCG application by dividing the Rookie group and the Experienced group, we found that the weight of the evaluation must be different between the growth potential and the achievements already achieved. By means of an expert survey, we confirmed that Rookies should weigh evaluation indicators that can reflect their growth potential, and experienced groups should give weight to evaluation indicators that can reflect their achievements. Regarding collaborative processes, experts and practitioners consider "partner selection" for the Rookie cooperatives, where the experienced cooperatives need performances in better consideration for the application stage. Because the SBCG was designed to facilitate collaborations for small businesses to survive in the market, the subsidy program needs to be more protective to SMEs. This implies that the characteristics of SBCG are more the newly formed cooperatives rather than those with experiences.

In partner selection stage in the collaborative processes, it is more significant that members of the cooperatives need to participate in a broad range of areas, including management to form and keep their cooperatives in success in collaboration with other members.

The SBCG program provides subsidies and commodity to the recipients. In addition, the education and training programs need to be included in the SBCG to enhance the qualities of collaborations between SMEs.

This study evaluates the current screening criteria of the SBCG to suggest clear evaluation indicators and to reclassify the importance to ratio of the indicators. In the evaluation, we suggest to reclassify the current screening criteria with two aspects, such as the experience with being a beneficiary for SBCG in the past, and successful collaborative procedures. We suggest that the screening process of SBCG needs to apply by the experience of receiving SBCG. The screening procedure for the first applicant cooperatives need to focus more on "partner selection" stage, whereas elements related to "realization" apply to experienced applicant cooperatives.

This study has several limitations. First, we did not consider the relationship between collaboration and industrial type. In this study, the possibility of correct collaboration by means of the correct process can be

reflected in various evaluation indicators, and we assumed that the weight of these evaluation indicators can depend on the experience of receiving government subsidies. We assumed that this has to do with completing the application independently of the capabilities of the individual cooperative. We focused only on the ability of the research to respond to government-sponsored projects. It is necessary to examine whether the evaluation criteria differ depending on the type of industry, because the production method of goods and services differs according to the characteristics of the industry. Currently, SBCG is not evaluating by industry. It would be difficult to measure the importance of evaluation indicators for many industries, but examining the difference between manufacturing and non-manufacturing is the subject of future research.

Second, we received opinions from limited occupational workers and experts, i.e., only from consultants who review SBCG applicants and SEMAS staff who operate and manage SBCG. Defining the true business-to-business collaboration varies. In the expert survey, to reflect the opinions of those who understand SBCG well, the surveyed experts were limited to SEMAS and consultants. In future studies, the subject of expert surveys will include researchers and experts related to cooperatives to compensate for these limitations.

Lastly, this study does not test or simulate the suggested criteria and their scores in screening process in the field. We leave the testing the criteria for the future research.

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Appendixes

Appendix 1: Questionnaire form of the 1st-wave survey: importance according to the experience of receiving SBCG

ID	SBCG evaluation criteria	Please check <input type="checkbox"/> if you consider the indicator useful for screening process for	
		Rookie Cooperatives	Experienced Cooperatives
1	Cooperative identity	<input type="checkbox"/>	<input type="checkbox"/>
2	Appropriateness of the business model	<input type="checkbox"/>	<input type="checkbox"/>
3	Possibility for the business model to be realized	<input type="checkbox"/>	<input type="checkbox"/>
.	.	.	.
.	.	.	.
.	.	.	.
39	Members' interest in management & participation level	<input type="checkbox"/>	<input type="checkbox"/>
40	Feasibility of production development plan	<input type="checkbox"/>	<input type="checkbox"/>
41	Level of preparedness for conversion franchising	<input type="checkbox"/>	<input type="checkbox"/>

Appendix 2: Questionnaire form of the 2nd-wave survey: importance of collaboration by collaborative procedure

ID	SBCG evaluation criteria	Please check <input type="checkbox"/> if you consider the indicator useful for screening process for			
		Step 1 Initiation	Step 2 Partner selection	Step 3 Setup	Step 4 Realization
1	Cooperative identity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Appropriateness of the business model	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Possibility for the business model to be realized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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39	Members' interest in management & participation level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Feasibility of production development plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Level of preparedness for conversion franchising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix 3: Priorities of the existing screening criteria of SBCG ◦

SBCG evaluation criteria	Initial	Type		Collaborative processes			
		Rookie	Experienced	Step 1 Initiation	Step 2 Partner selection	Step 3 Setup	Step 4 Realization
Cooperative identity	01CI	0.90	0.65	0.80	0.45	0.40	0.25
Appropriateness of the business model	02ABM	0.90	0.70	0.55	0.45	0.55	0.15
Possibility for the business model to be realized	03PBMR	0.80	0.75	0.50	0.60	0.60	0.20
Social values	04SV	0.45	0.75	0.50	0.25	0.25	0.50
Managers' leadership & entrepreneurship	05MLE	0.95	0.80	0.60	0.55	0.45	0.40
Level of management competencies	06MC	0.80	0.70	0.45	0.65	0.45	0.35
Appropriateness of the schemes in application	07ASA	0.95	0.75	0.50	0.50	0.75	0.20
Feasibility & marketability of the schemes in application	08FMSA	0.90	0.85	0.50	0.40	0.70	0.35
Growth potential	09GP	1.00	0.75	0.50	0.50	0.65	0.40
Possibility of self-sustaining after termination of assistance	10PSS	0.85	0.70	0.25	0.15	0.35	0.60
Attendance rate of members in the field evaluation	11ARM	0.85	0.65	0.55	0.40	0.25	0.35
Pursuing collaborative projects without SBCG	12PCPWOSBCG	0.00	0.00	0.45	0.40	0.40	0.40
Membership growth	13MG	0.05	0.85	0.05	0.30	0.35	0.75
Sales growth	14SG	0.05	1.00	0.10	0.10	0.45	0.80
Contribution growth	15CG	0.10	0.75	0.05	0.20	0.50	0.75
Employment status	16ES	0.10	0.80	0.20	0.10	0.30	0.70
Level of preparedness for the SBCG	17LOPSBCG	1.00	0.80	0.50	0.55	0.35	0.25
Level of members' understanding for the SBCG	18LMUSBCG	1.00	0.60	0.65	0.45	0.25	0.20
Level of detail & feasibility of implementing methods	19LODF1	0.95	1.00	0.20	0.45	0.70	0.35
Level of practical competencies	20LOPC	0.75	0.95	0.20	0.45	0.55	0.50
Growth possibility by means of the SBCG	21GPSBCG	0.95	0.75	0.40	0.30	0.60	0.45
Reasonable sharing of outcomes	22RSO	0.60	0.90	0.15	0.40	0.40	0.60
Plans for self-sustaining after termination of assistance	23PST	0.70	0.90	0.15	0.15	0.65	0.70
FJS recipient	24FJS	0.00	0.00	0.15	0.15	0.25	0.40
Running business abroad	25RBA	0.00	0.00	0.10	0.20	0.25	0.40
Young entrepreneurship	26YE	0.00	0.00	0.35	0.40	0.20	0.15
Women entrepreneurship	27WE	0.00	0.00	0.35	0.40	0.15	0.15
Disabled workers	28DW	0.00	0.00	0.35	0.45	0.15	0.15
Level of engagement of members in management	29LOEM	0.75	0.85	0.35	0.55	0.35	0.35
Level of activeness in decision-making	30LOAD	0.60	0.70	0.50	0.40	0.60	0.30
Capital availability	31CA	0.40	0.65	0.60	0.50	0.45	0.30
Contribution per member	32CPM	0.60	0.50	0.45	0.65	0.25	0.25
Level of comprehensiveness for the SBCG	33LCSBCG	1.00	0.55	0.80	0.60	0.50	0.20
Level of detail & feasibility of action plan	34LODF2	0.95	0.85	0.35	0.40	0.80	0.30
Level of capability of key managerial leaders	35LOCM	0.90	0.80	0.55	0.75	0.50	0.30
Feasibility of catch-up strategies with market & customer	36FOCS	0.90	0.90	0.50	0.30	0.65	0.45
General business capability & resource utilization capability	37BCUC	0.85	0.75	0.35	0.70	0.55	0.35
Level of business potential in the business model	38LOBPBM	0.70	0.80	0.50	0.35	0.65	0.20
Members' interest in management & participation level	39MIMP	0.90	0.80	0.30	0.60	0.45	0.35
Feasibility of production development plan	40FPDP	0.70	0.70	0.25	0.25	0.70	0.30
Level of preparedness for conversion franchising	41LOPF	0.10	0.60	0.25	0.05	0.35	0.60

Appendix 4: Priority scores of evaluation criteria by experience of SBCG and collaboration process

Initial	Rookie				Experienced			
	Step 1 Initiation	Step 2 Partner selection	Step 3 Setup	Step 4 Realization	Step 1 Initiation	Step 2 Partner Selection	Step 3 Setup	Step 4 Realization
01CI	0.72	-	-	-	0.52	-	-	-
02ABM	0.50	-	0.50	-	0.39	-	0.39	-
03PBMR	0.40	0.48	0.48	-	0.38	0.45	0.45	-
04SV	0.23	-	-	0.23	0.38	-	-	0.38
05MLE	0.57	0.52	-	-	0.48	0.44	-	-
06MC	-	0.52	-	-	-	0.46	-	-
07ASA	0.48	0.48	0.71	-	0.38	0.38	0.56	-
08FMSA	0.45	-	0.63	-	0.43	-	0.60	-
09GP	0.50	0.50	0.65	-	0.38	0.38	0.49	-
10PSS	-	-	-	0.51	-	-	-	0.42
11ARM	0.47	-	-	-	0.36	-	-	-
12PCPWOSBCG	-	-	-	-	-	-	-	-
13MG	-	-	-	0.04	-	-	-	0.64
14SG	-	-	-	0.04	-	-	-	0.80
15CG	-	-	0.05	0.08	-	-	0.38	0.56
16ES	-	-	-	0.07	-	-	-	0.56
17LOPSBCG	0.50	0.55	-	-	0.40	0.44	-	-
18LMUSBCG	0.65	-	-	-	0.39	-	-	-
19LODF1	-	-	0.67	-	-	-	0.70	-
20LOPC	-	-	0.41	0.38	-	-	0.52	0.48
21GPSBCG	-	-	0.57	-	-	-	0.45	-
22RSO	-	-	-	0.36	-	-	-	0.54
23PST	-	-	0.46	0.49	-	-	0.59	0.63
24FJS	-	-	-	-	-	-	-	-
25RBA	-	-	-	-	-	-	-	-
26YE	-	-	-	-	-	-	-	-
27WE	-	-	-	-	-	-	-	-
28DW	-	-	-	-	-	-	-	-
29LOEM	-	0.41	-	-	-	0.47	-	-
30LOAD	0.30	-	0.36	-	0.35	-	0.42	-
31CA	0.24	0.20	-	-	0.39	0.33	-	-
32CPM	-	0.39	-	-	-	0.33	-	-
33LCSBCG	0.80	0.60	0.50	-	0.44	0.33	0.28	-
34LODF2	-	-	0.76	-	-	-	0.68	-
35LOCM	0.50	0.68	0.45	-	0.44	0.60	0.40	-
36FOCS	0.45	-	0.59	-	0.45	-	0.59	-
37BCUC	-	0.60	0.47	-	-	0.53	0.41	-
38LOBPBM	0.35	-	0.46	-	0.40	-	0.52	-
39MIMP	-	0.54	-	-	-	0.48	-	-
40FPDP	-	-	0.49	-	-	-	0.49	-
41LOPF	-	-	-	0.06	-	-	-	0.36